TOWN COUNCIL AGENDA
REGULAR MEETING

THURSDAY — TOWN COUNCIL CHAMBERS
AUGUST 21, 2025 – 2:00 P.M. — 4300 S. ATLANTIC AVENUE, PONCE INLET, FL

SUNSHINE LAW NOTICE FOR BOARD MEMBERS – Notice is hereby provided that one or more members of the Town's various boards may attend and speak at this meeting.

A complete copy of the materials for this agenda is available at Town Hall.

1. CALL TO ORDER.

2. PLEDGE OF ALLEGIANCE.

3. ROLL CALL.

NOTE: Citizens who wish to speak during Public Participation about any subject that is not on the meeting agenda should fill out the Citizen Participation Request form and submit it to the Town Clerk prior to the start of the meeting.

4. ADDITIONS, CORRECTIONS OR DELETIONS TO THE AGENDA.

5. CITIZENS' PARTICIPATION - *The Town of Ponce Inlet encourages engagement by citizens via a variety of means. This is an opportunity for our citizens to talk to us collectively on any subject that is not identified on the meeting agenda. The Town's Rules for Conducting Town Council meetings are set forth in Resolution 2024-09 and include the following guidelines:*

- *Citizens are provided with **5 minutes** at each meeting to speak on one or more issues that are not otherwise placed on the meeting agenda.*
- *Please introduce yourself with your name and address clearly for the record.*
- *Share with us your thoughts, ideas, and opinions; we want to hear them.*
- *Under our rules, all questions and comments are directed to the Mayor.*

While some questions may be able to be addressed at this meeting, others may require research or more information than we have readily available from our staff, so we may have to defer the response to you until we have that information. Also, depending on the type of issue, we may place the matter on a properly noticed subsequent meeting agenda. As a Council, we welcome the opportunity to hear from you and hope you will speak with us not only during Citizen Participation but outside of these meetings. We understand the formal nature of this meeting, but rest assured, we want to hear from you, we want to address your concerns, and we are appreciative of your involvement.

6. PROCLAMATIONS, PRESENTATIONS, AND AWARDS:

A. Recognition of Ms. Elviria LaBarre for her years of service on the Historic & Archeological Preservation Advisory Board and the Cultural Services, Historic Preservation, and Tree Advisory Board.

B. Volusia County updates. – *presented by Volusia County Council Vice-Chair Matt Reinhart.*

C. Mayor's proclamation report.

7. CONSENT AGENDA - *Items on the consent agenda are defined as routine in nature that do not warrant detailed discussion or individual action by the Council; therefore, all items remaining on the consent agenda shall be approved and adopted by a single motion, second and vote by the Town Council. Items on the consent agenda are not subject to discussion.* ***Any member of the Town Council may remove any item from the consent agenda simply by verbal request at the Town Council meeting.*** *Removing an item from the consent agenda does not require a motion, second or a vote; it would simply be a unilateral request of an individual Council member and this item would then be added as the last item under New Business. As with all agenda items, the public will have the opportunity to comment prior to a motion being placed on the floor and their comment(s) may persuade the Council to remove the item from the Consent Agenda and place under New Business for discussion.*

A. Renewal of Interlocal Agreement with Volusia County for Municipal Services related to the Public Right-of-Way.

B. Approval of the Town Council Budget Workshop meeting minutes. – July 15, 2025.

C. Approval of the Town Council Regular meeting minutes. – July 17, 2025.

8. OLD/NEW BUSINESS ITEMS PREFERRED AT THE BEGINNING OF THE MEETING:

A. Update on the Town's vehicle lease program and request for direction on the program's future. *Continued from the July 15, 2025 Town Council Budget Workshop.*

B. Results of the 2025 Ponce Inlet employee classification and compensation study. – *presented by MGT Impact Solutions, LLC.*

9. PUBLIC HEARINGS / QUASI-JUDICIAL MATTERS: *None.*

10. PUBLIC HEARINGS / NON-QUASI-JUDICIAL MATTERS: *None.*

11. ORDINANCES (FIRST READING) AND RESOLUTIONS:

A. Ordinance 2025-06 – 1st Reading – Amending Chapter 18 of the Code of Ordinances and Articles 3 and 10 of the Land Use and Development Code (LUDC) related to rental registrations and inspections. – *as recommended by the Town Attorney.*

B. Resolution 2025-10 – Authorizing support for the Volusia County Local Mitigation Strategy (LMS).

C. Resolution 2025-11 – Adjusting waste collection fees, effective October 1, 2025.

12. OLD BUSINESS: *None.*

13. NEW BUSINESS:

A. RFP 2025-08 – Selection of emergency debris removal vendors.

B. Discussion – Design of Public Works New Building "B".

C. Letter of Support requested by County Council regarding SB 180. – *requested by Mayor Paritsky*

D. Alignment of Ordinances with the Town's Visioning Statement. – *requested by Mayor Paritsky*

14. FROM THE TOWN COUNCIL:

A. Vice-Mayor Smith, Seat #5

B. Councilmember Villanella, Seat #4

C. Councilmember White, Seat #3

D. Councilmember Milano, Seat #2

E. Mayor Paritsky, Seat #1

15. FROM THE TOWN MANAGER.

16. FROM THE TOWN ATTORNEY.

17. CITIZENS' PARTICIPATION - *The Town of Ponce Inlet encourages engagement by citizens via a variety of means. This is another opportunity for our citizens to talk to us collectively for **2 minutes** before closure of this meeting regarding reports provided by the Town Council, Town Manager, or Town Attorney in items 14-16 (only) of the meeting agenda.*

18. ADJOURNMENT.

Upcoming Town Council meeting(s):

- Wednesday, September 3, 2025, 6:00 PM – Special Town Council Meeting and Budget Hearing.
- Thursday, September 18, 2025, 6:00 PM – Regular Town Council Meeting and Budget Hearing.

*If a person decides to appeal any decision made by the Town Council with respect to any matter considered at a meeting or hearing, he/she will need a record of the proceedings and that for such purpose, he/she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. Persons who require accommodation to attend this meeting should contact the Ponce Inlet Town Hall at 236-2150 **at least 48 hours prior to the meeting** to request such assistance.*

Meeting Date: 8/21/2025

Agenda Item: 6

Report to Town Council

Topic: Proclamations, Presentations, and Awards.

Summary:

A. Recognition of Ms. Elviria LaBarre for her years of service on the Historic & Archeological Preservation Advisory Board and the Cultural Services, Historic Preservation, and Tree Advisory Board.

B. Volusia County updates.

C. Mayor's proclamation report.

Suggested motion: None required.

Requested by: Ms. Cherbano, Town Clerk
Vice-Chair Reinhart, Volusia County Council
Mayor Paritsky

Approved by: Mr. Disher, Town Manager

MEMORANDUM

Town of Ponce Inlet - Office of the Mayor

The Town of Ponce Inlet staff shall be professional, caring, and fair in delivering community excellence while ensuring Ponce Inlet citizens obtain the greatest value for their tax dollar.

To:	Vice-Mayor and Town Councilmembers
Through:	Michael E. Disher, AICP, Town Manager
From:	Mayor Lois A. Paritsky LAP
Date:	July 23, 2025
Subject:	Proclamations Presentation

The following Proclamations will be presented during the month of September 2025:

- In recognition of "Patriot's Day", I will be presenting a Proclamation declaring Thursday, September 11th as a *Day of Remembrance*.

- In recognition of "Information Technology Professionals", I will present a Proclamation to the Ponce Inlet IT Department, declaring Tuesday, September 16th as *National IT Professionals Day*.

Copies of the Proclamations may be viewed at the Town Hall kiosk.

PROCLAMATION
OF THE
TOWN OF PONCE INLET, FLORIDA

WHEREAS, on September 11, 2001, the United States of America endured the worst terrorist attack on U.S. soil in the nation's history; and

WHEREAS, in response to this tragedy, Americans across the country came together in a remarkable spirit of devotion and unity and carried out countless acts of kindness and heroism; and

WHEREAS, by Public Law 107-89, Congress has designated September 11 of each year as "Patriot's Day", to honor the memory of those who died and also those who responded to the tragedy in New York City, the Pentagon, and in Shanksville, Pennsylvania; and

WHEREAS, in remembrance of the victims and the survivors of that unthinkable day, the Town of Ponce Inlet has prepared a memorial display for September 11, 2025; and

WHEREAS, the Ponce Inlet memorial display will post memorial wreaths on the fire station lawn in recognition of the 2,508 citizens, 343 firefighters, 77 police officers, and 55 military service members that lost their life that day, with the American flag posted at half-staff; and

WHEREAS, the Town of Ponce Inlet invites citizens to pay their respects in person at our fire department located at 4680 S. Peninsula Drive between 8:00 a.m. and 8:00 p.m. on September 11; and

NOW, THEREFORE, I, Lois A. Paritsky, Mayor of the Town of Ponce Inlet do hereby recognize September 11th, 2025, as a

Day of Remembrance

and call this day to the attention of all Ponce Inlet citizens.

IN WITNESS WHEREOF, I hereunto set my hand and cause the Seal of the Town of Ponce Inlet Florida, to be affixed this 21st day of August 2025.

Town of Ponce Inlet, Florida

Lois A. Paritsky

Mayor Lois A. Paritsky

Attest:

Kim Cherbano

Kim Cherbano, CMC
Town Clerk

PROCLAMATION
OF THE
TOWN OF PONCE INLET, FLORIDA

WHEREAS, information technology professionals develop, connect, and protect the transfer of sensitive data across the state through operational excellence and cyber resiliency; and

WHEREAS, information technology professionals continue to sustain the Town's ongoing response to critical government functions and connectivity for Floridians; and

WHEREAS, information technology professionals monitor, research, identify, and respond to continuous or potentials cyberattacks; thereby protecting the Town's intellectual property and any other form of sensitive data; and

WHEREAS, Ponce Inlet's information technology professional continues to provide education and training to the Town's employees in an effort to identity and thwart potential threats; and

WHEREAS, National IT Professionals Day recognizes and celebrates the continuous contributions that information technology professionals provide to enhancing quality of life, enabling education, expanding businesses and jobs, driving economic success, and innovating for future generations for all residents of Florida;

NOW, THEREFORE, I, Lois A. Paritsky, Mayor of the Town of Ponce Inlet do hereby proclaim Tuesday, September 16th, 2025, as

NATIONAL IT PROFESSIONALS DAY

IN WITNESS WHEREOF, I hereunto set my hand and cause the Seal of the Town of Ponce Inlet Florida, to be affixed this 21st day of August 2025.

Town of Ponce Inlet, Florida

Lois A Paritsky

Mayor Lois A. Paritsky

Attest:

Kim Cherbano

Kim Cherbano, CMC
Town Clerk

Meeting Date: 8/21/2025

Agenda Item: 7

Report to Town Council

Topic: Consent Agenda

A. Renewal of Interlocal Agreement with Volusia County for Municipal Services related to the Public Right-of-Way.

B. Approval of the Town Council Budget Workshop meeting minutes. – July 15, 2025.

C. Approval of the Town Council Regular meeting minutes. – July 17, 2025

Summary: See attached documents.

Suggested motion: To approve the Consent agenda as presented.

Requested by: Mr. Wargo, Public Works Director
Ms. Cherbano, Town Clerk

Approved by: Mr. Disher, Town Manager

MEMORANDUM

Public Works Department

The Town of Ponce Inlet staff shall be professional, caring and fair in delivering community excellence while ensuring Ponce Inlet citizens obtain the greatest value for their tax dollar.

To: Michael E. Disher, AICP, Town Manager

From: Steve Wargo, Public Works Director

Date: August 7, 2025

Subject: Renewal of Interlocal Agreement with Volusia County for Municipal Services related to the Public Right-of-Way

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MEETING DATE: August 21, 2025

Summary

Staff requests the Town Council approve the Interlocal Agreement between the Town of Ponce Inlet and the County of Volusia for the provision of municipal services from October 1, 2025 through September 30, 2028. The agreement allows the County to continue delivering certain municipal-level services to the Town on an as-requested basis, primarily through County Department of Public Works. The services relate primarily to operations and maintenance of Town-owned traffic control devices within the County-owned public right-of-way of South Atlantic Avenue. Through this agreement, the County maintains these devices, which include the pedestrian crossing warning beacons at the North Turn restaurant and the Harbour Village beach clubhouse at 4682 S. Atlantic Ave. The agreement provides for the delivery of additional services for maintenance, operations, and traffic engineering, and emergencies if requested by the Town.

The current three-year agreement expires September 30, 2025. The new agreement runs from October 1, 2025 through September 30, 2028. It is tentatively scheduled for the County Council agenda on September 25, 2025.

Purpose and Background

This agreement is authorized under Florida Statutes Sections 125.01 and 163.01, which encourage intergovernmental cooperation for the efficient delivery of services. The Town of Ponce Inlet has historically relied on interlocal partnerships to supplement certain municipal service needs, especially where outsourcing to qualified government agencies provides greater efficiency, cost-effectiveness, or access to specialized personnel and equipment.

The Town of Ponce Inlet has historically relied on interlocal agreements with the County of Volusia to support the delivery of specialized municipal services, particularly those requiring technical expertise and operational scale. The proposed agreement renews and updates the terms of service for Fiscal Years 2025–2028, including:

- Road and bridge maintenance
- Traffic engineering and signal maintenance
- Support during natural and manmade disasters

The agreement specifies that services will be billed based on actual labor, equipment, and materials used, and only after the Town authorizes specific work. The agreement also includes provisions for emergency response and disaster recovery assistance, including traffic signal repair, temporary control installations, and coordinated generator deployment at key intersections.

Key Provisions

- **Term:** October 1, 2025 – September 30, 2028
- **Billing:** Monthly invoicing based on actual usage of labor, equipment, and materials
- **Services:** Includes general roadway repairs, traffic signal maintenance, preventive inspections, emergency call-outs, and support for special events
- **Emergency Support:** Includes post-disaster response and coordination for traffic operations and infrastructure repair
- **Termination Clause:** Either party may terminate the agreement with 90 days written notice

Justification

- **Qualified Service Provider**: The County of Volusia certifies that it possesses the personnel and equipment necessary to perform the services outlined in the agreement. The County has a proven history of successful service delivery to the Town.
- **Operational Efficiency**: Leveraging the County's departmental structure allows for the delegation of specific service tasks, while overall policy and project decisions remain under the Town's authority.
- **Cost Control and Flexibility**: The agreement includes provisions for clear compensation, with services billed as specified in the Addendum. It also allows flexibility for service level adjustments with mutual agreement.

Budget Impact

Costs will be incurred on an as-needed basis and charged to relevant departmental budgets. Funding for these services is budgeted annually and will continue to be accounted for in the Public Works operating budget. The Town spends an average of $850 on these services each year.

Recommended Motion

Staff recommends that the Town Council approve the Interlocal Agreement with Volusia County for the Provision of Municipal Services for FY 2025–2028 and authorize the Mayor and Town Manager to execute the agreement.

COUNTY OF VOLUSIA INTERLOCAL AGREEMENT FOR PROVISION OF MUNICIPAL SERVICES TO THE TOWN OF PONCE INLET, FLORIDA

THIS AGREEMENT is entered into by and between the County of Volusia, a political subdivision of the State of Florida, with administrative offices at 123 West Indiana Avenue, DeLand, Florida 32720-4613, hereinafter referred to as **COUNTY**, and the Town of Ponce Inlet, a municipal corporation duly incorporated pursuant to the laws of the State of Florida, with administrative offices at 4300 South Atlantic Avenue, Ponce Inlet, Florida 32127, hereinafter referred to as **TOWN**.

RECITALS

1. The COUNTY is authorized by Section 125.01(1)(p), Florida Statutes, to enter into agreements with other governmental agencies within or outside the boundaries of the county for the joint performance, or performance by one unit on behalf of the other, of any of either agency's authorized functions.

2. Public agencies (including COUNTY and TOWN) are authorized by Section 163.01(14), Florida Statutes, to enter into contracts for the performance of service functions of such public agencies, but shall not be deemed to authorize the delegation of the constitutional or statutory duties of county or town officers. The parties expressly deny any intent, expressed or implied, in this Agreement to provide for a delegation by TOWN of such constitutional or statutory duties to COUNTY.

3. The foregoing authorization for such agreements is granted to counties and cities for the purpose of permitting local governments to make the *most efficient use* of their powers by enabling them to cooperate with the other localities on a basis of mutual advantage and thereby to provide services and facilities in a manner and pursuant to forms of governmental organization that will accord best with geographic, economic, population, and other factors influencing the needs and development of local communities as set forth in Section 163.01(2), Florida Statutes.

4. Pursuant to Section 768.28, Florida Statutes, neither the COUNTY nor the TOWN waives any defense of sovereign immunity, or increases the limits of its liability, upon entering into this Agreement. This Agreement does not contain any provision that requires one party to indemnify or insure the other party for the other party's negligence, or to assume any liability for the other party's negligence.

5. The Town Council of TOWN, after evaluation of options for the provision to its residents of the municipal services enumerated herein, has made a legislative determination that the interests of its residents will be best served by contracting with COUNTY for provision of such services, which services will be performed by COUNTY personnel.

6. COUNTY certifies that it has qualified personnel or subcontractors to perform the services enumerated herein.

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree as follows:

PART I. GENERAL PROVISIONS

7. The foregoing representations are hereby adopted as a material part of this Agreement.

8. **PURPOSE.** The purpose of this Agreement is for the COUNTY to provide specified *municipal* services and equipment to the TOWN (hereinafter, the Contract Services), at an agreed upon level of service (LOS) herein specified, in lieu of the TOWN using its own personnel and equipment therefor.

9. **COUNTY DEPARTMENTS.** COUNTY shall manage the delivery of the Contract Services by allocating service task responsibilities along the organization lines of the COUNTY'S DEPARTMENTS (hereinafter, Departments). The Director of the applicable Department (or his or her designee) shall be the COUNTY'S liaison to TOWN for purposes of performance, interpretation and implementation of this Agreement.

10. **MUNICIPAL SERVICES.** The Contract Services purchased by TOWN herein are *municipal* level of services as described in the attached Addendum. Such Contract Services shall be provided by COUNTY resources distinct from the level of services that are funded by county-wide ad valorem and other county-wide revenues (hereinafter, "County Services"), which services COUNTY would provide irrespective of this Agreement, and which services COUNTY will continue to provide notwithstanding this Agreement. The TOWN government shall pay COUNTY for the Contract Services provided for herein.

11. **NO PLEDGE OF AD VALOREM TAXES.** The parties agree that this Agreement does not constitute a general indebtedness of the TOWN within the meaning of any constitutional, statutory, or charter provision or limitation and it is expressly agreed by the parties that the COUNTY shall not have the right to require or compel the exercise of ad valorem taxing power of TOWN, or taxation of any real or personal property therein for payment of any monetary obligations due under the terms of this Agreement. It is further agreed that this Agreement and any funds called for to be paid hereunder shall not constitute a lien upon any real or personal property of TOWN, any part thereof, and that the obligation for monetary payments called for to be made hereunder shall be deemed to exist for less than a year at any point in time and shall be entirely subject to the legislative budgetary discretion of the TOWN and the COUNTY.

12. **DIVISION OF MANAGEMENT RESPONSIBILITIES.** The Contract Services specified in this Agreement reflect the general managerial and policy decisions of the TOWN. The TOWN may identify specific tasks within the Services described in Article 21 of this Agreement to be performed by COUNTY, and the portion of the relevant budget to be allocated thereto, including, but not limited to the location, and nature of specific projects. Except as set forth below,

the COUNTY shall have the responsibility for the operational management of the provision of the actual service. It is the intent of the TOWN that the TOWN'S general management decisions referenced above are to be the exercise of a legislative, planning level function of the TOWN, and that the TOWN shall not undertake to exercise specific operational control over the provision of the Contract Services except as set forth below in this Article 12 or specifically set forth in the Addendum referenced in Article 21. Should the TOWN direct or exercise operational control in fact and there be liability to third parties and/or to the COUNTY that flows therefrom, then the TOWN shall have responsibility for all liability arising therefrom subject to the provisions in recital number 4 and Article 13 of this Agreement. For all other services provided by the COUNTY where specific professional standards are applicable to the performance of service tasks, the COUNTY'S designated officer in charge (OIC), or his or her designee, shall have the authority for decision making within that realm. The relevant COUNTY Department Director, or the OIC, shall be available on a regular basis to the Town Manager to provide consultation and recommendations to the Town Manager in his or her general management decisions as contemplated herein. The TOWN shall make no claim against the COUNTY predicated upon the theory that the failure to provide services at a given time caused damages to the TOWN or a third party complainant.

13. **SOVEREIGN IMMUNITY**. Each party to this Agreement expressly retains all rights, benefits and immunities of sovereign immunity that they presently enjoy under the Constitution and Statutes of the State of Florida, and particularly with respect to Chapter 768, Florida Statutes. Notwithstanding anything set forth in any article of this Agreement to the contrary, nothing in this Agreement shall be deemed as a waiver of immunity or limits of liability of either party beyond any statutory limited waiver of immunity or limits of liability which may have been adopted or may be adopted by the Florida Legislature, and any liability of either party for damages shall not exceed the statutory limits of liability for tort, regardless of the number or nature of any claim which may arise, including but not limited to, a claim sounding in tort, equity, or contract. Nothing in this Agreement shall inure to the benefit of any third party for the purpose of allowing any claim against any party, which would otherwise be barred under the doctrine of sovereign immunity or by operation of law.

14. **PERSONNEL MATTERS.** COUNTY shall allocate manpower and equipment for the performance of the Contract Services on an as needed basis. This Agreement shall not require any particular COUNTY employee to be dedicated full time to the Contract Services. All COUNTY personnel assigned to perform Contract Services shall remain subject to the COUNTY Merit System of Rules and Regulations for all purposes contemplated thereunder, including, but not limited to initial appointment and probation, training and assignment, promotions, merit and cost-of-living raises, annual leave and sick leave, and disciplinary actions. Any claim of a disciplinary nature by TOWN regarding a COUNTY employee shall be referred to the Department Director, who shall remain the appointment authority for such employee, for all purposes designated under the COUNTY Merit System of Rules and Regulations. Such COUNTY employees shall have no right to elect or choose any procedures available to TOWN employees.

15. **TERM**. This Agreement shall commence on **October 1st, 2025** and shall terminate at midnight on **September 30th, 2028** unless terminated pursuant to the provisions of Article 16.

16. **TERMINATION.** Either party may terminate this Agreement without cause or further liability to the other, upon written notice to the party representative specified in Article 17, given no less than **90** days prior to the requested termination date. Such notice shall be delivered by certified mail, return receipt requested, and the date of the notice shall be the date the receipt therefor is signed by an employee, official, or representative of the other party.

17. **NOTICE.** Notice as required to be given in this Agreement shall be provided to the following persons:

a. COUNTY: County Manager, George Recktenwald, Thomas C. Kelly Administration Center, 123 W. Indiana Avenue, DeLand, Florida 32720.

b. TOWN: Town Manager, Mike Disher, 4300 South Atlantic Avenue, Ponce Inlet, Florida 32127.

18. **THIRD PARTIES**. In no event shall any of the terms of this Agreement confer upon any third person, corporation, or entity other than the parties hereto any right or cause of action for damages claimed against any of the parties to this Agreement arising from the performance of the obligations and responsibilities of the parties herein or for any other reason.

19. **DISPUTE RESOLUTION**. Any disputes concerning non-performance, or other aspects of this agreement for which either party initiates litigation to enforce its rights hereunder, shall be subject to the provisions of Chapter 164, Florida Statutes, the "Florida Governmental Conflict Resolution Act."

20. **SEVERABILITY**. If any provision of this Agreement is found to be unconstitutional, illegal, or otherwise unenforceable by judgment of a court of competent jurisdiction, such judgment shall not invalidate the remainder of this Agreement, unless such judgment renders the purpose or performance of this Agreement no longer practical for either party.

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PART II. SPECIFIC SERVICES

21. **LEVEL OF SERVICE.** COUNTY agrees to provide the personnel and equipment at the level of service specified in the *The Delivery of Municipal Services to the Town of Ponce Inlet Fiscal Years 2025-26, 2026-27 and 2027-28* which is hereby attached as the eleven page Addendum to this Agreement and is incorporated in this Agreement by this reference. Should the TOWN desire the COUNTY provide services either different in kind, or at a service level different than that contemplated herein, the Town Manager shall make written request therefor to the County Manager or his designee and such notice shall be sent in accordance with Article 17. Any mutually agreed-upon modification to the kind of service and/or level of service to be provided by the COUNTY shall be reduced to writing and approved by the appropriate officials of both parties. Any reduction in level of service desired by the TOWN shall only be effective at the beginning of a new contract year unless both parties agree otherwise. Upon the written agreement of the COUNTY to provide a change to services which increases the level of service, the new level of service shall commence within sixty days following the date of execution of the written agreement by the COUNTY or the beginning of a new contract year whichever shall first occur. The foregoing shall not be construed as requiring the COUNTY to agree to make a change to the kind of service and/or increase to the level of service to be provided by the COUNTY. Upon a change in kind of service and/or increase in the level of service to be provided by the COUNTY compensation to the COUNTY shall be immediately adjusted to conform to the new service provided.

22. **COMPENSATION**. TOWN shall pay the COUNTY in accordance with the compensation set forth in the Addendum. TOWN shall pay the sum invoiced within thirty (30) days of receipt of the bill from COUNTY.

23. **ENTIRE AGREEMENT**. This Agreement reflects the full and complete understanding of the parties and may be modified or amended only by a document in writing executed by all the parties, with the same formalities as this Agreement.

This space intentionally left blank

IN WITNESS WHEREOF, the parties to this County of Volusia Interlocal Agreement for Provision of Municipal Services to the Town of Ponce Inlet have caused the same to be signed by their duly authorized representatives on the dates indicated below.

ATTEST:

By:_____
Name: George Recktenwald
Title: County Manager
Dated: _____

COUNTY OF VOLUSIA

By:_____
Name: Jeffrey S. Brower
Title: County Chair
Dated: _____

ATTEST:

By:_____
Name: Kim Cherbano
Title: Human Resources Director/
Town Clerk
Dated: _____

TOWN OF PONCE INLET

By:_____
Name: Lois Paritsky
Title: Mayor
Dated: _____

By:_____
Name: Mike Disher
Title: Town Manager
Dated: _____

ADDENDUM

COUNTY OF VOLUSIA, FLORIDA

The Delivery of Municipal Services
to the
Town of Ponce Inlet

Fiscal Years 2025-26, 2026-27 and 2027-28

DEPARTMENT OF PUBLIC WORKS SERVICES
TOWN OF PONCE INLET
FY 2025-26, 2026-27 AND 2027-28

Services	Annual Cost
Road and Bridge	As Needed
Traffic Engineering	As Needed

Public Works Services Overview

The Town of Ponce Inlet (TOWN) contracts with the County of Volusia (COUNTY) to provide services from the Department of Public Works Divisions of Road & Bridge (including Signs and Markings) and Traffic Engineering.

Compensation

Compensation will account for actual services provided and will be charged in accordance with the following unless otherwise specified in the below description of services:

a. **Labor (First 40 hrs of work week)**: Work hours x current hourly wage rate x current overhead rate at the time of service. Labor will be charged to the nearest one-quarter hour.

b. **Overtime Labor (Hours over 40 for work week)**: Work hours x current hourly wage rate at time of service x 1.5 x current overtime overhead rate at the time of service. Overtime labor will be charged to the nearest one-quarter hour.

c. **Parts, Materials and Chemicals**: All parts, materials and chemicals that are used will be billed at actual cost.

d. **Equipment**: All equipment will be billed at the Public Works equipment rate at the time of service.

After hours work shall be work that was performed during those hours other than regular time and shall include holidays. Holidays are defined as those days officially designated as holidays by the Volusia County Council. After hours work shall be compensated based on both work time and travel time. There is a minimum two (2) hour after-hours call-out charge.

Billing
The COUNTY shall send the TOWN a monthly invoice with documentation. The TOWN shall pay all charges made in accordance with this Agreement within 30 days of receipt of the invoice, regardless of whether one or multiple TOWN departments/divisions received services under this Agreement.

Road and Bridge Division

The COUNTY may perform general maintenance and repair work on an "as available" basis for TOWN maintained roadway and drainage infrastructure. For all requested work, the COUNTY will provide the TOWN with a written cost estimate. The TOWN manager or designee must then provide the COUNTY written authorization prior to commencement of the work, with the COUNTY's cost estimate as an attachment referenced in the authorization.

All Road and Bridge services are subject to the availability of personnel and equipment at the sole discretion and determination of the COUNTY.

Traffic Engineering Division

A. Maintenance and Operation of Traffic Control Devices

The TOWN is responsible for the maintenance and operation of the Traffic Control Devices identified in Exhibit "A". The COUNTY, at the request of the TOWN, shall maintain and operate these traffic control devices to ensure uniform traffic control of the road network. The coordination of the TOWN's traffic control devices with the COUNTY will promote an integrated and balanced traffic network in Volusia County to the benefit of all residents.

The COUNTY shall also maintain and operate auxiliary equipment such as overhead internally illuminated street name signs, fire preemption devices, transit priority devices, audible pedestrian signals, high intensity LED signs, and other devices associated with those identified in Exhibit "A" as requested by the TOWN. The TOWN will reimburse the COUNTY for all operational work performed on auxiliary equipment at the TOWN's request regardless of whether the signal is a Town, County or State signal.

The TOWN and COUNTY may modify Exhibit "A" throughout the life of this Agreement to account for new or removed Traffic Control Devices by written notification between the TOWN's Public Works Director and the Volusia County Traffic Engineering Director.

Service requests for the maintenance and operation of traffic control devices covered by this agreement shall be satisfied by the COUNTY when personnel and equipment are available.

1. Preventative (Routine) Maintenance

Preventive (routine) maintenance is a program to inspect and perform a set of standard actions to reduce the chance of a traffic control device failure. This maintenance also includes the repair and/or replacement of components as necessary to ensure continued proper operation of the devices.

a. **Traffic Signal Preventive Maintenance**

The COUNTY shall perform a minimum of two (2) preventive maintenances per year on each Traffic Signal, Traffic Signal with Pedestrian Features, and Emergency Traffic Signal as identified in Exhibit "A". The preventive maintenance will be done to current COUNTY standards, which are consistent with Florida DOT standards. The COUNTY's current standard for mast arms is galvanized steel. If the TOWN requests painted mast arms, the TOWN shall be responsible for maintaining the paint and will notify the COUNTY at least one week prior to performing preventative painting maintenance.

b. **Traffic Signal Rebuild**

Traffic Signal overheads should be rebuilt every 5 – 10 years due to the impact of the environment on the electronic components. The COUNTY will recommend a traffic signal rebuild when multiple failures requiring immediate repair occur in the same year. The COUNTY will submit a recommendation and a cost estimate to the TOWN for the rebuild and the work will not be completed without the written approval of the TOWN.

c. **Flasher Inspection and Timing (School Flashers, RRFBs, Warning Flashers, etc.)**

i. The COUNTY shall perform a minimum of one (1) flasher inspection per year, including the verification or new programming of each school flasher timing.

ii. The COUNTY shall perform an initial (one-time) assessment and inventory of all school flashers, if none is available. This is a separate task from the annual inspection.

d. **Painted Mast Arm Structures**

Maintenance of the paint finish for mast arm structures that were painted at the direction of the TOWN is not included as part of this agreement. Paint maintenance shall be the responsibility of the TOWN and shall be performed in accordance with FDOT specifications. Any mast arm paint finish agreements executed between the TOWN and FDOT will continue to govern painted mast arm structures in the event that Exhibit "A" is modified.

2. Response (Emergency) Maintenance

Response (emergency) maintenance is the immediate repair of a failed traffic control device to restore the device to normal operation. Response maintenance repairs can be either a Final Repair or a Temporary Repair as defined below:

Final Repair – The traffic control device is returned to normal operation.

Temporary Repair – The traffic control device is set into a mode of safe operation (such as on flash) until a final repair can be made. If the device is not able to be placed into a mode of safe operation, alternative traffic control methods (i.e. stop signs) will be implemented by the Town.

During business hours (7:00AM - 3:30 PM, Monday through Friday), the TOWN shall contact Volusia County Traffic Engineering (386-736-5968) to request response maintenance repairs. At all other times, the TOWN shall contact the County Central Dispatch Center (Sheriff Operations Center) (386-736-5999).

The TOWN shall identify three (3) Town employees and provide contact information for each to the COUNTY for the purpose of providing emergency follow up information. Any call for response maintenance repairs from either the TOWN or from the County Central Dispatch Center (Sheriff's Office Dispatch) will be responded to by the COUNTY and the services performed will be paid for by the TOWN.

The COUNTY shall establish the priority of each response maintenance call based on the number of calls, the resources available and the nature of each call.

If response maintenance repairs are significant in nature (signal pole knock-down, traffic control device rebuild) the COUNTY will begin work on a Temporary Repair while contacting the TOWN for authorization to complete the Final Repair. The Temporary Repair will be kept in place and maintained by the TOWN until the COUNTY receives written authorization from the TOWN for the Final Repair. Upon request, the COUNTY will provide the TOWN with a cost estimate for the Final Repair. It is the TOWN's responsibility to collect insurance or other compensation from the parties that damaged the town equipment.

If COUNTY personnel cannot complete a response maintenance repair, COUNTY personnel will complete a Temporary Repair. The COUNTY will contact the TOWN for written authorization to issue a Notice to Proceed to one of the COUNTY'S contractors to complete the repair. Upon request, the COUNTY will provide the TOWN a cost estimate from the Contractor.

3. Operational Maintenance – Traffic Signal Timing

Traffic signal retiming may be required every few years due to changes in traffic flow. Controllers will be inventoried and brought up to COUNTY standards.

Requests received by the COUNTY from the Public or the TOWN regarding traffic signal malfunctioning, signals not operating correctly or signals needing retiming shall be handled as Response Maintenance to ensure all equipment and controller timings are functioning correctly.

The TOWN can request that the COUNTY complete a study to retime an intersection. Upon request, the COUNTY will provide the TOWN with a cost estimate. If TOWN approves the retiming effort, then the COUNTY will conduct the study and implement any necessary retiming.

4. Design Modifications

Design modifications are changes to the approved design and operation of an existing traffic control device/signal. Design modifications can include changes in signal locations, configuration or displays among other design aspects.

The COUNTY will not begin work on any design modifications without an engineering study signed and sealed by a Professional Engineer licensed in the State of Florida. The COUNTY can provide the TOWN with a cost estimate to complete the modification upon request.

The COUNTY can provide the TOWN left-turn warrants and left-turn display (protected versus protected-permitted or Flashing Yellow Arrow conversion) studies upon request. If the study recommends a change, which is approved by the TOWN, the COUNTY can then implement the modification. Cost estimates for the COUNTY to complete the above work can be provided to the TOWN as requested.

5. Maintenance of Traffic

During preventive maintenance, the COUNTY or its contractor shall be responsible for maintaining safe traffic flow. During response (emergency) maintenance when law enforcement personnel are necessary to maintain safe traffic flow or worker safety, the COUNTY or its contractor shall notify local police to arrange for law enforcement.
In case of an Act of God emergency situation (e.g., hurricane, summer thunder or winter storm, tornado) that causes the loss of power to multiple traffic signals or major damage to traffic signals, the TOWN shall arrange for any necessary law enforcement or placement of temporary traffic control devices (e.g., stop signs) at all appropriate traffic signal locations. Where the TOWN has made previous modifications for emergency service generator hook-ups, the COUNTY will coordinate with the TOWN on the need to place said generators. It will be the TOWN's responsibility to ensure the emergency service generator(s) are fueled and operational.

6. Equipment and Stock

The COUNTY will provide all equipment, parts and materials for work done for the TOWN. The COUNTY shall maintain standard signal equipment in stock. The COUNTY may not stock auxiliary items such as emergency preemption devices, audible pedestrian signals and transit priority devices, but will order on an as-needed basis.

7. Electrical and Communication Costs

The TOWN shall retain the responsibility to pay all related traffic control device power and communication costs. The TOWN shall be responsible for the installation of any necessary communication devices in any master cabinet and shall pay the monthly charges for such communications.

8. Red Light Running Cameras and License Tag Readers

Red Light Running Cameras and License Tag Readers are typically maintained and operated through a separate agreement between the TOWN and a Vendor. The COUNTY will not provide any services related to Red Light Running Cameras or License Tag Readers. If the TOWN desires to install Red Light Running Cameras or License Tag Readers on Traffic Control Devices maintained by the COUNTY along state or county roads, the TOWN agrees to (1) install and pay for any separate power service hook-ups, (2) reimburse the COUNTY for any power or lightning damage repairs if any device is installed within the controller cabinet to monitor the red indication output, and (3) the TOWN will hold harmless the COUNTY for any power or lightning damage emanating from the COUNTY Traffic Control Device infrastructure and power service.

9. Emergency Vehicle Preemption

Emergency vehicle preemption devices on TOWN (or COUNTY) emergency vehicles improve the safety of first responders and motorists on Volusia County's roadways while also reducing response times to life-threatening emergencies. If the TOWN elects to utilize emergency vehicle preemption, the following Standard Operating Procedure shall be implemented to ensure the technology is used effectively and efficiently:

a. Use of only Opticom GPS vehicle kits

Commitment to Opticom GPS ensures that an emergency vehicle that comes to a stop on approach to an intersection will not lock up the intersection in an extended preemption. The TOWN will upgrade any Opticom Infrared vehicle kits within 12 months. If the TOWN requires more than 12 months to complete the upgrades, the TOWN will notify the COUNTY and provided an estimated completion date.

b. Use of Opticom GPS only when traveling in the emergency mode

The TOWN shall establish a directive that allows for the use of Opticom emergency vehicle preemption equipment only when responding or transporting in the emergency mode. The TOWN shall ensure Opticom GPS units will not be used when the vehicle's emergency lighting is not activated.

c. Passive installation design

Opticom GPS vehicle kits will be wired to only activate when the vehicle's primary emergency lighting is activated. This design will prevent the potential for inappropriate use of the emergency vehicle preemption system.

d. Information sharing with employees

The TOWN shall disseminate a directive to its employees explaining the functions and limitations of emergency vehicle preemption. This document will specifically instruct employees not to presume that a green light will be guaranteed and clearly asserts that Opticom preemption devices will only be used in the emergency mode.

e. Potential for Future Requirements from the Florida Department of Transportation

The Florida Department of Transportation (DOT) required each local jurisdiction in Seminole, Orange and Osceola counties to activate the license key and enter into an annual maintenance agreement with Opticom, to assign a unique identity number for each vehicle, and to monitor the usage of emergency vehicles to minimize any potential misuse of Opticom. If the Florida DOT requires this in Volusia County, the local jurisdictions will need to budget for the additional expense. The license key is approximately $750 per intersection and there will be an ongoing annual maintenance agreement fee with Opticom.

B. Other Services

Other traffic engineering services not identified in this agreement can be requested by the TOWN in writing. The services are subject to the availability of personnel and equipment at the sole discretion and determination of the COUNTY. These services include:

1. Administrative Services

Administrative Services involving new or replacement signal design or COUNTY staff appearance or attendance before TOWN meetings per TOWN Staff request.

2. Traffic Counts and Studies

Traffic Counts and Studies involving annual daily traffic counts on town roads and unique traffic studies responding to and resolving traffic related complaints from the public or elected officials. Such studies could include, but not limited to: Spot Speed, Multi-Way Stop, Signal Warrant, Vehicle Classification and Turning Movement Count.

3. Other Services

Other services include, but are not limited to, additional on-call personnel, traffic control for special events (parades, festivals), house moving, etc.

Natural and Manmade Disaster Emergency Response Services
Department of Public Works

The COUNTY can provide Emergency Response Services for state and federally declared disasters as requested by the TOWN for the above listed services. The emergency response services are subject to the availability of personnel and equipment at the sole discretion and determination of the COUNTY. Emergency services provided by the COUNTY will be billed to the TOWN in accordance with this Agreement.

EXHIBIT A
TOWN OF PONCE INLET - TRAFFIC CONTROL DEVICES
As of 4/15/2025

WITHIN COASTAL ZONE ☑ YES ☐ NO

Asset #	Location	TS	IMTS	ICB	PFB	FDS	SAWD BOS	TWB	UPS	OPT	Mast Arm	Painted	Ownership
074E	S ATLANTIC AV @ NORTH TURN				RRFB								TOWN
074W	S ATLANTIC AV @ NORTH TURN				RRFB								TOWN
642E	S ATLANTIC AV @ 4682 S ATLANTIC AV							LE LED					TOWN
642W	S ATLANTIC AV @ 4682 S ATLANTIC AV							LE LED					TOWN
641E	FUTURE A1A / HARBOUR VILLAGE												TOWN
641W	FUTURE A1A / HARBOUR VILLAGE												TOWN

TS – Traffic Signal
IMTS – Traffic Signal Interconnected & Monitored
ICB – Intersection Control Beacon
PFB – Pedestrian Flashing Beacon (SZ) – School Zones & (RRFB) – Rectangular Rapid Flashing Beacon
FDS – Emergency Fire Dept Signal
SAWD/BOS – Speed Activated Warning Display or Blank Out Sign
TWB – Traffic Warning Beacon (LE LED) – Leading Edge LED
UPS – Uninterruptible Power Supply/Battery Backup
OPT – Opticom (F) – Fire (B) – Bus Priority

Town of Ponce Inlet
Town Council
Budget Workshop Minutes
July 15, 2025

1. CALL TO ORDER: Pursuant to proper notice, Mayor Paritsky called the meeting to order at 10:00 a.m. in the Council Chambers at 4300 South Atlantic Avenue, Ponce Inlet, Florida.

2. PLEDGE OF ALLEGIANCE: Mayor Paritsky led the Pledge of Allegiance.

3. ROLL CALL:

Town Council:
Mayor Paritsky, Seat #1
Councilmember Milano, Seat #2
Councilmember White, Seat #3
Councilmember Villanella, Seat #4
Vice-Mayor Smith, Seat #5

Staff Members Present:
Ms. Alex, Cultural Services Manager
Ms. Cherbano, Town Clerk
Mr. Disher, Town Manager
Ms. Gatrost, Public Works Office Manager
Chief Glazier, Police Chief
Ms. Hall, Assistance Finance Director
Ms. Hugler, Fire Department Office Manager/ PIO
Deputy Chief Landreville, Fire Department
Mr. Lear, Planning & Development Director
Ms. McColl, Finance Director
Mr. Okum, IT Director
Chief Scales, Public Safety Director
Ms. Stewart, Assistant Deputy Town Clerk

4. Proposed Budget for FY 2025/26.

- **Final Budget for FY 23/24, Adopted and Amended Budgets for FY 24/25 and Proposed Budget for FY 25/26**
- **Budget memorandum from Town Manager**

Mayor Paritsky referred to the Council's ongoing goal of building and sustaining a resilient Ponce Inlet, emphasizing that resilience extends beyond stormwater management. She noted that shocks and stressors may also take the form of economic disruptions, public health emergencies, and challenges in maintaining and delivering the essential services our residents rely on during times of need. As review and discussion of the proposed budget begins, she encouraged that each line

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item be evaluated through the lens of resilience, prioritizing the health and safety of the residents who have entrusted the Council to represent them.

Mr. Disher presented a PowerPoint recap of the June 10, 2025, Budget Workshop, highlighting that General Fund operating reserves have increased to 7.3 months, a significant improvement over the previous year. He reviewed the key assumptions, financial obligations, revenue sources, tax base, utility fees, and the Town Council's priorities discussed at the prior meeting. He emphasized that essential services provided by the Town include hurricane response, public safety, infrastructure, planning and development, cultural services, and administration. Mr. Disher reviewed the tax base, noting the addition of nine new single-family homes, though the proportion of homesteaded households has slightly declined. He reported a 4.62% increase in the 2025 gross taxable value compared to last year. Based on this increase, each 0.10 mills would generate approximately $132,508; the current millage rate of 6.4559 would yield approximately $8,554,563 (at a 95% collection rate), which is $315,235 more than would be collected at the rolled-back rate of 6.2180 mills; and the proposed millage rate of 6.25 would generate $8,281,730, representing a decrease of $272,833 from the current rate. Additional revenue sources include the land acquisition fund, water operations, and the refuse account.

Mr. Disher presented a general fund revenue breakdown, noting 78% comes from ad valorem taxes, with Ponce Inlet collecting the highest percentage among Volusia County municipalities. He summarized the $10.698 million budget and an additional $11.67 million in special fund accounts - which either handle revenue or are savings accounts. He reviewed reserve trends from FY 2019/20 through 2024/25, pursuant to the audit, showing that almost half of the general fund expense supports police and fire services. A ten-year millage history was provided, averaging just over 6 mills over the last five years. Proposed millage rate scenarios were described, along with the votes required for their approval, based on the percentage increase over RBR. Mr. Disher reviewed ESAB priorities and non-ad valorem funded items, including the sewer system upgrade which will be funded through a FDEP 100% principal forgiveness loan. He illustrated the impact of a 6.25 millage rate on homesteaded and non-homesteaded properties and asked the Council for input on preferred service levels, millage rate, and any items they wish to include, remove, or defer.

5. Information on the proposed replacement fire station and site feasibility analysis. – *requested by Councilmember White*

Mr. Disher explained the fire station feasibility study aims to guide future decisions, as the current 45-year-old building is outdated, does not meet current building codes, and is partially located in a flood zone. It experienced water intrusion during the last two hurricanes. The study will evaluate alternative sites, layouts, and funding options, as well as potential upgrades for the existing facility. He reviewed the timeline, noting Council discussions began in July 2021, and highlighted findings from the Vulnerability Assessment and Watershed Master Plan that yielded similar future flood risks. Staff first presented the feasibility study request to the Essential Services Advisory Board (ESAB) in January 2025, and in March 2025, the ESAB recommended its inclusion in the FY 2025/26 Town budget.

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6. Update on the Town's vehicle lease program and direction on program's future. – *requested by Councilmember White*

Chief Scales reported that three vehicle leases are ending this year and requested Council direction. Staff recommends paying off the vehicles at the end of the lease and revert to a traditional cash purchase program with the assistance of Enterprise. A draft replacement schedule was provided, with police vehicles on a five-year replacement cycle due to the significant wear and tear they undergo. With this schedule, the average replacement age of the vehicles is 8 years.

7. Discussion of firefighter overtime and 42-hour workweek as encouraged by HB 929. – *requested by Councilmember White*

Chief Scales stated this item is a result of reviewing the fire department staffing and overtime usage for the current fiscal year; he noted this level of overtime is not typical and is directly tied to the prolonged vacancy of two existing full-time positions. The department normally budgets $160,000–$170,000 for overtime, partly due to federally mandated pay tied to non-traditional firefighter schedules. He noted that while the 42-hour workweek is recommended by the state, it is not required. Adopting it could reduce overtime but would require more personnel, thereby increasing overall costs. He discussed the current five-person shift model, outlined staffing options, and noted any changes could affect operations, accreditation, and ISO ratings.

Mayor Paritsky opened the floor to Councilmembers. Councilmember White raised concerns about the $138,000 in lost revenue from the suspended rental permit program. Mr. Disher explained the program will resume following code amendments recommended by the Town Attorney, with the expectation of receiving that income next fiscal year. Councilmember White inquired about the IT budget for machinery and equipment, which Mr. Okum explained includes local backup storage, completing wireless connectivity between departments, and installing access control security. Ms. Cherbano addressed Councilmember White's questions regarding police salary allocations and firefighter overtime. Councilmember White recommended using the $180,000 cell tower lease signing bonus, rather than the General Fund, to cover the $20,000 tennis court resurfacing. He also questioned the budgeted amount for Public Works Building "B" and asked what work had been completed; Mr. Disher explained Building "B" was demolished. Councilmember White congratulated staff on a great budget and confirmed he no longer had reservations regarding the proposed budget but will still address firefighter overtime. He referred to the fire station feasibility study and stated that he 100% supports it; this study will provide the Town with information needed to decide on whether to build a new fire station or revamp the current station. Once the feasibility study is completed, he would like to hold a special meeting to review the results and present solutions to residents on this important matter.

Councilmember White referred to the Town's vehicle leasing program and the phrase "checks and proceeds"; this came from the May 18, 2024, Council meeting. He reviewed some of the key takeaways from that meeting including that proceeds from vehicle sales would be returned to the Town. The first vehicle the Town leased was a Ford F-250, and the Enterprise representative claims the Town will potentially receive a $3,000 profit on it. Chief Scales explained that vehicle was turned in at the end of last year, it was resold, and the Town collected approximately $11,000

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for it. He noted the police SUVs are basic models, and the resale value is very low. Councilmember White stated he would like to see Enterprise work with the Town more on police vehicles to receive the same type of gain. Mayor Paritsky announced that a representative from Enterprise will attend the August Council meeting to present the Town's leasing options and will be available to answer questions from Councilmembers.

Councilmember White addressed the year-over-year increase in firefighter overtime, noting that despite his prior support for hiring three additional firefighters to reduce it, overtime has instead increased. He shared that he contacted the Town's labor attorney, Jeff Mandel, regarding the issue and the new firefighter law signed by Governor DeSantis. Attorney Mandel advised that while the matter may be discussed, any decisions must wait until the labor union is notified to determine whether the collective bargaining agreement can be reopened. Councilmember White expressed concern over the impact of excessive overtime on firefighter quality of life, residents, and the Town's finances. This issue has arisen before and noted he has met with Mr. Disher and Chief Scales recently to explore potential solutions. He highlighted an $80,000 overage and raised concerns about current staffing on the Quint firetruck. Chief Scales explained the shift includes two personnel on the ambulance and three on the Quint. Councilmember White referenced the Town's recent interlocal municipal transport agreement with Volusia County, which requires 12-hour shifts, and asked whether this would help reduce overtime. He noted that if the Town were "out-of-service," transports would need to be handled by a neighboring jurisdiction. Chief Scales clarified that the Town must provide transport for all calls. He suggested that improving recruitment, retention, and accelerating the hiring process would help address overtime challenges.

Mayor Paritsky emphasized the need for a five-person firefighter shift due to increased call volume and overlapping incidents, as detailed in Chief Scales' report. Councilmember White clarified he supports a five-person shift but is focused on reducing overtime costs. Councilmember Villanella noted that this issue has been ongoing during his 35 years in Ponce Inlet, emphasizing that the County dictates how municipalities must handle certain matters under the existing agreement. He added that having a five-person shift is important as the Quint requires at least three personnel to operate effectively; otherwise, it functions only as a basic pumper. Councilmember Milano shared that the Town's lobbyist worked with state legislators for $500,000 of a $1 million fire station study, although the Governor vetoed the funding; he asked for clarification on the purpose of the funds. Mr. Disher explained that, following the Council's direction to seek grants for resiliency projects, staff submitted a legislative appropriations request to help fund the fire station design. The funding, combined with the feasibility study, would support a multi-year process covering site selection, building design, drainage, parking, and more. Councilmember Milano stated the fire station is over 45 years old and is in a flood zone; he asked where the Town was going to get the remaining $500,000. Mr. Disher answered from the Land Acquisition Fund reserves. Councilmember Milano voiced concern about waiting another year and again having the State approve the appropriation request; he stated he cannot approve a budget that does not have the other $500,000 included. Mr. Disher explained that because the fire station was identified in the vulnerability assessment and the Watershed Master Plan, which were done according to the regulations of the Resilient Florida program, the project is eligible for construction funding; however, the program does not cover design costs. Councilmember Milano expressed concern over delaying construction and relying on future state appropriations. He suggested the Town use

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reserves if necessary and warned against depending on FEMA, citing a recent case where the First Step Shelter was denied FEMA assistance.

Councilmember Milano referred to the rental car program and stated he believes Enterprise originally gave us a good deal but asked if it is a fiscal plus for the citizens of Ponce Inlet. Chief Scales responded that the program allowed the Town to replace a large number of vehicles in a short amount of time, which the Town otherwise could not afford; he called the partnership with Enterprise invaluable. While acknowledging leasing isn't always favored by some, it has strengthened the Town's position in terms of vehicle readiness and safety; he recommended re-evaluating leasing versus purchasing in future discussions. Councilmember Milano added that his primary concern is the ongoing cost of maintenance and repairs. Councilmember Milano also addressed firefighter overtime, calling last year an anomaly and noting the current union contract remains in effect for two more years. He supported a five-person shift and 24/7 transport capability. Vice Mayor Smith stated he is comfortable with the budget as presented. Mayor Paritsky noted U.S. Congressman Cory Mills visited the fire station a couple of years ago [*editor's note: January 25, 2024*] and recognized the need for a new facility. Although a federal funding request was submitted, it has not advanced. She praised staff for their work on the budget and affirmed her support, noting Councilmembers had their questions addressed individually. Mayor Paritsky opened public participation.

Mayor Paritsky opened public participation. Mr. Mark Oebbecke, 4758 S. Peninsula Drive, speaking as a resident and on behalf of the Ponce Inlet Community Center Board, questioned whether employee costs must be split between funds, and noted administrative expenses are unclear. Mr. Disher explained most administrative costs are covered by the General Fund, with support from the Water Fund, and totals can be provided. Mr. Oebbecke stated that police and fire staffing appears adequate compared to similar-sized towns, but noted Public Works is understaffed and recommended adding personnel. He supported including the cost of replacing the Community Center with the fire station feasibility study. He suggested reallocating $500,000 from the S. Peninsula sidewalk project, observing that most two-wheel traffic now consists of e-bikes using the road. He questioned the decline in code enforcement lien revenue. Mr. Disher explained collections vary by case; one pending foreclosure court case could potentially yield $115,000. Mr. Oebbecke recommended adding showers and a locker room to Building "B," and noted only one mower is budgeted for replacement despite two mowing crews and aging equipment. He asked for details on the museum's $70,000 annual expense and for visitor numbers. Mayor Paritsky confirmed the cost, and Mr. Disher explained it is required under the Volusia ECHO grant through 2028. Ms. Alex reported fewer than 800 annual visitors.

Mr. Shannon White, 39 Coastal Oaks Circle, stated he reviewed the budget line-by-line and identified nearly $500,000 in budgeted overtime across all departments. To him, this is a systemic issue, not just due to understaffing in police and fire, and it is being accepted rather than addressed. He asked about being able to see the vehicle leasing details, and Mr. Disher noted they are posted online. Mayor Paritsky added that the matter will be on the August agenda with an Enterprise representative present. Mr. White also questioned automobile allowances in the budget and emphasized considering them as part of overall vehicle costs. He inquired about the $90,000 in the Land Acquisition Fund for the fire station feasibility study. Ms. Hall explained the amount also

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includes a $40,000 carryover from the current year's $50,000 allocation for the design of Building "B."

Mr. John Carney, 38 Coastal Oaks Circle, commended staff for presenting a flat budget but raised concerns about the Town's 11% vehicle lease interest rate through 2028–29. He urged debt elimination and a fully funded 10-year capital plan. He opposed any new debt and recommended budgeting for major purchases like fire trucks over time. He noted personnel costs have risen 60% since 2021, compared to a 42% budget increase and only 4% population growth. He questioned extending vehicle lease terms, the removal of the Deputy Fire Chief's vehicle from the budget, and the reassignment of a Public Works vehicle. He also expressed concern over costs and mileage for the Police and Fire Chiefs leased vehicles. Referring to last year's justification for purchasing the Quint fire truck, he referenced the September 19, 2024 Council minutes, stating that nearby cities had eliminated aerial services. However, he has observed that Daytona Beach Shores still regularly operates its aerial truck, including in Ponce Inlet; therefore, he does not trust that everything is being disclosed in the fire station discussion. [*Editor's Note: Earlier this year, Daytona Beach Shores' primary fire engine was totaled after being struck by a vehicle on S. Atlantic Avenue. The back-up apparatus currently in service has a non-functioning ladder that was condemned several years ago and cannot be raised. Without a functioning aerial ladder, the vehicle operates solely as a fire engine with no aerial capability.]* Mr. Carney raised further concerns about stormwater management, the fire station's flood-prone location, transparency around legislative appropriation requests, and the role of the Town's lobbyist. Chief Scales confirmed the updated vehicle lease terms are reflected in the budget. Councilmember White added that five vehicles are on 60-month leases, with the rest on 36-month terms. Chief Scales also explained that the Deputy Fire Chief's vehicle was reassigned from Public Works after internal department restructuring, avoiding the need for a new purchase. Mayor Paritsky responded that the topic has been publicly addressed through staff reports, Council discussions, the Vulnerability Assessment, the Watershed Master Plan, and public workshops, and agenda materials. She noted the lack of a backup facility and possible future loss of FEMA funding. Mr. Carney questioned the lack of public discussion about the lobbyist's $500,000 appropriation request for the fire station study. Mayor Paritsky explained that Council authorized staff to pursue grants and appropriations when feasible, and her belief that the lobbyist refrained from promoting the request due to it being premature at the time and still subject to the Governor's veto. She said that if funding had been approved, the required local match would have come before Council at a public meeting. Mr. Disher added that the lobbyist addressed the Council in May, but there was nothing to report at the time, since the Legislature's budget was not finalized until afterward and the Governor vetoed the request in June.

Ms. Bonni Carney, 38 Coastal Oaks Circle, expressed concern over the lack of focus on taxpayer burden in resiliency planning. She criticized spending on amenities like tennis courts and police vehicles without budget cuts and recommended removing funding for the Town's lobbyist. She suggested withdrawing from the museum's ECHO grant due to flood risks and voiced similar concerns about upgrades to the Community Center and Public Works building. Highlighting rising personnel costs, she advocated for a citizen's budget review board. Regarding last year's Quint fire truck purchase, she claimed Chief Scales misrepresented facts, including the value of the old truck and staffing needs. [*Editor's Note: Staffing level increases were based on recommendations from the fire department's accreditation process, not the acquisition of the Quint.*] She questioned the need for a new fire station, calling consultant findings biased, and proposed prepositioning a

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fire truck on higher ground during floods, which Chief Scales confirmed was possible. Mr. Disher noted resiliency assessments must follow state guidelines to qualify for grant funding.

Mr. Oebbecke, 4758 S. Peninsula Drive, addressed Ms. Carney's comments regarding Community Center investments. He explained that replacing the deteriorating front marquee is a safety necessity and the flooring and cabinet upgrades are intended to make the facility more attractive for rentals, generating revenue that offsets Town expenses. He noted that the Community Center contributed approximately $20,000 toward a $30,000 landscaping project. He added that the Community Center sits 4–5 feet higher than the fire station, making it less prone to flooding and a possible site for relocation of the fire station. Mayor Paritsky closed public participation and reopened Councilmember comments.

Councilmember White thanked Ms. Carney and noted that the Community Center offers a return on investment. He emphasized that the fire station feasibility study and grant efforts are ongoing, supported the proposed 6.25 millage rate, and recommended hiring one additional Public Works employee. Councilmember Villanella commended staff for a detailed budget. Councilmember Milano recommended hiring two additional Public Works employees, one per crew. Mayor Paritsky proposed adding the fire station and firefighter overtime discussions to the July 17, 2025 meeting agenda, which Mr. Disher supported. She also confirmed the Enterprise lease agreement would be continued until the August meeting.

Mr. Disher reported that the Town has an opportunity to purchase 54 South Turn Circle to expand stormwater drainage facilities, with sufficient reserves in the Land Acquisition Fund to cover the cost. He plans to seek Council approval at the next meeting to proceed with an appraisal and negotiations. Councilmember White asked whether the $500,000 for the fire department was included in prior projections; Mr. Disher confirmed it is part of the Land Acquisition Fund reserves. Councilmember Milano reiterated he cannot support the 6.25% millage rate unless the full $1 million for fire station design is funded. Mr. Disher clarified that once the Council adopts the tentative millage rate, it can be lowered but not increased. Councilmember White pointed out that the tentative rate is what residents receive in their notices.

8. ADJOURNMENT – With no further business, Mayor Paritsky adjourned the meeting at 12:32 p.m.

Respectfully submitted by:

Draft
Kim Cherbano, CMC / Town Clerk
Prepared by: Debbie Stewart, Assistant Deputy Town Clerk

Attachment(s): Mr. Disher's Budget Workshop Presentation

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Ponce Inlet Budget Workshop

July 15, 2025

1

Recap - Assumptions

- General Fund Operating Reserves – currently at **7.3** months
- 2024 Hurricane Expenses – **$224,598** of eligible expenses reimbursed so far
- Rising Costs – Includes proposed salary increases of 3% to 7.5%; health and benefits 4.7%; property insurance 10%; overall insurance 10% (estimated)
- Obligations - **$3.36 million** in loan payments and grant matches for stormwater improvements, water system improvements, Quint fire apparatus, and S. Peninsula sidewalk, not including septic-to-sewer loan
- Revenue – Increasing property values, up **4.62**%
- Tax Base – Proportion of homesteaded properties decreased from 47% to 46%
- Utility Fees –
  - Water rates will increase per multi-year schedule adopted in 2023.
  - Ponce Inlet must match annual sewer rate increases from Port Orange, per collection agmt.
  - Solid waste (refuse) rates will increase to cover increased expenses from hauler and landfill fees.
  - Stormwater utility fee – Feasibility study complete. Phase 2 refinement, credits, and implementation proposed for FY 25/26.

2

Recap

Priorities

- Capital Purchases/Equipment - $537,350 in Police, Fire, Public Works, and Land Acquisition
- Capital Projects/Construction - $5,329,550, including septic-to-sewer Ph. 1
- Professional Services - $125,000, including fire station feasibility study, stormwater utility Phase 2, and CRS consultant
- Other - $243,187
- TOTAL – **$6,235,087**

3

Overview

Key Services

- Hurricane Response
- Public Safety
- Infrastructure
- Planning & Development
- Cultural Services
- Administration

Budget and Tax Environment

- Tax Base
- Projected Revenue
- GF Revenue by Source
- Local Government Ad Valorem %
- FY 25/26 Budget Summary
- Reserve Analysis
- Breakdown by Department
- Historic Millage Rates
- Complete Tax Bill
- Millage Rate Estimates

Budget Priorities

- ESAB Priorities
- Not funded by Ad Valorem
- GF Funding Priorities
- Millage Rate Impacts

Millage Rate?

Next Steps

4

KEY SERVICES – HURRICANE RESPONSE

5

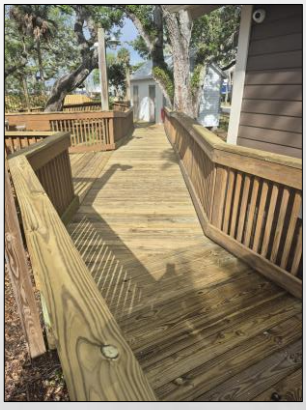
KEY SERVICES – PUBLIC SAFETY

6

KEY SERVICES – PUBLIC SAFETY

7

KEY SERVICES – INFRASTRUCTURE



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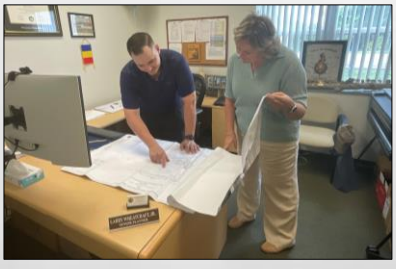
KEY SERVICES – INFRASTRUCTURE

9

KEY SERVICES – PLANNING & DEVELOPMENT



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KEY SERVICES – CULTURAL SERVICES

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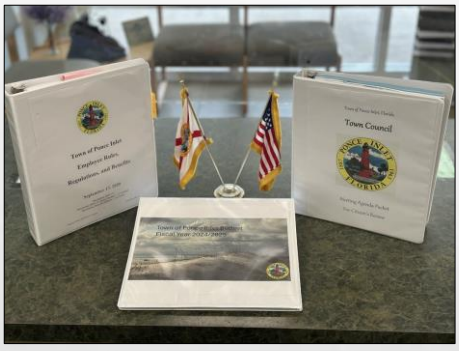
KEY SERVICES – ADMINISTRATION



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Tax Base

(+/-) = CHANGE FROM LAST YEAR

Total number of households in Ponce Inlet
- Single Family = 1,219 (+9)
- Condominiums = 1,990
- Total = 3,209 (+9)

Number of homesteaded households In Ponce Inlet – 46% of total (-1%)
- Single Family = 829 (-3)
- Condominiums = 645 (-20)
- Total = 1,474 (-23)

Number of non-homesteaded households in Ponce Inlet – 54% of total (+1%)
- Single Family = 390 (+12)
- Condominiums = 1,345 (+20)
- Total = 1,735 (+32)

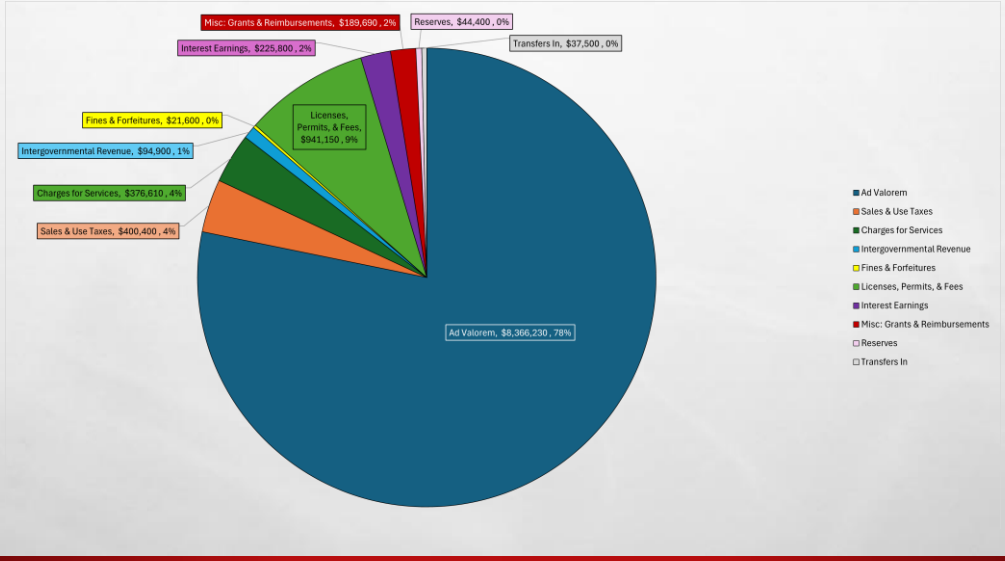
Median taxable value of a home in Ponce Inlet
- Single Family = $391,143 (+$28,253)
- Condominiums = $343,012 (*+$4,212*)
- Overall = $361,253 (+$17,695)

Projected Revenue

Ad Valorem
- 2025 gross taxable value is **$1,394,817,683**.
- **4.62%** increase over current year's revenues.
- Each 0.10 mills is expected to generate **$132,508**.
- If millage remains at current rate of **6.4559,** would yield **$8,554,563** (at 95% collection rate).
- This is **$315,235** more than the rolled-back rate of **6.2180** mills.
- The proposed millage rate of **6.25** would generate **$8,281,730** (at 95% collection rate).
- This is **$272,833** less than the current FY 24-25 millage rate and **$42,402** above the rolled-back rate.

Other Sources (excluding transfers)
- Land Acquisition - **$558,150**
- Water O&P - **$1,901,850**
- Refuse - **$491,400**

General Fund Revenue by Source



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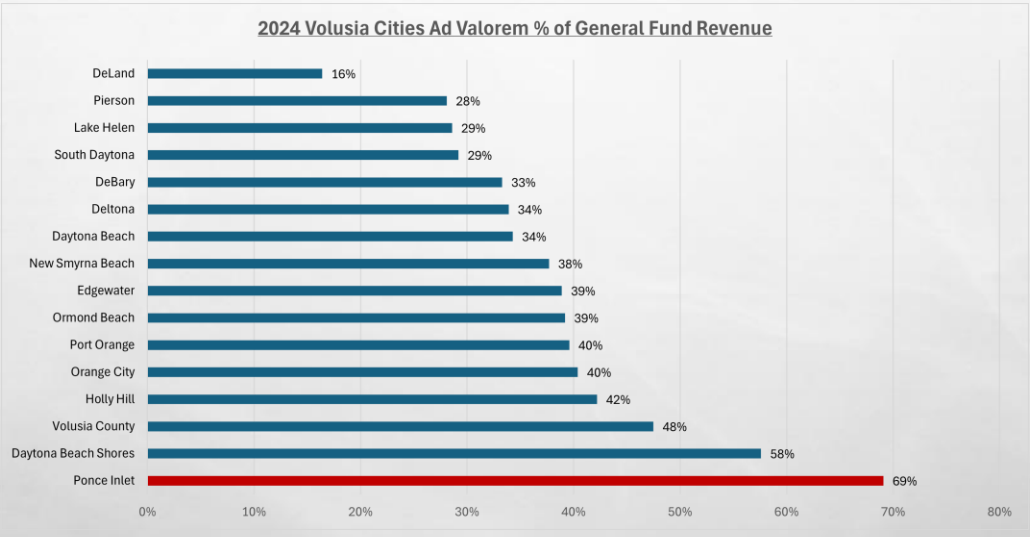
Local Govt. Ad Valorem Revenue Percentage



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FY 25/26 Budget Summary

FY 25/26 BUDGET SUMMARY				
General Fund:	Revenue Source		Amount	% of GF Revenue
	Ad Valorem	$	8,366,230	78.20%
	Sales & Use Taxes	$	400,400	3.74%
	Charges for Services	$	376,610	3.52%
	Intergovernmental Revenue	$	94,900	0.89%
	Fines & Forfeitures	$	21,600	0.20%
	Licenses, Permits, & Fees	$	941,150	8.80%
	Interest Earnings	$	225,800	2.11%
	Misc: Grants & Reimbursements	$	189,690	1.77%
	Reserves	$	44,400	0.42%
	Transfers In	$	37,500	0.35%
	Total Revenue	**$**	**10,698,280**	100.00%
	Expenditures		Amount	% of GF Expenditures
	Legislative (includes $131,663 transfers out)	$	399,787	3.74%
	Administration (includes $39,584 transfer out)	$	1,200,681	11.22%
	Legal	$	205,000	1.92%
	Planning & Zoning	$	434,633	4.06%
	Information Technology	$	699,983	6.54%
	Police	$	2,335,274	21.83%
	Fire	$	2,854,714	26.68%
	Building & Code	$	1,045,390	9.77%
	Public Works	$	894,825	8.36%
	Parks & Recreation	$	627,993	5.87%
	Total Expenditures	**$**	**10,698,280**	100.00%

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FY 25/26 Budget Summary

FY 25/26 BUDGET SUMMARY				
Special Funds:			Amount	% of Special Fund Totals
	Old Gas Tax	$	85,000	0.73%
	New Gas Tax	$	44,600	0.38%
	Donations	$	2,700	0.02%
	Hurricane Ian	$	-	0.00%
	Disaster Recovery	$	27,960	0.24%
	Tree Bank	$	16,000	0.14%
	Sidewalk	$	15,000	0.13%
	Parks & Recreation	$	3,000	0.03%
	Community Center	$	66,950	0.57%
	Historical Museum	$	71,163	0.61%
	Police Education	$	1,000	0.01%
	Stormwater Improvements Loan Repayment	$	156,585	1.34%
	Town Hall Loan Repayment	$	-	0.00%
	Land Acquisition Fund	$	829,335	7.10%
	Capital Fire Equipment	$	260,000	2.23%
	Capital Facility Maintenance	$	48,000	0.41%
	Ponce de Leon Sewer Project	$	-	0.00%
	Economic Impact Fund	$	56,850	0.49%
	South Peninsula Drive Sidewalk Project	$	995,390	8.53%
	Septic-to-Sewer Phase 1 & 2	$	5,214,450	44.67%
	Water Operating & Maintenance	$	1,919,584	16.44%
	Water Renewal & Replacement	$	104,900	0.90%
	Refuse	$	504,180	4.32%
	Sewer	$	1,165,459	9.98%
	Water Expansion	$	23,594	0.20%
	Water System Improvements Loan Repayment	$	62,000	0.53%
	Total Special Funds	**$**	**11,673,700**	100.00%

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Reserve Analysis

Town of Ponce Inlet Reserve Analysis (April 2025)

Fund Name	Fund Type	Fund Balance FY 19/20	Fund Balance FY 20/21	Fund Balance FY 21/22	Fund Balance FY 22/23	Fund Balance FY 23/24	Fund Balance 24/25
General Fund	Non-Restricted	$ 2,808,484	$ 3,405,223	$ 4,035,916	$ 4,048,698	$ 4,190,777	$ 5,349,837
Old Gas Tax (.06)	Restricted	$ 84,930	$ 88,278	$ 98,529	$ 98,082	$ 89,115	$ 77,205
New Gas Tax (.05)	Restricted	$ 411,517	$ 470,268	$ 433,304	$ 487,462	$ 538,391	$ 588,925
Donations	Restricted	$ 3,625	$ 3,617	$ 6,423	$ 8,188	$ 8,566	$ 10,241
Hurricane Ian	Assigned	n/a	n/a	n/a	$ -	$ 123,842	$ 60,097
Disaster Recovery Fund	Restricted	n/a	n/a	n/a	n/a	$ -	$ 100,000
Tree Bank	Restricted	$ 15,947	$ 22,855	$ 26,791	$ 27,760	$ 44,085	$ 61,985
Sidewalk	Restricted	$ 44,863	$ 56,246	$ 70,453	$ 76,824	$ 90,787	$ 94,061
Parks & Recreation	Restricted	$ 11,116	$ 14,594	$ 20,856	$ 24,682	$ 27,812	$ 30,594
Community Center	Non-Restricted	$ 5,388	$ 26,434	$ 57,100	$ 23,737	$ 25,717	$ 28,529
Historical Museum	Non-Restricted	$ 18,697	$ 19,648	$ 21,978	$ 22,383	$ 14,670	$ 37,237
Police Education	Restricted	$ 10,643	$ 11,237	$ 12,566	$ 13,623	$ 14,853	$ 16,195
Stormwater Loan	Debt Service	$ 2,630	$ 2,729	$ 2,727	$ 2,725	$ 2,723	$ 2,721
Town Hall Loan	Debt Service	$ 2,409	$ 2,409	$ 2,408	$ 1,581	$ 1,221	$ 821
Land Acquisition Fund	Committed	$ 124,805	$ 167,230	$ 302,799	$ 464,357	$ 439,546	$ 644,649
Capital Fire Equipment Fund	Restricted	$ 150,000	$ 200,000	$ 29,400	$ 229,400	$ 115,830	$ 115,830
Capital Facility Maintenance Fund	Assigned	n/a	$ 25,000	$ 50,000	$ 75,000	$ 82,760	$ 54,860
Ponce de Leon Septic-to-Sewer Project	Grant Project	n/a	n/a	$ 31,841	$ (40,374)	$ (21,155)	$ (21,155)
Economic Impact Fund	Restricted	n/a	n/a	n/a	$ 1,214,036	$ 266,002	$ 182,798
S. Peninsula Dr. Sidewalk	Assigned	n/a	n/a	n/a	$ 150,000	$ 802,756	$ 1,100,703
Septic-to-Sewer Project	Restricted	n/a	n/a	n/a	n/a	$ -	$ 26,906
Water Operating & Maintenance Fund	Enterprise	$ 1,009,119	$ 1,288,818	$ 1,042,489	$ 1,022,330	$ 850,862	$ 1,001,169
Water O&M Fund (Captial Assets - Equity)	Enterprise			$ 2,053,209	$ 1,887,943	$ 1,765,438	$ 1,665,885
Refuse	Enterprise	$ 27,986	$ 36,744	$ 45,649	$ 31,384	$ 6,389	$ 14,070
Sewer	Enterprise	$ 6,273	$ 8,986	$ 8,991	$ 7,529	$ 6,515	$ 5,156
Water Expansion	Restricted	$ 117,920	$ 127,082	$ 145,406	$ 155,286	$ 164,448	$ 171,574
Water Repair & Replacement	Enterprise	n/a	n/a	n/a	n/a	$ -	$ 49,741
Water System Improvements Loan	Debt Service	$ 59,038	$ 59,211	$ 59,385	$ 59,558	$ 59,731	$ 59,904
Total		$ 4,915,390	$ 6,036,609	$ 8,558,220	$ 10,092,194	$ 9,711,681	**$ 11,530,538**

*Adjusted FY21/22 to take out fixed assets to get an accurate Fund Balance (This matches retained earnings)

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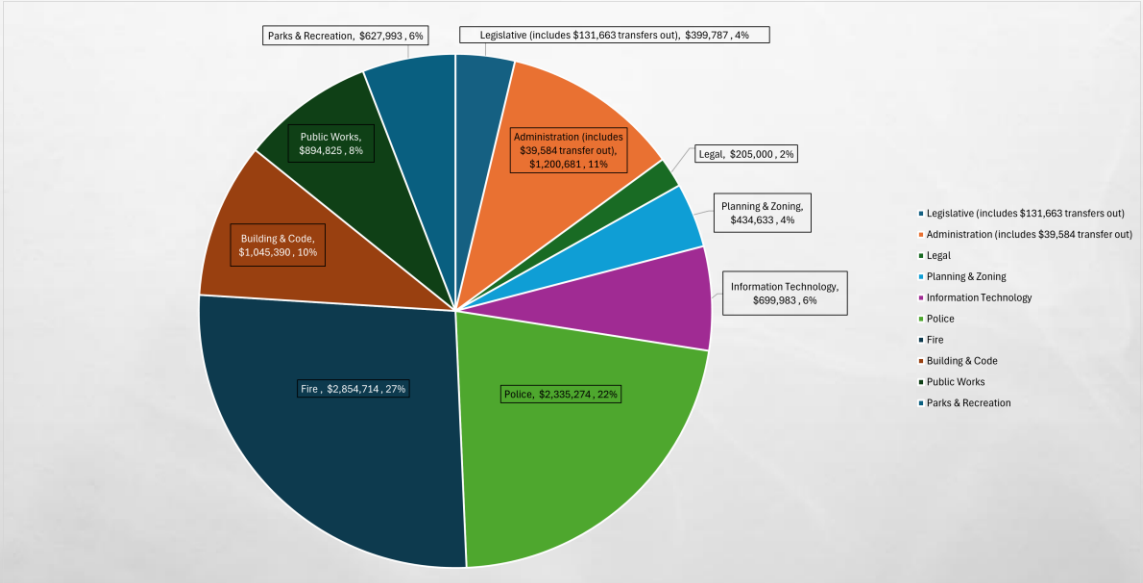
General Fund Expenditures by Department



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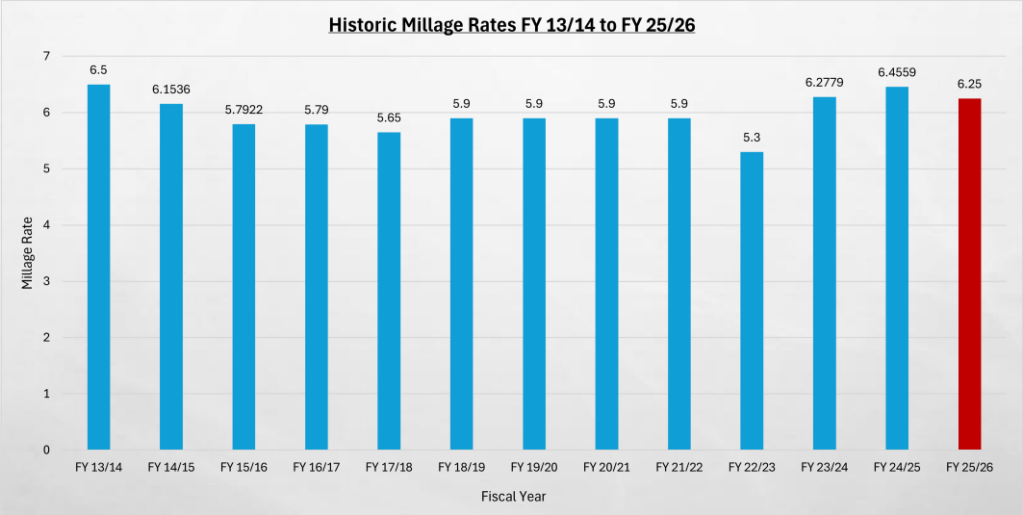
Historic Millage Rates



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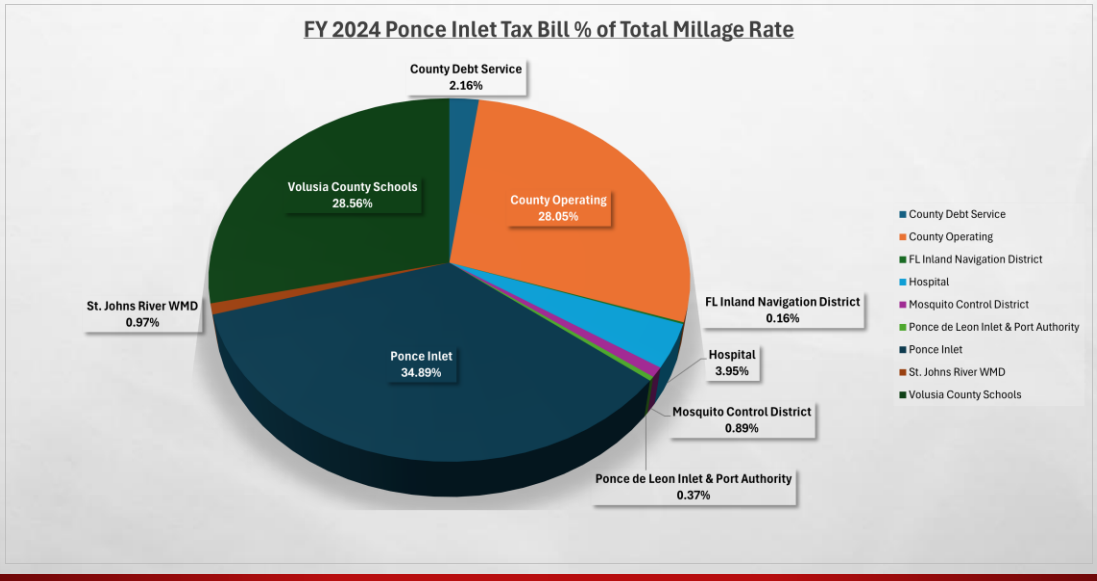
Complete Tax Bill



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Millage Rate Estimates

Current year estimated rolled back-rate **6.2180**

Proposed millage scenarios based on preliminary estimates:

Proposed Millage Rate	Ad Valorem Proceeds	95% Proceeds	% Increase over RBR	
7.1482	9,970,436	9,471,914	14.96%	Max for super majority vote
7.0000	9,763,724	9,275,538	12.58%	
6.9000	9,624,242	9,143,030	10.97%	
6.8000	9,484,760	9,010,522	9.36%	
6.7000	9,345,278	8,878,015	7.75%	
6.6500	9,275,538	8,811,761	6.95%	
6.6000	9,205,797	8,745,507	6.14%	
6.5000	9,066,315	8,612,999	4.54%	
6.4984	9,064,083	8,610,879	4.51%	Max for simple majority vote
6.4800	9,038,419	8,586,498	4.21%	
6.4700	9,024,470	8,573,247	4.05%	
6.4600	9,010,522	8,559,996	3.89%	
6.4559	9,004,803	8,554,563	3.83%	FY 24/25 adopted millage rate
6.4000	8,926,833	8,480,492	2.93%	
6.2779	8,756,526	8,318,700	0.96%	
6.2500	8,717,611	8,281,730	0.51%	FY 25/26 proposed millage rate
6.2180	8,672,976	8,239,328	0.00%	Roll Back Rate
6.2000	8,647,870	8,215,476	-0.29%	
6.1915	8,636,014	8,204,213	-0.43%	
6.0000	8,368,906	7,950,461	-3.51%	
5.9000	8,229,424	7,817,953	-5.11%	
5.8000	8,089,943	7,685,445	-6.72%	

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Priorities – ESAB Recommendations

As of March 6, 2025

Priority	Request	Dept.	Cost	Comment
1	Replacement backhoe – 416 Loader Caterpillar	PW	$135,000	Replacing 20+ year backhoe. Cost to be split 50-50 with General Fund and Water Fund.
2	Old Carriage Road exfiltration system (part of stormwater one-way valve installation, Phase 2)	PW	$120,480 (total cost)	Contract and bid awarded by Town Council on 9/19/24. Total cost includes $44,400 in carry-forward funds from FY 24/25.
3	Replacement patrol vehicle – 2025 Ford Explorer	PD	$50,000	Replacing 2020 Dodge Durango
4	Preliminary needs evaluation for fire station	FD	$50,000	Will be used to determine best location and prepare cost estimate for design and construction. Construction eligible for 50% match through Resilient Florida program.
	TOTAL		**$355,480**	

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Priorities - Not Funded by FY 25/26 Ad Valorem

EXPENDITURE	2025 Board Recommendation	Town Council goal	FUNDING SOURCE	Cost	COMMENT
Purchases/Equipment					
Purchase of undeveloped property for future stormwater improvements		✓	LAF	$360,000	Will be used to expand existing stormwater capacity in the future. Staff is also seeking grants to match or reimburse costs
Replacement patrol vehicle – 2025 Ford Explorer	✓		LAS / PS	$50,000	Replacing oldest patrol vehicle (2020 Dodge Durango) including graphics and equipment
Police Department AC replacement		✓	CF	$48,000	Replacing 19-year-old unit installed with original construction of PD station
Projects/Construction					
Sewer System Upgrade (formerly septic-to-sewer) Phase 1	✓	✓	FDEP Loan	$5,200,000	1st half of 2-year project. Construction funding from FDEP 100% forgiveness SRF loan.
Beach Street stormwater pond expansion		✓	LAF	$19,000	Small expansion of existing pond to increase capacity
Professional Services					
Site feasibility study for replacement fire station	✓		LAF	$50,000	Needed to determine optimal location and site layout configuration, including examination of alternatives. Staff is seeking additional grants funds for design.
TOTAL				**$5,727,000**	

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General Fund Priorities

EXPENDITURE	2025 Board Recommendation	Town Council goal	Cost	COMMENT
Purchases/Equipment				
Buy-out of leased vehicles (July 2026)	✓		$61,350	Three 2023 Chevy Silverados @ $20,450 each
Public Works fuel pump replacement		✓	$18,000	Replacing existing pump that is used to fuel the entire vehicle fleet
Projects/Construction				
Old Carriage Rd. exfiltration system	✓		$76,100	Phase 2 of storm-drain one-way valves installation, including $44,400 carryover
Resurface tennis courts at Pollard Park	✓	✓	$20,000	Existing court surface is cracked and will become unsafe if not addressed.
Professional Services				
Stormwater utility Phase 2 implementation		✓	$50,000	As directed by Town Council
CRS (Community Rating System) consultant		✓	$25,000	Continued assistance to improve Town's CRS rating (and flood insurance discount) through the National Flood Insurance Program
TOTAL			**$250,450**	

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Impact of 6.25 Millage Rate

General Maximum Impact of Millage Rate - FY 25/26

Proposed Rate	6.25
Prior year tax rate	6.4559

Homesteaded Properties currently assessed below market value

2024 - Ponce Inlet Taxes			Proposed 2025- Ponce Inlet Taxes			
Assessed Taxable Value	Minus Homestead	Taxes Paid to Ponce	3% Assessed Increase	Minus $50,000 Homestead	Taxes Paid to Ponce	Difference
$1,000,000	$950,000	$6,133	$1,030,000	$980,000	$6,125	($8)
$750,000	$700,000	$4,519	$772,500	$722,500	$4,516	($3)
$500,000	$450,000	$2,905	$515,000	$465,000	$2,906	$1
$375,000	$325,000	$2,098	$386,250	$336,250	$2,102	$4
$250,000	$200,000	$1,291	$257,500	$207,500	$1,297	$6

Non-Homesteaded Properties currently assessed at prior year market rate

2024 - Ponce Inlet Taxes		Proposed 2025 - Ponce Inlet Taxes		
Assessed Taxable Value	Taxes Paid to Ponce	10% Increase (Avg Townwide)	Taxes Paid to Ponce	Difference
$1,000,000	$6,456	$1,100,000	$6,875	$419
$750,000	$4,842	$825,000	$5,156	$314
$500,000	$3,228	$550,000	$3,438	$210
$375,000	$2,421	$412,500	$2,578	$157
$250,000	$1,614	$275,000	$1,719	$105

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Proposed Millage Rate?

1. What level of service and millage rate do you prefer?

2. Are there any specific items you wish to include, remove, or defer?

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Next Steps

Town Council adopts proposed (max) millage rate	1st Hearing – Tentative Millage Rate and Budget Ord.	2nd Hearing – Final Millage Rate and Budget Ord.	New Fiscal Year begins
July 17th	Sept. 3rd, 6:00 pm	Sept. 18th, 6:00 pm	Oct. 1st

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Questions?

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Town of Ponce Inlet
Town Council
Regular Meeting Minutes
July 17, 2025

1. CALL TO ORDER: Pursuant to proper notice, Mayor Paritsky called the meeting to order at 2:00 p.m. in the Council Chambers at 4300 South Atlantic Avenue, Ponce Inlet, Florida.

2. PLEDGE OF ALLEGIANCE: Mayor Paritsky led the Pledge of Allegiance.

3. ROLL CALL:

Town Council:
Mayor Paritsky, Seat #1
Councilmember Milano, Seat #2
Councilmember White, Seat #3
Councilmember Villanella, Seat #4
Vice-Mayor Smith, Seat #5 – Absent

Staff Members Present:
Ms. Alex, Cultural Services Manager
Ms. Cherbano, Town Clerk
Mr. Disher, Town Manager
Ms. Gjessing, Deputy Town Clerk
Chief Glazier, Police Chief
Ms. Hall, Assistant Finance Director
Ms. Hugler, Fire Department Office Manager/PIO
Deputy Chief Landreville, Deputy Fire Chief
Mr. Lear, Planning & Development Director
Ms. McColl, Finance Director
Mr. Okum, IT Director
Ms. Rippey, Principal Planner
Chief Scales, Public Safety Director
Attorney Shepard, Town Attorney
Mr. Wargo, Public Works Director

4. ADDITIONS, CORRECTIONS, OR DELETIONS TO THE AGENDA: Item 12-A, Item 12-B, and Item 13-A were added to the agenda.

Mayor Paritsky moved to approve the agenda as amended; seconded by Councilmember White. The motion PASSED 4-0, consensus.

5. CITIZENS PARTICIPATION: Mayor Paritsky opened citizens participation – Mr. Steve Field, 6 Mar Azul, questioned the Town's year-to-date actuals and the Town's budget. Mayor Paritsky closed citizens participation.

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6. PROCLAMATIONS, PRESENTATIONS, AND AWARDS: *None.*

7. CONSENT AGENDA: Mayor Paritsky asked if there was any item Council would like to remove from the consent agenda; there were no requests. Mayor Paritsky asked if there were any requests from the public – there were none.

A. Approval of the Town Council Preliminary Budget Workshop meeting minutes. – June 10, 2025.

B. Approval of the Town Council Regular meeting minutes – June 19, 2025.

C. Approval of the Town Council Special meeting minutes. – June 25, 2025.

D. Declaration of Public Works Building "B", emergency generator, and backhoe as surplus property.

E. Approval of Settlement Agreement with Ponce Inlet Professional Fire Fighters, Local 4140, IAFF for Award of Appellate Attorney's Fees to the Town of Ponce Inlet.

Mayor Paritsky moved to approve the Consent Agenda as presented; seconded by Councilmember Milano. The motion PASSED 4-0, consensus.

8. OLD/NEW BUSINESS ITEMS PREFERRED AT THE BEGINNING OF THE MEETING:

A. Appointment to the Cultural Services, Historic Preservation, & Tree Advisory Board. – Ms. Cherbano informed the Town Council that the Cultural Services, Historic Preservation, and Tree Advisory Board consists of seven seats and the only current vacancy is for Alternate Seat 2. Ms. Jair Kessler has applied for appointment to the vacant seat. Mayor Paritsky asked if there was any discussion or motion; there was none. Ms. Jair Kessler, 81 Buschman Drive, commented on her previous history with the Board and questioned why the Town Council has not made a motion for reappointment. Mayor Paritsky reiterated per Resolution 2025-06, that Board members serve at the pleasure of the Town Council.

9. PUBLIC HEARINGS / QUASI-JUDICIAL MATTERS:

A. Ordinance 2025-04 – 2nd Reading – Amending the official zoning map designation of 4784 S. Peninsula Drive from "C" (Conservation) to "R-1" (Low-Density Single-Family Residential). Attorney Shepard read Ordinance 2025-04 by title only. **AN ORDINANCE OF THE TOWN OF PONCE INLET, VOLUSIA COUNTY, FLORIDA, REZONING AND CHANGING THE ZONING MAP DESIGNATION OF A PORTION OF REAL PROPERTY LOCATED ON THE WEST SIDE OF SOUTH PENINSULA DRIVE BETWEEN CALUMET AVENUE AND INLET HARBOR ROAD, TOTALING .57 ACRES, MORE OR LESS, FROM CONSERVATION (C) TO LOW DENSITY SINGLE FAMILY RESIDENTIAL (R-1); PROVIDING FOR FINDINGS AND INTENT;**

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REPEALING ALL CONFLICTING ORDINANCES; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE. – Mr. Disher stated there have been no changes since the first reading of the ordinance from the June 19, 2025 Town Council meeting. Mayor Paritsky opened public participation – hearing none, public participation was closed.

Councilmember Milano moved to approve and adopt proposed Ordinance 2025-04, amending the official zoning map designation of 4784 S, Peninsula Drive from "C" (Conservation) to "R-1" (Low-Density Single-Family Residential), upon second reading; seconded by Councilmember Villanella. The motion PASSED, 4-0 with the following vote: Councilmember Milano – yes; Councilmember Villanella – yes; Mayor Paritsky – yes; Councilmember White – yes.

B. Ordinance 2025-05 – 2nd Reading – Amending the official zoning map designation of parcel ID# 6430-00-01-0091, located on the west side of S. Peninsula Drive between Calumet Avenue and Inlet Harbor Road, from "C" (Conservation) to "R-1" (Low-Density Single-Family Residential). Attorney Shepard read Ordinance 2025-05 by title only. **AN ORDINANCE OF THE TOWN OF PONCE INLET, VOLUSIA COUNTY, FLORIDA, REZONING AND CHANGING THE ZONING MAP DESIGNATION OF A PORTION OF REAL PROPERTY LOCATED ON THE WEST SIDE OF SOUTH PENINSULA DRIVE BETWEEN CALUMET AVENUE AND INLET HARBOR ROAD, TOTALING .46 ACRES, MORE OR LESS, FROM CONSERVATION (C) TO LOW DENSITY SINGLE FAMILY RESIDENTIAL (R-1); PROVIDING FOR FINDINGS AND INTENT; REPEALING ALL CONFLICTING ORDINANCES; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE. –** Mr. Disher stated there have been no changes since the first reading of the ordinance from the June 19, 2025 Town Council meeting. Mayor Paritsky opened public participation – hearing none, public participation was closed.

Councilmember Milano moved to approve and adopt proposed Ordinance 2025-05, amending the official zoning map designation of parcel ID# 6430-00-01-0091, located on the west side of S. Peninsula Drive between Calumet Avenue and Inlet Harbor Road, from "C" (Conservation) to "R-1" (Low-Density Single-Family Residential, upon second reading; seconded by Councilmember White. The motion PASSED, 4-0 with the following vote: Councilmember Milano – yes; Councilmember White – yes; Mayor Paritsky – yes; Councilmember Villanella – yes.

10. PUBLIC HEARINGS / NON-QUASI-JUDICIAL MATTERS:

A. Resolution 2025-08 – Vacation of drainage, access, and utility easement, Case No. VAC 5-2025, 4915 S. Atlantic Avenue. Attorney Shepard read Resolution 2025-08 by title only. **A RESOLUTION OF THE TOWN OF PONCE INLET, VOLUSIA COUNTY, FLORIDA, VACATING A 15 FOOT ACCESS, DRAINAGE AND UTILITY EASEMENT IN THE CENTER OF THE PARCEL LOCATED AT 4915 SOUTH ATLANTIC AVENUE PURSUANT TO CHAPTER 70, ARTICLE IV., SECTION 70.111 OF THE TOWN OF PONCE INLET CODE OF ORDINANCES; AUTHORIZING EXECUTION OF EFFECTING DOCUMENTS; PROVIDING LEGISLATIVE FINDINGS; PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN**

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EFFECTIVE DATE. – Ms. Rippey presented the request for vacation of easement and introduced the applicant, Ms. Jessica Gow, Esq., representative of the property owner White Waves, LLC. She explained that the applicant is requesting approval to vacate a drainage, access, and utility easement located on the subject parcel of 4915 South Atlantic Avenue to construct a single-family structure. Ms. Rippey described the area to be vacated and provided a history on the subject parcel. She stated the property is zoned R-1, as are the abutting properties, and has a corresponding future land use designation of *Low Density Single Family Residential*. The easement is located in the center of the parcel, and remaining drainage, access, and utility easements are in place along the property lines of the subject parcel. In accordance with Section 70-112 of the Town's Code of Ordinance's, the request was provided to the appropriate parties for review of their respective areas of expertise, and no issues or concerns were identified. Councilmember White inquired if plans for a single-family structure had been submitted and questioned whether the easement would have to be reinstated if the subject parcel was to split in the future; Ms. Rippey stated plans for a new build had not been submitted yet, and she confirmed the easement would be reinstated if the parcel were to be split in the future. Ms. Jessica Gow, Esq., from Cobb Cole law firm placed her appearance on the record. Mayor Paritsky opened public participation – hearing none, public participation was closed.

Councilmember White moved to approve Resolution 2025-08 as presented, approving case no. VAC 5-2025, vacation of drainage, access, and utility easement at 4915 S. Atlantic Avenue; seconded by Councilmember Villanella. The motion PASSED, 4-0 with the following vote: Councilmember White – yes; Councilmember Villanella – yes; Mayor Paritsky – yes; Councilmember Milano – yes.

11. ORDINANCES (FIRST READING) AND RESOLUTIONS:

A. Resolution 2025-07 – Adopting a proposed millage rate for Fiscal Year 2025/2026 and establishing dates for the tentative and final millage rate public hearings. Attorney Shepard read Resolution 2025-07 by title only. **A RESOLUTION OF THE TOWN OF PONCE INLET, VOLUSIA COUNTY, FLORIDA ADOPTING THE PROPOSED MILLAGE RATE FOR THE LEVYING OF AD VALOREM PROPERTY TAXES FOR MUNICIPAL PURPOSES ON ALL TAXABLE PROPERTY WITHIN THE TOWN FOR THE FISCAL YEAR BEGINNING OCTOBER 1, 2025 AND ENDING SEPTEMBER 30, 2026; ESTABLISHING THE PUBLIC HEARING DATES AND TIMES; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTING RESOLUTIONS; AND PROVIDING FOR AN EFFECTIVE DATE.** – Mr. Disher explained the purpose of this resolution is to adopt the proposed millage rate for FY 25/26. Once this rate has been set, it can be lowered prior to adopting the final millage rate, however it cannot be raised. This rate has been calculated based on staff's budget proposal, recommendations from the Essential Services Advisory Board (ESAB), and the input from the Town Council's budget workshops. Mr. Disher stated the budget is balanced with a proposed millage rate of 6.25 which is estimated to produce $8,281,730 in ad valorem revenue at a 95% collection rate. The proposed millage rate is 0.51% above the rolled-back rate (RBR). He informed the Council that as set forth in Resolution 2025-07, the first public hearing for adoption of the tentative millage rate and budget will be on Wednesday, September 3, 2025 at 6:00 PM; the second public hearing to adopt the final millage rate and budget for FY 25/26 will be held on Thursday, September 18, 2025 at 6:00 PM. Per the

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recent budget workshop held on July 15, 2025, the budget has been adjusted to include two new Public Works personnel to begin during mid-year; an additional $9,000 has been allocated to Public Works for the purchase of a replacement mower; the Timothy Pollard Memorial Park playground fence has been moved out of the General Fund and transferred to the Parks and Recreation Fund; and a portion of the vehicle lease buyouts was reallocated from the General Fund to the Land Acquisition Fund. Mr. Disher explained the full cost of the fire station design as requested by Councilman Milano could not be included in the budget at the proposed millage rate, but the Town will seek funding through an appropriation request next year.

Councilmember Villanella suggested adopting a proposed millage rate at 6.4984 (the maximum rate that could be approved by a simple majority vote), providing the Council will lower it in a future hearing. Councilmember White urged the Council to consider adopting the proposed 6.25 millage rate as a maximum. Councilmember Milano provided comments on the unknown obstacles that could negatively impact the Town and encouraged adopting the rate at 6.35 now, with the ability to lower it at a future hearing. Mayor Paritsky provided comments on comprising at the 6.35 rate for now and described this decision from a perspective on resiliency planning. Councilmember White and Councilmember Milano noted the increase in reserves from the prior fiscal year, how these reserves are generated, how funding is allocated, and more. Discussions ensued regarding whether to adopt a millage rate at 6.35 to analyze flexibility throughout the millage rate adoption process.

Mayor Paritsky opened public participation – Mr. Steve Field, 6 Mar Azul, questioned whether the funds on hand from the last fiscal year were placed in reserves. Ms. Elizabeth Caswell, 4744 South Peninsula Drive, suggested pausing any projects that may exceed the proposed budget; emphasized the financial impact visitors and homesteaded properties have on the Town's working budget; and encouraged advocacy at the state and federal level to mitigate future legislative decisions that may affect the Town. Mr. Shannon White, 39 Coastal Oaks Circle, suggested evaluating the budget by comparing year-to-year budget usage; using cumulative experience to make cuts to the budget rather than increasing it; and commented on the perception of adopting a proposed 6.35 millage rate instead of 6.25. Ms. Barbara Davis, via e-mail sent to the Town Council, commented on the Town's increase in property values; expressed the need for taxes to increase appropriately to upgrade infrastructure and facilities; and cited increased flooding as an example of something which requires immediate mitigation attention. Mayor Paritsky closed public participation.

Councilmember White commented on Ms. Davis's request for an increase in funds for infrastructure and facilities and stated most of the requests have been addressed in the proposed budget. Mr. Disher reviewed the impacts to homesteaded and non-homesteaded properties based on a proposed 6.35 millage rate. Councilmember Milano commented on the need to take proactive measures and provided a history on how the Town has budgeted previously. Councilmember White noted the items that have been addressed in the current draft of the budget and questioned the reason behind adopting a higher proposed millage rate. A discussion continued between the Town Council regarding the difference in millage rates; staff effort needed to calculate the budget at a proposed 6.35 millage rate; the justification on adopting a slightly higher rate with the intention of lowering it at a future hearing; and the potential for a consensus on a proposed millage rate.

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Mayor Paritsky opened public participation – Mr. Shannon White, 39 Coastal Oaks Circle, commented on the established reserves to address unknown concerns and provided observations on the Town's dependence on property taxes. Mr. Steve Field, 6 Mar Azul, suggested providing data of year-to-date spending versus what was budgeted and using this information to calculate future budgets; he also commented on the funds that were available after the previous fiscal year and urged the preparation of a smaller budget with less funds being put towards reserves. Ms. Elizabeth Caswell, 4744 South Peninsula Drive, suggested adopting the proposed 6.35 millage rate now and lowering it at the tentative millage hearing after further discussion. Mayor Paritsky closed public participation.

Councilmember Villanella moved to approve Resolution 2025-07, adopting a proposed millage rate of 6.35 for Fiscal Year 2025/2026 and establishing dates for the tentative and final millage rate public hearings; seconded by Councilmember Milano. The motion PASSED, 4-0 with the following vote: Councilmember Villanella – yes; Councilmember Milano – yes; Mayor Paritsky – yes; Councilmember White – yes.

B. Resolution 2025-09 – Authorizing participation in Volusia County's Transform386 Homeowner Repair and Replacement Program and Homeowner Recovery Program Buyout Pathway. Attorney Shepard read Resolution 2025-09 by title only. **A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF PONCE INLET, FLORIDA, AUTHORIZING THE TOWN MANAGER TO ENTER INTO AGREEMENTS WITH VOLUSIA COUNTY FOR THE ACCEPTANCE OF PROPERTIES ACQUIRED THROUGH THE HOUSING AND URBAN DEVELOPMENT (HUD) COMMUNITY DISASTER BLOCK GRANT-DISASTER RECOVERY (CDBG-DR) FUNDED SINGLE-FAMILY HOMEOWNER REPAIR AND REPLACEMENT PROGRAM AND HOMEOWNER RECOVERY PROGRAM BUYOUT PATHWAY; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.** – Mr. Disher stated these programs assist homeowners with post-storm recovery efforts. The programs are offered and operated through Volusia County's Office of Recovery Resiliency, otherwise known as Transform386. Mr. Disher explained these programs involve homeowner buyouts which provides a pathway for the County to purchase eligible residential properties in flood-prone areas at the homeowner's request. Adopting the resolution will allow the Town to receive ownership of the flood-prone residential properties purchased by the County. Mayor Paritsky opened public participation – Ms. Elizabeth Caswell, 4744 South Peninsula Drive, inquired what the Town's responsibilities and liabilities would be regarding the properties brought under ownership. Mr. Disher clarified Volusia County handles the purchasing and demolition of the home; the Town would only need to provide resources if it was determined the lot should be repurposed for stormwater management or other public use after the County had completed the demolition. Mayor Paritsky closed public participation.

Councilmember White moved to approve Resolution 2025-09 as presented; seconded by Councilmember Villanella. The motion PASSED, 4-0 with the following vote: Councilmember White – yes; Councilmember Villanella – yes; Mayor Paritsky – yes; Councilmember Milano – yes.

12. OLD BUSINESS:

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A. Information on the proposed replacement fire station and site feasibility analysis. *Continued from the Town Council Budget Workshop held on July 15, 2025.* – Mr. Disher provided a recap of the discussion on this topic from the July 15, 2025 Town Council Budget Workshop. The discussion included the purpose and scope of a site feasibility study and alternatives to a complete replacement of the fire station. He stated that this project comes from years of resiliency discussions, past Town Council direction, and resiliency policies per the Town's Comprehensive Plan. Mayor Paritsky opened public participation – hearing none, public participation was closed.

Mayor Paritsky moved to authorize staff to initiate a fire station site feasibility study and engage an architectural services consultant with public safety facility experience, not to exceed $50,000 in funding from the Land Acquisition Fund; seconded by Councilmember White. The motion PASSED, 4-0 with the following vote: Mayor Paritsky – yes; Councilmember White – yes; Councilmember Milano – yes; Councilmember Villanella – yes.

B. Discussion of fire-fighter overtime and 42-hour workweek as encouraged by HB 929. *Continued from the Town Council Budget Workshop held on July 15, 2025.* – Mr. Disher reviewed the previous discussions on this topic, which included a review of federal labor laws, the cause of overtime usage within this current fiscal year, and options to reduce overtime in the future. Mayor Paritsky opened public participation – Mr. Steve Field, 6 Mar Azul, commented on the proposed budget allocated for overtime in the upcoming fiscal year and suggested hiring additional firefighters to mitigate the need for that amount of overtime. Mayor Paritsky closed public participation. Councilmember White explained that while hiring additional staff to fill vacant positions would lower overtime usage, it would not eliminate it completely.

Council consensus to approve maintaining a staffing level of five firefighters assigned per shift.

13. NEW BUSINESS:

A. Request for direction to purchase vacant property for future stormwater improvements. – Mr. Disher referred to previous discussions regarding purchasing vacant, undeveloped residential property which could be used to improve stormwater management facilities. He said staff has been made aware of a vacant property at 54 South Turn Circle, whose owner is willing to sell to the Town. Staff would like to move forward with an appraisal of the lot, begin negotiations, and then bring back a proposal to the Town Council for final approval. Mayor Paritsky opened public participation – Ms. Elizabeth Caswell, 4744 South Peninsula Drive, voiced her support to move forward with the purchase of vacant property and recommended staff look at all vacant property within the Town and prepare a strategy for land acquisition. Attorney Shepard reminded everyone of a time in which the Town had a Land Acquisition Committee and described a previous lawsuit which had come from the existence of the Committee; he also explained how the same lawsuit would likely pan out today. Mayor Paritsky closed public participation.

Council directed staff to proceed with an appraisal and begin negotiations to purchase an undeveloped residential lot at 54 South Turn Circle and bring back a proposal for Town Council approval.

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14. FROM THE TOWN COUNCIL:

A. Vice-Mayor Smith, Seat #5 – Absent.

B. Councilmember Villanella, Seat #4 – No further comments.

C. Councilmember White, Seat #3 – Councilmember White described recent correspondence with Ms. Jessica Fentress, Volusia County Coastal Division Director, regarding the on-going beach restoration dredging project. He noted four of the six dredge stockpiles have been constructed and approximately 750,000 cubic yards of sand have been placed. He provided an update on the anticipated timeline for the remainder of the dredging and berm placement project and provided an explanation on the silt that has been washed up on the shore as a result of the dredging project. He said more information related to the berm placement project can be found at www.volusia.org\sandprojects.

D. Councilmember Milano, Seat #2 – Councilmember Milano provided an update on the First-Step Shelter, stating over 1,000 individuals have been homed, roughly 372,000 meals have been served, and Volusia County has agreed to funding over the next five-year period. He announced a celebration will be held at the Shelter on September 21, 2025, and it will be an open house event from 1:00 p.m. – 4:00 p.m. Councilmember Milano described success stories that have come out of the Shelter's program and emphasized the importance of continuing to support a good cause.

E. Mayor Paritsky, Seat #1 – Mayor Paritsky expressed her honor of being the keynote speaker at the recent annual Floodplain Manager's Conference and described the experiences of Ponce Inlet she was able to share. She stated the next Roundtable of the Volusia Elected Official's Subcommittee on Stormwater Management and Flooding is scheduled on August 8, 2025, at 10:00 a.m., and it is open to the public. Speakers at this meeting will include Ms. Kate Wesner, the Florida Director of the American Flood Coalition, Mr. Ben Bartlett, the Volusia County Public Works Director, and Ms. Donna Butler, the Transform386 Director of Recovery and Resiliency. Mayor Paritsky informed everyone of her upcoming attendance at the Florida League of Mayor's and the Florida League of Cities annual conferences, and she described the advocacy efforts she will be completing regarding legislation. She requested Attorney Shepard brief everyone on Senate Bill (SB) 180. Attorney Shepard explained SB 180 poses a threat to home rule. He described facets of the bill including but not limited to the Town being required to have a procedure posted by August 1, annually, regarding expedited emergency permitting procedures; the retroactive restrictions to Counties listed in FEMA disaster declarations for hurricanes Debbie, Helene, and Milton; the restriction of adopting a moratorium on reconstruction or redevelopment on any property damaged by such hurricanes; the prohibition on adopting "more restrictive or burdensome" amendments to comprehensive plans, land development regulations, or procedures concerning the review, approval, or issuance of a site plan, development permit, or development order. This remains in effect until October 1, 2027. He provided examples of how this bill has already begun impacting local municipalities and how it will continue to impose severe restrictions. Mayor Paritsky stated the Florida League of Cities (FLOC) has requested all municipalities delineate the harm that SB 180 has and will continue to impose; the League's staff and lobbyists will speak with legislators to recommend changes in language, modifications of time

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periods, and more. She further elaborated on the threat this bill imposes on the Town, and she stated the Volusia League of Cities will be advocating in the same manner as the FLOC. Mayor Paritsky urged residents to reach out to local legislators to express the frustration of impositions on home rule.

15. FROM THE TOWN MANAGER – Mr. Disher stated the Town adopted amendments to its Comprehensive Plan in 2023, and due to SB 180, regulations in the development code to implement those changes have been paused. He explained that the Florida Department of Government Efficiency (DOGE) recently sent out audit requests to all local governments and with a very short deadline. He said the Police Department's pedestrian crosswalk enforcement detail was rescheduled for July 17, 2025, and the Women's Self-Defense course will be held on Tuesday, August 5, 2025. Additionally, Public Works and Volusia County will soon be completing swale maintenance throughout Town, and he highlighted a self-guided Native Plant Tour brochure for Ponce Preserve that has been donated to the Town.

16. FROM THE TOWN ATTORNEY – No further comments.

17. PUBLIC PARTICIPATION (on items 14 – 16 only) – Mayor Paritsky opened public participation – hearing none, public participation was closed.

18. ADJOURNMENT – Mayor Paritsky adjourned the meeting at 3:53 p.m.

Respectfully submitted by:

Draft
Kim Cherbano, CMC, Town Clerk
Prepared by: Stephanie Gjessing, Deputy Town Clerk
Attachment(s): None.

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Meeting Date: 8/21/2025

Agenda Item: 8-A

Report to Town Council

Topic: Update on the Town's vehicle lease program and request for direction on the program's future.

Summary: *Continued from the July 15, 2025 Town Council Budget Workshop*. The goal of this item is to review the program's progress, discuss upcoming lease expirations, and get direction from the Town Council on how to proceed moving forward. The staff report from the July 15, 2025 Town Council Budget Workshop is attached for reference.

Suggested motion: As determined by Council.

Requested by: Chief Scales, Public Safety Director

Approved by: Mr. Disher, Town Manager

MEMORANDUM

Office of the Public Safety Director

The Town of Ponce Inlet staff shall be professional, caring and fair in delivering community excellence while ensuring Ponce Inlet citizens obtain the greatest value for their tax dollar.

To: Michael E. Disher, AICP, Town Manager

From: Daniel Scales, CFO, Public Safety Director, Fire Chief

Date: July 7, 2025

Subject: Update on Town's Vehicle Lease Program and Direction on Program's Future – Requested by Councilmember White

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I. Purpose

This item is being brought forward to provide an update on the Town's vehicle lease program with Enterprise Fleet Management. The goal is to review the program's progress, discuss upcoming lease expirations, and get direction from the Council on how to proceed moving forward.

II. Background

In 2023 the Town entered a lease program with Enterprise as a way to modernize our fleet without relying on large, upfront capital purchases. The goal was to reduce maintenance costs, increase vehicle reliability, and create a consistent and manageable replacement plan.

The traditional replacement model would have taken four years to cycle out the fleet, but by utilizing a lease structure and strategic budgeting, we were able to replace 11 vehicles in just two years. The lease program, which costs roughly the same as purchasing three vehicles per year, approximately $160,000, allows for a more even distribution of expenses and enables more efficient vehicle rotation.

Police Department patrol vehicles, a five-year replacement cycle has been used to account for their high idle time and near-constant daily use. These vehicles experience significant wear even when mileage appears low and rotating them out every five years helps maintain reliability and reduces the risk of costly repairs or downtime. General fleet vehicle replacement would average 7-8 years.

III. Current Status

The Enterprise lease program has delivered several measurable benefits, including:

- Improved fleet safety and reliability, and reduced downtime
- More consistent maintenance schedules and reduced repair costs
- Predictable, budgeted lease payments instead of large capital expenditures
- Greater resale value opportunity through Enterprise's vehicle disposal network

Police Department patrol vehicles, in particular, have benefited from this approach. Given their high utilization and role as mobile workspaces, staff prioritized selecting four-door pick-up models that provide greater comfort, space for equipment, and stronger resale value. These enhancements come at a modest increase in monthly lease cost but have proven worthwhile in supporting officer performance and safety.

Looking ahead, three vehicle leases are scheduled to end in FY 2025–2026, two from Public Works and one being transferred to from Public Works to the Fire Department. As these vehicles reach the end of their current lease terms, staff seeks Council direction on whether to re-lease, sell, or retain these units. For purposes of the draft budget, staff has proposed paying off the reminder of the lease terms, after which the town will own the vehicles outright.

VI. Next Steps

Staff requests Council input regarding the lease program's structure, future fleet replacement strategies, and the upcoming lease expirations. Based on this discussion, staff will prepare recommendations in conjunction with the FY 2025–2026 budget process and long-range capital planning.

Representatives from Enterprise Fleet Management will be attending the July 17 regular council meeting to provide information and answer any questions the Council may have.

Attachment: Potential Fleet Replacement Schedule
Enterprise Lease buyout Scenarios

Year	Make	Model	Series	Vehicle Age	Age at Replacement	Estimated Current Odometer	Replacement Year	Estimated Annual Miles	Years Until Replacement	Estimated Odometer At Disposal	Estimated Replacement Cost	Cost Per Year
2020	**Dodge**	**Durango**	**PD**	**5**	**6**	**89150**	**2026**	**17830**	**1**	**89150**	**$50,000**	
2016	Ford	F-250		9	10	76192	**2026**	8466	1	76192	$50,000	
2021	**Ford**	**Police Interceptor U**	**PD**	**4**	**5**	**65009**	**2026**	**16252**	**1**	**81261**	**$50,000**	**$150,000**
2017	Ford	Expedition		8	10	101147	2027	12643	2	113790	$52,500	
2018	Ford	F-150		7	9	72827	2027	10404	2	83231	$52,500	
2022	**Ford**	**Police Interceptor U**	**PD**	**3**	**5**	**52196**	2027	**17399**	**2**	**86993**	**$52,500**	**$157,500**
2019	Ford	F-250		6	9	55051	2028	9175	3	73401	$55,125	
2019	Dodge	Journey		6	9	70301	2028	11717	3	93735	$55,125	
2020	Ford	F-250		5	8	32494	2028	8000	3	56494	$55,125	
2023	**Ford**	**Police Interceptor U**	**PD**	**2**	**5**	**38352**	2028	**19176**	**3**	**95880**	**$57,881**	$223,256
2020	Ford	F-450 Chassis		5	9	70288	2029	14058	4	112461	$57,881	
2021	Ford	F-150		4	8	15137	2029	8000	4	47137	$57,881	
2024	**GMC**	**Sierra 1500**	**PD**	**1**	**5**	**16382**	2029	**16382**	**4**	**81910**	**$60,775**	
2024	**GMC**	**Sierra 1500**	**PD**	**1**	**5**	**13680**	2029	**13680**	**4**	**13680**	**$60,775**	**$237,313**
2022	Ford	Escape		3	8	31133	2030	10378	5	72644	$60,775	
2025	**Patrol Replacement**		**PD**	**5**	**5**	**89150**	2030	**17830**	**5**		**$63,814**	**$124,589**
2023	Chevrolet	Silverado 1500	Work Trucl	2	8	27388	2031	13694	6	95858	$63,814	
2023	Chevrolet	Silverado 1500		2	8	13120	2031	8000	6	53120	$63,814	
2026	**Patrol Replacement**		**PD**		**5**		2031		**6**		**$67,005**	**$194,633**
2023	Ford	Escape		2	9	10989	2032	8000	7	50989	$67,005	
2023	Chevrolet	Silverado 1500		2	9	5294	2032	8000	7	53294	$67,005	
2023	Ford	Escape		2	9	2151	2032	8000	7	50151	$67,005	
2027	**Patrol Replacement**		**PD**		**5**		2032		**7**		**$70,355**	**$271,369**
2024	GMC	Sierra 1500		1	9	10996	2033	10996	8	87968	$70,355	
2024	Ford	F-450 Chassis		1	9	9639	2033	9639	8	77112	$70,355	$140,710
2024	Ford	Expedition		1	10	28244	2034	20000	9	148244	$73,881	
2024	Ford	Expedition		1	10	18163	2034	18163	9	145304	$73,881	$147,762

Average age of Vehicles	**8**

Average per Year Replacement Vehicle Expenditure	**$183,015**

Enterprise Leased Vehicles Buyout Scenarios

Vehicle	Dept.	Fiscal Year	Lease Expiration	Estimated Buyout
272QKX (2023 Silverado)	PW	2025-2026	6/30/2026	**$ 20,435.64**
272QQR (2023 Silverado)	PW	2025-2026	6/30/2026	**$ 20,435.64**
272QX7 (2023 Silverado)	PW	2025-2026	6/30/2026	**$ 20,435.64**
			Total	**$ 61,306.92**
27G6XV (2024 Sierra)	PD	2026-2027	3/31/2027	**$ 29,772.68**
27W954 (2023 Escape)	PD	2026-2027	4/30/2027	**$ 15,665.28**
27WJS5 (2023 Escape)	Bldg.	2026-2027	4/30/2027	**$ 15,665.28**
			Total	**$ 61,103.24**
27FQDC (2024 Expedition)	FD	2028-2029	4/30/2029	**$ 5,724.86**
27FQDB (2024 Expedition)	PD	2028-2029	4/30/2029	**$ 5,710.52**
27G6XJ (2024 Sierra)	PD	2028-2029	5/31/2029	**$ 11,359.06**
27ZFB7 (2024 Sierra)	Bldg.	2028-2029	5/31/2029	**$ 10,687.46**
27GM9S (2024 F-450)	PW	2028-2029	6/30/2029	**$ 15,327.70**
			Total	$ 48,809.60

These amounts have been given to the applicable department for the 25/26 budget. Specifically, Fire, Pubic Works and Water.

Meeting Date: 8/21/2025

Agenda Item: 8-B

Report to Town Council

Topic: Results of the 2025 Ponce Inlet employee classification and compensation study.

Summary: MGT Impact Solutions, LLC. has conducted a classification and compensation study which included a comparable community analysis, job evaluation analyses, job classification reviews, and market surveys. MGT has provided several proposals to the Town and options for implementation. Please see the attached report and supporting documentation for more information.

Suggested motion: To accept the Classification and Compensation Final Report as presented, along with the Proposed Pay Plan Ranges, and to select one of the four options for implementation.

Requested by: Ms. Cherbano, Town Clerk/HR Director

Approved by: Mr. Disher, Town Manager

MEMORANDUM

Town of Ponce Inlet / Office of the Town Clerk

The Town of Ponce Inlet staff shall be professional, caring, and fair in delivering community excellence while ensuring Ponce Inlet citizens obtain the greatest value for their tax dollar.

To: Michael E. Disher, AICP, Town Manager

From: Kim Cherbano, Town Clerk

Date: August 11, 2025

Subject: Results of the 2025 Ponce Inlet employee classification and compensation study

MEETING DATE: August 21, 2025

Introduction

During last fiscal year's budget process, the Town Council approved funding for a classification and compensation study. The purpose of this study is not only to ensure that the Town's employees are compensated competitively, but also to keep the organization's pay plan aligned with the labor market in order to attract, retain, and sustain a qualified workforce. In January, three quotes were solicited from Evergreen Solutions, MGT Impact Solutions, LLC, and Local Government Solutions. MGT was selected based on its advanced benchmarking tools, comprehensive analysis, one year of post-study support, and cost. MGT has completed over 270 similar studies in the past decade and has a strong presence in Florida.

The Town's previous classification and compensation study was completed in 2016. For the current study, MGT conducted a comparable community analysis, selecting 29 surrounding and similar communities within Florida, based primarily on population, financial conditions, proximity, and the presence of both police and fire departments. A market survey was sent to these jurisdictions to obtain salary data for comparable positions. A total of 22 communities responded, including Daytona Beach, Daytona Beach Shores, Edgewater, Holly Hill, New Smyrna Beach, Orange City, Ormond Beach, South Daytona, Volusia County, Belle Isle, Belleview, Bunnell, Cape Canaveral, Flagler Beach, Fruitland Park, Indian Harbor Beach, Indian River Shores, St. Augustine Beach, Brevard County, the Brevard County Sheriff's Office, Flagler County, and the Flagler County Sheriff's Office.

Summary

The study includes salary information collected from peer communities, job evaluation analysis, job classification review, and market survey results. Based on this information, it proposes the creation of a new pay structure with a 50% range spread across the pay plan, recommended title and pay grade changes for certain positions, longevity incentives, and guidelines for future salary range reviews. It should be noted that 15 positions currently fall below the new minimum salary level for their new respective pay grades. These positions are in the Finance Department, Building Division, Public Works Department, and Cultural Services Department.

The longevity incentive provides an extra percentage pay increase based on years of employment. For example, employees working for the Town for 4-6 years would receive an extra 2%, while those with 7-9 years would receive an extra 3%. The purpose of this incentive is to promote employee retention—thereby minimizing operational disruptions and the use of overtime pay—while fairly compensating employees for the value of their experience with Town operations and the community as a whole. These proposals would be in addition to the 3% raises for general employees and 7.5% raises for public safety employees already proposed in next year's budget.

According to the Town's Labor Attorney, there is no impact on union positions, salaries, or benefits that are already governed by the collective bargaining agreement currently in effect, and no additional negotiations are required outside of the collective bargaining process already underway.

These proposals have the following associated costs:

1. Raise salaries of 15 positions to the minimum of the new pay range: $50,383 total
2. Longevity increase: $88,700 total

Options

Below are several implementation options for the Council to consider:

1. Include pay increases for the 15 positions and the longevity incentive at the start of FY 25/26. Total cost in FY 25/26 = $139,083
2. Include pay increases for the 15 positions on October 1st and implement the longevity incentive at mid-year. Total cost in FY 25/26 = $94,733
3. Include pay increases for the 15 positions at mid-year in FY 25/26 and implement the longevity incentive in FY 26/27. Total cost in FY 25/26 = $25,192
4. Include both the pay increases for the 15 positions and the longevity incentive at the start of FY 26/27. Total cost in FY 25/26 = $0

FY 25/26 Budget Considerations

As noted in the Town Manger's July 8, 2025 budget memo, each one-tenth mill equals $132,508 in revenue proceeds at a 95% collection rate. On July 17, 2025, the Town Council adopted a proposed millage rate of 6.35—one tenth mill above the 6.25 rate proposed by staff. Staff is currently working on additional refinements to the July draft budget that would pay for the "Old Carriage Road Phase 2" stormwater project out of the Land Acquisition Fund reserves rather than the General Fund. This adjustment would free up an additional $77,000 in the General Fund.

Recommendation

Staff recommends the Town Council accept the Classification and Compensation Final Report as presented, along with the Proposed Pay Plan Ranges. Should the Council wish to implement the increases over multiple years, Staff recommends authorizing this through a resolution, which Staff will bring back to the Council in the coming months.

Attachment:

- Classification and Compensation Study Final Report 2025

Final Report

JULY 2025

Classification and Compensation Study

Submitted by:

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Town of Ponce Inlet, FL

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EXECUTIVE SUMMARY

MGT is pleased to have had the opportunity to work with the Town of Ponce Inlet on this Classification and Compensation Study. Human resource management is a significant concern as governmental services continue to increase in cost and complexity, and the resources to fund local governments are constrained. Day-to-day operations present challenging administrative problems in planning, organizing, and directing human resource functions in order to achieve maximum efficiency and effectiveness in the delivery of municipal services. A properly developed and administered Classification and Compensation Plan forms the foundation for meeting these challenges. It helps to ensure that the Town can not only recruit the best and brightest employees but can also retain those employees, even in a competitive marketplace. By retaining qualified, experienced employees, the Town avoids the costs of re-recruitments and lost productivity while maximizing the benefits of the investments it has made in employees and the institutional and community knowledge acquired by those employees over their tenures.

MGT understands the high expectations established in Ponce Inlet for service delivery and competitiveness in recruiting and retaining excellent employees. These factors have been considered in the analysis and reflected in the Study results.

A Classification and Compensation Study encompasses a significant amount of information that can be time-consuming to condense and organize into an abbreviated format. Therefore, MGT has compiled this Executive Summary in order to provide a quick synopsis regarding the major components, findings, and recommendations of this Study. The purpose of a well-designed Classification and Compensation Study is twofold. First, it establishes internal equity (ranking) among employees across Departments in the Town. Second, it assures external equity/competitiveness by comparing the compensation of Ponce Inlet employees against market data. The following is a brief overview of the process:

Job Evaluation Analysis and Job Classification System

Below is a list of tasks included in this component of the Study (listed in the order that the work was performed):

- **Study preparation and project meetings**. Met with the Town Manager and HR Director to discuss Study methods and expectations, review the current Classification and Compensation Plan and organizational structure, answer questions, and review the scope and schedule of work.
- **Material distribution**. Prepared a memorandum of explanation, which was distributed to employees. Held meetings with employees to discuss the Job Analysis Questionnaire (JAQ) and to explain the scope and purpose of the Study. Employees were provided time to complete the questionnaire. The JAQs were returned to MGT within approximately three (3) weeks of distribution.
- **Determined comparable communities and collected compensation data.** MGT, along with the Town, determined a logical survey sample of “like” communities that impact the compensation market of Ponce Inlet. Then, MGT designed, and the Ponce Inlet sent out the survey for the benchmark positions covered in the Study.

- **Job Evaluation Analysis and Establishment of a Classification Plan**. Upon return of the JAQs by the Town, MGT performed the following:
    - Read each JAQ and corresponding Job Description in its entirety.
    - Conducted virtual interviews with at least one (1) employee in each position covered by the Study to further understand the scope of duties and responsibilities of the position.
    - Applied a measurement system of Job Evaluation Factors to all positions, which formed the basis for internal rankings (equity) of positions.
    - Upon completion of the Job Evaluation measurements, a new Classification Plan was developed.

Market Survey

The following tasks were included in this component of the Study:

- Tabulated, summarized, and analyzed comparative compensation information obtained from the comparable communities. Prepared pay tabulations that compared the salary ranges of the Town of Ponce Inlet to the salary ranges of its comparable communities. Prepared comparison calculations at the 50th, 60th, 65th, 75th and 80th percentiles. Displayed data for each community and for each position and summarized the data in table form. Based on discussions with the Town and the gathered data, developed salary ranges that would establish Ponce Inlet as a payer at the 50th percentile of the salary data from the comparable communities.
- Based on the above data, developed, and recommended new salary schedules.

Draft and Final Report Preparation

- A preliminary analysis of the data and recommended Classification and Compensation Plan was shared with the Town. Feedback from the Town was reviewed and incorporated into the recommendations.
- This report was prepared by MGT and sent electronically to the Town.

Future Administration of the Classification and Compensation Plan

- Within the body of this report, MGT has outlined how the Town can maintain the Classification and Compensation Plan. MGT will supply the Town with a User's Manual and all associated documents to maintain the Classification and Compensation Plan and the steps to ensure the Town remains competitive with the market in the years to come.

JOB EVALUATION

MGT's approach to Job Evaluation involves a quantitative point and factor comparison method, which cross-compares all positions in the organization against numerous factors such as educational requirements, experience, work conditions, etc. Therefore, all jobs in each organizational unit (e.g., Police, Administration, Finance, etc.) may be compared against each other based upon the same factors.

In conducting the Job Evaluation, it must be emphasized that the position, and not the incumbent's qualifications, performance, or years of service in the position, is evaluated. An incumbent employee may feel they should be placed in a higher level (i.e., receive more points) because the individual performs well, has a long tenure with the organization, and/or has additional education or skills not required to perform that job, or may feel they have a more significant workload than a similar employee in another Department; however, these are employee specific characteristics and not determinants for a position evaluation.

Before reviewing the results of the evaluation of the positions, it is important to note that the purpose of a Job Evaluation is to identify whether a job is more or less advanced than, or equal to, other jobs in the organization based on nine (9) objective factors. While these factor definitions are guidelines, they are constructed to allow limited flexibility of interpretation while at the same time providing a strict framework and structure for comparison. The nine (9) factors used for the evaluation of Ponce Inlet's positions are as follows:

1. Preparation and Training
2. Experience Required
3. Decision-Making and Independent Judgment
4. Responsibility for Policy Development
5. Planning of Work
6. Contact with Others
7. Work of Others (Supervision Exercised)
8. Working Conditions
9. Use of Technology/Specialized Equipment

As part of the Job Evaluation process, the duties, responsibilities, and qualification requirements for each position were reviewed via a thorough reading of the incumbent's current job description and a Job Analysis Questionnaire (JAQ) completed by each employee (Appendix A). In addition, MGT conducted interviews with at least one (1) employee in each of the positions covered by the Study. Points were then assigned to each factor by selecting the description that best fits the appropriate level for the position. In other words, a position that supervises ten (10) full-time staff members would receive more points under the "Work of Others" factor than positions that do not supervise. Points for each factor were then totaled for each position. Using this method, the positions were found to fall into distinguishable Skill Levels. Table 1 contains the Classification Plan, including the Position Title, Skill Level, and proposed Grade for the evaluated positions.

THE CLASSIFICATION PLAN

A Classification Plan provides for a systematic arrangement of positions into classifications. A position, often referred to as a job (e.g., Administrative Assistant), contains a specific set of duties and responsibilities, and that is the objective of the classification process, not the person currently holding that job. A classification is a grouping of positions that have similar levels of knowledge, skills, and abilities needed to perform the job. The positions are also similar in nature of work, level of work difficulty, and responsibilities. Positions allocated to the same classification are sufficiently similar with respect to the types of factors enumerated above to permit them to be compensated at the same general level of pay. The positions do not have to be identical; they can be in different departments, dealing with different subject matters, and performing different duties.

It is this arrangement of positions and resulting classification structure that forms the basis for the Classification Plan. As noted in the previous section, a Job Evaluation and Classification Plan is not intended to assess individual performance. To that end, a position that belongs in a certain classification is not entitled to be placed in a higher classification simply because the individual performs with a high degree of success and efficiency, nor is it placed in a lower classification simply because the incumbent performs with low competence or productivity. Variations in individual performance are not recognized by differences in classifications, instead, they are management issues. Similarly, there is a tendency in some workforces to use the Classification Plan to reward longevity, even though the duties and responsibilities of individual positions may not have changed over time. Longevity is not a classification factor, and the Classification Plan should not be used in this manner.

As an assessment of duties performed and responsibilities exercised, a Classification Plan is an exceedingly useful managerial tool. It provides the fundamental rationale for the Compensation Plan and helps management identify positions that have taken on (or, in some cases, reduced) duties and responsibilities. Through proper maintenance of the Classification Plan, employees are assured of management's continuing concern about the nature of the work that they conduct and its reward in the form of appropriate pay levels and relationships. The Classification Plan also provides the basis for recruitment, screening, and selection of employees in direct relationship to job content. Promotional ladders, as well as opportunities for lateral career development, are also evidenced by the logical grouping of allied occupational classifications and hierarchies.

SALARY DATA

The Town initiated this Study with the objective of assuring that its Compensation Plan is both internally equitable and externally competitive. The Job Evaluation System (outlined above) is performed to address the issue of internal equity. To achieve external competitiveness, a market survey of comparable communities was conducted. The following explains the labor market review and collection of salary data.

Selection of Comparable Communities for Data Purposes

Selecting communities for the comparison group is an important element in a Classification and Compensation Study. When selecting communities to serve as comparables, it is important to use particular criteria to evaluate the other communities to ensure that those chosen as comparables will be the most similar to Ponce Inlet.

To determine which communities should be used for survey purposes, MGT first considered all Florida communities in Flager, Volusia, Brevard, Duval, Indian River, Lake, Marion, Nassau, Orange, Putnam, Seminole, St. Johns and St. Lucie Counties with a population between approximately 2,000 and 13,000.

Criteria	Total Possible Points
1. Population	10
2. Per Capita Income	15
3. Median Value of Owner-Occupied Housing	15
4. Total Primary Government Expenditures	15
5. Property Tax Revenues	10
6. Full-time Employees	15
7. Full-time Salaries Paid (1 Month)	15
8. Proximity	5
	100

The eight (8) categories listed above were selected to mirror important criteria such as similar financial conditions, population, and proximity.

Within each of the eight (8) categories, ranges of compatibility were established. For example, the closer a community was to matching the Ponce Inlet's estimated population, the closer the community would be to receiving the maximum of ten (10) points. A community whose population was significantly larger or smaller than Town's population would receive fewer or even zero (0) points. Thus, a community achieving a total of one hundred (100) points would be considered most comparable to the Town of Ponce Inlet. A community with zero (0) points was therefore determined to be the least comparable to Ponce Inlet. A more detailed explanation of the methodology used to determine the comparable communities is included in Appendix B.

A cutoff of fifty-five (55) points was established to select the communities most similar to Ponce Inlet across the eight (8) categories. After applying the eight (8) criteria, sixteen (16) communities achieved fifty-five (55) or more compatibility points on the comparison scale with Ponce Inlet. MGT recommended three (3) additional communities as comparables; the Town requested the addition of fourteen (14) more entities that had been used by the Town as comparables in the past. The full list of the thirty-three (33) comparables is below:

Belle Isle	***Flagler Beach***	***Orange City***
Belleview	***Flagler County***	***Ormond Beach***
Brevard County	***Flagler County Sheriff's Office***	*Port Orange*
Brevard County Sheriff's Office	***Fruitland Park***	*Sanford*
Bunnell	***Holly Hill***	*Satellite Beach*
Cape Canaveral	***Indian Harbor Beach***	*Seminole County Sheriff's Office*
Cocoa Beach	***Indian River Shores***	***South Daytona***
Daytona Beach	*Indialantic*	***St. Augustine Beach***
Daytona Beach Shores	*Neptune Beach*	***Volusia County***
De Land	***New Smyrna Beach***	*Volusia County Sheriff's Office*
Edgewater	*Oakland*	*Windermere*

Bolded peers indicate the community responded to the survey or supplied MGT with a copy of their Compensation Plan/Union Contracts.

Market Survey

The Consultants then prepared and distributed a market survey to the thirty-three (33) comparable communities. Table 1 is a summary of the benchmark market survey data. The detailed market survey data for each position is contained in Appendix C.

It is important to make a few observations regarding Table 1 and Appendix C.

1) The salary data is information that was available as of April 2025 – May 2025. The new recommended salary ranges for the Town were developed using this salary data from the comparable communities.

2) Some of the comparable communities provided salary range minimums and maximums for comparison purposes, while others (those that don't utilize salary ranges as part of their pay plans) provided actual salaries for surveyed positions. The salary range minimums and maximums were analyzed to determine the 50th, 60th, 65th, 75^{th,} and 80th percentiles to identify wage ranges for "average" and "above average" payers.

3) Data contained within Appendix C has been thoroughly reviewed. If the Consultants determined the data was not relevant, it was removed.

Appraisal and Use of Salary Data

While comparing Ponce Inlet's current salaries to those paid by other employers in the comparable communities, it must be noted that variations in compensation may be due to several factors, including:

1) Organizational size and economic conditions can have an impact on positions. In smaller communities, employees are often asked to "wear many hats" and, therefore, take on more duties and responsibilities than would normally be required of a certain position. In addition, the economic instability has forced some communities to "do more with less", compelling staff to take on more duties and responsibilities than they had in the past. Therefore, it becomes increasingly harder to compare "like" positions within communities.

2) Some employers place different relative worth on certain groups of employees. For example, some employers are forced to place a higher value on certain employees or groups of employees because of the market and, therefore, pay them more. Overall, the policies and value judgments of different employers in compensating for the same kind of work can vary widely. There is rarely a single prevailing rate for any particular kind of work, even within the same labor market.

3) It can be difficult to make exact comparisons among the different employers of the duties and responsibilities of ostensibly similar jobs.

Nevertheless, comparative salary data is widely considered a reliable indicator of appropriate compensation levels in relation to the prevailing market. This data is also useful as an indication of prevailing opinions concerning the compensation relationships that should exist among different classifications of work. Of equal importance, however, are the internal relationships for the various positions that were accomplished in the Job Evaluation portion of this Study.

COMPENSATION PLAN DEVELOPMENT AND RECOMMENDATIONS

Development of the Compensation Plan

A basic element in any human resources management program is adequate and equitable employee compensation. A Compensation Plan of this nature is essential if qualified employees are to be recruited and retained. To achieve this goal, there must be a reasonable and widely accepted model of Job Factors upon which the Compensation Plan rests. Application of this model was the purpose of the Job Evaluation aspect of this Study. The Plan presented in this report is designed to accomplish the Study goals by:

1) Providing for equal compensation for work of equivalent job content and responsibility.
2) Facilitating adjustments to compensation levels based on changing economic and employment conditions that impact these interrelationships.
3) Establishing compensation ranges that compare favorably with those of other equivalent communities within the appropriate labor market.

In preparing this Plan, the Study only looked at base compensation. The compensation associated with longevity or other fringe benefits was not analyzed or factored into the Compensation Plan.

Compensation Plan Options for the Town's Consideration

One of the purposes of this Study was to provide an updated Compensation Plan that relates to the external market and is internally equitable. Below is a detailed explanation of three (3) different Compensation Plans:

1) Defined Increment Plan: This is a Compensation Plan that has salary ranges with a minimum and a maximum with defined percentage increments (e.g., 3%) in between. If an employee has a satisfactory performance evaluation, they systematically advance through the compensation range. The performance evaluation and resulting salary increment increase occur annually.
2) Open Range Merit Plan: This is a Compensation Plan that also has salary ranges with minimums and maximums, but without defined percentage increments in between. Employees are advanced through the compensation range based on an annual satisfactory performance evaluation, with the percentage of their increase determined annually by Town Administration.
3) Blended Merit Plan: This is a Compensation Plan that uses techniques from both a Defined Increment Plan and an Open Range Merit Plan.

In considering which Plan to use, it is important to understand that employees at various levels of responsibility may react differently toward and be motivated differently by the Compensation Plan they work under. Management personnel who are goal-oriented may have a higher acceptance of the Open Range Merit Plan, and thus tend to be more comfortable with this method of compensation. Mid to lower-level positions may want the assurance of a defined salary increase based on satisfactory performance.

Each system provides advantages and disadvantages, which should be evaluated by the community to determine the most appropriate system to be established.

Recommendation: Open Range Merit Plan

MGT typically recommends the adoption of an Open Range Merit Plan. An Open Range Merit Plan has salary ranges with minimums and maximums, but without defined percentage increments in between. Employees are advanced through the ranges based on an annual satisfactory performance evaluation, with the percentage of their increase determined by their supervisor and Town Administration.

The Open Range Merit Plan also allows maximum flexibility for the Town relative to recruitment and funding, as employees can be hired within the range, and the increases provided annually for meritorious performance can fluctuate based on available funding. Given Ponce Inlet's goal to recruit, reward, and retain motivated, high-performing employees, the Open Range Merit Plan has been selected for recommendation.

Proposed Compensation Plan and Structure

Within the market analysis, MGT refers to "percentiles" (for example: 50th, 60th, 65th, 75th, and 80th percentiles). Percentiles indicate where salaries or salary ranges fall in comparison to the other salaries or salary ranges from the comparable communities. The 50th percentile is the median (or middle) of the data set. When a community is considering which percentile to compensate employees at, they are deciding where they want their employee salaries and salary ranges to fall within the market of comparable communities. For example, if a community selects the 50th percentile, that means they would be paying a fair market rate at the 50th percentile or middle of the comparable communities. If a community selects the 60th percentile, then the salary ranges would be 10% higher than the middle of the market.

An important component in the process of developing a Compensation Plan is understanding and applying the pay philosophy of the Town. For the purposes of this study, the Town is considering a pay philosophy of compensating employees at the 50th percentile.

The next step in this process is to combine the Skill Levels included in Table 1 with the proposed salary ranges in Table 2. The Classification and Compensation Plan consists of twelve (12) pay grades, one (1) being lowest and twelve (12) being highest, and is broken down into the following three (3) bands:

Grades 1 – 3:	Band A
Grades 4 – 8:	Band B
Grades 9 – 12:	Band C

All proposed pay ranges are open ranges. There is a 10% gradation between the Grades within each Band. All Grades have a 40% range spread from minimum to maximum.

Note: Gradation refers to the relationship between the minimum compensation of one grade to the minimum compensation of the next grade. In this case, the starting compensation for employees in Grade 2 is 10% higher than Grade 1, and so on. The gradation will vary depending upon the relationship between the salary data for the grade, the number of grades in the compensation band, and the established compensation range.

Table 1 combines all of the classification and compensation data at the 50th percentile.

Implementation and Administration of the Compensation Plan

Implementation of the Compensation Plan, as it affects individual employees, should be under the following pattern of adjustments:

1) Employees whose present compensation is below the minimum compensation of the range for their classification should be raised to the minimum of the range.

2) The compensation of employees whose present compensation is within the range for their classification should be slotted into the new Compensation Plan at their current pay rate.

3) The compensation of employees whose present compensation is above the maximum compensation of the range should be held at their present rate, without a reduction in compensation, until such time that further market analysis indicates commensurate alignment with the marketplace. However, the Town can consider lump sum increases for these employees, which does not impact base compensation levels, until the ranges adjust to include the individual employee compensation rates.

In other studies, MGT has been asked for ideas on how to address the situation of long-term employees whose current compensation falls near the bottom (within 5 - 10%) of the proposed range. If this occurs, it illustrates that the position has been compensated at less than the market rate for someone with similar tenure. Thus, some communities elect to make additional adjustments for those employees at implementation. This decision is discretionary for the Town to adopt and only occurs once at the time at the implementation of the new Classification and Compensation Plan. If the Town wishes to consider implementation adjustments, MGT can provide examples of implementation options.

Employee Advancement through the Ranges

To implement the new Compensation Plan, MGT recommends that the starting salary of the range (minimum) is the normal hiring/promoting rate. Exceptions to this starting point should be limited to hiring situations involving:

1) Applicants with an exceptional background and qualifications.

2) A promotion in which the employee's current compensation is higher than the minimum of the new range.

3) In the case of a labor market situation where it is impossible to recruit qualified candidates at the minimum.

In these cases, employees may be appointed to their positions anywhere within the defined range (generally up to the midpoint), depending on their experience and qualifications, and based on the provisions of the Town's policies (if applicable). Employees should not be hired below the minimum of their compensation range.

Salary advancement between the hiring rate and the top-of-the-range (maximum) is done throughout the employee's tenure with the organization. Advancement through the range would be done on an annual basis and be dependent on a satisfactory performance evaluation. Incumbents progressing through the range should understand that standards of performance would become more exacting or controlling as compensation levels advance. Typical movement through the range could be in increments of 1% to 3%, depending on the employee's performance evaluation and goal attainment, as well as the financial resources of the Town.

The Town may also wish to provide a merit bonus for exemplary performance after an employee reaches the maximum compensation for the range. If this option is exercised, then an employee would be eligible to receive a payment after a successful performance evaluation each year. This payment should not be worked into the base salary but should be in the form of a lump sum payment that is a set amount calculated each year and is consistent for all affected employees.

It is recommended that the Town set aside funding for a performance-based increase for employees in this Plan. This funding would then serve as the pool for merit payments, knowing that some employees will be high performers, getting a higher percentage, and some employees will be lower performers, getting a lower percentage.

Again, it should also be noted that the implementation and use of a formal performance evaluation process for all staff members is a key component to the success of this Plan. Equally, if not more important, is that supervisors are adequately trained to perform the formal performance evaluation process.

FUTURE ADMINISTRATION OF THE COMPENSATION PLAN

To maintain competitive salary levels, there should be an annual review of the Town's salary ranges. The communities used in the survey group for this Study have been determined to be comparable to the Town. Therefore, Ponce Inlet can continue to use these communities as a comparable market survey group for annual salary comparison purposes until it is determined that they should be reevaluated. It is MGT's recommendation that an annual survey of these communities be conducted to determine the percentage increase each community in the comparable group is granting, either as an annual across-the-board increase to their employees or as a general adjustment to their compensation ranges. The Town may wish to provide an across-the-board increase to all employees based on the information received from the comparable communities. If this is the case, then the increases would be granted separately from any merit increase that would be awarded as a result of a successful performance evaluation.

MGT further recommends that the compensation ranges for each grade be adjusted upward by the average percentage increase observed in the comparable group, regardless of whether an across-the-board increase is provided to all employees. MGT also advises that employees should continue to progress through their respective compensation ranges—provided they have not reached the maximum—through merit-based increases tied to satisfactory or above-satisfactory job performance. The Town may maintain its current approach to administering increases within the established ranges or consider gradually transitioning to a fully merit-based increase system by updating its HR manual and related processes.

FUTURE ADMINISTRATION OF THE CLASSIFICATION PLAN

The administration of a Classification Plan is an ongoing process. It must be recognized that it is not static and is not intended to affix positions permanently into classifications. Instead, the Plan must be administered continually to adapt it to changing conditions.

Three (3) specific types of changes in the Plan itself are possible: elimination of a position, creation of a position, or revision of a position.

1) When a position in a classification is eliminated or when a position has significantly changed work duties and responsibilities to the extent that the position becomes inappropriate or inaccurate, the position should be abolished.
2) New positions should be created when new work situations arise that are not covered by the established positions. However, caution should be exercised in this respect, particularly to ensure that new positions are justified, are not merely duplicating established positions, cannot be accommodated through changes in existing positions, and reflect substantially permanent rather than temporary situations.
3) The adjustment or revision of a position should be done when there are substantial changes to the requirements of the position or to the nature and complexities of the duties being performed. In this instance, a position may need to be re-scored and move up or down into a new classification.

All changes should be thoroughly evaluated in order to maintain the integrity of the classification relationships established in the Classification and Compensation Plan. Town Administration has been provided with the Job Analysis Questionnaire as well as the Job Factor Scoring Sheet, enabling the Town to grade a newly created or revised position. MGT provides scoring assistance in such cases in accordance with the Study contract.

Appreciation

MGT has appreciated the opportunity to work with the Town of Ponce Inlet on this Classification and Compensation Study. A special thank you to the employees for all of the information provided to allow for the analysis and to the Town Manager and HR Director for the significant amount of work and support dedicated to the project.

Table 1 - Comprehensive Table
Town of Ponce Inlet, FL

Position:	Skill Level	New Grade	50th Percentile Salary Survey Data		Current Salary Range		Proposed Salary Range 50th Percentile	
	800 - 850	**12**					**113,135**	**158,389**
Public Safety Director		**12**	n/a	n/a	94,201	142,161		
	745 - 795	**11**	***100,789***	***158,697***	***85,559***	***128,767***	**102,850**	**143,990**
Fire Chief		**11**	107,043	165,928	85,559	128,767		
Police Chief		**11**	95,973	152,900	85,559	128,767		
Finance Director		**11**	98,163	158,418	85,559	128,767		
Planning & Development Director		**11**	101,979	157,543	85,559	128,767		
	690 - 740	**10**	***89,793***	***146,666***	***74,267***	***111,264***	**93,500**	**130,900**
Chief Building Official/ Floodplain Manager		**10**	84,151	145,847	70,760	105,828		
Public Works Director		**10**	96,560	153,620	70,760	105,828		
IT Director		**10**	85,443	145,995	77,774	116,700		
Human Resources Director / Town Clerk		**10**	93,021	141,201	77,774	116,700		
	635 - 685	**9**	***75,046***	***123,217***	***62,805***	***93,520***	**85,000**	**119,000**
Deputy Fire Chief		**9**	78,348	127,525	70,760	105,828		
Police Lieutenant		**9**	80,485	120,906	70,760	105,828		
Principal Planner		**9**	85,443	159,530	64,442	96,034		
Assistant Finance Director		**9**	68,557	109,782	64,442	96,034		
	580 - 630	**8**	***63,454***	***102,846***	***51,952***	***76,808***	**67,349**	**94,288**
Assistant Public Works Manager		**8**	73,989	118,713	54,476	80,588		
Senior Planner		**8**	64,456	104,274	58,749	87,211		
Cultural Services Director		**8**	92,514	151,751	54,476	80,588		
Lieutenant Firefighter Paramedic		**8**	55,935	88,880	53,273	79,512		
P&D Permitting Manager		**8**	47,731	78,672	47,330	69,511		
Code Compliance Manager/Fire Marshall		**8**	52,603	94,598	47,330	69,511		
Sergeant		**8**	67,486	98,901	50,556	74,512		
	525 - 575	**7**	***55,427***	***88,501***	***48,943***	***72,012***	**61,226**	**85,716**
Patrol Corporal		**7**	58,062	89,435	47,330	69,511		
Investigator		**7**	54,652	86,399	n/a	n/a		
Building Inspector		**7**	53,566	89,669	50,556	74,512		
	470 - 520	**6**	***51,955***	***82,323***	***47,851***	***70,362***	**55,660**	**77,924**
Grant Coordinator/Accountant		**6**	52,367	80,579	54,476	80,588		
Sr. Accountant		**6**	58,032	95,664	47,330	69,511		
Human Resources Coordinator		**6**	55,261	84,576	44,343	64,882		
Firefigher Driver/Engineer		**6**	n/a	n/a	47,330	69,511		
Police Officer		**6**	52,722	81,703	44,343	64,882		
Firefighter		**6**	46,196	72,433	49,805	73,649		
Deputy Town Clerk		**6**	47,151	78,983	47,330	69,511		
	415 - 465	**5**	***44,875***	***72,859***	***41,723***	***60,821***	**50,600**	**70,840**
Crew Leader		**5**	45,760	75,286	44,343	64,882		
Office Manager - Police		**5**	46,883	74,984	41,576	60,593		
Maintenance Technician III		**5**	39,083	65,638	36,644	52,948		
Office Manager - PW		**5**	46,883	74,984	41,576	60,593		
Office Manager - Fire		**5**	46,883	74,984	41,576	60,593		
Senior Permit Technician		**5**	38,693	63,568	39,015	56,624		
IT Technician		**5**	49,941	80,569	47,330	69,511		
	360 - 410	**4**	***43,678***	***70,373***	***39,949***	***58,071***	**46,000**	**64,400**
Property Maintenance and Housing Inspector		**4**	45,344	75,348	39,015	56,624		
Maintenance Technician II		**4**	36,691	57,117	34,704	49,942		
Zoning Technician		**4**	n/a	n/a	41,576	60,593		
Accounting Specialist - Utility Billing		**4**	42,058	69,555	44,343	64,882		
Assistant Deputy Clerk - Records Coordinator		**4**	45,669	73,070	44,343	64,882		
Museum Coordinator		**4**	50,356	80,857	39,015	56,624		
Administrative Assistant		**4**	41,954	66,290	36,644	52,948		
	305 - 355	**3**	***35,328***	***55,355***	***32,387***	***46,257***	**39,930**	**55,902**
Office Specialist - Police		**3**	36,213	57,405	32,982	47,132		
Maintenance Technician I		**3**	35,069	54,163	31,198	44,506		
Office Specialist		**3**	34,703	54,497	32,982	47,132		
	250 - 300	**2**	***33,750***	***52,000***	***31,198***	***44,506***	**36,300**	**50,820**
Custodian		**2**	33,750	52,000	31,198	44,506		
	Up to 245						**33,000**	**46,200**
No Positions in Grade		**1**	n/a	n/a	n/a	n/a		

Table 2 - Proposed Pay Ranges
Town of Ponce Inlet, FL

50th Percentile - Proposed Pay Ranges				Gradation
Grade	Minimum	Midpoint	Maximum	
Pay Band C				
12	113,135	135,762	158,389	10.00%
11	102,850	123,420	143,990	
10	93,500	112,200	130,900	
9	85,000	102,000	119,000	
Pay Band B				
8	67,349	80,818	94,288	10.00%
7	61,226	73,471	85,716	
6	55,660	66,792	77,924	
5	50,600	60,720	70,840	
4	46,000	55,200	64,400	
Pay Band A				
3	39,930	47,916	55,902	10.00%
2	36,300	43,560	50,820	
1	33,000	39,600	46,200	

APPENDIX A

EMPLOYEE JOB ANALYSIS QUESTIONNAIRE (JAQ)

Town of Ponce Inlet, FL

NAME:	DATE:
YEARS OF EXPERIENCE WITH EMPLOYER:	JOB TITLE:
YEARS OF EXPERIENCE ON THIS JOB:	YOUR JOB IS: FULL TIME ☐ PART TIME ☐
YOUR YEARS OF EXPERIENCE IN THIS FIELD:	DEPARTMENT:
NAME OF IMMEDIATE SUPERVISOR:	THEIR TITLE:

INSTRUCTIONS

The purpose of this questionnaire is to obtain additional information about your job that may not be included in your current job description. Please answer each question thoughtfully and frankly. After you have finished your portion of the questionnaire, give it to your immediate supervisor, who will complete their section.

General Summary: In three or four sentences, please summarize the major purpose or primary function of your job.

Please indicate if you have reviewed your current job description.

If you have any changes to your current job description, please mark them on the JD and attach it to this JAQ, or indicate changes here:

If you do not have a job description available to review, please list your job duties. Try to place your duties in order of importance and group "like" tasks together (e.g., "clerical duties including word processing, opening mail, filing, etc." or "front desk responsibilities including greeting visitors, answering telephones and routing calls, etc."). Job duties:

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

13.

14.

Feel free to add more numbers/duties if necessary.

FACTOR 1. Education & Training: In your opinion, what kind of education and training is necessary to perform your job?

- ☐ LEVEL 1: Level of knowledge that is below what is normally attained through high school graduation.
- ☐ LEVEL 2**:** High school diploma (GED) or equivalent.
- ☐ LEVEL 3: High school, plus elementary technical training, acquired on the job or through one year or less of technical or business school.
- ☐ LEVEL 4: Extensive technical or specialized training such as would be acquired by an Associate's Degree or two years of technical or business school.
- ☐ LEVEL 5: Completion of four-year college degree program.
- ☐ LEVEL 6: Additional professional level of education beyond a four-year college program, such as a CPA or Professional Engineer (P.E.) training.
- ☐ LEVEL 7: Completion of graduate coursework equal to a Master's Degree or higher.

What specific degree/coursework is NECESSARY?

What specific degree/coursework is PREFERRED?

If a specific certificate or license is mandated by an outside agency to perform your duties, name the certificate or license:

What special skills, knowledge, and abilities are required to perform your job? Please list:

FACTOR 2. Years of Experience: How much previous work experience do you feel is necessary to perform your job?

LEVEL 1:	LEVEL 2:	LEVEL 3:	LEVEL 4:	LEVEL 5:
☐ Less Than 1 Year	☐ 1 to 3 Years	☐ 4 to 6 Years	☐ 7 to 10 Years	☐ More than 10 Years

What is the minimum number of years required?

What specific experience is necessary?

FACTOR 3. Independent Judgment and Decision Making

Part 1: How much discretion do you have in making decisions with or without the input or direction of your supervisor?

- ☐ LITTLE: Little discretion or independent judgment exercised.
- ☐ SOME: Some discretion or judgment exercised, but supervisor is normally available.
- ☐ OFTEN: Job often requires making decisions in absence of specific policies and/or guidance from supervisors, but some direct guidance is received from supervisors.
- ☐ HIGH: High level of discretion with decisions restricted only by Departmental policies and little direct guidance from supervisors.
- ☐ VERY HIGH: Very high level of discretion with decisions only restricted by the broadest policies of the Organization.

Part 2: If you make an erroneous decision, what impact would this decision have on your work unit, department, and/or the Organization?

- ☐ MINOR: Some inconvenience and delays but minor costs in terms of time, money, or public/employee good will.
- ☐ MODERATE: Moderate costs in time, money, or public/employee good will would be incurred. Delays in important projects/schedules likely.
- ☐ SERIOUS: Important goals would not be achieved and the financial, employee, or public relations posture of the Organization would be seriously affected.
- ☐ CRITICAL: Critical goals and objectives of the Organization would be adversely and very seriously affected. Error could likely result in critical financial loss, property damage, or bodily harm/loss of life.

FACTOR 4. Responsibility for Policy Development: Does your job require you to participate in the development of policies for your unit/division/department/the Organization?

- ☐ LEVEL 1: Position involves only the execution of policies or use of existing procedures.
- ☐ LEVEL 2: May provide some input to supervisor when policies and procedures are updated.
- ☐ LEVEL 3: Position involves some development of policies/procedures for the Department and/or the interpretation or explanation of departmental policies for others in the organization or residents.
- ☐ LEVEL 4: Position involves significant or primary responsibility for the development of policies and procedures for a division or organizational component of a department, as well as the interpretation, execution and recommendation of changes to department policies.
- ☐ LEVEL 5: Position involves significant or primary responsibility for the development of policies and procedures for an entire department, plus occasional participation in the development of policies which affect other departments in the organization.
- ☐ LEVEL 6: Position involves the primary responsibility for the development of departmental policies and procedures and regular participation in the development of policies that affect other departments and occasionally involves participation in the development of organization-wide policies.

Give some examples of the types of policies you've written or been a part of creating:

FACTOR 5. Planning: How much latitude do you have to set your own daily work schedule and priorities for a given workday?

- ☐ LEVEL 1: Position requires that my daily work load and activities are assigned to me by my supervisor.
- ☐ LEVEL 2: Position requires that I plan my own daily work load and work independently according to established procedures or standards.
- ☐ LEVEL 3: Position requires that I plan my own daily work load and those of others in the department (first-level supervision).
- ☐ LEVEL 4: Position requires an above average ability to analyze data and develop departmental plans, including plans where a number of difficult, technical and/or administrative problems must be addressed (Manager/Division level planning).
- ☐ LEVEL 5: Position requires a high level of analytical ability to develop plans for a department or complex situation, including plans that involve integrating/involving/impacting other departments (Department Head level planning).

FACTOR 6. Contacts with Others: In the course of performing your job, what contacts with people in your department, other departments within the organization, and/or people from outside the organization are you required to make?

- ☐ LEVEL 1: Position involves interaction with fellow workers on routine matters with relatively little public contact.
- ☐ LEVEL 2: Position involves frequent internal and external contact, but generally on routine matters such as furnishing or obtaining information.
- ☐ LEVEL 3: Position involves frequent internal contact and regular contact with outsiders generally on routine matters, including contacts with irate outsiders which require some public relations skill for taking complaints for others to follow up upon.
- ☐ LEVEL 4: Position involves frequent internal and external contacts which require public relations skills in handling complaints. Contacts involve non-routine problems and require in-depth discussion and/or persuasion in order to resolve the problem. Handles more difficult contacts that are referred by front line employees.
- ☐ LEVEL 5: Position involves frequent internal and external contacts which require skill in dealing with, and influencing others, and initiating changes in policy/procedures to address the issue so as to avoid having to deal with the issue again in the future.
- ☐ LEVEL 6: Position involves frequent internal and external contacts in which I act as the spokesperson for the department and am authorized to make commitments of significant resources on behalf of the department.
- ☐ LEVEL 7: Position involves frequent internal and external contacts where I represent the entire organization and am authorized to make commitments in matters of broad or critical interest to the entire organization.

With which internal individuals or groups do you have the most contact?

With which external individuals or groups do you have the most contact?

FACTOR 7. Supervision Given:

Do you supervise or assign work to other employees? ☐ Yes ☐ No

If yes:

☐ LEVEL 1: Position is regularly responsible for assigning work to an employee or employees, without acting in a supervisory role. To whom does this position assign work?

☐ LEVEL 2: Position is responsible for the supervision of one full time or several part time employees.

☐ LEVEL 3: Position is responsible for the direct and/or indirect supervision of two to five full time (or full time equivalent) employees.

☐ LEVEL 4: Position is responsible for the direct and/or indirect supervision of six to 15 full time (or full time equivalent) employees.

☐ LEVEL 5: Position is responsible for direct and/or indirect supervision of 16 to 29 full time (or full time equivalent) employees.

☐ LEVEL 6: Position is responsible for direct and/or indirect supervision of 30 to 50 full time (or full time equivalent) employees.

☐ LEVEL 7: Position is responsible for direct and/or indirect supervision of more than 51 full time (or full time equivalent) employees.

Actual number of full-time (or full-time equivalent) employees supervised:

FACTOR 8. Physical Demands: Please describe any physical demands required to perform your job.

Demand	**No**	**Yes**	**How often? (Rarely, Occasionally or Daily)**
Lifting to 20 pounds	☐	☐	
Lifting 20-50 pounds	☐	☐	
Lifting 50+ pounds	☐	☐	
Climbing	☐	☐	
Walking	☐	☐	
Kneeling	☐	☐	
Crouching	☐	☐	
Crawling	☐	☐	
Bending	☐	☐	
Sitting	☐	☐	
Prolonged Standing	☐	☐	
Prolonged Visual Concentration	☐	☐	

Unpleasant or Hazardous Conditions: Please describe any unpleasant or hazardous conditions you are exposed to in performing your job and how often you are exposed to those conditions. Include only those conditions which are directly related to your work rather than specific work area conditions.

Condition	**No**	**Yes**	**How Often? (Rarely, Occasionally or Daily)**
Lighting-dimness or brightness	☐	☐	
Dust	☐	☐	
Heat	☐	☐	
Cold	☐	☐	
Odors	☐	☐	
Noise	☐	☐	
Vibration	☐	☐	
Wetness/Humidity	☐	☐	
Toxic Agents	☐	☐	

Electrical Currents	☐	☐
Heavy Machinery	☐	☐
Violence	☐	☐
Disease	☐	☐
Smoke	☐	☐
Other	☐	☐

FACTOR 9. Use of Technology/Specialized Equipment: Please check the level of technology or specialized equipment use needed for you to perform your job.

☐ LEVEL 1: Position has no responsibility for, or use of, technology.

☐ LEVEL 2: Position has some basic use of computers for data entry and some use of the telephone, copier, etc.

☐ LEVEL 3: Position has daily use of computers for data entry and use of the telephone, fax machine, copier, etc. Position has daily use of light equipment such as push mowers, weed whackers, pole saws, custodial equipment, etc.

☐ LEVEL 4: Position has daily use of computers, the Internet, Smartphones, etc. to create databases, spreadsheets, or reports. Position designs and creates customized reports, presentations, and/or documents using advanced software skills.

☐ LEVEL 5A: Position provides routine consultation and technology support for everyday computer programming and/or software requests/questions to others in the organization; is an applications super user; or uses specialized software such as GIS, SCADA or telecommunications software.

☐ LEVEL 5B: Position uses, troubleshoots, and/or repairs various pieces of specialized equipment such as HVAC, lighting, gas flares, blowers, engines, heavy equipment, diagnostic equipment, large vehicles (vacuum trucks, street sweepers, fire apparatus) and/or medical or public safety equipment.

☐ LEVEL 6: Position is responsible for advanced computer programming, system security, maintenance, training, and purchasing of items such as computers, printers, scanners, etc., for the computer system for the organization (IT personnel).

☐ LEVEL 7: Position is responsible for the overall direction and supervision of the staff that are responsible for the computer and technology needs of the organization, including responsibility for developing technology policies for the organization (IT personnel).

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10. Comments/Additional Information: Feel free to add additional information below. If using a printed copy of this form, use the back of the form to add your comments.

Type your name and the date below, then save this form as a Word document with the file name of "JobTitle.LastName.FirstName" and email it to your supervisor. If using a printed copy of this form, sign and date it and then deliver to your supervisor.

_____ _____

EMPLOYEE'S SIGNATURE OR TYPED NAME ***DATE***

MGT USE ONLY:

THIS SECTION TO BE COMPLETED BY IMMEDIATE SUPERVISOR AND/OR DEPARTMENT HEAD

Please provide your comments below. If using a printed copy of the form and additional space is needed, please use the back of this form or attach an additional sheet. **Please do not mark in employee's portion of the questionnaire. The intent of this section is informational for MGT use only and not intended for distribution.**

1. Do you agree with the employee's answers to all of the above questions? If not, please explain.

2. List any job duties or assignments which the employee performs which are in addition to those listed on the job description or this form.

3. How long has this employee worked for you?

4. Additional comments from the employee's immediate supervisor:

Type your name and the date below, then email this form to your Department Head (if applicable) or to the Town Administration. If using a printed copy of this form, sign and date it before forwarding.

_____ _____

SUPERVISOR'S SIGNATURE OR TYPED NAME ***DATE***

If Supervisor isn't Department Head, Department Head should review this form as well.

☐ I have read the above and substantially concur.
☐ I have read the above and have the following comments:

Type your name and the date below, and then email this form to the [ORG] Administration. If using a printed copy of this form, sign and date it before forwarding.

_____ _____

DEPARTMENT HEAD SIGNATURE OR TYPED NAME ***DATE***

IMPORTANT DATES:

April 18th – May 2nd:
Employees complete and submit the JAQs to their Supervisors. Please save file as follows: JobTitle.LastName.FirstName.

May 2nd – May 9th:
Supervisors and Department Heads review and then submit the JAQs to Human Resources.

May 9th – May 16th:
Human Resources collects and then submits the JAQs to MGT.

Week of May 26th:

MGT conducts virtual interviews with at least one employee in each position to expand upon the information shared in the JAQ.

APPENDIX B

1. Population: Maximum 10 Points

3,392

Factor	Minimum Range		Maximum Range		Points
1.50	2,261	3,392	3,392	5,088	10
2.00	1,696	2,260	5,089	6,784	8
2.50	1,357	1,695	6,785	8,480	6
3.00	1,131	1,356	8,481	10,176	2
All Others					0

2. Income Per Capita: Maximum 15 Points

82,267

Factor	Minimum Range		Maximum Range		Points
1.50	54,845	82,267	82,267	123,401	15
2.00	41,134	54,844	123,402	164,534	11
2.50	32,907	41,133	164,535	205,668	7
3.00	27,422	32,906	205,669	246,801	3
All Others					0

3. Median Housing Value of Owner Occupied Units: Maximum 15 Points

502,100

Factor	Minimum Range		Maximum Range		Points
1.50	334,733	502,100	502,100	753,150	15
2.00	251,050	334,732	753,151	1,004,200	11
2.50	200,840	251,049	1,004,201	1,255,250	7
3.00	167,367	200,839	1,255,251	1,506,300	3
All Others					0

4. Total Primary Government Expenditures: Maximum 15 Points

12,913 Thousand

Factor	Minimum Range		Maximum Range		Points
1.50	8,609	12,913	12,913	19,369	15
2.00	6,456	8,608	19,370	25,826	11
2.50	5,165	6,455	25,827	32,282	7
3.00	4,304	5,164	32,283	38,739	3
All Others					0

5. Property Tax Revenues: Maximum 10 Points

5,745 Thousand

Factor	Minimum Range		Maximum Range		Points
1.50	3,830	5,745	5,745	8,617	10
2.00	2,872	3,829	8,618	11,489	8
2.50	2,298	2,871	11,490	14,362	6
3.00	1,915	2,297	14,363	17,234	2
All Others					0

6. Full-time Employees: Maximum 15 Points

62

Factor	Minimum Range		Maximum Range		Points
1.50	41	62	62	93	15

2.00	31	40		94	124		11
2.50	25	30		125	155		7
3.00	21	24		156	186		3
All Others							0

7. Full Time Salaries (1 Month): Maximum 15 Points

330,179

	Minimum Range			Maximum Range			Points
1.50	220,119	330,179		330,179	495,269		15
2.00	165,090	219,118		496,270	660,358		11
2.50	132,072	164,089		661,359	825,448		7
3.00	110,060	131,071		826,449	990,537		3
All Others							0

8. Proximity in Miles: Maximum 5 Points

Factor:		Points
1 to 50 Miles		5
51 to 100 Miles		3
101 to 150 Miles		1
All Others		0

Initial screen:

Florida communities in Flagler, Volusia, Brevard, Duval, Indian River, Lake, Marion, Martin, Nassau, Orange, Putnam, Seminole, St. Johns and St. Lucie counties with populations between approximately 2,000 and 13,000

Sources:

(1) Most Recent Annual Financial Reports on Florida Department of Financial Services for Total Expenditures and Property Tax Revenue: https://logerx.myfloridacfo.gov/LogerX/SubmittedReports

(2) Census Report for Population, Median Housing Value and Income Per Capita: https://censusreporter.org/

(3) U.S. Census Bureau Annual Survey of Public Employment & Payroll 2022: FT Employees & FT Payroll (1 month period). https://www.census.gov/programs-surveys/apes/data.html

(4) Google Maps: Proximity (lowest mileage listed)

Note:

Each of the eight criterion contain ranges to assess comparability with the community's data. For example, each of the four ranges for the community's population is developed using a factor of .5 percent (+/-). To determine the population range that will receive a score of 20 (most similar to the community), the community's population is multiplied by 1.5 (maximum range) and divided by 1.5 (minimum range). The community's population is then multiplied and divided by 2.0, 2.5 and 3.0 to determine ranges of decreasing similarity (and subsequently decreasing "comparability points").

Municipality	County	Population	Max. Points	Income Per Capita	Max. Points	Median Value Owner-Occupied Housing	Max. Points	Total Exp. (thousand)	Max Points	Property Tax Revenue (thousand)	Max. Points	Full Time Employees	Max. Points	Full Time Payroll (1 mo.)	Max. Points	Proximity (miles)	Max. Points	Total Points	Fire & Police?
Ponce Inlet	**Volusia**	**3,392**	**10**	**82,267**	**15**	**502,100**	**15**	**12,913**	**15**	**5,745**	**10**	**62**	**15**	**330,179**	**15**	**0**	**5**	**100**	**F/P**
Belle Isle	Orange	7,053	6	69,435	15	474,700	15	11,582	15	4,080	10	26	7	59,123	0	70	3	71	P
Belleview	Marion	5,569	8	27,874	3	183,400	3	10,225	15	1,565	0	56	15	270,641	15	86	3	62	P
Bunnell	Flagler	3,511	10	25,536	0	247,800	7	8,664	15	1,811	0	55	15	231,497	15	34	5	67	P
Cape Canaveral*	Brevard	9,976	2	53,639	11	323,900	11	19,809	11	5,658	10	56	15	253,094	15	74	3	78	-
Cocoa Beach*	Brevard	11,341	0	62,557	15	451,800	15	42,905	0	16,148	2	174	3	859,817	3	79	3	41	F/P
Daytona Beach Shores*	Volusia	5,139	8	59,918	15	410,800	15	18,234	15	8,942	8	81	15	447,399	15	6	5	96	Merged
Eatonville	Orange	2,582	10	22,294	0	176,600	3	6,216	7	2,284	2	34	11	152,310	7	58	3	43	P
Edgewood	Orange	2,710	10	61,483	15	452,400	15	4,562	3	2,368	6	17	0	88,107	0	67	3	52	P
Flagler Beach*	Flagler	5,250	8	64,575	15	496,800	15	17,709	15	5,411	10	79	15	359,263	15	29	5	98	F/P
Fruitland Park	Lake	8,482	2	43,524	11	375,100	15	12,163	15	4,462	10	59	15	238,625	15	84	3	86	P
Grant-Valkaria*	Brevard	4,655	10	48,743	11	481,400	15	6,344	7	698	0	6	0	32,303	0	99	3	46	-
Holly Hill*	Volusia	13,002	0	31,982	3	168,800	3	25,228	11	6,455	10	108	11	461,245	15	13	5	58	F/P
Indian Harbour Beach*	Brevard	8,991	2	58,998	15	387,400	15	8,979	15	6,478	10	56	15	280,535	15	89	3	90	P
Indian River Shores*	Indian Ri	4,324	10	147,524	11	1,085,600	7	8,707	15	5,274	10	35	11	239,851	15	128	1	80	Merged
Indiatlantic*	Brevard	3,033	10	67,804	15	568,100	15	5,676	7	3,680	8	33	11	191,310	11	93	3	80	F/P
Lake Helen	Volusia	2,877	10	33,309	7	344,900	15	4,104	0	1,005	0	14	0	61,534	0	28	5	37	P
Malabar*	Brevard	3,017	10	58,519	15	441,700	15	2,543	0	1,498	0	20	0	54,113	0	96	3	43	F
Mascotte	Lake	7,407	6	25,317	0	286,200	11	7,456	11	1,874	0	30	7	110,305	3	89	3	41	P
Melbourne Beach*	Brevard	3,237	10	64,512	15	634,400	15	4,259	0	2,945	8	20	0	80,071	0	94	3	51	P
Neptune Beach*	Duval	7,199	6	71,949	15	613,500	15	13,320	15	3,345	8	70	15	380,149	15	108	1	90	P
Oak Hill*	Volusia	2,147	8	34,609	7	281,300	11	2,595	0	948	0	11	0	33,821	0	27	5	31	-
Oakland	Orange	3,566	10	58,941	15	487,900	15	16,954	15	3,949	10	30	7	149,376	7	76	3	82	P
Orange City	Volusia	13,768	0	37,886	7	241,800	7	26,145	7	7,905	10	128	7	708,102	7	34	5	50	F/P
Palatka	Putman	10,558	2	19,217	0	112,300	0	32,276	7	3,573	8	131	7	561,493	11	69	3	38	F/P
Palm Shores*	Brevard	1,479	6	44,371	11	341,800	15	918	0	0	0	0	0	0	0	79	3	35	-
Satellite Beach*	Brevard	11,250	0	53,416	11	459,800	15	18,656	15	11,283	8	98	11	488,894	15	87	3	78	F/P
South Daytona*	Volusia	13,322	0	31,675	3	210,500	7	26,917	7	4,593	10	128	7	682,052	7	8	5	46	F/P
St. Augustine Beach*	St. Johns	6,819	6	64,397	15	590,100	15	9,348	15	4,926	10	64	15	280,905	15	57	3	94	P
Umatilla	Lake	3,793	10	34,419	7	194,500	3	8,744	15	1,669	0	33	11	124,306	3	59	3	52	P
Windermere	Orange	3,034	10	101,291	15	906,600	11	7,524	11	3,168	8	26	7	139,143	7	74	3	72	P

Municipality	County	Population	Max. Points	Income Per Capita	Max. Points	Median Value Owner-Occupied Housing	Max. Points	Total Exp. (thousand)	Max Points	Property Tax Revenue (thousand)	Max. Points	Full Time Employees	Max. Points	Full Time Payroll (1 mo.)	Max. Points	Proximity (miles)	Max. Points	Total Points	Fire & Police?
Ponce Inlet	**Volusia**	**3,392**	**10**	**82,267**	**15**	**502,100**	**15**	**12,913**	**15**	**5,745**	**10**	**62**	**15**	**330,179**	**15**	**0**	**5**	**100**	**F/P**
Flagler Beach*	Flagler	5,250	8	64,575	15	496,800	15	17,709	15	5,411	10	79	15	359,263	15	29	5	98	F/P
Daytona Beach Shores*	Volusia	5,139	8	59,918	15	410,800	15	18,234	15	8,942	8	81	15	447,399	15	6	5	96	Merged
St. Augustine Beach*	St. Johns	6,819	6	64,397	15	590,100	15	9,348	15	4,926	10	64	15	280,905	15	57	3	94	P
Indian Harbour Beach*	Brevard	8,991	2	58,998	15	387,400	15	8,979	15	6,478	10	56	15	280,535	15	89	3	90	P
Neptune Beach*	Duval	7,199	6	71,949	15	613,500	15	13,320	15	3,345	8	70	15	380,149	15	108	1	90	P
Fruitland Park	Lake	8,482	2	43,524	11	375,100	15	12,163	15	4,462	10	59	15	238,625	15	84	3	86	P
Oakland	Orange	3,566	10	58,941	15	487,900	15	16,954	15	3,949	10	30	7	149,376	7	76	3	82	P
Indian River Shores*	Indian Ri	4,324	10	147,524	11	1,085,600	7	8,707	15	5,274	10	35	11	239,851	15	128	1	80	Merged
Indiatlantic*	Brevard	3,033	10	67,804	15	568,100	15	5,676	7	3,680	8	33	11	191,310	11	93	3	80	F/P
Cape Canaveral*	Brevard	9,976	2	53,639	11	323,900	11	19,809	11	5,658	10	56	15	253,094	15	74	3	78	-
Satellite Beach*	Brevard	11,250	0	53,416	11	459,800	15	18,656	15	11,283	8	98	11	488,894	15	87	3	78	F/P
Windermere	Orange	3,034	10	101,291	15	906,600	11	7,524	11	3,168	8	26	7	139,143	7	74	3	72	P
Belle Isle	Orange	7,053	6	69,435	15	474,700	15	11,582	15	4,080	10	26	7	59,123	0	70	3	71	P
Bunnell	Flagler	3,511	10	25,536	0	247,800	7	8,664	15	1,811	0	55	15	231,497	15	34	5	67	P
Belleview	Marion	5,569	8	27,874	3	183,400	3	10,225	15	1,565	0	56	15	270,641	15	86	3	62	P
Holly Hill*	Volusia	13,002	0	31,982	3	168,800	3	25,228	11	6,455	10	108	11	461,245	15	13	5	58	F/P
Edgewood	Orange	2,710	10	61,483	15	452,400	15	4,562	3	2,368	6	17	0	88,107	0	67	3	52	P
Umatilla	Lake	3,793	10	34,419	7	194,500	3	8,744	15	1,669	0	33	11	124,306	3	59	3	52	P
Melbourne Beach*	Brevard	3,237	10	64,512	15	634,400	15	4,259	0	2,945	8	20	0	80,071	0	94	3	51	P
Orange City	Volusia	13,768	0	37,886	7	241,800	7	26,145	7	7,905	10	128	7	708,102	7	34	5	50	F/P
Grant-Valkaria*	Brevard	4,655	10	48,743	11	481,400	15	6,344	7	698	0	6	0	32,303	0	99	3	46	-
South Daytona*	Volusia	13,322	0	31,675	3	210,500	7	26,917	7	4,593	10	128	7	682,052	7	8	5	46	F/P
Eatonville	Orange	2,582	10	22,294	0	176,600	3	6,216	7	2,284	2	34	11	152,310	7	58	3	43	P
Malabar*	Brevard	3,017	10	58,519	15	441,700	15	2,543	0	1,498	0	20	0	54,113	0	96	3	43	F
Cocoa Beach*	Brevard	11,341	0	62,557	15	451,800	15	42,905	0	16,148	2	174	3	859,817	3	79	3	41	F/P
Mascotte	Lake	7,407	6	25,317	0	286,200	11	7,456	11	1,874	0	30	7	110,305	3	89	3	41	P
Palatka	Putman	10,558	2	19,217	0	112,300	0	32,276	7	3,573	8	131	7	561,493	11	69	3	38	F/P
Lake Helen	Volusia	2,877	10	33,309	7	344,900	15	4,104	0	1,005	0	14	0	61,534	0	28	5	37	P
Palm Shores*	Brevard	1,479	6	44,371	11	341,800	15	918	0	0	0	0	0	0	0	79	3	35	-
Oak Hill*	Volusia	2,147	8	34,609	7	281,300	11	2,595	0	948	0	11	0	33,821	0	27	5	31	-

Municipality	County	Population	Max. Points	Income Per Capita	Max. Points	Median Value Owner-Occupied Housing	Max. Points	Total Exp. (thousand)	Max Points	Property Tax Revenue (thousand)	Max. Points	Full Time Employees	Max. Points	Full Time Payroll (1 mo.)	Max. Points	Proximity (miles)	Max. Points	Total Points	Fire & Police?
Ponce Inlet	**Volusia**	**3,392**	**10**	**82,267**	**15**	**502,100**	**15**	**12,913**	**15**	**5,745**	**10**	**62**	**15**	**330,179**	**15**	**0**	**5**	**100**	**F/P**
Flagler Beach*	Flagler	5,250	8	64,575	15	496,800	15	17,709	15	5,411	10	79	15	359,263	15	29	5	98	F/P
Daytona Beach Shores*	Volusia	5,139	8	59,918	15	410,800	15	18,234	15	8,942	8	81	15	447,399	15	6	5	96	Merged
St. Augustine Beach*	St. Johns	6,819	6	64,397	15	590,100	15	9,348	15	4,926	10	64	15	280,905	15	57	3	94	P
Indian Harbour Beach*	Brevard	8,991	2	58,998	15	387,400	15	8,979	15	6,478	10	56	15	280,535	15	89	3	90	P
Neptune Beach*	Duval	7,199	6	71,949	15	613,500	15	13,320	15	3,345	8	70	15	380,149	15	108	1	90	P
Fruitland Park	Lake	8,482	2	43,524	11	375,100	15	12,163	15	4,462	10	59	15	238,625	15	84	3	86	P
Oakland	Orange	3,566	10	58,941	15	487,900	15	16,954	15	3,949	10	30	7	149,376	7	76	3	82	P
Indian River Shores*	Indian Ri	4,324	10	147,524	11	1,085,600	7	8,707	15	5,274	10	35	11	239,851	15	128	1	80	Merged
Indiatlantic*	Brevard	3,033	10	67,804	15	568,100	15	5,676	7	3,680	8	33	11	191,310	11	93	3	80	F/P
Cape Canaveral*	Brevard	9,976	2	53,639	11	323,900	11	19,809	11	5,658	10	56	15	253,094	15	74	3	78	-
Satellite Beach*	Brevard	11,250	0	53,416	11	459,800	15	18,656	15	11,283	8	98	11	488,894	15	87	3	78	F/P
Windermere	Orange	3,034	10	101,291	15	906,600	11	7,524	11	3,168	8	26	7	139,143	7	74	3	72	P
Belle Isle	Orange	7,053	6	69,435	15	474,700	15	11,582	15	4,080	10	26	7	59,123	0	70	3	71	P
Bunnell	Flagler	3,511	10	25,536	0	247,800	7	8,664	15	1,811	0	55	15	231,497	15	34	5	67	P
Belleview	Marion	5,569	8	27,874	3	183,400	3	10,225	15	1,565	0	56	15	270,641	15	86	3	62	P
Holly Hill*	Volusia	13,002	0	31,982	3	168,800	3	25,228	11	6,455	10	108	11	461,245	15	13	5	58	F/P
Orange City	Volusia	13,768	0	37,886	7	241,800	7	26,145	7	7,905	10	128	7	708,102	7	34	5	50	F/P
South Daytona*	Volusia	13,322	0	31,675	3	210,500	7	26,917	7	4,593	10	128	7	682,052	7	8	5	46	F/P
Cocoa Beach*	Brevard	11,341	0	62,557	15	451,800	15	42,905	0	16,148	2	174	3	859,817	3	79	3	41	F/P

Bolded are prior peers.

Added Due to Being Prior Peers and Competitors in the Marketplace

Daytona Beach
DeLand
Edgewater
New Smyrna Beach
Ormond Beach
Port Orange
Sanford
Brevard County
Flagler County
Volusia County
Brevard County Sheriff's Office
Flagler County Sheriff's Office
Seminole County Sheriff's Office
Volusia County Sheriff's Office

APPENDIX C

	Finance Director			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	Finance Director			113,755
Belleview	Finance Director	99,228	158,418	127,665
Brevard County	Budget Director	121,600	209,634	172,683
Brevard County Sheriff's Office	Finance Director			126,776
Bunnell	Finance Director	88,238	141,181	103,938
Cape Canaveral	n/a			
Daytona Beach	Chief Financial Officer	110,060	191,140	181,102
Daytona Beach Shores	n/a			
Edgewater	Finance Director	95,139	160,451	130,915
Flagler Beach	Finance Director	88,302	145,698	130,291
Flagler County	Financial Services Director	112,923	194,064	
Flagler County Sheriff's Office	Business Services Director	141,037	168,553	141,037
Fruitland Park	Finance Director	65,551	136,144	97,864
Holly Hill	Finance Director	92,296	129,215	121,368
Indian Harbor Beach	Comptroller	98,163	162,243	130,000
Indian River Shores	Town Manager			208,428
New Smyrna Beach	Finance Director	114,290	182,864	145,000
Orange City	Finance Director	104,729	124,942	145,154
Ormond Beach	Finance Director	94,956	156,669	
South Daytona	Finance Director	95,410	150,571	132,392
St. Augustine Beach	Finance Director	92,028	145,457	101,850
Volusia County	Chief Financial Officer (CFO)	130,292	225,546	183,640
Ponce Inlet	Finance Director	85,559	128,767	
Range Data				
Average		102,603	163,694	138,548
50th Percentile		98,163	158,418	130,603
60th Percentile		102,529	161,526	134,121
65th Percentile		106,861	164,767	141,236
70th Percentile		110,633	171,415	144,604
75th Percentile		112,923	182,864	145,116
80th Percentile		114,017	189,485	161,671

	Assistant Finance Director			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	Finance Technician			68,720
Belleview	Deputy Finance Dir.	77,747	120,120	98,855
Brevard County	Finance Officer	68,265	117,724	71,679
Brevard County Sheriff's Office	n/a			
Bunnell	Financial Service Coordinator	57,876	92,602	77,085
Cape Canaveral	n/a			
Daytona Beach	Assistant Financial Officer	85,442	159,530	132,618
Daytona Beach Shores	Asst Director Finance Ops	67,850	109,782	
Edgewater	n/a			
Flagler Beach	Assistant Finance Director	59,755	98,614	11,592
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	Deputy Finance Director	58,828	109,252	84,760
Holly Hill	Assistant Finance Director	73,578	103,009	
Indian Harbor Beach	Assistant Comptroller	57,394	94,860	66,310
Indian River Shores	Deputy Town Manager			162,922
New Smyrna Beach	Assistant Finance Director	89,549	143,279	100,255
Orange City	Assistant Finance Director	86,161	102,790	119,419
Ormond Beach	Assistant Finance Director	74,400	122,750	
South Daytona	Assistant Finance Director	68,557	113,110	89,378
St. Augustine Beach	n/a			
Volusia County	n/a			
Ponce Inlet	Assistant Finance Director	64,442	96,034	
Range Data				
Average		71,185	114,417	90,299
50th Percentile		68,557	109,782	87,069
60th Percentile		73,742	114,033	95,064
65th Percentile		74,235	116,801	99,065
70th Percentile		75,738	118,682	99,835
75th Percentile		77,747	120,120	105,046
80th Percentile		82,364	121,698	115,586

	Senior Accountant			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Accountant I-III	50,981	105,602	68,994
Brevard County	Finance Manager	55,392	97,299	59,830
Brevard County Sheriff's Office	Senior Accountant	59,571	84,802	
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	Financial Business Analyst	50,527	84,905	67,300
Daytona Beach Shores	Accounting Manager	60,674	98,010	
Edgewater	Accounting Manager	58,032	97,843	97,843
Flagler Beach	n/a			
Flagler County	n/a			
Flagler County Sheriff's Office	Senior Accountant	62,142	95,664	95,664
Fruitland Park	n/a			
Holly Hill	Senior Accountant	58,656	82,118	69,909
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	n/a			
Orange City	n/a			
Ormond Beach	Staff Accountant	52,862	84,580	
South Daytona	Accountant	51,501	84,989	75,691
St. Augustine Beach	n/a			
Volusia County	Senior Accountant	63,873	117,014	73,701
Ponce Inlet	Senior Accountant	47,330	69,511	
Range Data				
Average		56,746	93,893	76,117
50th Percentile		58,032	95,664	71,805
60th Percentile		58,656	97,299	74,099
65th Percentile		59,114	97,571	74,796
70th Percentile		59,571	97,843	75,492
75th Percentile		60,122	97,926	80,685
80th Percentile		60,674	98,010	87,675

	Grants Coordinator/Accounting Specialist			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Accounting Tech I-II	44,034	46,238	46,966
Brevard County	Special Projects Coord II	43,555	70,221	50,493
Brevard County Sheriff's Office	Grants Coord./Acctg. Splst.	56,659	80,662	
Bunnell	Accountant	45,348	72,556	51,563
Cape Canaveral	n/a			
Daytona Beach	See Financial Business Analyst			
Daytona Beach Shores	n/a			
Edgewater	Grant Administrator	47,736	80,496	52,998
Flagler Beach	n/a			
Flagler County	Grant & Project Accountant	49,213	84,573	
Flagler County Sheriff's Office	Grants Coord/Accting Spec	61,200	94,215	71,595
Fruitland Park	n/a			
Holly Hill	Grants Coord/Accting Spec	58,656	82,118	58,656
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Fiscal Analyst I	63,641	101,826	65,536
Orange City	Grants Coord./Acctg. Splst.	64,294	76,706	89,112
Ormond Beach	Grants Coordinator	55,522	88,831	
South Daytona	n/a			
St. Augustine Beach	n/a			
Volusia County	Accounting Specialist	40,858	72,980	46,150
Ponce Inlet	Grants Coord/Accounting Spec	54,476	80,588	
Range Data				
Average		52,560	79,285	59,230
50th Percentile		52,367	80,579	52,998
60th Percentile		56,204	81,536	57,524
65th Percentile		56,959	82,487	60,032
70th Percentile		58,057	83,836	62,784
75th Percentile		59,292	85,637	65,536
80th Percentile		60,691	87,979	67,960

	Utility Billing/Accounting Specialist			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	UB Accounting Manager	48,547	74,984	64,043
Brevard County	Utility Billing Technician I	40,123	63,752	42,921
Brevard County Sheriff's Office	Accountant	46,301	65,894	
Bunnell	Utility Billing/Accounting Spec	33,100	52,960	36,774
Cape Canaveral	n/a			
Daytona Beach	Senior Account Clerk	37,140	62,407	46,648
Daytona Beach Shores	Accting Clerk III/Utility Billing	46,030	73,923	
Edgewater	Utility Billing Specialist	42,058	69,555	64,251
Flagler Beach	Utility Billing Manager	49,170	81,130	71,136
Flagler County	n/a			
Flagler County Sheriff's Office	Staff Accountant	56,759	87,378	63,847
Fruitland Park	AP/Payroll Administrator	37,897	63,170	53,560
Holly Hill	Finance Clerk III	38,605	55,765	43,784
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Account Technician III	45,228	72,366	45,568
Orange City	Utility Billing/Acctg. Splst.	41,445	49,444	57,443
Ormond Beach	Utilities Billing Specialist	45,647	73,048	
South Daytona	n/a			
St. Augustine Beach	n/a			
Volusia County	Utility Billing/Accounting Spec	40,858	72,980	44,232
Ponce Inlet	Utility Billing/Accounting Spec	44,343	64,882	
Range Data				
Average		43,261	67,917	52,851
50th Percentile		42,058	69,555	50,104
60th Percentile		45,396	72,611	55,890
65th Percentile		45,685	72,987	58,404
70th Percentile		45,954	73,035	61,926
75th Percentile		46,166	73,486	63,896
80th Percentile		46,750	74,135	64,004

	Office Specialist			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Customer Service Rep	34,486	53,290	49,681
Brevard County	Office Assistant II	34,050	52,437	36,051
Brevard County Sheriff's Office	Desk Officer	32,635	46,446	
Bunnell	Utility Clerk / Cashier	31,200	49,920	34,133
Cape Canaveral	n/a			
Daytona Beach	Customer Service Rep.	37,140	62,407	41,800
Daytona Beach Shores	Accounting Clerk I	35,069	55,910	
Edgewater	Finance Clerk I	34,611	54,496	37,995
Flagler Beach	Utility Billing Clerk	36,691	60,540	42,931
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	Revenue Specialist	31,574	52,645	37,100
Holly Hill	Finance Clerk I	35,610	50,877	35,610
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Account Technician II	39,070	62,512	40,535
Orange City	Office Specialist	45,692	54,512	63,330
Ormond Beach	Account Clerk	34,072	54,497	
South Daytona	n/a			
St. Augustine Beach	n/a			
Volusia County	Office Specialist	34,794	57,405	36,691
Ponce Inlet	Office Specialist	32,982	47,132	
Range Data				
Average		35,478	54,850	41,441
50th Percentile		34,703	54,497	37,995
60th Percentile		35,014	54,509	40,535
65th Percentile		35,312	55,141	41,168
70th Percentile		35,718	56,060	41,800
75th Percentile		36,421	57,032	42,366
80th Percentile		36,871	58,659	42,931

	Human Resources Director			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	HR/RM Manager	77,747	120,120	92,492
Brevard County	Human Resources Director	115,810	199,652	150,506
Brevard County Sheriff's Office	Human Resources Director			121,212
Bunnell	Human Resources Manager	60,770	97,232	76,045
Cape Canaveral	n/a			
Daytona Beach	Human Resources Director	110,060	191,140	191,140
Daytona Beach Shores	n/a			
Edgewater	Human Resources Director	86,299	145,538	138,154
Flagler Beach	Human Resources Director	69,187	114,158	104,353
Flagler County	Human Resources Director	112,923	194,064	
Flagler County Sheriff's Office	Human Resources Director	141,037	168,553	141,037
Fruitland Park	HR & Risk Mgt. Director	65,551	136,441	88,400
Holly Hill	Human Resources Manager	82,407	115,370	97,365
Indian Harbor Beach	n/a			
Indian River Shores	Human Resources Director			117,978
New Smyrna Beach	Human Resources Director	108,848	174,156	130,056
Orange City	Human Resources Director	99,742	118,992	138,242
Ormond Beach	Human Resources Director			
South Daytona	Human Resources Director	82,950	136,864	118,165
St. Augustine Beach	n/a			
Volusia County	Human Resources Director	114,003	200,500	164,081
Ponce Inlet	HR Director/Town Clerk	77,774	116,700	
Range Data				
Average		94,810	150,913	124,615
50th Percentile		93,021	141,201	121,212
60th Percentile		107,027	163,950	133,295
65th Percentile		109,393	171,074	138,162
70th Percentile		110,346	175,855	138,224
75th Percentile		112,207	186,894	139,640
80th Percentile		113,355	192,310	142,931

	HR Coordinator			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	HR/RM Admin Asst	44,034	68,016	57,200
Brevard County	Personnel Officer I	49,941	81,307	49,941
Brevard County Sheriff's Office	HR Coordinator	56,659	80,662	
Bunnell	HR Administrator	40,709	65,134	N/A
Cape Canaveral	n/a			
Daytona Beach	Empl. Relations & EEO Admin.	69,352	129,490	121,413
Daytona Beach Shores	HR Generalist	60,674	98,010	
Edgewater	HR Coordinator	40,498	66,206	43,222
Flagler Beach	n/a			
Flagler County	HR Generalist	49,213	84,573	
Flagler County Sheriff's Office	HR Generalist	61,200	94,215	61,200
Fruitland Park	HR Coordinator	50,939	94,598	60,000
Holly Hill	n/a			
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	HR Coordinator	57,724	92,359	58,656
Orange City	HR Coordinator	58,317	69,572	80,827
Ormond Beach	Human Resources Generalist	53,862	84,580	
South Daytona	n/a			
St. Augustine Beach	n/a			
Volusia County	HR Manager	67,708	130,712	86,090
Ponce Inlet	HR Coordinator	44,343	64,882	
Range Data				
Average		54,345	88,531	68,728
50th Percentile		55,261	84,576	60,000
60th Percentile		57,511	90,803	60,960
65th Percentile		57,991	93,194	65,125
70th Percentile		58,553	94,253	72,976
75th Percentile		60,084	94,502	80,827
80th Percentile		60,884	95,963	82,932

	Town Clerk			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	City Clerk			96,781
Belleview	City Clerk	77,747	120,120	81,634
Brevard County	n/a			
Brevard County Sheriff's Office	n/a			
Bunnell	City Clerk	88,238	141,181	120,286
Cape Canaveral	n/a			
Daytona Beach	City Clerk	95,696	178,675	149,692
Daytona Beach Shores	n/a			
Edgewater	City Clerk			107,099
Flagler Beach	City Clerk	69,187	114,158	110,157
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	City Clerk	65,551	136,441	94,993
Holly Hill	City Clerk	65,695	91,973	75,150
Indian Harbor Beach	City Clerk	80,759	133,478	103,693
Indian River Shores	Town Clerk			129,214
New Smyrna Beach	City Clerk	98,728	157,965	98,728
Orange City	n/a			
Ormond Beach	City Clerk	82,029	135,348	
South Daytona	n/a			
St. Augustine Beach	Town Clerk	72,813	118,818	74,227
Volusia County	n/a			
Ponce Inlet	HR Director/Town Clerk	77,774	116,700	
Range Data				
Average		79,644	132,816	103,471
50th Percentile		79,253	134,413	101,211
60th Percentile		81,267	135,785	105,737
65th Percentile		81,839	136,277	107,558
70th Percentile		83,892	137,863	109,240
75th Percentile		86,686	139,996	112,689
80th Percentile		89,730	144,538	118,260

	Deputy Town Clerk			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Completed by City Clerk			
Brevard County	Agenda Coordinator	47,549	77,397	71,677
Brevard County Sheriff's Office	n/a			
Bunnell	Deputy City Clerk	41,930	67,088	
Cape Canaveral	n/a			
Daytona Beach	Assistant City Clerk	55,580	93,395	83,506
Daytona Beach Shores	n/a			
Edgewater	n/a			
Flagler Beach	Deputy Clerk	44,598	73,587	66,310
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	n/a			
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	n/a			
Orange City	Deputy Clerk	45,693	54,512	63,660
Ormond Beach	Deputy City Clerk	50,356	80,569	
South Daytona	Deputy Clerk	62,317	102,835	97,136
St. Augustine Beach	n/a			
Volusia County	Deputy Clerk to County Council	46,753	83,857	69,653
Ponce Inlet	Deputy Clerk	47,330	69,511	
Range Data				
Average		49,347	79,155	75,324
50th Percentile		47,151	78,983	70,665
60th Percentile		48,110	81,226	71,677
65th Percentile		49,092	82,377	74,634
70th Percentile		50,075	83,528	77,591
75th Percentile		51,662	86,241	80,549
80th Percentile		53,490	89,580	83,506

	Assistant Deputy Clerk			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	n/a			
Brevard County	n/a			
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	n/a			
Daytona Beach Shores	n/a			
Edgewater	Assistant to the City Clerk	40,498	66,206	44,949
Flagler Beach	n/a			
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	n/a			
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Assistant City Clerk	60,610	96,977	
Orange City	n/a			
Ormond Beach	Assistant City Clerk	45,669	73,070	
South Daytona	n/a			
St. Augustine Beach	n/a			
Volusia County	n/a			
Ponce Inlet	Assistant Deputy Clerk	44,343	64,882	
Range Data				
Average		48,926	78,751	44,949
50th Percentile		45,669	73,070	44,949
60th Percentile		48,657	77,851	44,949
65th Percentile		50,151	80,242	44,949
70th Percentile		51,645	82,633	44,949
75th Percentile		53,140	85,023	44,949
80th Percentile		54,634	87,414	44,949

	IT Director			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	IT Director	99,228	158,418	143,073
Brevard County	IT Director	121,600	209,634	165,148
Brevard County Sheriff's Office	Chief Technology Officer			136,864
Bunnell	Senior IT Analyst	60,770	97,232	86,112
Cape Canaveral	n/a			
Daytona Beach	Chief Information Officer	85,443	159,530	149,748
Daytona Beach Shores	IT Manager	89,877	145,995	
Edgewater	IT Administrator	58,032	97,843	97,843
Flagler Beach	IT Coordinator	69,187	114,158	104,229
Flagler County	Chief Information Officer	112,923	194,064	
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	IT Manager	82,407	115,370	98,862
Indian Harbor Beach	Chief Information Officer	108,224	178,873	116,501
Indian River Shores	IT Director			97,500
New Smyrna Beach	IT Director	114,290	182,864	127,861
Orange City	IT Director	55,540	66,259	76,978
Ormond Beach				
South Daytona	IT Director	75,400	124,426	104,312
St. Augustine Beach	IT Manager	66,950	103,000	68,250
Volusia County	IT Director	114,003	200,500	153,247
Ponce Inlet	IT Director	77,774	116,700	
Range Data				
Average		87,592	143,211	115,102
50th Percentile		85,443	145,995	104,312
60th Percentile		93,617	158,863	121,045
65th Percentile		100,128	161,464	128,762
70th Percentile		106,425	175,004	135,063
75th Percentile		110,574	180,869	139,968
80th Percentile		113,139	185,104	144,408

	IT Technician			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Tech Support Specialist I	50,981	78,728	56,805
Brevard County	IT Service Desk Analyst	49,941	81,307	
Brevard County Sheriff's Office	IT Specialist	51,251	72,987	
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	IT Services Tech	55,580	93,395	67,648
Daytona Beach Shores	Desktop Support Technician	43,576	69,888	
Edgewater	IT Technician	43,306	72,987	62,234
Flagler Beach	n/a			
Flagler County	IT Support Specialist I	49,213	84,573	
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	n/a			
Indian Harbor Beach	IT Specialist	47,218	78,042	57,990
Indian River Shores	n/a			
New Smyrna Beach	IT Support Specialist	52,358	83,772	53,131
Orange City	n/a			
Ormond Beach	Information Systems Specialist	50,356	80,569	
South Daytona	n/a			
St. Augustine Beach	IT Specialist	48,851	83,789	48,381
Volusia County	n/a			
Ponce Inlet	IT Technician	47,330	69,511	
Range Data				
Average		49,330	80,003	57,698
50th Percentile		49,941	80,569	57,397
60th Percentile		50,356	81,307	57,990
65th Percentile		50,668	82,540	59,051
70th Percentile		50,981	83,772	60,112
75th Percentile		51,116	83,781	61,173
80th Percentile		51,251	83,789	62,234

	Planning & Development Director			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	Contracted City Planner			71,400
Belleview	Development Services Director	99,228	158,418	120,181
Brevard County	Planning & Development Dir	115,810	199,652	174,942
Brevard County Sheriff's Office	n/a			
Bunnell	Community Dev Director	88,238	141,181	92,248
Cape Canaveral	n/a			
Daytona Beach	Planning Director	110,060	191,140	181,442
Daytona Beach Shores	n/a			
Edgewater	Development Services Director	86,299	145,538	128,502
Flagler Beach	n/a			
Flagler County	Growth Management Director	112,923	194,064	
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	Planning & Development Dir	92,296	129,215	120,078
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Development Services Director	126,005	201,608	142,585
Orange City	Planning & Dvlpmt. Director	104,729	124,942	145,154
Ormond Beach	Planning Director	94,956	156,669	
South Daytona	Community Dev Director	82,950	136,864	114,192
St. Augustine Beach	n/a			
Volusia County	Planning & Dev Services Dir	105,862	184,699	134,859
Ponce Inlet	Planning & Development Dir	85,559	128,767	
Range Data				
Average		101,613	163,666	129,599
50th Percentile		101,979	157,543	128,502
60th Percentile		105,409	174,187	134,859
65th Percentile		106,492	185,665	138,722
70th Percentile		108,801	189,208	142,585
75th Percentile		110,776	191,871	143,870
80th Percentile		112,351	193,479	145,154

	Principal Planner			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	n/a			
Brevard County	n/a			
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	Planning Manager	85,443	159,530	128,236
Daytona Beach Shores	n/a			
Edgewater	n/a			
Flagler Beach	n/a			
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	Administrative Manager	58,828	109,252	59,820
Holly Hill	n/a			
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Planning Manager	103,664	165,863	106,761
Orange City	n/a			
Ormond Beach	n/a			
South Daytona	n/a			
St. Augustine Beach	n/a			
Volusia County	n/a			
Ponce Inlet	Principal Planner	64,442	96,034	
Range Data				
Average		82,645	144,882	98,272
50th Percentile		85,443	159,530	106,761
60th Percentile		89,087	160,797	111,056
65th Percentile		90,909	161,430	113,203
70th Percentile		92,732	162,063	115,351
75th Percentile		94,554	162,697	117,498
80th Percentile		96,376	163,330	119,646

	Senior Planner			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Planning, Zoning Specialist I-III	46,238	78,728	53,310
Brevard County	Senior Planner	82,670	142,522	86,801
Brevard County Sheriff's Office	n/a			
Bunnell	Planner	55,120	88,192	
Cape Canaveral	n/a			
Daytona Beach	Senior Planner	61,137	102,736	78,564
Daytona Beach Shores	n/a			
Edgewater	Senior Planner	52,603	88,754	
Flagler Beach	Planner	69,187	114,158	115,003
Flagler County	Senior Planner	61,422	105,539	
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	Senior Planner	73,578	103,009	84,614
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Chief Planner	77,356	123,770	84,439
Orange City	n/a			
Ormond Beach	Senior Planner	67,489	107,992	
South Daytona	n/a			
St. Augustine Beach	n/a			
Volusia County	n/a			
Ponce Inlet	Senior Planner	58,749	87,211	
Range Data				
Average		64,680	105,540	83,789
50th Percentile		64,456	104,274	84,527
60th Percentile		68,168	106,520	84,614
65th Percentile		68,932	107,624	85,161
70th Percentile		70,504	109,842	85,708
75th Percentile		72,480	112,617	86,254
80th Percentile		74,334	116,080	86,801

	Chief Building Official			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Dev. Services Director			
Brevard County	Chief Building Official	105,043	181,090	109,043
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	Chief Building Official	85,442	159,530	159,530
Daytona Beach Shores	Chief Building Official	89,877	145,995	
Edgewater	n/a			
Flagler Beach	Chief Building Official	88,302	145,698	119,184
Flagler County	Chief Building Official	80,538	129,314	
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	Chief Building Official	82,407	115,370	108,222
Indian Harbor Beach	Chief Building Official	89,036	147,159	118,382
Indian River Shores	Chief Building Official			162,922
New Smyrna Beach	Chief Building Official	103,664	165,863	115,000
Orange City	n/a			
Ormond Beach	Chief Building Official	70,846	116,908	
South Daytona	Chief Building Official	75,400	124,426	123,760
St. Augustine Beach	Chief Building Official	82,859	134,745	109,070
Volusia County	Chief Building Official	81,432	149,653	Vacant
Ponce Inlet	Chief Building Official	70,760	105,828	
Range Data				
Average		86,237	142,979	125,013
50th Percentile		84,151	145,847	118,382
60th Percentile		87,158	146,693	119,024
65th Percentile		88,412	147,533	120,099
70th Percentile		88,816	148,905	121,930
75th Percentile		89,246	152,122	123,760
80th Percentile		89,709	157,555	138,068

	Code Compliance Manager			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	Code Enforcement Officer	48,000	54,066	
Belleview	Zoning & Code Comp Spec I-III	44,034	74,984	51,459
Brevard County	Contractor & Code Compl Mgr	75,148	129,565	75,148
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	Code Compl. Division Mgr.	69,352	129,489	118,926
Daytona Beach Shores	n/a			
Edgewater	Code Enforcement Supervisor	52,603	88,754	56,139
Flagler Beach	Code Enforcement Officer	46,828	77,267	52,312
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	Code Enforcement Officer	50,939	94,598	59,093
Holly Hill	n/a			
Indian Harbor Beach	n/a			
Indian River Shores	Code Compliance Manager			96,705
New Smyrna Beach	Code Compliance Supervisor	48,677	77,883	54,045
Orange City	n/a			
Ormond Beach	Neighborhood Improve. Mgr	67,489	111,349	
South Daytona	Economic Development Dir	75,400	124,426	102,731
St. Augustine Beach	n/a			
Volusia County	Code Compliance Manager	73,291	140,182	84,287
Ponce Inlet	Code Compliance Manager	47,330	69,511	
Range Data				
Average		59,251	100,233	75,085
50th Percentile		52,603	94,598	67,121
60th Percentile		67,489	111,349	78,804
65th Percentile		68,421	117,887	82,916
70th Percentile		69,352	124,426	88,012
75th Percentile		71,322	126,957	93,600
80th Percentile		73,291	129,489	97,910

	Planning & Development Permitting Coord/Office Manager			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Bldg & Plng Spec I-IV	46,238	78,728	55,973
Brevard County	Development Svcs Supv	55,392	97,299	56,315
Brevard County Sheriff's Office	n/a			
Bunnell	Coordinator	37,254	59,607	55,640
Cape Canaveral	n/a			
Daytona Beach	Permits & Lic. Spvsr.	46,785	78,615	67,239
Daytona Beach Shores	n/a			
Edgewater	n/a			
Flagler Beach	Permit Tech/Coord	38,526	63,568	49,067
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	Permit Tech II	37,897	63,170	49,843
Holly Hill	n/a			
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Permit Supervisor	48,677	77,883	52,889
Orange City				
Ormond Beach	Permit Manager	50,356	80,569	
South Daytona	n/a			
St. Augustine Beach	Permit Manager	53,118	82,142	69,201
Volusia County	Permit Process Manager	73,291	140,182	77,287
Ponce Inlet	P&D Permit Coord/Off Mgr	47,330	69,511	
Range Data				
Average		48,753	82,176	59,273
50th Percentile		47,731	78,672	55,973
60th Percentile		49,348	79,464	56,247
65th Percentile		50,104	80,293	58,500
70th Percentile		51,184	81,041	62,869
75th Percentile		52,427	81,749	67,239
80th Percentile		53,573	85,173	68,024

	Administrative Assistant			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	Administrative Assistant			43,636
Belleview	Executive Assistant (PW)	48,547	74,984	60,008
Brevard County	Admin Assistant to Dept Dir	46,099	80,442	48,698
Brevard County Sheriff's Office	Command Staff Assistant	46,301	62,670	
Bunnell	Administrative Assistant	33,100	52,960	40,518
Cape Canaveral	n/a			
Daytona Beach	Office Specialist III	37,139	62,407	43,685
Daytona Beach Shores	Administrative Assistant	41,267	66,082	
Edgewater	Administrative Assistant	38,917	63,066	
Flagler Beach	Exec Asst to Public Works Dir	42,475	70,083	52,000
Flagler County	Administrative Assistant	38,563	66,290	
Flagler County Sheriff's Office	Administrative Assistant	46,214	71,145	63,248
Fruitland Park	Administrative Assistant	37,897	63,170	41,350
Holly Hill	Administrative Assistant	41,954	61,214	54,434
Indian Harbor Beach	Administrative Assistant	42,828	70,786	45,760
Indian River Shores	Administrative Assistant	73,589	81,620	
New Smyrna Beach	Administrative Specialist III	43,075	68,920	47,019
Orange City	n/a			
Ormond Beach	Administrative Assistant	35,794	57,266	
South Daytona	Executive Assistant	44,595	69,118	51,459
St. Augustine Beach	Administrative Assistant	37,370	58,022	45,612
Volusia County	Administrative Assistant	40,858	72,980	41,855
Ponce Inlet	Administrative Assistant	36,644	52,948	
Range Data				
Average		42,978	67,012	48,520
50th Percentile		41,954	66,290	46,389
60th Percentile		42,757	69,079	48,362
65th Percentile		43,001	69,794	49,941
70th Percentile		43,987	70,505	51,513
75th Percentile		45,347	70,966	51,865
80th Percentile		46,145	71,879	52,973

	Building Inspector			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Contracted			
Brevard County	Building Inspector I	54,808	89,669	65,905
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	Combination Inspector	55,580	93,395	67,831
Daytona Beach Shores	Building Inspector	48,610	78,187	
Edgewater	Senior Building Inspector	50,128	84,531	62,566
Flagler Beach	Building Inspector	59,920	93,918	61,495
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	n/a			
Indian Harbor Beach	n/a			
Indian River Shores	Building Inspector			101,446
New Smyrna Beach	Combination Inspector	60,610	96,977	63,819
Orange City	n/a			
Ormond Beach	Building Inspector	52,862	84,580	
South Daytona	n/a			
St. Augustine Beach	Building Inspector	53,118	82,142	76,787
Volusia County	Building Inspector I	53,566	97,753	55,256
Ponce Inlet	Building Inspector	50,556	74,512	
Range Data				
Average		54,356	89,017	69,388
50th Percentile		53,566	89,669	64,862
60th Percentile		54,560	92,650	66,290
65th Percentile		54,962	93,500	66,964
70th Percentile		55,271	93,709	67,638
75th Percentile		55,580	93,918	70,070
80th Percentile		57,316	95,142	73,205

	Permit Technician			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Dev Services Tech I-V	41,933	78,728	51,210
Brevard County	Zoning Permitting Specialist II	47,549	77,397	
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	Permit Technician	37,139	62,407	46,139
Daytona Beach Shores	Permit Technician	37,024	59,114	
Edgewater	Permit Technician	37,357	60,070	44,564
Flagler Beach	Permit Technician	38,526	63,568	40,560
Flagler County	Central Permitting Technician	38,563	66,290	
Flagler County Sheriff's Office	n/a			
Fruitland Park	Permit Technician	31,574	52,645	33,280
Holly Hill	Licensing/Permit & Zoning Tech	49,962	62,130	51,002
Indian Harbor Beach	n/a			
Indian River Shores	Permit Technician	54,695	98,492	
New Smyrna Beach	License & Permit Technician	41,024	65,638	42,245
Orange City	n/a			
Ormond Beach	Permit Technician	41,418	66,247	
South Daytona	Permit Technician	42,474	65,832	43,971
St. Augustine Beach	Permit Technician	38,693	59,266	43,892
Volusia County	Permit Technician	35,882	62,996	37,838
Ponce Inlet	Permit Technician	39,015	56,624	
Range Data				
Average		40,921	66,721	43,470
50th Percentile		38,693	63,568	43,932
60th Percentile		41,181	65,715	44,208
65th Percentile		41,469	65,873	44,475
70th Percentile		41,830	66,164	45,037
75th Percentile		42,203	66,268	45,745
80th Percentile		43,489	68,511	47,112

	Property Maintenance & Housing Inspector			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	n/a			
Brevard County	Contractor/Code Comp Off III	52,270	85,384	56,576
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	Code Compl. Rental Insp.	50,527	84,905	65,864
Daytona Beach Shores	Code Enforcement Officer	46,030	73,923	
Edgewater	n/a			
Flagler Beach	Code Enforcement Officer	46,828	77,267	52,312
Flagler County	Code Enforcement Inspector	44,658	76,773	
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	Rental Housing Inspector	38,605	55,765	
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	n/a			
Orange City	n/a			
Ormond Beach	Neighborhood Improve. Off.	43,489	69,582	
South Daytona	Code Enforcement Officer	42,474	65,832	49,712
St. Augustine Beach	n/a			
Volusia County	n/a			
Ponce Inlet	Property Maint & Housing Insp	39,015	56,624	
Range Data				
Average		45,610	73,679	56,116
50th Percentile		45,344	75,348	54,444
60th Percentile		46,190	76,872	55,723
65th Percentile		46,469	77,044	56,363
70th Percentile		46,749	77,217	57,505
75th Percentile		47,753	79,176	58,898
80th Percentile		49,048	81,850	60,291

	Cultural Services Manager			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Events/Promotions Manager	61,950	95,712	67,005
Brevard County	n/a			
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	Leisure Services Director	110,060	191,140	173,543
Daytona Beach Shores	n/a			
Edgewater	Parks & Recreation Director	86,299	145,538	104,770
Flagler Beach	n/a			
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	n/a			
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Leisure Services Director	98,728	157,965	122,493
Orange City	n/a			
Ormond Beach	n/a			
South Daytona	n/a			
St. Augustine Beach	n/a			
Volusia County	n/a			
Ponce Inlet	Cultural Services Manager	54,476	80,588	
Range Data				
Average		89,259	147,589	116,953
50th Percentile		92,514	151,751	113,631
60th Percentile		96,242	155,479	118,948
65th Percentile		98,107	157,344	121,607
70th Percentile		99,861	161,282	127,598
75th Percentile		101,561	166,259	135,256
80th Percentile		103,261	171,235	142,913

	Cultural Services Coordinator			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	n/a			
Brevard County	Recreation Program Coord II	45,427	73,590	46,100
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	Parks & Recreation Mgr.	63,050	117,717	108,953
Daytona Beach Shores	n/a			
Edgewater	n/a			
Flagler Beach	n/a			
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	n/a			
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Civic Center Manager	70,164	112,263	71,201
Orange City	n/a			
Ormond Beach	Cultural Center Coordinator	50,356	80,857	
South Daytona	Recreation Coordinator	46,821	77,251	49,650
St. Augustine Beach	n/a			
Volusia County	n/a			
Ponce Inlet	Cultural Services Coordinator	36,644	52,948	
Range Data				
Average		55,163	92,336	68,976
50th Percentile		50,356	80,857	60,425
60th Percentile		55,433	93,419	66,891
65th Percentile		57,972	99,700	70,123
70th Percentile		60,511	105,982	74,976
75th Percentile		63,050	112,263	80,639
80th Percentile		64,473	113,354	86,302

	Public Works Director			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	Public Works Director			101,493
Belleview	Public Works Director	99,228	158,418	156,157
Brevard County	Public Works Director	121,600	209,634	172,306
Brevard County Sheriff's Office	n/a			
Bunnell	City Engineer	88,238	141,181	103,834
Cape Canaveral	n/a			
Daytona Beach	Public Works Director	110,060	191,140	188,548
Daytona Beach Shores	n/a			
Edgewater	Environmental Services Dir	86,299	145,538	vacant
Flagler Beach	n/a			166,774
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	Public Works Director	65,551	136,145	90,709
Holly Hill	PW Director/City Engineer	92,296	110,756	106,226
Indian Harbor Beach	Public Works Director	98,163	162,243	101,018
Indian River Shores	Public Works Director			92,585
New Smyrna Beach	Maintenance Operations Dir	98,728	157,965	128,469
Orange City	Public Works Director	121,237	144,636	168,034
Ormond Beach	Public Works Director	94,956	156,669	
South Daytona	Public Works Director	91,250	150,571	102,981
St. Augustine Beach	Public Works Director	86,788	141,601	92,400
Volusia County	Department Director	130,292	225,546	183,639
Ponce Inlet	Public Works Director	70,760	105,828	
Range Data				
Average		98,906	159,432	130,345
50th Percentile		96,560	153,620	106,226
60th Percentile		98,615	157,706	139,544
65th Percentile		98,953	158,169	157,219
70th Percentile		100,311	158,801	164,651
75th Percentile		107,352	161,287	167,404
80th Percentile		114,531	173,802	168,888

	Assistant Public Works Manager			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	n/a			
Brevard County	Asst Public Works Director	110,295	190,145	135,561
Brevard County Sheriff's Office	n/a			
Bunnell	Crew Leader			
Cape Canaveral	n/a			
Daytona Beach	n/a			
Daytona Beach Shores	Deputy Director Public Works	67,850	109,782	
Edgewater	Dep Dir Environmental Svcs	82,181	138,653	102,648
Flagler Beach	n/a			
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	Deputy Public Works Director	58,828	109,252	68,723
Holly Hill	Deputy Public Works Director	73,578	103,009	86,278
Indian Harbor Beach	n/a			
Indian River Shores	Assistant Public Works Mgr.			66,231
New Smyrna Beach	Asst Maint Operations Dir	89,549	143,279	92,216
Orange City	n/a			
Ormond Beach	Public Works Operations Mgr	74,400	122,750	
South Daytona	Assistant Public Works Dir.	68,557	113,110	95,576
St. Augustine Beach	Assistant Public Works Dir.	69,308	114,676	81,900
Volusia County	Deputy Department Director	114,003	200,500	135,299
Ponce Inlet	Assistant Public Works Mgr	54,476	80,588	
Range Data				
Average		80,855	134,516	96,048
50th Percentile		73,989	118,713	92,216
60th Percentile		77,512	129,111	94,904
65th Percentile		81,014	136,267	96,990
70th Percentile		84,391	140,041	99,819
75th Percentile		87,707	142,122	102,648
80th Percentile		93,698	152,652	115,708

	Maintenance Tech I			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	Public Works Technician	40,404	49,122	
Belleview	Streets Maint or Utility Svc Tech	34,486	58,761	38,305
Brevard County	Automotive Equipment Op I	35,797	52,749	
Brevard County Sheriff's Office	Maintenance Tech I	32,635	46,446	
Bunnell	PW Maintenance Technician I	31,200	49,920	39,874
Cape Canaveral	n/a			
Daytona Beach	Maintenance Worker I	31,200	49,541	35,094
Daytona Beach Shores	Maintenance Worker I	35,069	55,910	
Edgewater	Parks Maintenance Worker	34,611	54,496	34,541
Flagler Beach	Facilities Maintenance Worker	33,280	54,912	38,345
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	PW Service Worker I	36,566	57,117	48,838
Holly Hill	Maintenance Worker I	35,610	50,877	36,546
Indian Harbor Beach	Maintenance Tech I	35,235	58,236	38,000
Indian River Shores	n/a			
New Smyrna Beach	Equipment Operator I	35,438	56,700	36,766
Orange City	n/a			
Ormond Beach	Maintenance Worker I	31,200	40,768	
South Daytona	Maintenance Worker I	33,280	54,163	35,859
St. Augustine Beach	Service Worker I	36,421	50,891	35,360
Volusia County	Trades Worker	39,051	69,549	
Ponce Inlet	Maintenance Tech I	31,198	44,506	
Range Data				
Average		34,793	53,539	37,957
50th Percentile		35,069	54,163	36,766
60th Percentile		35,357	54,746	38,000
65th Percentile		35,506	55,311	38,153
70th Percentile		35,647	56,068	38,305
75th Percentile		35,797	56,700	38,325
80th Percentile		36,296	57,034	38,345

	Maintenance Tech II			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Streets Maint or Utility Svc Tech	36,213	64,792	45,074
Brevard County	Automotive Equipment Op III	38,771	58,115	46,636
Brevard County Sheriff's Office	n/a			
Bunnell	PW Maintenance Technician II	32,136	51,418	
Cape Canaveral	n/a			
Daytona Beach	Maintenance Worker II	31,840	53,505	40,255
Daytona Beach Shores	Maintenance Worker II	37,024	59,114	
Edgewater	n/a			
Flagler Beach	n/a			
Flagler County	Equipment Operator II	35,797	60,965	
Flagler County Sheriff's Office	n/a			
Fruitland Park	PW Service Worker II	36,566	57,117	48,838
Holly Hill	Maint Worker II -CDL rqd	37,066	53,248	40,664
Indian Harbor Beach	Maintenance Tech II	36,996	64,205	42,000
Indian River Shores	n/a			
New Smyrna Beach	Equipment Operator II	37,210	59,535	38,605
Orange City	n/a			
Ormond Beach	Maintenance Worker II	32,698	49,440	
South Daytona	Maintenance Worker II	36,691	56,867	40,331
St. Augustine Beach	Service Worker II	37,620	51,818	39,008
Volusia County	n/a			
Ponce Inlet	Maintenance Tech II	34,704	49,942	
Range Data				
Average		35,894	56,934	42,379
50th Percentile		36,691	57,117	40,664
60th Percentile		37,002	58,315	41,733
65th Percentile		37,018	58,914	42,615
70th Percentile		37,041	59,282	43,844
75th Percentile		37,066	59,535	45,074
80th Percentile		37,152	60,393	45,699

	Maintenance Tech III			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Utility Service Tech III	46,238	71,427	vacant
Brevard County	n/a			
Brevard County Sheriff's Office	n/a			
Bunnell	PW Maintenance Technician III	33,100	52,960	
Cape Canaveral	n/a			
Daytona Beach	Maintenance Worker III	46,784	78,615	68,000
Daytona Beach Shores	Maintenance Worker III	39,083	62,504	
Edgewater	Distribution System Operator 3	40,498	66,206	52,270
Flagler Beach	n/a			
Flagler County	Equipment Operator III	38,563	66,290	
Flagler County Sheriff's Office	n/a			
Fruitland Park	PW Service Worker III	36,566	57,117	48,880
Holly Hill	n/a			
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Equipment Operator III	41,024	65,638	42,562
Orange City	n/a			
Ormond Beach	Maintenance Worker III	33,461	51,903	
South Daytona	n/a			
St. Augustine Beach	n/a			
Volusia County	n/a			
Ponce Inlet	Maintenance Tech III	39,015	56,624	
Range Data				
Average		39,480	63,629	52,928
50th Percentile		39,083	65,638	50,575
60th Percentile		40,215	66,093	51,592
65th Percentile		40,603	66,223	52,101
70th Percentile		40,813	66,256	53,843
75th Percentile		41,024	66,290	56,203
80th Percentile		43,109	68,345	58,562

	Crew Leader			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Crew Leader, Streets or Utilities	41,933	86,819	60,757
Brevard County	n/a			
Brevard County Sheriff's Office	n/a			
Bunnell	Crew Leader	36,169	57,871	52,395
Cape Canaveral	n/a			
Daytona Beach	Maintenance Supvsr. III	46,784	78,615	68,000
Daytona Beach Shores	Maintenance Supervisor	46,030	73,923	
Edgewater	Parks Team Leader	45,490	76,648	48,214
Flagler Beach	Public Works Supervisor	62,754	103,545	79,560
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	Crew Chief Roads & Streets	44,034	68,806	48,880
Holly Hill	Lead Maint Worker-HEO	41,954	61,214	41,954
Indian Harbor Beach	Crew Leader	40,789	67,415	67,415
Indian River Shores	n/a			
New Smyrna Beach	Supervisor	54,975	87,961	59,160
Orange City	Crew Leader	50,736	60,099	69,822
Ormond Beach	Maintenance Lead	47,936	76,689	
South Daytona	Crew Leader	40,435	62,691	50,440
St. Augustine Beach	Foreman	51,658	85,170	67,300
Volusia County	n/a			
Ponce Inlet	Crew Leader	44,343	64,882	
Range Data				
Average		46,548	74,819	59,491
50th Percentile		45,760	75,286	59,958
60th Percentile		46,633	76,680	64,683
65th Percentile		47,302	77,555	67,317
70th Percentile		48,216	79,271	67,381
75th Percentile		50,036	83,531	67,561
80th Percentile		51,105	85,830	67,883

	Custodian			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Custodian	32,843	48,339	39,707
Brevard County	n/a			
Brevard County Sheriff's Office	n/a			
Bunnell	P&R Maintenance Technician	33,100	52,960	38,438
Cape Canaveral	n/a			
Daytona Beach	Maint. Worker I/Custodian	31,200	49,541	35,094
Daytona Beach Shores	Custodian	39,083	62,504	
Edgewater	Contracted Out			
Flagler Beach	n/a			
Flagler County	Custodian/Maintenance Tech	34,403	58,989	
Flagler County Sheriff's Office	Custodian	33,778	52,000	36,534
Fruitland Park	Custodian	31,574	52,645	39,520
Holly Hill	Custodian	34,320	45,386	41,461
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Building Maintenance Worker I	33,750	54,000	33,100
Orange City	n/a			
Ormond Beach	Custodian	31,200	40,768	
South Daytona	n/a			
St. Augustine Beach	Janitor	36,421	50,891	32,760
Volusia County	n/a			
Ponce Inlet	Custodian	31,198	44,506	
Range Data				
Average		33,788	51,638	37,077
50th Percentile		33,750	52,000	37,486
60th Percentile		33,778	52,645	38,655
65th Percentile		34,049	52,803	39,033
70th Percentile		34,320	52,960	39,412
75th Percentile		34,362	53,480	39,567
80th Percentile		34,403	54,000	39,632

	Public Safety Director			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	n/a			
Brevard County	n/a			
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	n/a			
Daytona Beach Shores	n/a			
Edgewater	n/a			
Flagler Beach	n/a			
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	n/a			
Indian Harbor Beach	n/a			
Indian River Shores	Public Safety Director			169,860
New Smyrna Beach	n/a			
Orange City	n/a			
Ormond Beach	n/a			
South Daytona	n/a			
St. Augustine Beach	n/a			
Volusia County	n/a			
Ponce Inlet	Public Safety Director	94,201	142,161	
Range Data				
Average		#DIV/0!	#DIV/0!	169,860
50th Percentile		#NUM!	#NUM!	169,860
60th Percentile		#NUM!	#NUM!	169,860
65th Percentile		#NUM!	#NUM!	169,860
70th Percentile		#NUM!	#NUM!	169,860
75th Percentile		#NUM!	#NUM!	169,860
80th Percentile		#NUM!	#NUM!	169,860

	Police Chief			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	Police Chief			133,999
Belleview	Police Chief	99,228	158,418	143,073
Brevard County	n/a			
Brevard County Sheriff's Office	Police Chief			163,800
Bunnell	Police Chief	88,238	141,181	106,954
Cape Canaveral	n/a			
Daytona Beach	Police Chief/Dep. City Mgr.	129,540	226,023	226,023
Daytona Beach Shores	n/a			
Edgewater	Police Chief	90,626	152,818	130,915
Flagler Beach	Police Chief	92,717	152,983	118,040
Flagler County	n/a			
Flagler County Sheriff's Office	Division Chief	131,037	156,602	131,037
Fruitland Park	Police Chief	83,481	139,135	90,043
Holly Hill	Police Chief	92,296	129,215	110,240
Indian Harbor Beach	Police Chief	108,224	178,873	149,267
Indian River Shores	Police Chief			117,677
New Smyrna Beach	Police Chief	126,005	201,608	165,000
Orange City	Police Chief	109,965	131,189	152,412
Ormond Beach	Police Chief	90,422	149,192	
South Daytona	Police Chief	91,250	150,571	119,621
St. Augustine Beach	Police Chief	107,214	168,540	119,167
Volusia County	n/a			
Ponce Inlet	Police Chief	85,559	128,767	
Range Data				
Average		102,874	159,739	136,079
50th Percentile		95,973	152,900	130,976
60th Percentile		105,617	155,878	133,999
65th Percentile		107,669	157,419	140,804
70th Percentile		108,398	159,430	146,170
75th Percentile		109,530	166,010	150,053
80th Percentile		116,381	172,673	152,412

	Police Lieutenant			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	Deputy Chief			113,943
Belleview	Police Lieutenant	77,747	120,120	100,460
Brevard County	n/a			
Brevard County Sheriff's Office	Police Lieutenant	86,840	103,875	
Bunnell	Police Lieutenant	66,847	106,955	82,014
Cape Canaveral	n/a			
Daytona Beach	Deputy Police Chief	98,063	175,552	172,067
Daytona Beach Shores	Lieutenant	82,555	133,973	
Edgewater	Deputy Police Chief	77,189	120,744	n/a
Flagler Beach	Deputy Police Chief	80,092	132,152	100,922
Flagler County	n/a			
Flagler County Sheriff's Office	Commander	113,773	135,970	113,773
Fruitland Park	Police Lieutenant	63,123	105,206	82,191
Holly Hill	n/a			
Indian Harbor Beach	Police Lieutenant	73,250	121,068	90,000
Indian River Shores	Police Lieutenant			143,465
New Smyrna Beach	Deputy Police Chief	114,290	182,864	
Orange City	n/a			
Ormond Beach	Police Lieutenant	64,263	106,030	
South Daytona	Deputy Police Chief	81,890	131,040	105,414
St. Augustine Beach	Police Lieutenant	80,878	106,185	87,027
Volusia County	n/a			
Ponce Inlet	Police Lieutenant	70,760	105,828	
Range Data				
Average		82,914	127,267	108,298
50th Percentile		80,485	120,906	100,922
60th Percentile		81,687	129,046	105,414
65th Percentile		82,189	131,541	109,594
70th Percentile		82,984	132,334	113,773
75th Percentile		85,769	133,518	113,858
80th Percentile		91,329	134,772	113,943

	Police Corporal			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	Police Corporal	52,773	89,182	
Belleview	Police Corporal	61,963	95,722	67,012
Brevard County	n/a			
Brevard County Sheriff's Office	n/a			
Bunnell	Police Corporal	55,100	83,660	
Cape Canaveral	n/a			
Daytona Beach	n/a			
Daytona Beach Shores	n/a			
Edgewater	n/a			
Flagler Beach	n/a			
Flagler County	n/a			
Flagler County Sheriff's Office	Corporal	62,363	89,294	72,495
Fruitland Park	Senior Police Officer	54,652	91,087	59,354
Holly Hill	Police Corporal	55,317	81,574	
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Police Corporal	60,807	97,290	61,705
Orange City	n/a			
Ormond Beach	Police Corporal	61,040	89,576	
South Daytona	Police Lieutenant	77,619	124,182	86,399
St. Augustine Beach	Police Corporal	54,420	75,126	67,947
Volusia County	n/a			
Ponce Inlet	Police Corporal	47,330	69,511	
Range Data				
Average		59,605	91,669	69,152
50th Percentile		58,062	89,435	67,480
60th Percentile		60,900	90,180	67,947
65th Percentile		61,005	90,860	69,084
70th Percentile		61,317	92,477	70,221
75th Percentile		61,732	94,563	71,358
80th Percentile		62,043	96,035	72,495

	Police Sergeant			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	Police Sergeant	80,079	105,378	
Belleview	Police Sergeant	75,296	116,355	84,538.13.
Brevard County	n/a			
Brevard County Sheriff's Office	Police Sergeant	74,734	89,398	
Bunnell	Police Sergeant	60,812	92,799	70,000
Cape Canaveral	n/a			
Daytona Beach	Police Sergeant	65,795	98,901	84,972
Daytona Beach Shores	Sergeant	75,894	121,889	
Edgewater	Police Sergeant	63,489	99,328	71,562
Flagler Beach	Police Sergeant			87,453
Flagler County	n/a			
Flagler County Sheriff's Office	Sergeant	66,447	95,222	80,255
Fruitland Park	Police Sergeant	57,385	95,642	72,085
Holly Hill	Police Sergeant	61,091	92,250	69,626
Indian Harbor Beach	Police Sergeant	73,250	121,068	80,000
Indian River Shores	Police Sergeant	89,164	108,686	
New Smyrna Beach	Police Sergeant	72,968	116,749	74,046
Orange City	Police Sergeant	66,894	84,032	101,169
Ormond Beach	Police Sergeant	66,059	97,907	
South Daytona	Police Sergeant	67,486	107,999	71,919
St. Augustine Beach	Police Sergeant	71,675	96,983	77,224
Volusia County	n/a			
Ponce Inlet	Police Sergeant	50,556	74,512	
Range Data				
Average		69,913	102,387	78,359
50th Percentile		67,486	98,901	75,635
60th Percentile		72,451	102,958	78,890
65th Percentile		73,081	106,426	80,038
70th Percentile		73,547	108,136	80,178
75th Percentile		74,734	108,686	81,434
80th Percentile		75,184	114,821	84,029

	Police Investigator			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Police Officer 1st Class	58,989	91,166	60,211
Brevard County	n/a			
Brevard County Sheriff's Office	n/a			
Bunnell	Detective	50,000	75,500	73,008
Cape Canaveral	n/a			
Daytona Beach	Police Investigator (Off. & 5%)	56,296	87,942	
Daytona Beach Shores	n/a			
Edgewater	n/a			
Flagler Beach	Police Investigator			72,443
Flagler County	n/a			
Flagler County Sheriff's Office	Detective	58,547	83,754	70,642
Fruitland Park	Detective	54,652	91,087	63,270
Holly Hill	Police Investigator	50,288	74,158	55,869
Indian Harbor Beach	n/a			
Indian River Shores	Police Investigator			95,313
New Smyrna Beach	n/a			
Orange City	n/a			
Ormond Beach	n/a			
South Daytona	Police Officer CID	53,988	86,399	80,153
St. Augustine Beach	n/a			
Volusia County	n/a			
Ponce Inlet	Police Investigator			
Range Data				
Average		54,680	84,287	71,364
50th Percentile		54,652	86,399	71,543
60th Percentile		55,638	87,325	72,556
65th Percentile		56,131	87,787	72,754
70th Percentile		56,746	88,571	72,952
75th Percentile		57,421	89,514	74,794
80th Percentile		58,097	90,458	77,295

	Police Officer			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	Law Enforcement Officer	50,743	85,752	
Belleview	Police Officer	53,518	82,680	53,518
Brevard County	n/a			
Brevard County Sheriff's Office	Law Enforcement Officer	54,808	80,059	
Bunnell	Police Officer	50,000	75,500	57,637
Cape Canaveral	n/a			
Daytona Beach	Police Officer	53,615	83,754	64,200
Daytona Beach Shores	Police Officer	52,722	84,150	
Edgewater	Police Officer	52,613	81,703	60,887
Flagler Beach	Law Enforcement Officer			66,729
Flagler County	n/a			
Flagler County Sheriff's Office	Deputy Sheriff	54,980	74,242	66,302
Fruitland Park	Police Officer	52,050	86,750	53,363
Holly Hill	Police Officer	50,288	74,158	59,994
Indian Harbor Beach	Police Officer	52,058	86,041	60,000
Indian River Shores	Law Enforcement Officer	51,967	77,823	
New Smyrna Beach	Police Officer	52,875	84,600	54,450
Orange City	Law Enforcement Officer	52,417	65,839	79,260
Ormond Beach	Police Officer	55,987	81,178	
South Daytona	Police Officer	53,988	86,399	58,466
St. Augustine Beach	Law Enforcement Officer	56,650	78,675	56,650
Volusia County	n/a			
Ponce Inlet	Police Officer	44,343	64,882	
Range Data				
Average		53,016	80,547	60,881
50th Percentile		52,722	81,703	59,994
60th Percentile		53,261	83,324	60,177
65th Percentile		53,557	83,912	60,710
70th Percentile		53,690	84,240	62,212
75th Percentile		53,988	84,600	64,200
80th Percentile		54,644	85,522	65,461

	Office Manager-Police Dept.			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	City Manager			162,750
Belleview	Executive Asst to Police Chief	48,547	74,984	74,422
Brevard County	n/a			
Brevard County Sheriff's Office	n/a			
Bunnell	PD Administrative Assistant	33,100	52,960	42,869
Cape Canaveral	n/a			
Daytona Beach	Police Captain	86,965	136,307	125,308
Daytona Beach Shores	Admin Asst-Public Safety	54,309	87,526	
Edgewater	Administrative Coordinator	38,917	63,066	41,995
Flagler Beach	Exec Asst to Police Chief	42,475	70,083	56,326
Flagler County	Office Manager (no Police dept)	46,883	80,558	
Flagler County Sheriff's Office	n/a		n/a	n/a
Fruitland Park	n/a			
Holly Hill	Office Manager-Police Dept.	49,962	74,298	
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	n/a			
Orange City	n/a			
Ormond Beach	Office Manager/Chief Sec'y	41,418	66,269	
South Daytona	Administrative Assistant	46,821	77,251	69,742
St. Augustine Beach	Office Manager	54,420	80,878	65,445
Volusia County	n/a			
Ponce Inlet	Office Manager	41,576	60,593	
Range Data				
Average		49,438	78,562	79,857
50th Percentile		46,883	74,984	67,594
60th Percentile		48,547	77,251	70,678
65th Percentile		49,254	78,905	72,316
70th Percentile		49,962	80,558	73,954
75th Percentile		52,135	80,718	87,144
80th Percentile		54,309	80,878	104,954

	Office Specialist - Police			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	Records Data Specialist	36,213	55,952	41,330
Brevard County	n/a			
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	Office Specialist III	37,139	62,407	
Daytona Beach Shores	Records Clerk	37,024	59,114	
Edgewater	Records Clerk	34,611	54,496	35,901
Flagler Beach	Police Records Clerk	36,691	60,540	47,008
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	Administrative Assistant	37,897	63,170	41,787
Holly Hill	Police Service Clerk	35,610	50,877	36,525
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Administrative Specialist II	39,070	62,512	40,535
Orange City	n/a			
Ormond Beach	Records Specialist	34,072	54,497	
South Daytona	Records Clerk	34,944	54,163	46,488
St. Augustine Beach	n/a			
Volusia County	Office Specialist	34,794	57,405	36,691
Ponce Inlet	Office Specialist	32,982	47,132	
Range Data				
Average		36,188	57,739	40,783
50th Percentile		36,213	57,405	40,932
60th Percentile		36,691	59,114	41,421
65th Percentile		36,858	59,827	41,581
70th Percentile		37,024	60,540	41,741
75th Percentile		37,082	61,474	42,962
80th Percentile		37,139	62,407	44,608

	Fire Chief			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	n/a			
Brevard County	Fire Rescue Director	121,600	209,634	156,645
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	Fire Chief/Deputy City Mgr.	129,540	226,023	223,338
Daytona Beach Shores	n/a			
Edgewater	Fire Chief	90,626	152,818	130,915
Flagler Beach	Fire Chief	92,717	152,983	108,223
Flagler County	Fire Rescue Chief	112,923	194,064	
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	Fire Chief	92,296	129,215	117,478
Indian Harbor Beach	Fire Chief	108,224	178,873	119,062
Indian River Shores	n/a			
New Smyrna Beach	Fire Chief	126,005	201,608	133,647
Orange City	Fire Chief	109,965	131,189	152,412
Ormond Beach	Fire Chief	90,422	149,192	
South Daytona	Fire Chief	62,150	136,864	118,955
St. Augustine Beach	n/a			
Volusia County	Fire Chief	105,862	184,699	144,616
Ponce Inlet	Fire Chief	85,559	128,767	
Range Data				
Average		103,528	170,597	140,529
50th Percentile		107,043	165,928	132,281
60th Percentile		109,269	182,369	138,035
65th Percentile		110,409	186,104	142,971
70th Percentile		112,036	191,255	146,955
75th Percentile		115,093	195,950	150,463
80th Percentile		119,865	200,099	153,259

	Deputy Fire Chief			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	n/a			
Brevard County	n/a			
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	Deputy Fire Chief	76,158	142,462	129,437
Daytona Beach Shores	n/a			
Edgewater	Deputy Chief	74,547	125,736	113,734
Flagler Beach	Deputy Fire Chief	72,646	119,866	vacant
Flagler County	Fire Rescue Deputy Chief	80,538	129,314	
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	n/a			
Indian Harbor Beach	n/a			
Indian River Shores	Deputy Fire Chief			109,110
New Smyrna Beach	Deputy Fire Chief	114,290	182,864	117,719
Orange City	Deputy Fire Chief	91,670	109,362	127,055
Ormond Beach	Deputy Fire Chief	82,029	135,348	
South Daytona	Fire Commander	72,259	108,389	89,794
St. Augustine Beach	n/a			
Volusia County	n/a			
Ponce Inlet	Deputy Fire Chief	70,760	105,828	
Range Data				
Average		83,017	131,668	114,475
50th Percentile		78,348	127,525	115,727
60th Percentile		80,836	130,521	117,719
65th Percentile		81,358	132,633	120,053
70th Percentile		81,880	134,745	122,387
75th Percentile		84,440	137,127	124,721
80th Percentile		87,814	139,617	127,055

	Firefighter Lieutenant			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	n/a			
Brevard County	Lieutenant EMT (FY24 rate)	55,350	68,545	
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	Firefighter Lieutenant	63,906	90,375	82,346
Daytona Beach Shores	Lieutenant	82,555	133,973	
Edgewater	FF Lieutenant EMT	52,325	86,022	75,557
Flagler Beach	Firefighter Lieutenant	51,628	85,187	55,442
Flagler County	n/a			
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	Firefighter Lieutenant	59,411	88,265	70,500
Indian Harbor Beach	n/a			
Indian River Shores	n/a			
New Smyrna Beach	Firefighter Lieutenant	55,935	89,496	62,950
Orange City	Firefighter Lieutenant	55,871	70,194	84,484
Ormond Beach	Fire Lieutenant/EMT	56,247	90,365	
South Daytona	Fire Lieut/Paramedic &FL/EMT	57,435	95,275	70,609
St. Augustine Beach	n/a			
Volusia County	Firefighter Lieutenant	40,745		
Ponce Inlet	Fire Lieutenant	53,273	79,025	
Range Data				
Average		57,401	89,770	71,698
50th Percentile		55,935	88,880	70,609
60th Percentile		56,247	89,843	73,578
65th Percentile		56,841	90,235	75,062
70th Percentile		57,435	90,368	76,915
75th Percentile		58,423	90,373	78,952
80th Percentile		59,411	91,355	80,988

	Firefighter EMT			
Comparable Community	Title & Position Comments	Minimum Rate:	Maximum Rate:	Actual Salary:
Belle Isle	n/a			
Belleview	n/a			
Brevard County	Asst Fire Marshal (FY24 rate)	53,810	67,330	
Brevard County Sheriff's Office	n/a			
Bunnell	n/a			
Cape Canaveral	n/a			
Daytona Beach	Firefighter EMT	47,743	78,616	53,953
Daytona Beach Shores	Firefighter EMT	57,548	92,296	
Edgewater	Firefighter EMT	47,990	73,375	51,763
Flagler Beach		42,475	70,083	42,119
Flagler County	Firefighter EMT	46,196	79,444	
Flagler County Sheriff's Office	n/a			
Fruitland Park	n/a			
Holly Hill	Firefighter EMT	49,156	71,491	61,210
Indian Harbor Beach	n/a			
Indian River Shores	Firefighter EMT	45,189	70,538	
New Smyrna Beach	Firefighter EMT	44,656	71,450	45,316
Orange City	Firefighter EMT	45,951	57,745	69,508
Ormond Beach	Firefighter EMT	48,494	75,991	
South Daytona	FF/EMT, Paramedic	44,950	77,140	47,431
St. Augustine Beach	n/a			
Volusia County	Firefighter EMT	36,876		
Ponce Inlet	Firefighter EMT	46,607	68,673	
Range Data				
Average		47,003	73,792	53,043
50th Percentile		46,196	72,433	51,763
60th Percentile		47,792	74,944	53,077
65th Percentile		47,940	76,163	53,734
70th Percentile		48,191	76,796	55,404
75th Percentile		48,494	77,509	57,582
80th Percentile		48,891	78,321	59,759

Meeting Date: 8/21/2025

Agenda Item: 11-A

Report to Town Council

Topic: First reading of Ordinance No. 2025-06 – Amending Chapter 18 of the Code of Ordinances and Articles 3 and 10 of the Land Use and Development Code (LUDC) related to rental registrations and inspections.

Summary: The proposed ordinance has been drafted at the direction of the Town Council and upon recommendation of the Town Attorney. The proposed amendments clarify the purpose and intent of the Town's Rental Property Maintenance Program in the interest of protecting public health, safety, and welfare. The Planning Board recommended approval (4-1, Chair Carney dissenting) at its July 29, 2025 meeting. Please see the attached report and supporting documentation for more information.

Suggested motion: Approval of proposed Ordinance 2025-06, amending Chapter 18 of the Code of Ordinances and Articles 3 and 10 of the LUDC as prepared by the Town Attorney related to rental registrations and inspections, upon first reading.

Requested by: Mr. Lear, Planning & Development Director

Approved by: Mr. Disher, Town Manager

MEMORANDUM

TOWN OF PONCE INLET, PLANNING AND DEVELOPMENT DEPARTMENT

The Town of Ponce Inlet staff shall be professional, caring, and fair in delivering community excellence while ensuring Ponce Inlet residents obtain the greatest value for their tax dollar.

To: Michael, E. Disher, AICP, Town Manager

From: Darren Lear, AICP, Planning & Development Director

Date: August 11, 2025

Subject: Ordinance 2025-06 - Amending Chapter 18 of the Code of Ordinances and Articles 3 and 10 of the Land Use and Development Code (LUDC) related to rental registrations and inspections.

MEETING DATE: August 21, 2025

INTRODUCTION

At the direction of the Town Council and upon the recommendation of the Town Attorney, the proposed ordinance amends sections of the Code of Ordinances and Land Use and Development Code related to the Town's Rental Property Maintenance Program (RPP). The proposed amendments clarify the purpose and intent of the program in the interest of protecting public health, safety and welfare. The ordinance is intended to ensure all rental properties in Ponce Inlet comply with the same building, fire and property maintenance codes that apply broadly to all structures and properties. The ordinance further clarifies that the Town's rental registration and inspection program applies uniformly to both residential and nonresidential properties, regardless of tenancy type or duration, and does not regulate the landlord-tenant relationship. This ordinance outlines a structured and enforceable process for annual inspections, registration and compliance, and establishes the basis for the collection of rental permit and inspection fees. This ordinance was recommended for approval by the Planning Board.

BACKGROUND

On April 5, 2024, a code enforcement case was initiated against the owners of a single-family residential property for operating a rental dwelling without the required permit. During the "Citizens' Participation" segment of the regular Town Council meeting held on April 18, 2024, one of the owners expressed his concerns regarding the Town's rental policies, specifically addressing the fee structure for long-term versus short-term rentals.

On May 31, 2024, the owners were issued a code enforcement Notice of Violation (NOV) with a compliance deadline of June 14, 2024. Prior to the scheduled Code Enforcement Board meeting

on July 22, 2024, written objections and legal arguments challenging the NOV were submitted by the property owners, citing potential preemption under Chapter 83, Part II of the Florida Statutes which relates to the landlord-tenant relationship and residential tenancies. After reviewing the materials, the Town's Code Enforcement Attorney determined that the issues raised merited further legal clarification. As a result, he recommended seeking an opinion from the Florida Attorney General, and the Town elected to withdraw the code case at that time. The Town subsequently suspended its RPP for long-term rentals pending the identification of a suitable resolution.

On August 22, 2024, the Town Council authorized the Town Attorney to request a legal opinion from the Florida Attorney General regarding the issue. The formal request (**Attachment 1**) was submitted to the Attorney General's Office in October 2024.

In January 2025, the Town received a response from the Attorney General (**Attachment 2**) declining to provide a formal opinion on this matter. Town Council then directed the Town Attorney to move forward with recommended code amendments pursuant to Attorney Smith's memo (**Attachment 3**) at the regularly scheduled meeting on May 15, 2025.

On July 29, 2025, the Planning Board reviewed the section of the ordinance amending the LUDC. The Board recommended approval of these amendments by a vote of 4-1 (Carney dissenting). The draft minutes from the Board meeting are provided as (**Attachment 4**).

DISCUSSION

The history of the Town's RPP and the proposed amendments recommended by the Town Attorney are discussed further below.

History of the RPP

In September 2003, the Town of Ponce Inlet took a significant step toward enhancing public safety, preserving neighborhood integrity and improving the quality of rental housing by adopting an RPP. The initiative was developed in response to growing concerns regarding the condition and oversight of rental properties within the community. These concerns included issues related to property maintenance, overcrowding and a lack of clear accountability for rental units.

The RPP grew out of the Ponce Inlet community-wide visioning process in 2002 that was aimed at shaping the Town's long-term development goals. As part of that effort, a questionnaire was distributed to residents to identify the values and priorities most important to the community. One such value was to…

> *"Update and consistently apply all code enforcement policies. Specific policies must be developed and enforced that ensure that Ponce Inlet will not become a rental community characterized by a high turnover in residential areas."*

The RPP established a framework requiring all residential rental properties to obtain an annual permit from the Town. As part of the permitting process, property owners were required to submit basic information about their rental units and agree to periodic inspections to ensure compliance with minimum housing and safety standards. The goal was to create a proactive approach to code

enforcement, one that emphasized education, accountability, and the long-term preservation of both the housing stock and community character.

Since its implementation, the RPP has served as an important tool for promoting safe and well-maintained rental housing, while reinforcing the Town's commitment to high standards of community living.

Proposed Amendments

In accordance with Town Council's direction, the proposed amendments to the Code of Ordinances and LUDC have been drafted by the Town Attorney to more precisely articulate the procedures, requirements and regulatory framework applicable to rental properties. These amendments are intended to remove the parts of the regulations that could potentially be found in conflict with Florida Statutes while preserving the portions relevant to the Town's RPP.

The amendments are related to the following:

- Revising "Scope and applicability," "Intent," and "Inspections" sections of Chapter 18 of the Code of Ordinances;
- Removal of LUDC Section 3.18.4 "General regulations";
- Revising the description of how the rental permit and inspection fees are calculated, and adding a requirement that a permit be filed before rentals commence in LUDC Section 3.18.5 "Fees and application schedule";
- Removal of LUDC Section 3.18.7 "Annual reporting requirements";
- Revising information required for applications in LUDC Section 10.1.10. "Rental permit applications".

RECOMMENDATION

Staff recommends approval of Ordinance 2025-06, amending Chapter 18 of the Code of Ordinances and Articles 3 and 10 of the LUDC as prepared by the Town Attorney related to rental registrations and inspections.

Attachments:

1. Request from Town Attorney to Attorney General
2. Attorney General response
3. Town Attorney memo with suggested amendments
4. Draft minutes from July 29, 2025, Planning Board meeting

ORDINANCE NO. 2025-06

AN ORDINANCE OF THE TOWN OF PONCE INLET, FLORIDA, AMENDING THE CODE OF ORDINANCES AND THE LAND USE AND DEVELOPMENT CODE RELATED TO RENTAL REGISTRATION AND INSPECTION; PROVIDING LEGISLATIVE FINDINGS; PROVIDING FOR EXEMPTIONS FOR CERTAIN PROPERTIES SUBJECT TO STATE OR FEDERAL PERIODIC INSPECTION REQUIREMENTS; PROVIDING FOR INSPECTION FEES; PROVIDING FOR ENFORCEMENT; PROVIDING FOR CONFLICTS AND SEVERABILITY; AND PROVIDING FOR CODIFICATION AND AN EFFECTIVE DATE.

WHEREAS, the Town of Ponce Inlet is charged with the responsibility of enforcing building construction and safety codes, including but not limited to, the Florida Building Code and the Florida Fire Prevention Code; and

WHEREAS, the Town of Ponce Inlet has adopted and enforces the International Property Maintenance Code related to routine property maintenance; and

WHEREAS, pursuant to Section 3.18 of the Town of Ponce Inlet Land Use and Development Code, the Town requires rental permits for the rental of dwellings; and

WHEREAS, the Town Council finds that when not properly maintained, structures intended for human habitation eventually become substandard with respect to such issues as weatherproofing, proper operation of fixtures, and structural stability; and

WHEREAS, the Town Council finds that when structures fall into a significant state of disrepair such structures can constitute a threat to the health, safety, and welfare of the structure's residents, employees, or invitees; and

WHEREAS, the Town has accordingly adopted ordinances establishing procedures for registration and periodic inspection of rental properties; and

WHEREAS, the Florida Legislature approved legislation in 2023 preempting local governments from regulating any matter covered in Chapter 83, Part II of the Florida Statutes which relates to the landlord-tenant relationship and residential tenancies; and

WHEREAS, Chapter 83, Part II does not regulate or require registration or inspection of rental properties and, therefore, does not preempt such programs; and

WHEREAS, Section 509.032 F.S., preempts to the State the regulation of public lodging establishments; however, said statute expressly preserves the authority of local governments to conduct inspections of public lodging establishments for compliance with the Florida Building Code and Fire Prevention Code; and

WHEREAS, the Town's rental registration program applies to all rental properties regardless of type of tenancy or duration; and

WHEREAS, the Town Council finds that adoption of this Ordinance will protect and promote the public health, safety, and welfare; and

WHEREAS, underlined words constitute additions to the original text of the Code of Ordinances, ~~strikethrough~~ constitutes deletions from the original text of the Code of Ordinances, and asterisks (***) indicate a portion of the original text of the Code of Ordinances not reprinted here because it is intended to remain unchanged.

NOW, THEREFORE, BE IT ORDAINED by the Town Council of the Town of Ponce Inlet, Florida, as follows:

SECTION 1. Legislative Findings. The recitals set forth above are hereby adopted as legislative findings of the Town of Ponce Inlet.

SECTION 2. Amendment of Code of Ordinances. Chapter 18, Article VIII of the Code of Ordinances of the Town of Ponce Inlet, Florida, is hereby amended as follows:

Article VIII. - Rental Property Maintenance Program

Sec. 18-211. Scope and applicability.

This article creates a registration and inspection program for ~~The provisions of this article shall apply to~~ all existing and newly constructed residential and nonresidential structures and premises that are held out or offered for rent or lease regardless of whether such property has a current tenant~~being leased or rented or offered for lease or rent within the town~~; all owners and occupants of such structures and premises and all property managers and rental agents for such structures and premises shall be subject to this article. The purpose of the registration and inspection program is to ensure properties that are held out for rent to tenants comply with applicable building and life safety codes that apply broadly to properties and structures regardless of rental status. While through this article the town does provide for inspections of property held out for rent or lease to be inspected on a regular basis, the Town has not adopted and does not enforce maintenance standards that are specific to rental properties, and all maintenance codes applied are general in nature and are applicable equally to owner-occupied structures. The town recognizes that the State has expressly preempted local governments in the regulation of "residential tenancies, the landlord tenant relationship, and all other matters regulated by [Chapter 83, Part II, Florida Statutes]." The Town also recognizes that Chapter 83, Part II, Florida Statutes, does not regulate or create standards for the maintenance or inspection of rental properties.

Sec. 18-212. - Intent.

This article is intended to provide for the regular and systematic inspection of rental properties to ensure that they meet minimum standards for the public health, safety, and welfare. This article pertains only to the registration and inspection of properties and does not nor is it intended to regulate residential tenancies or the landlord-tenant relationship.

Sec. 18-213. Inspections.

All inspections shall be performed according to applicable building, housing, health, and property maintenance codes for which the town is responsible for enforcement. Existing structures and premises that do not comply with applicable provisions of these codes shall be required to be brought into compliance. Inspections shall be performed as follows:

(a) The code compliance manager or designee shall establish a uniform schedule of inspections of rental properties in a manner consistent with the following parameters:

(1) All rental properties shall be inspected on an annual basis, subject to availability of departmental resources and the number of properties requiring inspection;

(2) The town shall not take any enforcement action for failure to obtain an annual inspection if such failure is a result of the unavailability of town resources to conduct an annual inspection;

(3) At any time, the tenant with lawful possession of an occupied property may request and allow an inspection of such property pursuant to this article; such inspections shall be conducted as expediently as possible based upon the gravity of the complained-of conditions and available resources;

(4) The town may require inspections of a property more frequently than annually if the code compliance manager or designee identifies and documents serious threats to the health, safety or welfare of the public and/or occupants of such property;

(5) The town may require inspections of a property more frequently than annually if three or more violations of the International Property Maintenance Code, as adopted by the town, or Article XI of this Code of Ordinances are observed and documented by the code compliance manager or designee during any inspection;

(6) The town may require inspection of a property more frequently than annually in order to address well-founded, non-anonymous complaints related to building maintenance issues received by the town from the public;

(7) When inspections are required more frequently than annually, the code compliance manager or designee shall determine the frequency of necessary inspections based upon the severity of the conditions observed and the actions necessary to cure such conditions; once said conditions are cured, the required inspection period shall return to annual;

(8) When inspections are required more frequently than annually, the code compliance manager or designee shall provide written notice to the owner and occupant of the property of the requirement for more frequent inspections and shall include in such notice the reasons for more frequent inspections; and

(9) The determination by the code compliance manager or designee that a property requires inspections more frequently than annually may be appealed to the town council upon a written request stating the basis of the appeal mailed or hand-delivered to the attention of the town clerk; in order for such appeal to be timely it must be received by the town within 20 calendar days of the date the code

compliance manager or designee issues written notice of the requirement for more frequent inspections.

(10) The code compliance manager or designee shall use reasonable efforts to coordinate inspections with the owner and, if an occupied property, the tenant; however, either the owner or tenant of a property is authorized to allow entry of the code compliance manager to perform an inspection;

(11) In the event the code compliance manager or designee is unable to coordinate an inspection as set forth above, the code compliance manager shall issue a notice to the property owner and, if an occupied property, the tenant providing a reasonable time within which an inspection must be scheduled; if no inspection is scheduled within the time allowed, the code compliance manager or designee may initiate a code enforcement case related to the failure to allow an inspection pursuant to this article;

(b) Residential rental dwelling units subject to periodic inspection for compliance with state or federal housing standards shall be exempt from the periodic inspection provisions of this article; in order to claim this exemption, the property owner must provide the town with a copy of each current state and/or federal certificate of inspection; notwithstanding this exemption related to routine periodic inspections, nothing herein shall prohibit the town from requiring an inspection based on a well-founded, non-anonymous complaint or upon the inspector's own lawful observation of conditions that establish probable cause of a violation of any applicable safety or maintenance code;

(c) Properties upon which no habitable structure exists shall be exempt from the provisions of this article;

(d) Nothing in this article shall be interpreted to authorize the town to enter a property for the purpose of conducting an inspection without obtaining consent for such entry from a person having lawful possession and control of the premises or, otherwise obtaining a warrant for an administrative inspection.

(e) Nothing in this article shall be interpreted to authorize the town to regulate or conduct inspections where authority for such activities has been preempted to the State.

Sec. 18-214. Enforcement.

(a) The special magistrate shall have jurisdiction to hear and decide cases related to the enforcement of the provisions of this article, and any person, firm, corporation, or agent determined to be in violation shall be subject to all penalties and remedies available to the special magistrate as provided by law.

(b) In addition to code enforcement proceedings, the town may institute any other available legal action or proceeding to enforce the provisions of this article.

Sec. 18-215. Violations related to act or omission of tenant.

If a notice of violation arises due to acts or omissions of a tenant, and the tenant fails to make the necessary correction, the property owner or agent shall remain responsible for curing such conditions; provided, however, no enforcement action shall be taken against a property owner or agent by the town for failure to remedy a condition caused by a tenant when the tenancy is the

subject of a bona fide eviction proceeding against the tenant; the owner or agent of the property which is the subject of an eviction shall be responsible for providing the town with proof of the bona fide eviction proceeding.

Sec. 18-216. Fees.

Inspection fees related to the requirements of this article shall be as established by resolution of the council. The fee shall be calculated based on the expected cost to the town of conducting the inspection program and may include the cost of town staff and resources assigned to the inspection program.

SECTION 3. Amendment of Land Use and Development Code. Article 3, Section 3.18 and Article 10, Section 10.1 of the Land Use and Development Code for the Town of Ponce Inlet, Florida, are hereby amended as follows:

Section 3.18. - Dwelling Rentals

3.18.1 - Applicability.

A. *Definitions.*

Dwelling, rental. A residential building leased by its owner to one or more tenants for their use and occupancy on a temporary basis.

Rental, rent, rented, or renting. Includes the arranging of, contracting or advertising for, or the making available of the use of a dwelling unit for a finite period of time for any legal consideration. A rental arrangement is evidenced by the existence of a financial, business, barter, or employee/employer relationship between the legal or equitable owner of a dwelling unit and temporary occupant(s). Rental does not include the use of a dwelling unit by family members, friends or house-sitters, unless legal consideration is provided to the owner or usual occupant.

B. *How permitted.* See section 2.40, Table 2-5 (Table of Permitted Uses).

3.18.2 - Applicability.

Rental of a dwelling is prohibited unless the owner of a rented dwelling holds a rental permit and fully satisfies all other requirements of this code. A rental permit allows the rental of a dwelling consistent with the requirements of this section.

3.18.3 - Rental permit application process.

A. A rental permit application is filed with the director, and must include the information required by article 10.

B. Within five business days, the director shall:

1. Issue the rental permit if it complies with this section, or
2. Return the application as incomplete if it does not include the required information, or

3. Deny the application if it does not comply with this section.

3.18.4 ~~- General regulations~~ RESERVED.

~~The following regulations shall pertain to the rental of dwellings:~~

~~A. A contact person must be available 24 hours per day, seven days per week to respond to complaints regarding the conduct of the occupants of the subject dwelling.~~

~~B. Occupancy of individual units shall conform to the occupancy limits of all applicable building codes.~~

~~C. The owner or manager shall maintain a tenant and vehicle registration that includes the name and address of each unit's tenant and the make, year and tag number of the tenant's vehicle.~~

~~D. There shall be a written lease between the owner and tenant and that includes an explicit statement that the tenant agrees to follow these regulations.~~

~~E. Violation of these provisions may result in revocation of the rental permit for cause, upon notice and opportunity to be heard by the town council and subject to prosecution before the special magistrate, and any other penalties, as provided for in section 3.18.6 below.~~

~~F. The rental permit application shall be filed with the town prior to rental of the subject property.~~

3.18.5 - Fees and application schedule.

A. A person or entity who is applying for or holds a rental permit shall pay an annual rental permit fee in an amount as established from time to time by resolution of the town council upon the filing of the rental permit application.

~~B. Fee revenues raised under this section shall fund a position in the code enforcement department of the town, and provide enforcement and processing personnel as needed and investigative services. The officer holding this position shall enforce this section.~~

The fee shall be calculated based on the expected cost to the town of conducting the rental permit program and may include the cost of town staff and resources assigned to the rental permit program.

C. All holders of a rental permit who continue to rent the subject dwelling shall submit a renewal application containing all the information required for the original rental permit application and pay the required rental permit fee by no later than October 1 of each year, or shall be subject to a late fee to be established by the resolution of the town council.

D. The rental permit application shall be filed with the town prior to rental of the subject property.

3.18.6 - Enforcement and penalties.

A. A violation of this section is punishable by a fine per day, per unit and per violation in accordance with Florida law commensurate with F.S. ch. 162.

B. The town council may revoke any rental permit for cause, upon notice and opportunity to be heard by the town council.

3.18.7 ~~- Annual reporting requirements~~ RESERVED.

~~A. *Annual summary report.*~~

~~1. An annual summary report must be filed by:~~

~~2. All licensed real estate agents, brokers, agents or other parties who represent an owner of a property rented at any time during a calendar year; and~~

~~3. All owners of dwellings rented at any time during a calendar year.~~

~~4. The summary report is due by February 1 of each year.~~

~~5. The report shall reflect the rental activities of all subject dwellings within the town for the previous calendar year. This report shall include, at a minimum, the address of subject property and length of rental period per tenant.~~

~~6. The town shall maintain a third-party rental summary report form and make it available to the public upon request.~~

~~7. Violation of this requirement subjects violators to prosecution before the special magistrate and other penalties in section 3.18.6.~~

~~B. *Record keeping*.~~

~~1. Annual record keeping is required for any of the entities listed in subsection 3.18.7.A above.~~

~~2. These entities shall maintain records indicating:~~

~~a. The name and address of each tenant during this period;~~

~~b. Each tenant's vehicle registration, which shall include the make, year and tag number of the tenant's vehicle; and~~

~~c. The written lease between the owner and tenant for inspection by the code enforcement officer upon request.~~

* * *

Section 10.1 - Submittal Requirements.

* * *

10.1.10 - Rental permit applications.

A rental permit application must include the following information:

A. The complete street address ~~and parcel number~~ of the property;

B. ~~Proof of ownership, including~~ ~~t~~The name, mailing address, e-mail address, and telephone number of each person or entity with an ownership interest in the property;

C. The gross square footage of the dwelling, including the number of rooms, bedrooms, kitchens, and on-site parking spaces attributable to the rental;

~~D. A valid and current federal employer tax identification number or Social Security number for the property owner(s)~~;

~~E~~D. The name, mailing address, e-mail address and ~~24-hour~~ phone number of the rental property manager, if applicable;

~~F~~E. The signatures of ~~all~~an owner or authorized agent~~s or authorized property managers~~;

~~G~~F. For short-term rentals (renting less than four consecutive weeks), a current, approved inspection report from the fire marshal in accordance with Chapter 69A-43 of the Uniform Fire Safety Standards for Transient Public Lodging Establishments, Timeshares and Timeshare Unit Facilities; and

~~H~~G. For short-term rentals and long-term rentals of six months or less, a valid and current Florida Department of Revenue sales tax identification number under F.S. ch. 212, and a valid and current license under F.S. ch. 509.

SECTION 4. Codification. It is the intent of the Town Council of the Town of Ponce Inlet that the provisions of this Ordinance shall be codified. The codifier is granted broad and liberal authority in codifying the provisions of this Ordinance.

SECTION 5. Severability. If any section, sentence, phrase, word or portion of this Ordinance is determined to be invalid, unlawful or unconstitutional, said determination shall not be held to invalidate or impair the validity, force or effect of any other section, sentence, phrase, word or portion of this Ordinance not otherwise determined to be invalid, unlawful or unconstitutional.

SECTION 6. Conflicts. In any case where a provision of this Ordinance is found to be in conflict with a provision of any other ordinance of this Town, this Ordinance shall prevail.

SECTION 7. Effective Date. This Ordinance shall become effective immediately upon its passage and adoption.

Upon motion duly made by _____ and seconded by _____ that said Ordinance was approved and passed upon first reading. A roll call vote of the Town Council on said motion resulted as follows:

Mayor Paritsky, Seat #1	_____
Councilmember Milano, Seat #2	_____
Councilmember White, Seat #3	_____
Councilmember Villanella, Seat #4	_____
Vice-Mayor Smith, Seat #5	_____

Approved on first reading this _____ day of _____, 2025.

It was moved by _____ and seconded by _____that said Ordinance be passed on second reading. A roll call vote of the Town Council on said motion resulted as follows:

Mayor Paritsky, Seat #1	_____
Councilmember Milano, Seat #2	_____
Councilmember White, Seat #3	_____
Councilmember Villanella, Seat #4	_____
Vice-Mayor Smith, Seat #5	_____

Approved and adopted on second reading this _____ day of _____, 2025.

Town of Ponce Inlet, Florida

_____
Lois A. Paritsky, Mayor

ATTEST

_____
Kim Cherbano, CMC
Town Clerk

Attachment 1

October 8, 2024

Hon. Ashley Moody
Attorney General
Department of Legal Affairs
The Capitol
Tallahassee, FL 32399-1050

RE: Application of Preemption of Local Government Regulations Set Forth in § 83.425, Florida Statutes

Dear Ms. Moody:

The Town of Ponce Inlet has authorized our office to seek a formal opinion as to the following questions:

1) **Whether the preemption language in § 83.425, *Florida Statutes*, applies to the Town's rental property registration, permitting, and inspection program broadly?**

2) **Whether said preemption language applies to specific requirements contained within the broader rental registration, permitting, and inspection program?**

3) **Does the preemption language apply to both long-term rentals and short-term rentals?**

FACTS

The Town of Ponce Inlet, like several other Florida municipalities, has found that rental properties are more frequently deficient in property maintenance than owner-occupied properties. In January 2022, the Town Council adopted Ordinance 2022-03 (attached as Exhibit "A"), which created Chapter 18, Article VIII, of the Code of Ordinances to establish a Rental Property Maintenance Program. As stated in the Ordinance's "Intent" section, "[the program] is intended to provide for the regular and systematic inspection of rental properties to ensure that they meet minimum standards for the public, health, safety, and welfare."[1] Neither this Ordinance nor the broader Code of Ordinances create any special maintenance requirements that are unique or particular to rental properties. The "minimum standards" discussed refer to the basic property maintenance provisions adopted and incorporated by the Town that are applicable to all properties.

Article VIII of the Code of Ordinances operates in tandem with sec. 3.18 of the Town's Land Use and Development Code (attached as Exhibit "B"), which prohibits the rental of a dwelling unless "the owner of a rented dwelling holds a rental permit and fully satisfies all other requirements of [the] code."[2] The Town utilizes the permitting program to work with rental property owners to conduct periodic inspections of rental properties for the purpose of ensuring

[1] Town of Ponce Inlet, Fla., Code of Ordinances sec. 18-212. The program applies to all rentals regardless of whether long-term or short-term.
[2] Town of Ponce Inlet, Fla., Land Use and Development Code sec. 3.18.2.

compliance with minimum property maintenance and safety standards and addressing deficiencies before they get worse.[3]

In 2023, the Florida Legislature voted to approve CS/HB 1417. As set forth in the Final Bill Analysis of CS/HB 1417, "Part II of Chapter 83, F.S., known as the 'Florida Residential Landlord and Tenant Act' governs residential tenancies and the landlord-tenant relationship." § 83.425, *Florida Statutes*, now provides:

> The regulation of residential tenancies, the landlord-tenant relationship, and all other matters covered under this part are preempted to the state. This section supersedes any local government regulations on matters covered under this part, including, but not limited to, the screening process used by a landlord in approving in approving tenancies; security deposits; rental agreement applications and fees associated with such applications; terms and conditions of rental agreements; the rights and responsibilities of the landlord and tenant; disclosures concerning the premise, the dwelling unit, the rental agreement, or the rights and responsibilities of the landlord and tenant; fees charged by the landlord; or notice requirements.

In a recent case before the Town's Code Enforcement Board, a respondent[4] asserted that the Town of Ponce Inlet's rental registration and inspection program has been preempted by § 83.425, *Florida Statutes*. As a result, the Town withdrew its prosecution of the respondent's pending code enforcement case and has temporarily paused further enforcement of its rental registration, permitting, and inspection program while it investigates the arguments raised regarding preemption. While portions of § 83.425, *Florida Statutes*, are very precise and clear, other portions leave substantial room for interpretation. Given the significance of the question to the Town and other Florida local governments that have adopted similar ordinances and considering the Legislature's active efforts to discourage local governments from testing the bounds of preemption, the Town Council requests guidance from the Attorney General on these questions.

ANALYSIS

Question 1. Whether the preemption language in § 83.425, *Florida Statutes*, applies to the Town's rental property registration, permitting, and inspection program broadly?

§ 83.425, *Florida Statutes*, specifically states that it supersedes local government regulations related to: tenant screening, security deposits, rental agreement applications and application fees, terms and conditions of rental agreements, the rights and responsibilities of the landlord and tenant, disclosures to the tenant, fees charged by the landlord, and notice

[3] Sec. 3.18, LUDC, also contains provisions beyond the obtaining of a permit. As reflected in the questions asked, it is possible individual requirements may be individually preempted even if the broad registration, permitting, inspection program is not.

[4] While the respondent appeared in his private capacity before the Code Enforcement Board, the respondent is a sitting member of the judiciary in his public and professional capacity.

requirements. While none of these items touch on rental unit registration, permitting, or inspection, the language of the statute suggests that the list of preempted actions is non-exhaustive.[5] This makes the reading of the first sentence of the statute critical to the analysis: "The regulation of residential tenancies, the landlord-tenant relationship, and all other matters covered under this part are preempted to the state."

Regulation of Residential Tenancies

Here, neither the permitting requirements of sec. 3.18 of the LUDC nor the inspection program created by Chapter 18, Article VIII of the Town Code of Ordinances regulate the relationship between landlord and tenant.[6] The first question thus becomes whether the Town's rental unit registration, permitting, and inspection programs regulate "residential tenancies" in violation of the preemptive language set forth in § 83.425, *Florida Statutes*.

Chapter 83 provides no definition for "residential tenancies", but Black's Law Dictionary defines "tenancy" as: (1) the possession or occupancy of land by right or title, esp. under a lease; leasehold interest in real estate; or (2) the period of such possession or occupancy. Given this definition, the Legislature's use of the term "residential tenancies" in this context appears to mean regulation of the rights created between landlord and tenant by the rental agreement. Broadening the interpretation of "the regulation of residential tenancies" to mean all matters related to a property that happens to be held out for rent would create an argument that local governments are effectively preempted from regulating residential rental properties in any capacity. Indeed, this expanded interpretation would imply that the mere existence of a residential tenancy would serve as a complete defense against any local code enforcement case related to the property. For example, even in cases where code violations are unrelated to the rental status—such as failure to mow the grass—a respondent could argue that such local regulations do not apply because that property is subject to a residential tenancy. This was not the intent of the Legislature and, while the language perhaps could have been more clear, it is not the language the Legislature used.

Based on the preceding logic, until there is a tenant occupying a residential unit pursuant to a rental agreement, the preemption language within Part II of Chapter 83 is not yet triggered. Accordingly, ordinances that subject rental properties to inspection and require property owners to obtain a permit *prior* to being rented would not fall under the preemption.

All Other Matters Covered Under Ch. 83, Part II

Even when residential rental properties are occupied by a tenant pursuant to a rental agreement between a landlord and tenant, the Town's rental unit registration, permitting, and inspection requirements are not preempted because, pursuant to § 83.51(1), *Florida Statutes*, landlords must "[c]omply with the requirements of applicable building, housing, and health codes" at all times throughout the tenancy. Part II of Chapter 83 defines "building, housing, and health codes" to mean "any law, ordinance, or governmental regulation concerning health, safety, sanitation or fitness for habitation, or the construction, maintenance, operation, occupancy, use, or appearance, of any dwelling unit."[7] As previously noted, the Town's inspection program is specifically intended to ensure that rental properties meet minimum safety and maintenance standards for the public, health, safety, and welfare, and the permitting requirement is the vehicle

[5] § 83.425, F.S, states that the actions preempted "includ[e], but are not limited to," those actions specifically named.
[6] The permitting requirements runs only to the relationship between property owner and Town.
[7] § 83.43(3), F.S.

the Town uses to gather information so inspections can be conducted. Since the Legislature has expressly granted local governments the authority to regulate matters related to health, safety, sanitation, and the fitness for habitation of rental properties, and the Town's rental unit registration, permitting, and inspection requirements do not conflict with any other subject matter specifically legislated in Chapter 83, Part II, *Florida Statutes*,[8] such requirements are a permissive use of the Town's authority.

In sum, requiring a property owner to register and obtain a permit from the Town prior to renting the property to a tenant does not impact the relationship between the landlord and the tenant or touch upon the rights of the landlord and tenant between each other, nor does it touch upon any subject matter specifically regulated in Chapter 83, *Florida Statutes*. Similarly, the inspection of properties to ensure compliance with those minimum maintenance standards that are generally applicable to all properties does not touch upon the relationship of landlord and tenant, the rights created between landlord and tenant, or anything specifically regulated in Chapter 83, *Florida Statutes*. Accordingly, it is our opinion that the preemption language of § 83.425, *Florida Statutes*, does not prohibit the Town from enforcing its permitting and registration requirement for rentals or its rental inspection program.

Question 2. Does said preemption language apply to specific requirements contained within the broader rental registration, permitting, and inspection program?

The Town recognizes that some specific portions of sec. 3.18, LUDC, other than the registration requirement itself, may be closer to the preemption intent. For example, sec. 3.18.4, provides:

> **3.18.4 - General regulations.**
>
> The following regulations shall pertain to the rental of dwellings:
>
> A. A contact person must be available 24 hours per day, seven days per week to respond to complaints regarding the conduct of the occupants of the subject dwelling.
>
> B. Occupancy of individual units shall conform to the occupancy limits of all applicable building codes.
>
> C. The owner or manager shall maintain a tenant and vehicle registration that includes the name and address of each unit's tenant and the make, year and tag number of the tenant's vehicle.
>
> D. There shall be a written lease between the owner and tenant and that includes an explicit statement that the tenant agrees to follow these regulations.
>
> E. Violation of these provisions may result in revocation of the rental permit for cause, upon notice and opportunity to be heard by the town council and subject to prosecution before the code

[8] Chapter 83, Part II, does not speak to registration, permitting, or maintenance inspections.

enforcement board, and any other penalties, as provided for in section 3.18.6 below.

F. The rental permit application shall be filed with the town prior to rental of the subject property.

Subsections B and F, above, appear unrelated to the preemption categories and likely remain enforceable.[9] Subsections A and C, however, may be fairly argued to modify the rights and responsibilities of landlord and tenant. While, from the Town's perspective, these requirements are really about the relationship between the property owner and the Town,[10] as currently worded, the Town recognizes these two subsections may come close to preempted conduct. Enforcement of Subsection D, which requires a written lease and specific term within the lease, appears to be preempted by § 83.425, *Florida Statutes*. Finally, Subsection E is not on its face preempted but, of course, would be to the extent any revocation was sought as a result of failure to comply with any other provision that is preempted. Thus, while three subsections of sec. 3.18.4, LUDC, may be construed as preempted by § 83.425, *Florida Statutes*, there are portions of the permitting, registration, and inspection program that remain enforceable.

Question 3. Does the preemption language apply to both long-term rentals and short-term rentals?

Notably, when the respondent presented his arguments as to preemption to the Town's Code Enforcement Board, he distinguished long-term rentals from short-term rentals with regard to the effect of preemption. At the time of the hearing, Senate Bill 280, which specifically confirmed local governments' rights to require registration of short-term rentals, had not yet been vetoed. While our office is not aware of anything excepting short-term rentals from Chapter 83, Part II,[11] if local regulations that apply exclusively to short-term rentals are outside the scope of the preemption language within § 83.425, *Florida Statutes*, the Town could tailor its rental registration, permitting, and inspection program to address the specific issue intended for regulation—namely, the secondary impacts of short-term rentals—while explicitly excluding its application to long-term rentals. In our opinion, though, without express language in the preemption statute distinguishing long-term rentals from short-term rentals, the preemption applies to both.

CONCLUSION

Based on the plain language of § 83.425, *Florida Statutes*, the Town's rental registration, permitting, and inspection program contained in sec. 3.18, LUDC, and Chapter 18, Article VIII, Town Code of Ordinances, does not appear to be wholly preempted. Some requirements of sec. 3.18.4, LUDC, may be preempted pursuant to § 83.425, *Florida Statutes*, and should either be

[9] Subsection B is just a reiteration of the general occupancy requirements that would apply regardless of rental status. Subsection F goes to the property owner's rental permit application with the Town and is unrelated to the relationship between the landlord and tenant.

[10] While the Maintenance Inspection Program applies to both long-term and short-term tenancies, these regulatory items are used more often for the short-term rentals in order to attempt to address the specific secondary impacts of short-term rentals.

[11] Short-term rentals are still residential tenancies.

removed or modified so as to not regulate within an area covered by the statutory preemption. Finally, while short-term rentals often generate much more legislative discussion, for purposes of Chapter 83, Part II, and its preemption language, short-term rentals are still residential tenancies subject to the same preemption as long-term rentals.

Respectfully yours,

D. Andrew Smith, III
Assistant Town Attorney

DAS/

Attachment 2

ASHLEY MOODY
ATTORNEY GENERAL
STATE OF FLORIDA

OFFICE OF THE ATTORNEY GENERAL
Opinions Section

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January 9, 2025

Cliff Shepard
Town Attorney
Shepard, Smith, Kohlmyer & Hand. P.A.
2300 Maitland Center Pkwy, Suite 100
Maitland, Florida 32751

D. Andrew Smith, III
Assistant Town Attorney
Shepard, Smith, Kohlmyer & Hand. P.A.
2300 Maitland Center Pkwy, Suite 100
Maitland, Florida 32751

Dear Mr. Shepard and Mr. Smith,

On behalf of the Town of Ponce Inlet (the "Town"), you asked for an Attorney General opinion addressing certain questions relating to section 83.425, Florida Statutes, which provides as follows:

> The regulation of residential tenancies, the landlord-tenant relationship, and all other matters covered under this part are preempted to the state. This section supersedes any local government regulations on matters covered under this part, including, but not limited to, the screening process used by a landlord in approving tenancies; security deposits; rental agreement applications and fees associated with such applications; terms and conditions of rental agreements; the rights and responsibilities of the landlord and tenant; disclosures concerning the premises, the dwelling unit, the rental agreement, or the rights and responsibilities of the landlord and tenant; fees charged by the landlord; or notice requirements.[1]

In reference to this statute, you asked substantially the following questions:

1. Is the Town's rental property registration, permitting, and inspection program broadly superseded by state statute pursuant to the preemption provision contained in section 83.425?

2. Are specific provisions contained in the Town's rental property registration, permitting, and inspection program superseded by state statute pursuant to the preemption provision contained in section 83.425?

[1] § 83.425, Fla. Stat. (2024).

3. Does the preemption language in section 83.425 apply to both long-term rentals and short-term rentals?

Regarding your first two questions, this office declines to comment on your request that the office compare the Town's rental property ordinance requirements (generally and specifically) to the statutory provisions referenced in section 83.425 to determine which ordinance requirements, if any, may be superseded by statute. Alleged potential conflicts between state statutes and existing ordinances are best resolved, where necessary, through judicial determination.[2]

As to your third question, please submit a supplement to your memorandum of law defining what the Town intends in referring to a "short-term rental."

We will not act upon your request until you submit the requested information within **30** days of the date of this letter. If we do not receive the requested information by that date, we may consider the request withdrawn and close the file. This office typically responds to requests for opinions in the order in which we receive them. We endeavor to issue opinions as soon as possible. However, it is common for a response to be issued within three to six months. Please also be advised that there are many circumstances under which the Attorney General may exercise discretion to decline to issue an opinion. Should you have any questions about this office's policies concerning opinion requests, you may contact me at (850) 728-4662.

Sincerely,

Teresa L. Mussetto
Senior Assistant Attorney General

TLM/ tcc

[2] *See, e.g.*, Ops. Att'y Gen. Fla. 2015-07 (2015) ("The Florida Attorney General's Office . . . does not comment on local legislation . . . ."); 2008-58 (2008) ("[T]his office will not comment on . . . local codes or ordinances which may deal with these subjects."); 2007-50 (2007) ("No comment is expressed herein regarding the validity of the City of Clearwater's ordinance."); 93-16 (1993) ("This office . . . will not comment on local codes or ordinances."); 85-22 (1985) ("No comment is expressed herein regarding any municipal or county ordinance . . ."); 80-189 (1980) (reflecting that the power to declare an existing ordinance to be impliedly modified or repealed in whole or part is "exclusively a judicial prerogative").

Attachment 3

MEMORANDUM

TO: Town Council, Mayor, and Manager

FROM: Drew Smith, Assistant Town Attorney

DATE: May 12, 2025

RE: **RENTAL REGISTRATION AND MAINTENANCE PROGRAM**

OVERVIEW OF TOWN CODE

In January 2022, the Town Council adopted Ordinance 2022-03 which created Chapter 18, Article VIII, of the Code of Ordinances to establish a rental property maintenance program. The program provides for the periodic inspection of rental properties to ensure that they meet minimum standards for the public, health, safety, and welfare. The rental inspection program includes both short-term and long-term rental properties and it does not regulate rental durations. The program is also applicable to both commercial and residential properties.[1] The Rental Property Maintenance Program does not impose any specific or additional maintenance requirements on rental property that would not be equally applicable to non-rental property; it simply creates a program for the regular inspection of rental properties to ensure their compliance with standard maintenance and safety codes. Chapter 18, Article VIII operates in conjunction with Section 3.18 of the Land Use and Development Code which requires a property owner to obtain a rental permit prior to renting a property. Section 3.18 contains provisions related to rental of dwellings originally adopted in Ordinance 2003-03. Much of that language predates the registration and inspection program as well as the State preemption language at issue, as described in the "Overview of the Issue" section, below. In the "Suggested Amendments" section, below, most of the deletions recommended are actually in Section 3.18 rather than the language of Section 18, Article VIII.

OVERVIEW OF THE ISSUE

In 2023, the Florida Legislature amended Chapter 83, Florida Statutes, to include preemption language related to residential tenancies:

> The regulation of residential tenancies, the landlord-tenant relationship, and all other matters covered under this part are preempted to the state. This section supersedes any local government regulations on matters covered under this part, including, but not limited to, the screening process used by a landlord in approving in approving tenancies; security deposits; rental agreement applications and fees associated with such applications; terms and conditions of rental agreements; the rights and responsibilities of the landlord and tenant; disclosures

---

[1] The Code exempts properties that are required to have annual State inspections from the annual Town inspection. Many commercial properties qualify for this exemption but they are only exempted in order to avoid duplication of inspection.

> concerning the premise, the dwelling unit, the rental agreement, or the rights and responsibilities of the landlord and tenant; fees charged by the landlord; or notice requirements.

In 2024, the respondent in a code enforcement case raised the argument that the 2023 State preemption language prohibits enforcement of rental registration ordinances such as the Town's to the extent they apply to long term residential leases. In order to give due regard to the arguments raised, the Town paused enforcement portions of the program while it sought an attorney general opinion on the question. Unfortunately, the Attorney General declined to issue an opinion and stated that the issue was one the courts were better suited to address. While the Attorney General demurred on the question, it is worthwhile to note she did not opine that the Town could not enforce its program. A "No Opinion" cuts both ways. The result is questions still linger regarding the application of the State's preemption language to rental registration and inspection programs.

During the legislative session, the Town's lobbyist explored the possibility of a legislative fix to the problematic portion of the State legislation, specifically, removal of the catch-all "including, but not limited to" language which invites arguments for preemption that we believe exceed the intent of the Statute. No traction was available this session for such work, though.

Now that the Town has explored and exhausted other options for obtaining greater clarity on the interaction of rental registration programs and the express preemption to the State of landlord-tenant relationship matters, the Town Council has requested this memo to provide a path forward in enforcing its rental property maintenance program in a manner that mitigates the potential for a successful preemption argument defense against enforcement.

ANALYSIS

It is worth noting, that the Town is by far not the only jurisdiction in the State with a Rental Registration Program. Many jurisdictions have adopted them in some form. Some jurisdictions focus just on vacation rentals while others, like the Town, include all property. Some focus on residential dwellings while others, like the Town, include all rental properties. I do not believe the legislature, when adopting the preemption language, had any thought about inspection registration programs. The legislature was reacting to local governments that had adopted rent control and similar regulations that imposed mandates on how landlords conducted their rentals. To this point, Section 83.425, Florida Statutes, specifically states that it supersedes local government regulations related to: *tenant screening, security deposits, rental agreement applications and application fees, terms and conditions of rental agreements, the rights and responsibilities of the landlord and tenant, disclosures to the tenant, fees charged by the landlord, and notice requirements*. All of these specific items are landlord-tenant relationship issues. None of the specifically named items have anything to do with property maintenance or inspection.

The problem and key issue is that the Legislature did not just rely on the list of specific items. They also added an "included but not limited to" catch-all. The Town's argument has been, however, and remains that the first sentence of the Statute which reads, "The regulation of residential tenancies, the landlord-tenant relationship, and all other matters covered under this part are preempted to the state," is still the controlling language which sets the context within which all of the statute must be interpreted. So, while there is the "including but not limited to" language,

it cannot extend beyond that initial boundary of "residential tenancies, the landlord-tenant relationship, and all other matters covered under this part [Chapter 83, Part II].[2]

Property maintenance inspection rules have nothing to do with the relationship between landlord and tenant. Property maintenance inspection rules do not require landlords to put any terms in their leases nor do they restrict their ability to rent their property in any lawful manner they deem appropriate. Property maintenance inspection rules simply provide the mechanisms to conduct regular inspections to ensure the safety of welfare of tenants, guests, and surrounding property owners.

With this in mind, and given the Attorney General's opinion that the courts are better positioned to answer this question, I suggest the Town resume enforcement after first making some modifications to its Code to ensure that there is much space as possible between the Town's regulations and the preempted subject matter.

SUGGESTED AMENDMENTS

The first recommendations are to add to the scope and intent statements as follows to make clear that the Town is aware of and honoring the limits of its authority as established by that State preemption:

> Sec. 18-211. Scope and applicability. This article creates a registration and inspection program for ~~The provisions of this article shall apply to~~ all existing and newly constructed residential and nonresidential structures and premises that are held out or offered for rent or lease regardless of whether such property has a current tenant~~being leased or rented or offered for lease or rent within the town~~; all owners and occupants of such structures and premises and all property managers and rental agents for such structures and premises shall be subject to this article. The purpose of the registration and inspection program is to ensure properties that are held out for rent to tenants comply with applicable codes and standards adopted by the Town regarding property maintenance that apply broadly to properties and structure regardless of rental status. While through this article the town does provide for inspections of property held out for rent or lease to be inspected on a regular basis, the Town has not adopted and does not enforce maintenance standards that are specific to rental properties, and all maintenance codes applied are general in nature and applicable equally to owner-occupied structures. The Town recognizes that the State has expressly preempted local governments in the regulation of "residential tenancies, the landlord tenant relationship, and all other matters regulated by [Chapter 83, Part II, Florida Statutes]." The Town also recognizes that Chapter 83, Part II, Florida Statutes, does not regulate or create standards for the maintenance or inspection of rental properties.

[2] Chapter 83, Part II does not deal with property maintenance; it only deals with the landlord tenant relationship.

> Sec. 18-212. - Intent. This article is intended to provide for the regular and systematic inspection of rental properties to ensure that they meet minimum standards for the public health, safety, and welfare. <u>This article pertains only to the registration and inspection of properties and does not nor is it intended to regulate residential tenancies or the landlord-tenant relationship.</u>

I also recommend that Section 18-216 be amended as follows:

> Sec. 18-216. – Fees. Inspection fees related to the requirements of this article shall be as established by resolution of the council. <u>The fee shall be calculated based on the expected cost to the Town of conducting the inspection program and may include the cost of Town staff and resources assigned to the inspection program.</u>

The purpose of this amended language is to ensure the Town can show its math for how the fees for inspections are specifically calculated should it ever be challenged. Section 3.18 of the Land Use and Development Code, though, currently contains language that expressly provides the Rental Dwelling permit fees may fund a position for enforcement. Because of that language the Town, in the past, has placed more of the staff time and labor portion of costs in the calculation of the permit fee rather than the inspection fee. The result of this was that the permit fee was greater than the inspection fee. Given that the inspection program is the more labor intense program, it makes more sense for the inspection fee to be the greater fee.[3] This change moves the heftier fee to the portion of enforcement that carries the heavier cost to the Town.

Moving on to Section 3.18, "Dwelling Rentals," of the Land Use and Development Code, all of my suggested revisions to involve deletions from the Code. I recommend these portions for deletion because 1) they deal with topics beyond maintenance and could create at least a toe hold for someone to attempt to argue the legislation strays into the realm of the tenancy or landlord-tenant relationship and 2) the merits of their enforcement likely do not outweigh the potential confusion they create within the preemption conversation. Below, I have set out those recommended deletions and provided brief explanation as to my reasoning in the parentheticals.

> ~~3.18.4 General regulations.~~
> ~~The following regulations shall pertain to the rental of dwellings:~~
>
> ~~A. A contact person must be available 24 hours per day, seven days per week to respond to complaints regarding the conduct of the occupants of the subject dwelling.~~ **(The application form already requires contact information for the owner and the Town can use that if we need to contact ownership. This provision, while**

[3] One may ask why a permit fee and inspection fee are both charged. Remember, the Town has exempted some properties that receive annual inspections pursuant to State law requirements. By maintaining two fees, the Town is able to fairly apportion the costs to the tasks involved.

helpful when neighbors have complaints, could be construed as regulating an aspect of the tenancy).

~~B. Occupancy of individual units shall conform to the occupancy limits of all applicable building codes.~~ **(Occupancy limits are a function of building codes; this does not actually create the limitation, it really just reminds everyone that occupancy loads have to be followed; to avoid someone arguing this somehow creates a regulation on the tenancy, though, I recommend deletion)**

~~C. The owner or manager shall maintain a tenant and vehicle registration that includes the name and address of each unit's tenant and the make, year and tag number of the tenant's vehicle.~~).

~~D. There shall be a written lease between the owner and tenant and that includes an explicit statement that the tenant agrees to follow these regulations.~~ **(One could argue this is moving into the realm of regulating the landlord-tenant relationship**).

E. ~~Violation of these provisions may result in revocation of the rental permit for cause, upon notice and opportunity to be heard by the town council and subject to prosecution before the special magistrate, and any other penalties, as provided for in section 3.18.6 below.~~ **(There is really nothing problematic about this language, I recommend its deletion because I recommended all the provisions it relates to be deleted**).

F. The rental permit application shall be filed with the town prior to rental of the subject property. **(I recommend this be moved to 3.18.5**).

3.18.5 - Fees and application schedule.

A. A person or entity who is applying for or holds a rental permit shall pay an annual rental permit fee in an amount as established from time to time by resolution of the town council upon the filing of the rental permit application.

~~B. Fee revenues raised under this section shall fund a position in the code enforcement department of the town, and provide enforcement and processing personnel as needed and investigative services. The officer holding this position shall enforce this section.~~ **(Replaced with similar language added to 18-216)**

C. All holders of a rental permit who continue to rent the subject dwelling shall submit a renewal application containing all the information required for the original rental permit application and pay the required rental permit fee by no later than October 1 of each year, or shall be subject to a late fee to be established by the resolution of the town council.

As to 3.18, I also recommend removal of 3.18.7 because again it could be construed as veering into the realm of regulating the tenancy by imposing specific duties on landlords to report

on the operations of the rental. While there is definite merit to the information the Town receives pursuant to this Section, that merit may not offset the risks to enforceability of the inspection program it creates:

~~3.18.7 - Annual reporting requirements.~~

~~A. Annual summary report.~~

~~1. An annual summary report must be filed by:~~

~~2. All licensed real estate agents, brokers, agents or other parties who represent an owner of a property rented at any time during a calendar year; and~~

~~3. All owners of dwellings rented at any time during a calendar year.~~

~~4. The summary report is due by February 1 of each year.~~

~~5. The report shall reflect the rental activities of all subject dwellings within the town for the previous calendar year. This report shall include, at a minimum, the address of subject property and length of rental period per tenant.~~

~~6.The town shall maintain a third party rental summary report form and make it available to the public upon request.~~

~~7.Violation of this requirement subjects violators to prosecution before the special magistrate and other penalties in section 3.18.6.~~

~~B. Record keeping.~~

~~1. Annual record keeping is required for any of the entities listed in subsection 3.18.7.A above.~~

~~2. These entities shall maintain records indicating:~~

~~a.The name and address of each tenant during this period;~~

~~b.Each tenant's vehicle registration, which shall include the make, year and tag number of the tenant's vehicle; and~~

~~c.The written lease between the owner and tenant for inspection by the code enforcement officer upon request.~~

Finally, I believe the following changes to Section 10.1.10 of the Code related to basic application submittal requirements would also be helpful in distancing the registration and inspection program from arguments that the Town is somehow trying to regulate tenancies or, otherwise mandating actions covered in the State preemption. I have recommended some items for deletion here simply because the Town can easily obtain the information from public records; in essence, why invite an argument if it's just as easy to get the information elsewhere?

10.1.10. - Rental permit applications.

A rental permit application must include the following information:

A. The complete street address ~~and parcel number of~~ the property;

B. ~~Proof of ownership, including~~ tThe name, mailing address, e-mail address, and telephone number of each person or entity with an ownership interest in the property;
C. The gross square footage of the dwelling, including the number of rooms, bedrooms, kitchens, and on-site parking spaces attributable to the rental;
D. ~~A valid and current federal employer tax identification number or Social Security number for the property owner(s)~~;
E. The name, mailing address, e-mail address, and ~~24-hour~~ phone number of the rental property manager, if applicable;
F. The signatures of ~~all~~an owner, or authorized agents ~~or authorized property managers~~;
G. For short-term rentals (renting less than four consecutive weeks), a current, approved inspection report from the fire marshal in accordance with Chapter 69A-43 of the Uniform Fire Safety Standards for Transient Public Lodging Establishments, Timeshares and Timeshare Unit Facilities; and
H. For short-term rentals and long-term rentals of six months or less, a valid and current Florida Department of Revenue sales tax identification number under F.S. ch. 212, and a valid and current license under F.S. ch. 509.

In conclusion, that imprecise "including but not limited to" language in the State's preemption clause certainly confuses an issue that should not have been confusing. I remain of the opinion, though, that it was not the legislature's intent to impede local governments from enforcing codes focused on maintenance of rental properties. All of the changes recommended herein are designed to try to make it as clear as possible in the Town's Code that the sole focus of the inspection and registration program is proper maintenance and safety. I think these changes along with some well-crafted "Whereas" clauses can tell that story. Ultimately, though, unless the language is eventually refined by the legislature or until there is a judicial determination as to the extent of the preemption this remains unsettled legal territory.

Town of Ponce Inlet
Planning Board
Regular Meeting Minutes
July 29, 2025

1. CALL TO ORDER AND PLEDGE OF ALLEGIANCE: Pursuant to proper notice, Vice Chair Carney called the meeting to order at 5:30 p.m. in the Council Chambers, 4300 S. Atlantic Avenue, Ponce Inlet, FL, and led attendees in the Pledge of Allegiance.

2. ROLL CALL AND DETERMINATION OF QUORUM: A quorum was established.

Board members present:
- Mr. Oebbecke, Seat #1
- Mr. Young, Seat #2
- Mr. Revak, Seat #3
- Mr. Cannon, Seat #4 - Absent
- Mr. Carney, Seat #5; Vice Chair
- Ms. Vanderbeek, Alternate #1

Staff present:
- Mr. Lear, Planning & Development Director
- Ms. New, Town Attorney
- Ms. Rippey, Principal Planner
- Ms. Stewart, Assistant Deputy Clerk

A. Election of Chair – *Mr. Oebbecke moved to nominate Mr. Carney to serve as Chair for the remainder of this term, ending December 31, 2025; seconded by Mr. Revak.* There were no other nominations.

The motion PASSED 5-0, with the following vote: Mr. Oebbecke – yes; Mr. Revak –yes; Mr. Young – yes; Mr. Carney – yes; Ms. Vanderbeek - yes.

B. Election of Vice-Chair – *Mr. Young moved to nominate Mr. Revak to serve as Vice-Chair; seconded by Mr. Carney.* There were no other nominations.

The motion PASSED 5-0, with the following vote: Mr. Young – yes; Mr. Carney – yes; Mr. Oebbecke – yes; Mr. Revak –yes; Ms. Vanderbeek - yes.

3. ADOPTION OF AGENDA:

Mr. Young moved to approve the agenda as presented; seconded by Vice-Chair Revak. The motion PASSED, 5-0, consensus.

4. APPROVAL OF MINUTES:

A. June 24, 2025
B. June 24, 2025, Special Planning Board meeting

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Vice-Chair Revak referred to the June 24, 2025, regular meeting minutes and noted there was a typo on line 12 next to Mr. Young's name; "Chair" should be removed.

Mr. Oebbecke moved to approve the June 24, 2025, meeting minutes as amended and the June 24, 2025, Special Planning Board meeting minutes as presented; seconded by Mr. Young. The motion PASSED, 5-0, consensus.

5. REPORT OF STAFF: Mr. Lear announced that the Florida Chapter of the American Planning Association is holding its annual conference in Daytona Beach at the Ocean Center, and he strongly encouraged Board members to attend the planning officials training on Tuesday, September 16, 2025; two of the instructors are Fellows of the American Institute of Certified Planners. A land use attorney will also be making a presentation. The training is provided for Board members at no cost and includes lunch. Registration ends on August 15, 2025; an email with this information will be forthcoming from staff.

Mr. Lear provided an update on the beach sand placement project. He said the northern phase began in early June at the Sunglow Pier and is progressing southward; contractors utilizing 15 trucks are averaging 1,000 linear feet of dune construction per week, and the project has replaced over one mile of sand. He reported that the Amelia Avenue beach ramp is open and beach driving from Sunglow Pier to that ramp has been restored; as of Friday, work has been completed near 4031 S. Atlantic Avenue, with operations continuing southward; sea oat planting is scheduled to begin shortly after sand placement is completed. He stated the Army Corps of Engineers contractor is currently constructing a 5,000 linear foot sand stockpile along the beach in Ponce Inlet; this stockpile is the source of the sand being hauled and placed by Volusia County; the contractor expects to be in this location through the end of the month and then relocate approximately 1,000 feet south. Chair Carney asked if there was an estimated project end-date. Mr. Lear replied according to Jessica Fentress, Volusia County, approximately 9 to 10 more months.

6. CORRESPONDENCE/DISCLOSURE OF EX-PARTE COMMUNICATION: *None.*

7. HEARING OF CASES:

A. Application/Type: SPEC 6-2025 Minor Special Exception
Address: 4884 Front Street
Purpose: To allow a minor special exception pursuant to Land Use and Development Code (LUDC) Section 6.6.3 to allow a sightseeing boat base (not to exceed 50 passenger capacity) per Section 3.29

Mr. Lear explained that this item was continued from the June 24, 2025, Planning Board meeting and provided a PowerPoint recap. He said the applicant, Mr. Vernon Kuftic, is requesting a minor special exception to operate a sightseeing boat base for up to 50 passengers at Sea Love Boat Works Marina, located at 4884 Front Street; the proposal involves utilizing the existing dock and boat slip facilities; the Down the Hatch restaurant is located on an adjacent parcel and is under the same ownership as the marina; the B-2 zoning district permits water-dependent uses such as this. He recalled that at the previous meeting, the primary concern was parking; since then, the proposed parking has been relocated to a vacant lot situated on the south side of Beach Street and the east side of Front Street; the parking lot contains approximately 30 spaces, which exceeds the minimum 19 spaces required for the proposed sightseeing boat base. Photographs of the designated parking areas were presented during the meeting. Mr. Lear confirmed that the application satisfies all four

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specific criteria applicable to sightseeing boat base operations and the eight general criteria for development applications; the original six conditions proposed remain in effect, while two additional conditions added after the June 24, 2025 Planning Board meeting are no longer necessary due to the revised parking plan. Mr. Lear announced that both the applicant and the property owner are present if there are any questions. Chair Carney expressed the Board's appreciation that the applicant addressed the community's concerns regarding the parking issue. Mr. Young also thanked the parties for working this issue out. No public comments were made.

Mr. Oebbecke moved to APPROVE the minor special exception application (SPEC 6-2025) pursuant to the Land Use and Development Code (LUDC) Section 6.6.3 to allow a sightseeing boat base (not to exceed 50 passenger capacity) per Section 3.29 for 4884 Front Street; seconded by Vice-Chair Revak. The motion PASSED 5-0, with the following vote: Mr. Oebbecke – yes; Vice-Chair Revak – yes; Mr. Young – yes; Chair Carney – yes; Ms. Vanderbeek - yes.

8. BUSINESS ITEMS:

A. Amending Articles 3 and 10 of the Land Use and Development Code (LUDC) related to rental registrations and inspections

Mr. Lear reported on the timeline of events that led to the Town suspending its Rental Permit Program (RPP) for long-term rentals while pursuing a suitable resolution to objections posed by a rental property owner. He also reported that on August 22, 2024, the Town Council authorized the Town Attorney to request an opinion from the Florida Attorney General; the request was submitted in October 2024 and in January 2025, the Town received a response from the Attorney General who declined to issue a formal opinion. He said that at regularly scheduled meeting on May 15, 2025, the Town Council directed the Town Attorney to move forward with suggested code amendments to Articles 3 and 10 of the LUDC pursuant to Attorney Drew Smith's memo; staff recommends approval.

Chair Carney referenced Attachment 3 of Attorney Smith's memo and requested clarification from Attorney New regarding the final statement on the legal issue. Attorney New explained that, in the absence of guidance from the Florida Attorney General, the Town is making a good faith effort to interpret and comply with state law; given the law's ambiguity and the potential for multiple interpretations, this recommendation is considered the most prudent approach until the legislature provides further clarification. Chair Carney questioned whether the Town could still face legal action under the current interpretation and asked who would represent the Town. Attorney New confirmed that litigation is possible and that her firm would provide representation. She added that her firm stands behind their legal recommendations and the Town would be responsible for associated legal fees.

Mr. Oebbecke observed the vague statutory language effectively leaves interpretation to individual municipalities, though it also creates the potential for litigation from landlords. Attorney New acknowledged this risk but emphasized that any plaintiff would need to demonstrate actual harm. When asked whether the legislature plans to clarify this issue, she responded it is currently unknown, but she will monitor developments.

Ms. Vanderbeek referenced the Attorney General's response, noting that while they declined to answer questions one and two, they did request a supplemental memorandum clarifying the Town's definition of "short-term rental." She inquired whether that had been submitted. Mr. Lear

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responded that after consultation with Attorney Smith, it was determined to be unnecessary. He added that the long-term rental program is currently on hold. In response to a question from Mr. Oebbecke regarding the financial impact of this hold, Mr. Lear estimated the loss to the Town at approximately $170,000.

Chair Carney expressed his opinion that if the long-term rental program is not reinstated, the Town would avoid expenses related to inspections and other administrative costs associated with the program. The background and purpose of the RPP was briefly discussed. Chair Carney then inquired how property maintenance standards apply to homes that are not used as rentals. Mr. Lear explained that all properties, regardless of occupancy status, must comply with the International Code Council (ICC) Property Maintenance standards, which have been adopted by the Town. The discussion shifted to the implications of the landlord-tenant relationship and the potential risks it may pose to the Town, including the role of rental inspections. Mr. Oebbecke asked why the Town maintains an inspection program. Mr. Lear responded that the program exists to protect the health, safety and welfare of individuals residing in rental properties. Mr. Oebbecke emphasized his strong support for rental inspections, citing safety as a primary concern.

Chair Carney opened public participation. Mr. Dennis Craig, 68 Seawinds Circle, identified himself as the subject of the code enforcement case. He stated that he submitted a rental application along with the $500 fee, which was accepted by the Town; however, his lease agreement was later rejected due to missing signatures and problematic terms. Despite the application being incomplete and noncompliant with Town requirements, Mr. Craig expressed frustration that the fee was not refunded. [*Editor's note: The Town ultimately issued a rental permit to Mr. Craig, for which the fee was required*]. Mr. Craig referenced a potential state preemption statute, asserting that regulation of residential tenancies falls exclusively under state jurisdiction and stated his belief that the Town's inspection requirements and lease review process amount to unauthorized regulation. Mr. Craig warned of possible legal action, suggesting the Town could face litigation through a declaratory judgment or enforcement challenge, and further claimed the Town may be liable for attorney fees if found in violation of state law. He maintained that the statute in question is clear and unambiguous, and recommended the Town repeal the ordinance, asserting it lacks the legal authority to enforce it.

Mr. Michael Lang, 4366 S. Atlantic Avenue, expressed concern that many properties are circumventing the Town's rental requirements, operating without inspections or as unregulated short-term rentals. He questioned the revenue the Town receives from the rental program, suggesting that it is not enough. Chair Carney closed public participation and reopened Board discussion. Mr. Oebbecke referred to Mr. Craig's earlier comments regarding his lease agreement and opined that if the Town seeks to avoid entanglement in landlord-tenant matters, it should not mandate specific lease provisions. Mr. Craig stated that the Town's standards include required lease terms, which he believes should be eliminated. Mr. Oebbecke agreed and stressed the importance of reviewing the ordinance to ensure it complies with state law and respects landlord rights.

Mr. Young inquired about the basis for the proposed legal conclusions. Attorney New explained that the conclusions were formed through internal legal analysis and the proposed changes reflect what is believed to be in the Town's best legal interest under existing Council policy. Mr. Lear reminded the Board that final authority rests with the Town Council, and that the Board's recommendation will be forwarded to Council for consideration in August and September, in advance of the new fiscal year.

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Mr. Young recommended that amending Articles 3 and 10 of the Land Use and Development Code (LUDC) related to rental registrations and inspections be forwarded to the Town Council with a recommendation of APPROVAL; seconded by Mr. Oebbecke. The motion PASSED 4-1, with the following vote: Mr. Young – yes; Mr. Oebbecke – yes; Vice-Chair Revak – yes; Chair Carney – no; Ms. Vanderbeek - yes.

9. PUBLIC PARTICIPATION: Chair Carney opened public participation – there was none.

10. BOARD DISCUSSION: *None.*

11. ADJOURNMENT: The meeting was adjourned at 6:44 p.m.

Prepared and submitted by,

Draft
Debbie Stewart
Assistant Deputy Clerk

Attachment(s): None

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Meeting Date: 8/21/2025

Agenda Item: 11-B

Report to Town Council

Topic: Resolution 2025-10 – Authorizing support for the Volusia County Local Mitigation Strategy (LMS).

Summary: The Local Mitigation Strategy (LMS) Plan coordinates mitigation efforts focused on reducing risks from hazards, and addresses infrastructure hardening and emergency power supply. The LMS is updated every five years and adopted by Volusia County and its municipalities to build a more disaster-resilient community. Please see the attached staff report and supporting documentation for more information. Due to its large size, the full LMS Plan was provided separately to the Town Council on August 7, 2025. It is available to the public on request.

Suggested motion: Approval of Resolution 2025-10 as presented.

Requested by: Mr. Lear, Planning & Development Director

Approved by: Mr. Disher, Town Manager

MEMORANDUM

TOWN OF PONCE INLET, PLANNING AND DEVELOPMENT DEPARTMENT

The Town of Ponce Inlet staff shall be professional, caring and fair in delivering community excellence while ensuring Ponce Inlet obtain the greatest value for their tax dollar.

To: Michael, E. Disher AICP, Town Manager

From: Darren Lear, AICP, Planning & Development Director

Date: August 6, 2025

Subject: Resolution 2025-10, authorizing support for the Volusia County Local Mitigation Strategy (LMS)

MEETING DATE: August 21, 2025

BACKGROUND

The LMS Plan was established in 1998 to help Volusia County and its municipalities to build a more disaster-resilient community. The plan coordinates mitigation efforts focused on reducing risks from hazards such as flooding, storm surge, high winds and also addresses infrastructure hardening and emergency power supply.

The LMS is a collaborative plan developed by local governments in Volusia County to reduce or eliminate risks to people and property from both natural and man-made hazards. All communities within Volusia County, including Ponce Inlet, have participated in the development and implementation of the update to the LMS through the "Volusia Prepares" working group. The LMS is a requirement for maintaining eligibility for future federal and state funding through programs such as Pre-Disaster Mitigation, Hazard Mitigation Assistance, and Flood Mitigation Assistance grants. Adoption of the LMS also ensures that local officials, residents, and businesses have access to valuable information that supports the protection of the community's population, property, infrastructure, economy, environment and overall quality of life. Town staff have actively participated in all required LMS meetings conducted by Volusia County Emergency Management and recommend moving forward with adoption of the updated plan.

Every five years, the LMS is updated and reviewed by the Florida Division of Emergency Management (FDEM) and the Federal Emergency Management Agency (FEMA). Once reviewed, it is adopted by Volusia County and its municipalities. The Town previously authorized support and participation in the LMS in 2020 (Res. 2020-06). The 2025 LMS plan document is provided with this report and resolution for reference.

RECOMMENDATION

Staff recommends adoption of Resolution 2025-10; authorizing support of the updated Volusia County Local Mitigation Strategy.

RESOLUTION 2025-10

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF PONCE INLET, AUTHORIZING SUPPORT FOR THE VOLUSIA COUNTY LOCAL MITIGATION STRATEGY (LMS); PROVIDING FOR CONFLICTING RESOLUTIONS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Town of Ponce Inlet is vulnerable to the human and economic costs of natural disasters and,

WHEREAS, the Town Council of the Town of Ponce Inlet realizes the importance of reducing or eliminating those vulnerabilities for the overall good and welfare of the community, and,

WHEREAS, the Town of Ponce Inlet has been an active participant in Volusia Prepares, the LMS working group, which has established a comprehensive, coordinated planning process involving the county and its municipalities, as well as other public and private-sector organizations, to decrease or eliminate these vulnerabilities, and

WHEREAS, the Town of Ponce Inlet's representatives and staff have identified, justified and prioritized projects and programs needed to mitigate the vulnerabilities of Ponce Inlet to the impacts of future disasters, and

WHEREAS, the Town of Ponce Inlet's representatives and staff have reviewed the information provided by or for the other participating jurisdictions and organizations, including the projects and programs they have proposed for incorporation into the Volusia County Local Mitigation Strategy, and

WHEREAS, these proposed projects and programs have been incorporated into the current edition of the Volusia County Local Mitigation Strategy that has been prepared and issued for consideration and implementation by the communities and jurisdictions of Volusia County.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF PONCE INLET, VOLUSIA COUNTY, FLORIDA, AS FOLLOWS:

SECTION 1. Support for the LMS.

1. The Ponce Inlet Town Council hereby accepts and approves of its designated portion of the Volusia County LMS; and

2. The Ponce Inlet Town Council accepts and endorses the mitigation goals and objectives established by Volusia Prepares for the countywide strategy and the anticipated schedule for the next updating of the strategy; and

3. The Ponce Inlet Town Council finds that the proposed mitigation projects and programs included in the strategy by the other jurisdictions and organizations are acceptable, will not adversely affect the Town or its neighborhoods and do not conflict with or duplicate the mitigation proposals made by the Town itself; and

4. The Town of Ponce Inlet personnel are requested and instructed to pursue available funding opportunities for implementation of the proposals designated therein; and

5. The Town of Ponce Inlet will, upon receipt of such funding or other necessary resources, seek to implement the proposals contained in the Town's individual section of the strategy; and

6. The Town of Ponce Inlet will continue to participate in the updating and expansion of the Volusia County Local Mitigation Strategy in the years ahead; and

7. The Town of Ponce Inlet will further seek to encourage the businesses, industries and community groups operating within the Town of Ponce Inlet to also participate in the updating and expansion of the Volusia County Local Mitigation Strategy in the years ahead.

SECTION 2. **Severability.** If any section, subsection, sentence, clause, phrase, or portion of this Resolution, or application hereof, is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion or provision in such holding shall not affect the validity of the remaining portions or applications hereof.

SECTION 3. **Conflicting Resolutions.** All Resolutions or parts thereof in conflict herewith or contrary hereto are hereby repealed to the extent of such conflict.

SECTION 4. **Effective Date.** This Resolution shall take effect immediately upon its adoption.

It was moved by Council member _____ and seconded by Councilmember _____ that this Resolution shall be adopted. A roll call vote of the Town Council on said motion resulted as follows:

Mayor Paritsky, Seat #1	_____
Councilmember Milano, Seat #2	_____
Councilmember White, Seat #3	_____
Councilmember, Villanella Seat #4	_____
Vice-Mayor Smith, Seat #5	_____

Passed on this _____ day of _____, 2025.

Town of Ponce Inlet, Florida

_____
Lois A. Paritsky, Mayor

ATTEST:

_____
Kim Cherbano, CMC
Town Clerk

VOLUSIA COUNTY, FLORIDA

MULTI-JURISDICTIONAL LOCAL MITIGATION STRATEGY

PREPARED BY THE ECFRPC
AND THE VOLUSIA PREPARES LMS WORKING GROUP
JANUARY 2025

SECTION 1: INTRODUCTION

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SECTION 1 – INTRODUCTION

This section of the Plan provides a general introduction to the Volusia County Multi-Jurisdictional Local Mitigation Strategy (LMS). It consists of the following five subsections:

- **Background**
- **Purpose**
- **Scope**
- **Authority**
- **Summary of Plan Contents**

1.1 BACKGROUND

Natural hazards, such as hurricanes, floods and tornadoes, are a part of the world around us. Their occurrence is natural and inevitable, and there is little we can do to control their force and intensity. We must consider these hazards to be legitimate and significant threats to human life, safety and property.

Volusia County, Florida is vulnerable to a wide range of natural hazards, including hurricanes and tropical storms, flooding, tornadoes and wildfires. These hazards threaten the life and safety of county residents and have the potential to damage or destroy both public and private property and disrupt the local economy and overall quality of life of individuals who live, work and vacation in the community.

While the threat from hazardous events may never be fully eliminated, there is much we can do to lessen their potential impact upon our community and our citizens. By minimizing the impact of hazards upon our built environment, we can prevent such events from resulting in disasters. The concept and practice of reducing risks to people and property from known hazards is generally referred to as *hazard mitigation*.

FEMA Definition of Hazard Mitigation:
"Any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards."

Hazard mitigation techniques include both structural measures, such as strengthening or protecting buildings and infrastructure from the destructive forces of potential hazards and non-structural measures, such as the adoption of sound land use policies and the creation of public awareness programs. It is widely accepted that the most effective mitigation measures are implemented at the local government level, where decisions on the regulation and control of development are ultimately made. A comprehensive mitigation approach addresses hazard vulnerabilities that exist today and in the foreseeable future. Therefore, it is essential that projected patterns of future development are evaluated and considered in terms of how that growth will increase or decrease a community's overall hazard vulnerability.

As a community formulates a comprehensive strategy to hazard mitigation, a key component is to develop, adopt and update a Local Mitigation Strategy. An LMS/hazard mitigation plan establishes a broad

community vision and guiding principles for reducing hazard risk and further proposes specific mitigation actions to eliminate or reduce identified vulnerabilities. Each of the jurisdictions has adopted the LMS by resolution (**Appendix H**).

The Volusia County Multi-Jurisdictional Local Mitigation Strategy has evolved over the years, as more thoroughly described in Section 2: Planning Process. The Volusia Prepares LMS Working Group (LMS Working Group) has developed Bylaws and Operating Procedures (**Appendix A**) to formalize the LMS update process and working group. The Plan documents and represents the County's and participating local jurisdictions' sustained efforts to incorporate hazard mitigation principles and practices into the routine government activities and functions of Volusia County and its participating jurisdictions and partners. This includes documenting the goals and objectives that Volusia County deems necessary to protect people and property from hazards. At its most inner core, the Plan recommends specific actions to combat hazard vulnerability and protect its residents from losses to those hazards that pose the greatest risk. Actions go beyond recommending micro-level solutions such as elevation, retrofitting and acquisition projects, and address macro-level solutions. Examples of macro-level actions that contribute to reducing the future vulnerability of Volusia County include local policies on community growth and development, incentives for natural resource protection and public awareness and outreach activities. Finally, the Plan is a living document, with implementation, evaluation and update procedures included to help achieve meaningful objectives and successful outcomes over time.

1.1.1 Disaster Mitigation Act of 2000

To reduce the Nation's mounting natural disaster losses, the U.S. Congress passed the Disaster Mitigation Act of 2000 (DMA 2000) to amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Section 322 of DMA 2000 emphasizes the need for state and local government entities to closely coordinate mitigation planning activities and makes the development of a hazard mitigation plan a specific eligibility requirement for any local government applying for federal mitigation grant funds. These funds include the Hazard Mitigation Grant Program (HMGP) and the Pre-Disaster Mitigation (PDM) program, both of which are administered by the Federal Emergency Management Agency (FEMA) under the Department of Homeland Security. Communities with an adopted and federally approved hazard mitigation plan thereby become pre-positioned and are more apt to receive available mitigation funds before and after the next disaster strikes.

The Volusia County Multi-Jurisdictional LMS has been prepared in coordination with FEMA Region IV and the Florida Division of Emergency Management to ensure that the Plan meets all applicable DMA 2000 and state requirements. A *Local Mitigation Plan Review Crosswalk*, found in **Appendix B**, provides a summary of federal and state minimum standards and notes the location where each requirement is met within the Plan.

1.2 PURPOSE

The purpose of the Volusia County Multi-Jurisdictional LMS is to:

- **Provide a comprehensive update to the *Volusia County Local Hazard Mitigation Plan*, as previously amended in 2020, that is compliant with federal and state requirements.**
  - This Plan is intended to assist participating jurisdictions to comply with requirements in order to expedite the response and recovery process. In addition, compliance is often required to obtain state and federal funding for pre-disaster mitigation projects and post-disaster situations. This Plan allows participating jurisdictions to quickly assemble the necessary grant application materials when seeking funding.

- **Provide a methodical, substantive approach to mitigation planning.**
  - The use of a methodical approach ensures that each step in the planning process builds upon the last, resulting in a high level of assurance that proposed mitigation actions have a valid basis.

- **Enhance public awareness and understanding of hazard mitigation planning.**
  - Engaging the public in the local mitigation planning process shapes the goals, objectives and policies in this Plan. Further, it provides a method for educating the public on how to protect themselves from the impacts of hazards.

- **Create a decision tool for management.**
  - This plan provides local managers, leaders and officials with the tools needed to reduce vulnerabilities to future hazard events.

- **Enhance local policies for hazard mitigation capability.**
  - The Capability Assessment found in Section 7 outlines the policies in Volusia County and the participating jurisdictions to reduce hazard vulnerability. Volusia County's participating jurisdictions aim to enhance and create policies to address mitigating the impacts of a hazard if such policies do not exist.

- **Assure inter-jurisdictional coordination of mitigation-related programming.**
  - By creating a Multi-Jurisdictional plan, this Plan ensures coordination of mitigation activities. This ensures that mitigation actions proposed or implemented by one jurisdiction will be compatible with the actions pursued by another.

- **Provide jurisdiction-specific hazard mitigation vulnerability assessments and actions.**
  - The vulnerability of each jurisdiction will be outlaid in the Vulnerability Assessment. Further, each jurisdiction, based on its vulnerability, will have actions to address hazard vulnerability.

1.3 SCOPE

The focus of the Volusia County Multi-Jurisdictional LMS is on those hazards deemed to be "high" or "moderate" risk as determined through a detailed hazard risk assessment conducted for Volusia County. Other hazards that pose a "low" or "negligible" risk will continue to be evaluated during future updates to the Plan, but they may not be fully addressed until they are determined to be of high or moderate risk. This enables Volusia County and its participating jurisdictions to prioritize mitigation actions based on those hazards which are understood to present the greatest risk to lives and property.

The geographic scope (i.e., the planning area) for the Plan includes all areas within the unincorporated jurisdiction of Volusia County and the participating incorporated municipalities: Daytona Beach, Daytona Beach Shores, DeBary, DeLand, Deltona, Edgewater, Holly Hill, Lake Helen, New Smyrna Beach, Oak Hill, Orange City, Ormond Beach, Pierson, Ponce Inlet, Port Orange and South Daytona. In addition, other entities, such as the Volusia County School District, Halifax Medical Center, various Advent Health locations, American Red Cross and the Daytona Beach International Airport participated in the planning process. See Section 2 for a full list of participating entities.

1.4 AUTHORITY

The Volusia County Multi-Jurisdictional LMS has been developed in accordance with current state and federal rules and regulations governing local hazard mitigation plans and has been adopted by Volusia County and its participating jurisdictions and partners in accordance with standard local procedures. The Plan shall be routinely monitored and revised to maintain compliance with the following provisions, rules and legislation:

- Section 322, Mitigation Planning, of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as enacted by Section 104 of the Disaster Mitigation Act of 2000 (P.L. 106-390); and
- FEMA's Interim Final Rule published in the Federal Register on February 26, 2002, at 44 CFR Part 201.

1.5 SUMMARY OF PLAN CONTENTS

The contents of this Plan are designed and organized to be as reader-friendly and functional as possible. While significant background information is included in the processes used and studies completed (i.e., risk assessment, capability assessment), this information is separated from the more meaningful planning outcomes or actions (i.e., mitigation strategy, mitigation action plans).

Section 2: ***Planning Process***, provides a complete narrative description of the process used to prepare the Plan. This includes the identification of who was involved, who participated on the planning team, and how the public and other stakeholders were involved. It also includes a detailed summary for each of the key meetings held along with any associated outcomes.

The ***Community Profile***, located in Section 3, describes the general makeup of Volusia County, including prevalent geographic, demographic and economic characteristics. In addition, building characteristics and land use patterns are discussed. This baseline information provides a snapshot of the planning area and thereby assists local officials recognize those social, environmental and economic factors that ultimately play a role in determining community vulnerability to hazards.

The Risk Assessment is presented in three sections: Section 4: ***Hazard Identification***; Section 5: ***Hazard Profiles***; and Section 6: ***Vulnerability Assessment***. Together, these sections serve to identify, analyze and assess the overall risk posed to Volusia County and the participating jurisdictions from hazards. The risk assessment also attempts to define any hazard risks that may uniquely or exclusively affect specific areas of Volusia County or its participating jurisdictions and partners.

The ***Capability Assessment***, found in Section 7, provides a detailed analysis of the capacity in Volusia County and the participating jurisdictions to implement meaningful mitigation strategies and identifies existing opportunities to increase and enhance that capacity. Specific capabilities addressed in this section include planning and regulatory capability, staff and organizational (administrative) capability, technical capability, fiscal capability and political capability.

The ***Community Profile, Risk Assessment*** and ***Capability Assessment*** collectively serve as a basis for determining the goals for the Volusia County Multi-Jurisdictional LMS, each contributing to the development, adoption and implementation of a meaningful and manageable *Mitigation Strategy* that is based on accurate background information.

The ***Mitigation Strategy***, found in Section 8, consists of broad countywide goal statements as well as an analysis of hazard mitigation techniques for Volusia County and its participating jurisdictions and partners to consider in reducing hazard vulnerabilities. The Strategy provides the foundation for a detailed ***Mitigation Action Plan***, found in Section 9, which links specific mitigation actions for each County department or agency to locally assigned implementation mechanisms and target completion dates. Together, these sections are designed to make the Plan both strategic (through the identification of long-term goals) but also functional through the identification of short-term and immediate actions that will guide day-to-day decision-making and project implementation.

In addition to the identification and prioritization of possible mitigation projects, emphasis is placed on the use of program and policy alternatives to help make Volusia County and the participating jurisdictions less vulnerable to the damaging forces of hazards while improving the economic, social and environmental health of the community. The concept of multi-objective planning was emphasized throughout the planning process, particularly in identifying ways to link, where possible, hazard mitigation policies and programs with complimentary community goals related to disaster recovery, housing, economic development, recreational opportunities, transportation improvements, environmental quality, land development and public health and safety.

Section 10: ***Plan Maintenance Procedures*** includes the measures that Volusia County and the participating jurisdictions will take to ensure the Plan's continuous long-term implementation. The procedures also include the manner in which the Plan will be regularly evaluated and updated to remain a current and meaningful planning document.

SECTION 2 – PLANNING PROCESS

44 CFR Requirement

44 CFR Part 201.6(c)(1): The plan shall include documentation of the planning process used to develop the plan, including how it was prepared, who was involved in the process and how the public was involved.

This section describes the planning process undertaken by Volusia County in the development of the 2025 Multi-jurisdictional Local Mitigation Strategy. It consists of the following six subsections:

- **Overview of Hazard Mitigation Planning**
- **History of Hazard Mitigation Planning in Volusia County**
- **Preparing the 2025 Plan**
- **The Volusia Prepares Local Mitigation Strategy Working Group**
- **Community Meetings and Workshops**
- **Involving the Public and Identified Stakeholders**

2.1 OVERVIEW OF HAZARD MITIGATION PLANNING

Local hazard mitigation planning is the process of organizing community resources, identifying and assessing hazard risks and determining how to best minimize or manage those risks. This process results in a hazard mitigation plan that identifies specific mitigation actions, each designed to achieve both short-term planning objectives and a long-term community vision.

To ensure the functionality of a hazard mitigation plan, responsibility is assigned for each proposed mitigation action to a specific individual, department or agency along with a schedule or target completion date for its implementation. Plan maintenance procedures are established for the routine monitoring of implementation progress, as well as the evaluation and enhancement of the mitigation plan itself. These plan maintenance procedures ensure that the plan remains a current, dynamic and effective planning document over time that becomes integrated into the routine local decision-making process.

Mitigation planning offers many benefits, including:

- **Saving lives and property**
- **Saving money**
- **Speeding recovery following disasters**
- **Reducing future vulnerability through wise development and post-disaster recovery and reconstruction**
- **Expediting the receipt of pre-disaster and post-disaster grant funding**
- **Demonstrating a firm commitment to improving community health and safety**

Typically, mitigation planning is described as having the potential to produce long-term and recurring benefits by breaking the repetitive cycle of disaster loss. A core assumption of hazard mitigation is that

the investments made before a hazard event will significantly reduce the demand for post-disaster assistance by lessening the need for emergency response, repair, recovery and reconstruction. Furthermore, mitigation practices will enable local residents, businesses and industries to re-establish themselves in the wake of a disaster, getting the community economy back on track sooner and with less interruption.

The benefits of mitigation planning go beyond solely reducing hazard vulnerability. Measures such as the acquisition or regulation of land in known hazard areas can help achieve multiple community goals, such as preserving open space, maintaining environmental health and enhancing recreational opportunities. Thus, it is vitally important that any local mitigation planning process be integrated with other concurrent local planning efforts, and any proposed mitigation strategies must consider other existing community goals or initiatives that will help complement or hinder their future implementation.

2.2 HISTORY OF HAZARD MITIGATION PLANNING IN VOLUSIA COUNTY

Volusia County's hazard mitigation planning efforts began in 1997 with the formation of the Volusia Prepares Committee. The committee developed the first LMS in 1999 (adopted 2000), as part of the Florida Department of Community Affairs LMS Initiative. The previous version of the LMS, prior to the 2025 version, was updated and adopted in 2020.

2.3 PREPARING THE 2025 LMS

The 2025 LMS update was prepared by the East Central Florida Regional Planning Council with assistance from Volusia County Emergency Management Staff. The LMS Update process was led by Volusia County Emergency Management Plans Coordinator Aubrie Austin. The LMS plan was updated from June 2024 to January 2025.

Per the contractual scope of work[1], the consultant team utilized the mitigation planning process recommended by FEMA (Publication Series 386) and recommendations provided by Florida Division of Emergency Management mitigation planning staff. A Local Mitigation Plan Crosswalk, found in Appendix C, provides a detailed summary of FEMA's current minimum standards of acceptability for compliance with the DMA 2000 and notes the location of where each requirement is met within the Plan. These standards are based upon FEMA's Interim Final Rule as published in the Federal Register on February 26, 2002, in Part 201 of the 44 Code of Federal Regulations.

The 2025 LMS was prepared using an updated plan outline and incorporated relevant content from the 2020 LMS. The LMS Working Group updated various parts of the 2020 LMS, as exemplified below:

- *Stakeholders*
  The LMS Working Group identified additional stakeholders that would like to participate in the LMS update process. These stakeholders were invited to subsequent meetings.

- *Plan Outline*
  The LMS Working Group did not revise the plan outline that was proposed by the consultant.

[1] A copy of the negotiated contractual scope of work between Volusia County and ECFRPC is available through Volusia County upon request.

- *Hazards*
  The LMS Working Group decided to include natural hazards starting with the 2009 LMS update, per DMA 2K requirements. Additional manmade and technical hazards occurrences have been included because the rise in occurrences over past years. Many of these hazards are addressed through other emergency preparedness and response plans (e.g., Comprehensive Emergency Management Plan, Emergency Response Plan, Emergency Action Plan, etc.), but cascading impacts have increased the need for mitigation.

- *Hazards Identification Scoring (for reference)*
  In 2024, prior to this plan update, each jurisdiction reviewed the hazards scores that were included in the 2020 LMS (Comparison of Jurisdictional Relative Risk) and modified the scores for each hazard to reflect changes in the impacted area; probability of occurrence; and affects to the built and natural environment and economy.

- *Goals and Objectives*
  The LMS Working Group reviewed the goals and objectives as part of the 2025 update cycle. Through a series of meetings at the beginning of the update process, all goals and objectives were assessed, combined, and/or updated to better reflect the changing needs of the county.

- *Vulnerability Assessment*
  The Vulnerability Assessment was updated using property appraiser data, Resilient Florida Statute Guidelines, and NOAA/USACE predications, as well as the most recent local parcel data (October 2024) for GIS analysis. Hazard maps, hazards exposure and loss estimates were included when appropriate. See Sections 4, 5 and 6 for further information.

- *Hazard Mitigation Initiatives*
  The LMS Working Group decided to continue to use the Excel-based mitigation initiative status and scoring system. See Section 9 for further information.

- *LMS Working Group Bylaws and Operating Procedures (for reference)*
  The LMS Working Group updated the Bylaws and Operating Procedures in 2014 with the facilitated assistance from the consultant with changes made since the 2009 LMS update.

- *Capability Assessment*
  In 2009, a Capability Assessment was prepared, which was not included in the 2005 LMS. This assessment was updated for the 2020 LMS. A survey was conducted among the participating jurisdictions to update the 2025 LMS.

The process used to update this LMS included:

- Conducted the Preliminary Meeting with Volusia County Emergency Management to establish planning process, roles, responsibilities, etc. in preparation for the Kickoff Meeting.
- Conducted the Kickoff Meeting with the Volusia Prepares LMS Working Group
- Offered engagement opportunities for the general public

- Implemented the Vulnerability Assessment produced by the East Central Florida Regional Planning Council (ECFRPC)
- Updated the Capability Assessment
- Conducted Mitigation Strategy Meetings with the Volusia Prepares LMS Working Group and invited the general public to attend. The meetings focused on the plan outline and data collection process, as well as a review of the first draft of the updated 2025 plan.
- Developed the Mitigation Strategy with the LMS Working Group
- Updated the scores for the Mitigation Initiatives
- Updated the Mitigation Initiatives status and scoring of potential projects
- Updated the LMS Plan Maintenance process

Each of these planning steps resulted in critical work products and outcomes that collectively make up the Plan. These elements have been included as separate sections of the Plan (further described in Section 1: Introduction).

The jurisdictions will consider using content from the LMS into other planning initiatives.

2.4 VOLUSIA PREPARES LOCAL MITIGATION STRATEGY WORKING GROUP

To guide the development of this Plan, Volusia County reconvened its Volusia Prepares LMS Working Group that was created under past planning efforts. Since the previous update, some changes have been made to the LMS working group in terms of personnel. The LMS Working Group includes representatives of various public, private and non-profit organizations throughout the county. The LMS Working Group represents a community-based planning team made up of local government officials and other key stakeholders identified to serve as critical partners in the planning process.

Opportunities were provided for all Volusia County jurisdictions, agencies, businesses, academia and other interested parties to participate in the LMS update process. All Volusia Prepares information is emailed to city managers, business owners, chambers of commerce, agencies, non-profits, emergency managers and other county partners.

Several non-profits (e.g., American Red Cross, Volusia Interfaiths/Agencies Networking in Disaster and United Cerebral Palsy) have participated in the LMS update process and have approved initiatives in the LMS. There is a Volusia Prepares Business group that has developed a Business Operations Center and emergency business database. They've also held several business planning workshops.

Beginning in June 2024, the LMS Working Group members engaged in regular discussions as well as local meetings and planning workshops to discuss and complete tasks associated with preparing the Plan. This working group coordinated together on all aspects of plan preparation and provided valuable input to the process. In addition to regular meetings, committee members routinely communicated and were kept informed through an e-mail distribution list and internet web site.

Specifically, the tasks assigned to the LMS Working Group members included:

- Participate in LMS update meetings and workshops.
- Provide best available data.

- Help complete the Capability Assessment Survey and provide copies of any mitigation or hazard-related documents for review and incorporation into the Plan.
- Support the development of the Mitigation Strategy, including the design and adoption of community goal statements.
- Help design and propose appropriate mitigation actions for their department/agency for incorporation into the Mitigation Action Plan. Provide a status update and assign a priority score to existing Mitigation Actions.
- Review and provide timely comments on all study findings and draft plan deliverables.
- Support the adoption of the 2025 Volusia County Multi-Jurisdictional Local Mitigation Strategy by all participating jurisdictions.

In addition to these tasks, the Volusia Prepares LMS Working Group consists of a subcommittee responsible for the integration of the County's Program for Public Information (PPI) report into the workflow of the Volusia Prepares Working Group. This includes the creation of an annual report that reviews the status and applicability of the plan.

Section 2 Table 1 lists the members of the Volusia County Prepares LMS Working Group who were responsible for participating in the development of the Plan.

Section 2 Table 1: Volusia County Prepares LMS Working Group

NAME	AGENCY / JURISDICTION	EMAIL	TITLE
Justin Barton	Daytona Beach	bartonjustin@codb.us	Engineer
Angie Sehenuk	Daytona Beach	sehenukangie@codb.us	Engineer
Lori Irwin	Daytona Beach Shores	lirwin@cityofdbs.org	Finance Director
Amy Long	DeBary	awilliamson@debary.org	Public Works Director
David Hamstra	DeBary	david@PegasusEngineering.net	Engineering Consultant
Mike Grebosz	DeLand	greboszm@deland.org	Assistant City Manager
Kieu Moses	DeLand	mosesk@deland.org	Special Projects Coordinator
Jonathan Jacob	DeLand	jacobj@deland.org	Imaging Specialist
Sue Houle	Deltona	shoule@deltonafl.gov	Logistics Manager
Bill Snyder	Deltona	bsnyder@deltonafl.gov	City Fire Chief
Tyna Lynn Hilton	Edgewater	thilton@cityofedgewater.org	Environmental Services Administrator
Sandy Camp	Edgewater	scamp@cityofedgewater.org	Grants Administrator
Steve Juengst	Holly Hill	sjuengst@hollyhillfl.org	Deputy Public Works Director
Jim Gleason	Lake Helen	jgleason@lakehelen.org	City Administrator
David Hamstra	New Smyrna Beach	david@pegasusengineering.net	Engineering Consultant
Kyle Fegley	New Smyrna Beach	kfegley@cityofnsb.com	City Engineer
Mark Bell	Oak Hill	publicworks@oakhillfl.gov	Public Works Director
John Peters	Orange City	jpeters@orangecityfl.gov	Engineering Services Director

NAME	AGENCY / JURISDICTION	EMAIL	TITLE
Joseph Ruiz	Orange City	jruiz@orangecityfl.gov	Development Services Deputy Director
Ronnie Long	Orange City	rlong@orangecityfl.gov	Fire Chief
Loretta Moisio	Ormond Beach	Loretta.Moisio@ormondbeach.org	Grants Coordinator
Robin Gawel	Ormond Beach	Robin.Gawel@ormondbeach.org	Senior Planner
Yvonne Braddock	Pierson	townclerk@townofpierson.org	City Clerk
Hank Baker	Ponce Inlet	hbaker@ponce-inlet.org	Building Official
Ami Pierce	Ponce Inlet	apierce@ponce-inlet.org	Office Manager Building & Permit
Valerie Duhl	Port Orange	vduhl@port-orange.org	Community Development Engineer
Marget Tomlinson	Port Orange	mtomlinson@port-orange.org	Construction & Engineering Manager
Becky Witte	South Daytona	bwitte@southdaytona.org	Deputy City Clerk
James Gillis Jr	South Daytona	lgillis@southdaytona.org	City Manager
Josh McEnany	South Daytona	jmcenany@southdaytona.org	Economic Development Director
Jessica Fentress	Volusia County Coastal Division	jfentress@volusia.org	Coastal Division Director
Niles Cyzycki	Volusia County Coastal Division	NCyzycki@volusia.org	Coastal Division Activity Project Manager
Corry Brown	Volusia County Community Assistance	cabrown@volusia.org	Community Assistance Operations Manager
Aubrie Austin	Volusia County Emergency Management	alaustin@volusia.org	Emergency Management Operations Coordinator
Yolanda Buckles	Volusia County Emergency Management	ybuckles@volusia.org	Emergency Management Planner II
Suzie Darby	Volusia County Emergency Services	sdarby@volusia.org	Emergency Services Operations Manager
Samantha West	Volusia County Environmental Management	swest@volusia.org	Sustainability & Resiliency Manager
Jeff Alberts	Volusia County Fire Rescue	jalberts@volusia.org	Fire Department Deputy Fire Chief
Nancy Church	Volusia County GIS	nchurch@volusia.org	GIS Project Leader
Jill Hemmerlein	Volusia County Planning and Development Services	jhemmerlein@volusia.org	CRS Coordinator
Arden Fontaine	Volusia County Public Works	afontaine@volusia.org	Public Works Deputy Director
David Linkinhoker	Volusia County Recovery and Resiliency	dlinkinhoker@volusia.org	Recovery and Resiliency Projects Coordinator
Chris William	Volusia County Recovery and Resiliency	crwilliams@volusia.org	Recovery and Resiliency Activity Projects Manager
Ron Young	Volusia County School Board	Reyoung@volusia.k12.fl.us	School Board Director Planning & Construction
Michael Ulrich	Volusia County Water Resources and Utilities	Mulrich@volusia.org	Water Resources and Utilities Director
Michael Poinatowski	Advent Health	Michael.poinatowski@adventhealth.com	Emergency Manager
Pat White	Aptim	Patricia.white@aptim.com	Planner

NAME	AGENCY / JURISDICTION	EMAIL	TITLE
Karen Feaster	Daytona Beach International Airport	kfeaster@volusia.org	Airport Director
McKenna Korzeniewski	East Central Florida Regional Planning Council	MKorzeniewski@ecfrpc.org	Resilience Planner II
Michelle Cechowski	East Central Florida Regional Planning Council	mcechowski@ecfrpc.org	Director of Emergency Preparedness
Austin Beeghly	FDEM	Austin.Beeghly@em.myflorida.com	Regional Response Coordinator
Elizabeth Caison	FDEM	Elizabeth.Caison@em.myflorida.com	Regional Recovery Coordinator
Stephen Civitelli	Florida Health Department - Volusia	Stephen.Civitelli@flhealth.gov	Director
Tim MacHardy	Mosquito Control	Tmachardy@volusia.org	Activity Project Manager
Cammie Dewey	St. Johns River WMD	cdewey@sjrwmd.com	Strategic Planning Basin Coordinator
Jim Cannon	St. Johns River WMD	Jcannon@sjrwmd.com	Intergovernmental Coordinator
Jim Peterson	St. Johns River WMD	JPeterson@sjrwmd.com	Strategic Planning Basin Coordinator
Mike McMunigle	St. Johns River WMD	MJMcMuni@sjrwmd.com	Strategic Planning Basin Coordinator

2.5 COMMUNITY MEETINGS AND WORKSHOPS

The preparation of this Plan required a series of meetings and workshops for facilitating discussion, gaining consensus and initiating data collection efforts with local government staff, community officials and other identified stakeholders. More importantly, the meetings and workshops prompted continuous input and feedback from relevant participants throughout the drafting stages of the Plan. Below is a summary of the key meetings and community workshops held during the development of the plan update.

In many cases, routine discussions and additional meetings were held by local staff to accomplish planning tasks specific to their department or agency, such as the approval of specific mitigation actions for their jurisdiction, department or agency to undertake and include in the Mitigation Action Plan. Preplanning efforts began in January 2024. The LMS Working Group was notified in the first quarter meeting that the LMS update was this year, and their participation was vital to the plan's success.

The following is a summary of the meetings that occurred during the LMS update planning process. Meeting invitations, agendas, minutes and rosters are provided in Appendix D.

Volusia Prepares Kickoff Meeting

June 21, 2024

The Kickoff Meeting was held at the Volusia Emergency Operations Center, 3825 Tiger Bay Road and was attended by the LMS Working Group. The primary purpose of the meeting was to explain the proposed planning process in detail, describe individual roles and responsibilities and begin initial data collection efforts. The LMS Working Group was asked to identify additional stakeholders, new plans, data and studies to incorporate into the LMS update.

Public Kickoff Meeting

September 20, 2024

The Working Group's Quarter 3 Meeting was open to the public. This meeting was held at the Volusia County Emergency Operations Center. The goal was to begin the public engagement process. The objective was to inform the Working Group and the public on the progress made up to that point and to discuss any updates needed to the priority project list.

Public Engagement Meetings

November 25 and 26, 2024

Two public meetings were held to inform the public of the planning process and the overall scope of the 2025 Volusia County Local Mitigation Strategy. Maps and a draft plan were provided and general items within the plan were discussed. Special attention was given to community members' needs and recommendations for the plan.

Volusia Prepares Meeting #2 and Conclusion Meeting for Public

December 13, 2024

The next Local Mitigation Strategy Meeting was held at the Volusia County Emergency Operations Center, 3825 Tiger Bay Road. The purpose of this meeting was to inform the jurisdictions and the public on the plan update and obtain comments and feedback.

The final opportunity for public comment will take place at the County Council meeting when the plan is presented for formal adoption. Upcoming community outreach efforts will focus on including the concepts of mitigation in current public information activities, and to make the public aware of this planning process, its goals and objectives, and opportunities for public input at every possible occasion.

2.6 INVOLVING THE PUBLIC AND IDENTIFIED STAKEHOLDERS

A press release was issued from Volusia County Community Information, by the Volusia County Public Information Officer, to invite the public to participate in the LMS development and provide comments on the LMS. The press release included background information about the LMS process, the agenda topics, date, time and location information. Public feedback was accepted by emails, in meetings, in surveys, or by contacting the LMS Coordinator. In addition, the LMS was also placed on the Volusia County Emergency Management's Website.

The public and community stakeholders were invited to "Public Meetings" during the LMS planning process (see Appendix D). These meetings were hosted at two different public library locations to reach different parts of the community. Additionally, they were hosted at different times of the day, one evening and one morning, to accommodate various residents.

The public was also invited to the Volusia Prepares meetings conducted on September 20th and December 13th at the Volusia County EOC.

VCEM engaged community leaders from low-income and underserved communities to request input on the risks and hazards over the 5-year planning period. The survey was distributed to these partners as a way to report local experiences of hazard events (see Appendix D).

SECTION 3 – COMMUNITY PROFILE

This section of the Plan provides an overview of Volusia County, Florida. It consists of the following five subsections:

- **Geography and the Environment**
- **Population and Demographics**
- **Housing, Infrastructure and Land Use**
- **Employment and Industry**
- **Development Trends**

A variety of resources were used to obtain reliable data and information about the community's profile and demographics. To develop this plan, sources such as the U.S. Census, BEBR reports, and Volusia County Property Appraiser information, were utilized.

3.1 GEOGRAPHY AND THE ENVIRONMENT

Volusia County was established in 1854 as a prosperous steamboat landing area. It lies on the central coast of eastern Florida and is comprised of 1,103 square miles of land and 329 square miles of water (bounded to the north and south by the coastal counties of Flagler and Brevard). Several counties border Volusia County to the west including Putnam, Marion, Lake and Seminole. The County is located approximately 40 miles from Orlando, 95 miles from Jacksonville and 105 miles from Tampa, Florida.

There are 16 incorporated areas within Volusia County, of which Deltona is the largest in terms of population. An orientation map of the Volusia County study area is provided as **Section 3 Figure 1**. The participating jurisdictions in this plan include Daytona Beach, Daytona Beach Shores, DeBary, Deland Deltona, Edgewater, Holly Hill, Lake Helen, New Smyrna Beach, Oak Hill, Orange City, Ormond Beach, Pierson, Ponce Inlet, Port Orange, South Daytona, and the unincorporated area of Volusia County.

Forest land accounts for approximately 56 percent of the land area in Volusia County[1]. There is an abundance of public land in Volusia County. For example, the northern portion of the county, abutting Flagler County, is located in the North Peninsula State Recreation Area. In addition, the southern coastal portion of the county, adjacent to Brevard County, is part of the Canaveral National Seashore.

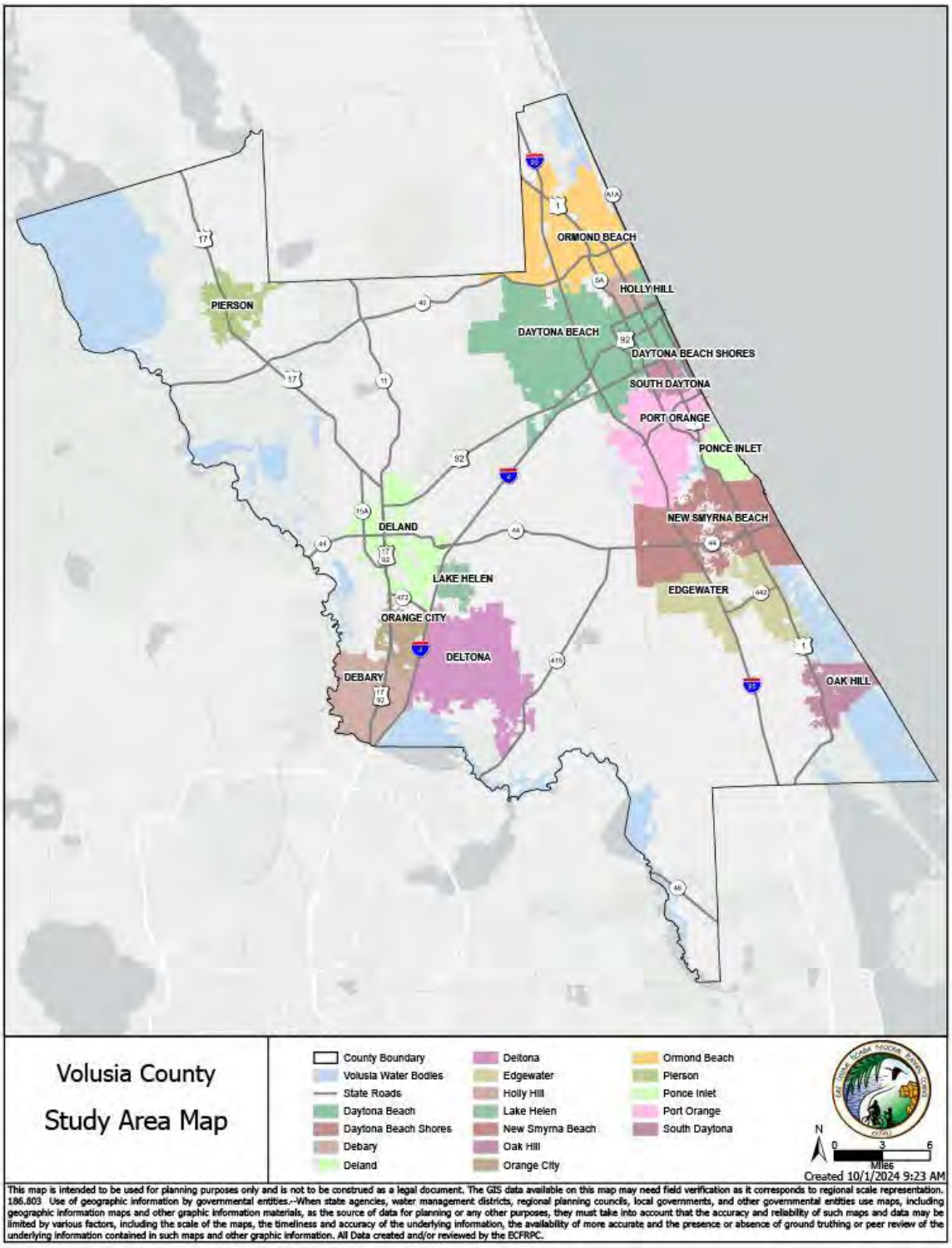
The climate in Volusia County is considered sub-tropical with generally warm, humid temperatures year-round. The average winter temperature is 61 degrees Fahrenheit. The average summer temperature is 81 degrees Fahrenheit, though it typically exceeds 90 degrees Fahrenheit in the months of June, July, and August. The average annual precipitation is 53.83 inches.

The dominant surface water resources in Volusia County are Halifax River, Indian River Lagoon, Mosquito Lagoon, Lake George (37,884 acres), Lake Monroe (5,423 acres), and Lake Harney (3,210 acres)[2].

[1] http://www.freshfromflorida.com
[2] Volusia County Comprehensive Plan, Figure 1-2 Legend for Water Bodies

There are many other water areas throughout the County, which are fed by numerous creeks, bayous and other minor tributaries.

Section 3: Figure 1: Volusia County Study Area Map



Source: Volusia County GIS, ECFRPC GIS

3.2 POPULATION AND DEMOGRAPHICS

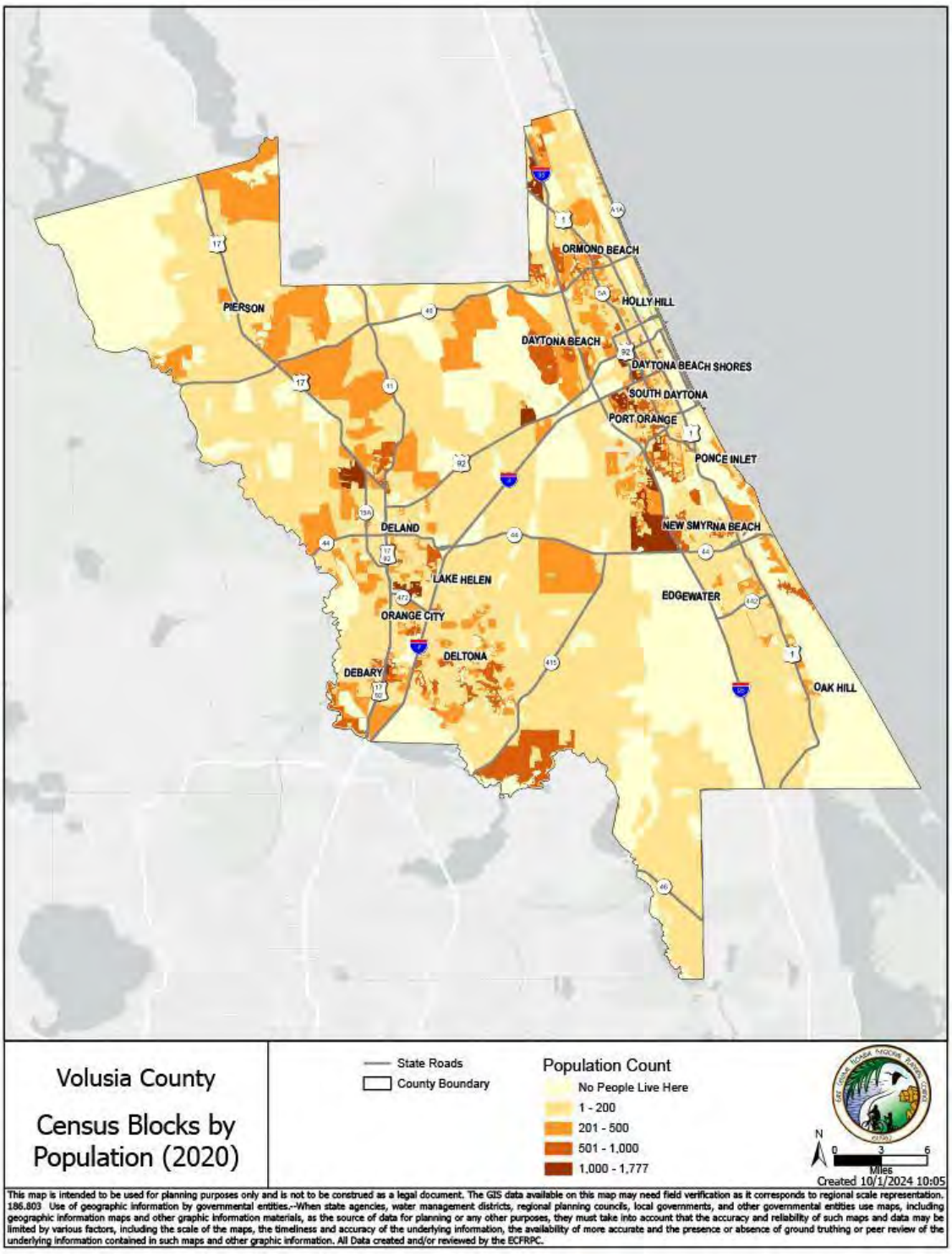
According to the U.S. Census Bureau, the 2023 estimated population of Volusia County was 590,357. This represents a 6.7 percent increase from 2020, when the population was 553,537. **Section 3: Table 1** provides the 2020 populations of the cities and unincorporated areas within Volusia County, along with the 2023 population estimates as provided by the U.S. Census Bureau. In addition, **Section 3: Figure 2** shows the population distribution in Volusia County.

Section 3: Table 1: Population of Cities and Unincorporated Areas in Volusia County[3]

JURISDICTION	2020 POPULATION	2023 POPULATION ESTIMATE
Daytona Beach	71,586	82,485
Daytona Beach Shores	5,120	5,194
DeBary	22,255	23,209
DeLand	37,786	43,009
Deltona	93,701	98,739
Edgewater	23,111	23,636
Holly Hill	12,970	13,075
Lake Helen	2,843	2,964
New Smyrna Beach	30,210	32,655
Oak Hill	2,011	2,128
Orange City	12,631	14,928
Ormond Beach	43,070	44,277
Pierson	1,540	1,558
Ponce Inlet	3,365	3,450
Port Orange	62,619	65,966
South Daytona	12,852	13,781
Unincorporated	115,867	119,303

[3] U.S. Census Bureau, Population Division (May 2024) & University of Florida Bureau of Economic and Business Research (January 2024). https://bebr.ufl.edu/wp-content/uploads/2024/01/projections_2024.pdf

Section 3: Figure 2: Population of Cities and Unincorporated Areas in Volusia County



Source: U.S. Census Bureau (2020)

According to the 2022 U.S. Census American Community Survey, the median age for the County was 46.6 years. This is higher than the Florida median age of 42.7 years of age. It is estimated that 25.4 percent of the County's population is made up of persons that are 65 years old and over, which is higher than the State figure of 21.6 percent.

The racial mix in Volusia County is predominately white, but has other populations. White persons make up 70.4 percent of the County's population. Black or African American persons accounted for 10.1 percent of the Volusia County population, less than the state percentage of 15.0 percent. Asians comprised 2.0 percent of the population compared to the state's 2.9 percent. People of two or more races comprise 7.6 percent of the population in the County.

According to the Census American Community Survey, in 2022 there were 2.7 people per household. There were 2.32 people per household according to the 2010 U.S. Census.

Section 3: Table 2: Average Number of Persons Per Household

JURISDICTION	AVERAGE NUMBER OF PERSONS PER HOUSEHOLD
Daytona Beach	2.7
Daytona Beach Shores	2.2
DeBary	2.7
DeLand	2.9
Deltona	3.2
Edgewater	2.6
Holly Hill	2.5
Lake Helen	2.5
New Smyrna Beach	2.4
Oak Hill	1.7
Orange City	2.6
Ormond Beach	2.5
Pierson	2.9
Ponce Inlet	2.1
Port Orange	2.6
South Daytona	2.7
Unincorporated	2.8

Source: U.S. Census Bureau

3.3 HOUSING, INFRASTRUCTURE, AND LAND USE

3.3.1 Housing

According to the Census Bureau's 2022 American Community Survey, there are 273,835 housing units in Volusia County. Of these structures, 68.8 percent are single-unit and 22.7 percent are multi-unit. The remaining 8.5 percent are mobile homes or other types of housing. The median value of owner-occupied housing units was $251,400, compared to the $178,700 state average and the $193,500 national average.[4]

3.3.2 Infrastructure

Infrastructure is categorized in this Plan as Transportation and Utilities, as these elements are vital in a disaster event, both for evacuation and for response and recovery efforts. Volusia County is endowed with multi-modes of transportation and has several utility providers.

Transportation

Volusia County has several transportation options whether traveling by automobile, rail, or air. There are two federal interstates which run through the County: Interstate 95 runs north to south along the coast, and Interstate 4 runs northeast, connecting the County to Orlando, and merging with I-95 near Daytona Beach. There are also four federal highways (U.S. 1, U.S. 17, U.S. 40 and U.S. 92). There are also four major railway transportation providers (Amtrak, CSX, Florida East Coast Railway, and SunRail), and a number of regional airports. The major area airport is Daytona Beach International Airport. In addition, Port Canaveral, a deep-water port, and one of the busiest cruise ports in the world, is located about 70 miles south of Volusia County in Brevard County.

Utilities

Florida Power and Light, Duke Energy, City of New Smyrna Beach Utilities Commission, and Clay Electric Cooperative serve the electricity needs in Volusia County. The natural gas suppliers are Florida Public Utilities and TECO People's Gas. Water and sewer services are provided by a number of different sources including Volusia County Utilities, North Peninsula Utilities Corporation, and municipal governments.

[4] https://data.census.gov/table/ACSDP5Y2022.DP04?g=050XX00US12127&d=ACS%205-Year%20Estimates%20Data%20Profiles

3.3.3 Land Use

Section 3: Table 2 shows the current vacant commercial, industrial, institutional, other, and residential land in Volusia County as of 2024 rounded up to the nearest whole numbers.

Section 3: Table 3: Vacant Land in Acres Throughout Volusia County

JURISDICTION	VACANT COMMERCIAL	VACANT INDUSTRIAL	VACANT INSTITUTIONAL	VACANT OTHER	VACANT RESIDENTIAL
Daytona Beach	1488	241	95	6830	817
Daytona Beach Shores	25	0.5	0.7	137	10
DeBary	298	46	-	739	491
DeLand	447	127	30	2084	676
Deltona	576	152	9	1691	1165
Edgewater	464	220	2	1360	518
Holly Hill	67	31	0.6	45	96
Lake Helen	100	-	7	185	631
New Smyrna Beach	654	150	15	2978	626
Oak Hill	143	-	3	796	479
Orange City	827	91	0.8	259	236
Ormond Beach	651	63	5	2947	628
Pierson	65	-	0.8	900	745
Ponce Inlet	17	-	4	221	67
Port Orange	514	42	130	2127	311
South Daytona	125	9	1	73	39
Unincorporated Area	1735	333	41	6305	40339

Source: Volusia County Property Appraiser, ECFRPC

3.4 EMPLOYMENT AND INDUSTRY

Volusia County began as a prosperous steamboat landing town in the early 1800s. Today, employment is based largely in the public sector. According to the 2022 American Community Survey, the civilian labor force in Volusia County is approximately 255,301. The top employers are Volusia County Schools, and the local hospital systems.

From an industry perspective, the main economic sources for the county are educational services, and health care and social assistance (21.7%); Retail trade (13.6%); Professional, scientific, and management, and administrative and waste management services (12.4%); and Arts, entertainment, and recreation, and accommodation and food services (11.5%).[5]

In 2022, the estimated median household income for Volusia County was $64,601, less than the State at $72,200 and U.S. medians of $80,610.[6]

[5] https://data.census.gov/table/ACSDP5Y2022.DP03?g=050XX00US12127&d=ACS%205-Year%20Estimates%20Data%20Profiles

[6] https://fred.stlouisfed.org/series/MHIFL12127A052NCEN

3.5 DEVELOPMENT TRENDS

Volusia County experienced substantial growth between 2000 and 2005 followed by a sharp decline in growth between 2009 and 2012, as indicated by U.S. Census residential building permit data. Growth has generally rebounded since 2013.

Section 3: Table 4: Annual Residential Building Permit Data, Volusia County

YEAR	TOTAL RESIDENTIAL UNITS	YEAR OVER YEAR CHANGE
2000	3,147	---
2001	5,112	+ 1,965
2002	4,171	-941
2003	5,112	+ 941
2004	4,920	- 192
2005	5,186	+ 266
2006	2,961	- 2,225
2007	1,577	- 1,384
2008	1,053	- 524
2009	600	- 453
2010	653	+ 53
2011	539	- 114
2012	760	+ 221
2013	1,307	+ 547
2014	1,205	- 102
2015	987	- 218
2016	1,077	+ 90
2017	1,496	+ 419
2018	1,598	+ 102
2019	1,928	+ 105
2020	2,035	+ 107
2021	2,759	+724
2022	3,519	+ 760
2023	3,232	-287
2024	2,574	-658

Source: U.S. Census Bureau, 2013-2017 ACS; Volusia County Connect Permits[7]

For a list of new developments in Volusia County please visit the Land Development section of the Volusia County Growth and Resource Management Department website at the following link: http://www.volusia.org/services/growth-and-resource-management/planning-and-development/land-development/

[7] https://connectlivepermits.org/citizenportal/app/public-search on 12/18/2024

SECTION 4 – HAZARD IDENTIFICATION

This section is the first of three sections that assess the risk of Volusia County and the participating jurisdictions to hazards. This section identifies a wide range of hazards that could potentially impact the County. Section 5: ***Hazard Profiles*** provides more detailed information about how the identified hazards specifically impact the County and participating jurisdictions. Section 6: ***Vulnerability Assessment*** provides detailed analyses results that indicate the number of damages that could occur in the County because of the identified hazards. Together, these sections serve to identify, analyze and assess the overall risk posed to Volusia County and the participating jurisdictions from hazards. The risk assessment also attempts to define any hazard risks that may uniquely or exclusively affect specific areas of Volusia County or its participating jurisdictions and partners.

Volusia County and the participating jurisdictions are vulnerable to a wide range of natural hazards[1] that threaten life and property. Upon a review of the full range of natural hazards suggested under FEMA planning guidance, Volusia County and the participating jurisdictions have identified several hazards that are to be addressed in this Multi-Jurisdictional LMS. These hazards were identified through an extensive process that utilized input from the Local Mitigation Strategy Working Group (LMS Working Group) members, research of past disaster declarations in the County, a review of previous hazard mitigation plans in the County, and a review of the current Florida Hazard Mitigation Plan. Readily available online information from reputable sources such as federal and state agencies was also evaluated to supplement information from these key sources.

Section 4: Table 1 lists the full range of natural hazards initially identified for consideration in the Plan and provides a brief description for each. This table includes seventeen (17) individual hazards categorized by the following types: natural, technological, and manmade. Some of these hazards are interrelated or cascading (i.e., hurricanes can cause flooding, storm surge and tornadoes). It should also be noted that some hazards, such as extreme temperature may impact a large area yet cause little damage, while other hazards, such as tornadoes, may impact a small area yet cause extensive damage.

Section 4: Table 1: Descriptions of the Full Range of Initially Identified Hazards

HAZARD	DESCRIPTION
Natural	
Agriculture	Agriculture includes Infestations, Invasive Species, and Diseases Infestation or disease in agriculture is when biological entities such as insects, rodents, bacteria or viruses significantly increase in a given area, affecting crops to the point where human and animal health is threatened, valuable crops may be damaged or significant environmental resources may be lost.
Coastal Erosion	Landward displacement of a shoreline caused by the forces of waves and currents define coastal erosion. Coastal erosion is measured as the rate of change in the

[1] FEMA's current regulations and interim guidance under the Disaster Mitigation Act of 2000 (DMA 2000) require, at a minimum, an evaluation of a full range of natural hazards. An evaluation of human-caused hazards (e.g., technological hazards, terrorism, etc.) is encouraged, though not required, for plan approval. Volusia County has focused solely on natural hazards at this time. Incorporation of human-caused hazards may be evaluated in future versions of the plan, as it is a "living document" which will be monitored, evaluated and updated regularly.

HAZARD	DESCRIPTION
	position or horizontal displacement of a shoreline over a period. It is generally associated with episodic events such as hurricanes and tropical storms, nor'easters, storm surges and coastal flooding but may also be caused by human activities that alter sediment transport. Construction of shoreline protection structures can mitigate the hazard but may also exacerbate it under some circumstances.
Drought	A drought is a prolonged period of less than normal precipitation such that the lack of water causes a serious hydrologic imbalance. Common effects of drought include crop failure, water supply shortages, and fish and wildlife mortality. High temperatures, intense winds, and low humidity can worsen drought conditions and make areas more susceptible to wildfire. Human demands and actions can hasten or mitigate drought-related impacts on local communities.
Extreme Temperature	Extreme temperature generally refers to temperatures that are unusually high or low compared to typical weather conditions for a specific location and time of year. However, defining what constitutes "extreme" can be challenging due to context, location, history, and duration. Volusia County defines extreme temperature in two ways. • Extreme cold may include snow, sleet, freezing rain, or a mix of these wintry forms of precipitation. Ice storms occur when moisture falls and freezes immediately upon impact on trees, power lines, communication towers, structures, roads and other hard surfaces. Winter storms and ice storms can down trees, cause widespread power outages, damage property, and cause fatalities and injuries to human life. • Extreme heat is defined as temperatures that hover 9 degrees or more above the average high temperature of 90°F for the region and last for 3 or more consecutive days. Humid or muggy conditions, which add to the discomfort of high temperatures, occur when a "dome" of high atmospheric pressure traps hazy, damp air near the ground.
Flood	The accumulation of water within a water body results in the overflow of excess water onto adjacent lands, usually floodplains, causing flood or rising waters in various ways. Floods have three categories: riverine, coastal, or shallow flooding (which includes sheet flow, ponding, and urban drainage). A floodplain is the land adjoining the channel of a river, stream ocean, lake or other watercourse or water body that is susceptible to flooding.
Public Health Emergencies	Public health emergencies consist of disease and pandemic outbreaks. They may be accidental, natural, or intentional. Under section 319 of the Public Health Service Act (42 U.S.C § 319), the Secretary of the Department of Health and Human Services (HSS) can declare a public health emergency. This can include medical surges (often from mass casualty events) that require hospitals to act beyond normal capacity.
Rising Coastal Waters	Rising coastal waters is a hazard that refers to unprecedented water levels along the coast, usually leading to inland affects. This hazard encompasses: • Storm surge is a large dome of water often 50 to 100 miles wide and rising anywhere from four to five feet in a Category 1 hurricane up to more than 30 feet in a Category 5 storm. Storm surge heights and associated waves are also dependent upon the shape of the offshore continental shelf (narrow or wide) and the depth of the ocean bottom (bathymetry). A narrow shelf, or one that drops steeply from the shoreline and subsequently produces deep

HAZARD	DESCRIPTION
	water close to the shoreline, tends to produce a lower surge but higher and more powerful storm waves. Storm surge arrives ahead of a storm's actual landfall and the more intense the hurricane is, the sooner the surge arrives. Storm surge can be devastating to coastal regions, causing severe beach erosion and property damage along the immediate coast. • Sea level rise is caused by warming of the earth's climate, the associated thermal expansion of water molecules, and generally impacts coastal, lagoon-adjacent and river-adjacent areas that are hydrologically connected to the ocean. Sea level rise has been observed over the past few decades in Central Florida, including Volusia County. Projections by NOAA and the U.S. Army Corps of Engineers depict varying levels of sea level rise by the year 2100. As part of this plan, sea level rise and sea level rise-plus storm surge are analyzed. • Tsunamis are a wave or series of waves mostly caused by an earthquake or by a large undersea landslide, volcanic eruption or other undersea disturbance. From the area of disturbance, tsunami waves will travel outward in all directions and can originate hundreds or even thousands of miles away from affected coastal areas.
Severe Weather	Severe weather refers to any significant or intense weather conditions that can cause damage, disruption, or pose a threat to safety. It encompasses a range of phenomena that are more extreme than typical weather conditions. Volusia County experiences severe weather in a variety of ways. • A hail event produces hailstones that fall to the ground. Hail forms when updrafts in thunderstorms carry raindrops into parts of the atmosphere where the temperatures are below freezing. • Lightning is a discharge of electrical energy resulting from the buildup of positive and negative charges within a thunderstorm, creating a "bolt" when the buildup of charges becomes strong enough. This flash of light usually occurs within the clouds or between the clouds and the ground. A bolt of lightning can reach temperatures approaching 50,000 degrees Fahrenheit. Lightning rapidly heats the sky as it flashes, but the surrounding air cools following the bolt. This rapid heating and cooling of the surrounding air causes thunder. On average, 73 people are killed each year by lightning strikes in the United States. • Thunderstorms are caused by air masses of varying temperatures meeting in the atmosphere. Rapidly rising warm and moist air fuels the formation of thunderstorms. They can move through an area very quickly or linger for several hours.
Tornado	A tornado is a violently rotating column of air that has contact with the ground and is often visible as a funnel cloud. Its vortex rotates cyclonically with wind speeds ranging from as low as 40 mph to as high as 300 mph. Tornadoes are most often generated by thunderstorm activity when cool, dry air intersects and overrides a layer of warm, moist air forcing the warm air to rise rapidly. The destruction caused by tornadoes ranges from light to catastrophic depending on the intensity, size, and duration of the storm.
Tropical Cyclones	Hurricanes and tropical storms are classified as tropical cyclones and defined as any closed circulation developing around a low-pressure center in which the winds rotate

HAZARD	DESCRIPTION
	counterclockwise in the Northern Hemisphere (or clockwise in the Southern Hemisphere) and with a diameter averaging 10 to 30 miles across. When maximum sustained winds reach or exceed 39 miles per hour, the system is designated a tropical storm, given a name, and is closely monitored by the National Hurricane Center. When sustained winds reach or exceed 74 miles per hour the storm is deemed a hurricane. The primary damaging forces associated with these storms are high-level sustained winds, heavy precipitation and tornadoes. Coastal areas are also vulnerable to the additional forces of storm surge, wind-driven waves and tidal flooding which can be more destructive than cyclone wind. Most hurricanes and tropical storms form in the Atlantic Ocean, Caribbean Sea and Gulf of Mexico during the official Atlantic hurricane season, which extends from June through November.
Wildland Fire	An uncontrolled fire burning in an area of vegetative fuels such as grasslands, brush, or woodlands. Heavier fuels with high continuity, steep slopes, high temperatures, low humidity, low rainfall, and high winds all work to increase risk for people and property located within wildfire hazard areas or along the urban/wildland interface. Wildfires are part of the natural management of forest ecosystems, but most are caused by human factors. Over 80 percent of forest fires started by negligent human behavior such as smoking in wooded areas or improperly extinguishing campfires. The second most common cause for wildfire is lightning.
Manmade	
Civil Disturbance	Events of civil disturbances can be classified as armed violence, riots, protests, and threats against the military or the government. The proper planning and prevention methods aid in the mitigation of such events. For threats of civil disturbance utilizing armed violence, it is likely that a joint jurisdictional management of operations will take effect, coordinated at the county level between the Sheriff's Office, Florida Department of Law Enforcement (FDLE), and the Office of Emergency Management. Civil disturbances can occur due to socio-economic, political or other reasons. These types of events typically occur in public places.
Mass Migration	Mass-migration occurs when persons of one geographic area move in large numbers to another geographic location.
Terrorism	Terrorism includes any attempt to attack, cripple or damage public goods, public infrastructure or citizens on a large scale. Defined in the Code of Federal Regulations as "the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives" (28 C.F.R. Section 0.85). The various forms of terrorism Volusia County may experience come in four forms. • Agro-Terrorism: The deliberate introduction of disease-causing organisms and chemicals into the food supply through agriculture. It could impact the public if crops or agricultural foods contaminated with disease-causing organisms were to enter the food chain. • Cyber Terrorism: Unlawful attacks and threats of attack against computers, networks, and the information stored therein; and used to intimidate or coerce a government or its people in furtherance of political or social objectives.

HAZARD	DESCRIPTION
	• Domestic Terrorism: Violent, criminal acts committed by individuals and/or groups to further ideological goals stemming from domestic influences, such as those of a political, religious, social, racial, or environmental nature. • International Terrorism: Violent, criminal acts committed by individuals and/or groups who are inspired by, or associated with, designated foreign terrorist organizations or nations (state-sponsored).
Technological	
Coastal Oil Spill	An oil spill is the release of liquid petroleum into the environment, typically the ocean, rivers, or lakes. These spills can result from various incidents, including accidents involving oil tankers, offshore drilling rigs, pipelines, storage facilities, or during the extraction process. Oil spills can have severe environmental, economic, and health impacts. While oil spills would primarily affect the Gulf coast of Florida, oil spills can negatively affect tourism and ecological conditions on the Atlantic coast of Florida.
Critical Infrastructure Failure	Public utilities provide critical services such as drinking water, stormwater and wastewater collection/treatment, electric power, transportation, supply chains systems that support food and fuel, and communications. These services contribute to the economic well-being and public health/safety of the communities they serve. A utility service disruption can be a cascading emergency from an event such as a cyber-terrorism or a hurricane. Widespread power outages can occur without warning. Generally warning times will be short in the case of technological failure, such as a fire at a sub-station, traffic accident, human error, or terrorist attack. In cases where a power failure is caused by natural hazards, greater warning time is possible. For example, high wind events such as tornados and hurricanes often cause widespread power failure and are often forecasted before they affect a community so that residents can prepare.
HazMat / Industrial Incident	Hazardous material (HazMat) includes events when liquid, solid or gaseous chemicals that are harmful or fatal to humans or ecological infrastructure disperse into the atmosphere.

SPECIAL NOTE: The plan omits hazards that may be recognized to affect the jurisdiction(s) in the planning area. Rationale is that while some hazards may pose a risk to Volusia County, mitigation investments would not be deemed appropriate or feasible due to the impending need to mitigate more frequent disasters. Hazards, such as sinkholes and earthquakes, were omitted due to low probability, limited recorded impacts, and low economic impact. It is acknowledged that mitigation efforts can duplicate hazard mitigation benefits.

SECTION 5 – HAZARD PROFILES

44 CFR Requirement

44 CFR Part 201.6(c)(2)(i):
The risk assessment shall include a description of the type, location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

5.1 OVERVIEW

This section includes detailed hazard profiles for each of the hazards identified in the previous section as significant enough for further evaluation through the risk assessment in Volusia County. This includes the following hazards:

- **Natural**
  - Agriculture
  - Coastal Erosion
  - Drought
  - Extreme Temperature
  - Flood
  - Public Health Emergencies
  - Rising Coastal Water
  - Severe Weather
  - Tornado
  - Tropical Cyclones
  - Wildland Fire
- **Manmade**
  - Civil Disturbance
  - Mass Migration
  - Terrorism
- **Technological**
  - Coastal Oil Spill
  - Critical Infrastructure Failure
  - HazMat/ Industrial Incident

Each hazard profile described in this section includes a general description of the hazard, its location and extent, notable historical occurrences, the probability of future occurrences, potential impacts, and overall vulnerability. It also includes specific items noted by members of the Local Mitigation Strategy Working Group (LMS Working Group). The probability of future occurrence is expressed as “high” (expected to occur at least every five years), “moderate” (expected to occur at least every 25 years), “low”

(expected to occur at least every 100 years, and "very low" (is possible to occur, despite their being no recorded occurrences).

Major Disaster Declarations

In 1988, the Robert T. Stafford Disaster Relief and Emergency Assistance Act was enacted to support state and local governments when disasters overwhelm local resources. This law, as amended, establishes a process for requesting and obtaining a Presidential Disaster Declaration, defines the type and scope of assistance available from the federal government, and sets the conditions for obtaining that assistance. The Federal Emergency Management Agency (FEMA), now part of the Emergency Preparedness and Response Directorate of the Department of Homeland Security, is tasked with coordinating the response. Since 1965, Volusia County has received numerous presidential disaster declarations for such hazards as hurricanes, tornados, floods and severe freezes (**Section 5: Table 1**).

Section 5: Table 1: Presidential Disaster Declarations

EVENT	DECLARATION DATE	DECLARATION NUMBER
Severe Storms, Tornadoes, and Flooding	05/15/79	586
Tornadoes, Flooding, High Winds & Tides, Freezing	03/13/93	982
Tropical Storm Gordon, Tornadoes, Flooding	11/28/94	1043
Tropical Storm Josephine	10/15/96	1141
Severe Storms, High Winds, Tornadoes, Flooding	02/25/98	1195
Extreme Fire Hazard	07/03/98	1223
Hurricane Floyd	09/22/99	1300
Hurricane Irene	10/28/99	1306
Severe Freeze	02/06/01	159
Hurricane Charlie/Bonnie	08/13/04	1539
Hurricane Frances	09/04/04	1545
Hurricane Ivan	09/15/04	1551
Hurricane Jeanne	09/26/04	1561
Hurricane Katrina Evacuation	09/05/05	3220
Severe Storms, Tornadoes	02/03/07	1679
Severe Storms, Tornadoes, and Flooding	02/08/07	1680
Tropical Storm Fay	08/21/08	3288
Severe Storms, Flooding, Tornadoes, Straight-line Winds	05/27/09	1840
Hurricane Matthew	10/03/16	3377
Hurricane Irma	09/04/17	3385
Hurricane Michael	10/07/18	3405
Hurricane Dorian	08/28/19	3420
Florida Covid-19 Pandemic	03/25/20	4486

Hurricane Sally	09/23/20	4564
Hurricane Ian	09/29/22	4673
Hurricane Nicole	12/13/22	4680
Hurricane Idalia	08/31/23	4734
Hurricane Debby	08/10/24	4806
Hurricane Milton	10/11/2024	4834

Source: Federal Emergency Management Agency

Volusia County Emergency Management has had numerous significant disaster events that resulted in the activation of their Emergency Operations Center. **Section 5 Table 2** lists these events by type, area of impact, EOC activation level, the estimated number of properties that were damaged, and loss estimates.

Section 5: Table 2: Significant Activation Events

Date of Event	Type of Event	Area of Event	EOC Level Activation	Damage Estimate	
				Number of Properties	Dollars
3/13/1993	Windstorm	County-Wide	Level 2 (Part)	1273	16,948,355
5/4/1994	Tornado	Holly Hill	Level 2 (Part)	273	6,680,000
9/6/1994	I-4 Chemical Spill	SW Volusia	Level 1 (Mon)	N/A	N/A
11/17/1994	T.S. Gordon	County-Wide	Level 2 (Part)	658	10,602,924
8/3/1995	Hurricane Erin	Edgewater	Level 3 (Full)	31	65,052
3/11/1996	Windstorm	Daytona Beach	Level 1 (Mon)	8	28,000
7/10/1996	Hurricane Bertha	County-Wide	Level 2 (Part)	N/A	N/A
9/5/1996	Hurricane Fran	County-Wide	Level 2 (Part)	N/A	N/A
10/8/1996	T.S. Josephine	County-Wide	Level 1 (Mon)	193	1,232,343
4/23/1997	Tornado	NSB Peninsula	Level 2 (Part)	79	525,600
7/5/1997	Tornado	Oak Hill	Level 1 (Mon)	6	33,000
11/2/1997	Tornado	NSB Main & Penn	Level 2 (Part)	318	11,070,722
2/2/1998	Windstorm	Bethune Beach	Level 1 (Mon)	1	20,000
2/22/1998	Tornado	Daytona Beach	Level 2 (Part)	616	9,435,553
6/22/1998	Fire Storm "98"	County-Wide	Level 4 (Full)	22	2,126,013
7/28/1998	Tornado	Daytona Beach	Level 1 (Mon)	46	159,000
1/3/1999	Windstorm	SR 415 Area	Level 1 (Mon)	8	9,100
1/9/1999	Windstorm	Daytona Beach	Level 1 (Mon)	11	59,000
9/14/1999	Hurricane Floyd	East Side	Level 1 (Full)	433	18,655,353
10/16/1999	Hurricane Irene	East Side	Level 2 (Part)	185	16,809,266
1/1/2000	Y2K	County-Wide	Level 1 (Full)	N/A	N/A
5/31/2000	Wildfires 2000	County-Wide	Level 2 (Part)	N/A	N/A
9/16/2000	Hurricane Gordon	County-Wide	Level 2 (Part)	N/A	N/A
9/19/2000	Windstorm	DeLand	Level 2 (Part)	18	68,836
3/13/2001	Tornado	Daytona Beach	Level 2 (Part)	172	3,210,995
9/11/2001	Nat'l Terrorism Event	County-Wide	Level 2 (Part)	N/A	N/A
9/14/2001	T.S. Gabrielle	County-Wide	Level 2 (Part)	44	474,135
11/15/2001	Rain Event	East Volusia	Level 2 (Part)	39	561,300
4/18/2002	Amtrak Derailment	Putnam Co.	Level 2 (Part)	N/A	5,000

Date of Event	Type of Event	Area of Event	EOC Level Activation	Damage Estimate	
				Number of Properties	Dollars
9/4/2002	T.S. Edouard	County-Wide	Level 2 (Part)	N/A	N/A
1/13/2003	Water Plant Breach	Debary	Level 2 (Part)	N/A	30,000
7/3/2004	Pepsi 400 Dis Race	Daytona Beach	Level 2 (Part)	N/A	N/A
8/13/2004	Hurricane Charley	County-Wide	Level 1 (Full)	5719	106,900,000
9/4/2004	Hurricane Frances	County-Wide	Level 1 (Full)	26964	393,900,000
9/25/2004	Hurricane Jeanne	County-Wide	Level 1 (Full)	UNK	59,500,000
7/2/2005	Pepsi 400 Dis Race	Daytona Beach	Level 2 (Part)	N/A	N/A
9/8/2005	T.S. Ophelia	County-Wide	Level 2 (Part)	Beach	N/A
10/23/2005	Hurricane Wilma	County-Wide	Level 2 (Part)	3	752,000
2/19/2006	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	N/A
7/1/2006	Pepsi 400 Dis Race	Daytona Beach	Level 2 (Part)	N/A	N/A
8/29/2006	T.S. Ernesto	County- Wide	Level 2 (Part)	N/A	N/A
12/25/2006	Tornado	DeLand-Daytona Bch.	Level 3 (Mon)	210	32,000,000
2/2/2007	Tornado	DeLand-NSB	Level 2 (Part)	771	60,557,921
2/18/2007	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	N/A
5/6/2007	Airport Road Fire	Volusia/Flagler Co.	Level 2 (Part)	N/A	N/A
7/7/2007	Pepsi 400 Dis Race	Daytona Beach	Level 2 (Part)	N/A	N/A
2/17/2008	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	N/A
7/5/2008	Coke 400 Dis Race	Daytona Beach	Level 2 (Part)	N/A	N/A
8/18/2008	T.S. Fay	County-Wide	Level 1 (Full)	240	13,580,016
2/15/2009	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	N/A
5/17/2009	May Rainstorm	County-Wide	Level 2 (Part)	1654	69,516,703
7/7/2009	Coke Zero 400	Daytona Beach	Level 2 (Part)	N/A	N/A
7/24/2009	Port Orange Tornado	Port Orange	Level 3 (Monitor)	175	2,810,661
2/14/2010	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	
7/3/2010	Coke Zero 400	Daytona Beach	Level 2 (Part)	N/A	
2/20/2011	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	
2/28/2011	Iron Horse Fire (17,017 a.)	Volusia County	Level 3 (Monitor)	N/A	
5/26/2011	Volusia Command Fires	Volusia County	Level 3 (Monitor)	N/A	
6/2/2011	Coke Zero 400	Daytona Beach	Level 2 (Part)	N/A	
2/26-28/12	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	
7/7/2012	Coke Zero 400	Daytona Beach	Level 2 (Part)	N/A	
12/11-12/12	Tornado Terra Mar	Edgewater	Level 2 (Part)	N/A	1,692,498
2/24/2013	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	
3/2/2013	Durrance Fire	Ormond Beach	Level 3 (Monitor)	N/A	
6/6/2013	Tropical Storm Andrea	Countywide	Level 3 (Monitor)	N/A	
7/6/2013	Coke Zero 400	Daytona Beach	Level 2 (Part)	N/A	
2/23/2014	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	
7/1/2014	Tropical Storm Arthur	Countywide	Level 3 (Monitor)	N/A	
7/3/2014	T.S. Arthur	Countywide	Level 2 (Part)	N/A	
7/5-6/2014	Coke Zero 400	Daytona Beach	Level 2 (Part)	N/A	

Date of Event	Type of Event	Area of Event	EOC Level Activation	Damage Estimate	
				Number of Properties	Dollars
9/23/2014	No Name Rain Event	Port Orange/ NSB	Level 2 (Part)	150	1,500,000
3/22/2015	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	N/A
5/5/2015	Coke Zero 400	Daytona Beach	Level 2 (Part)	N/A	N/A
8/27-29/2015	T.S. Erika	Daytona Beach	Level 2 (Part)	N/A	N/A
2/21/2016	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	N/A
5/27-30/2016	Country 500	Daytona Beach	Level 2 (Part)	N/A	N/A
6/5-7/2016	T.S. Colin	Daytona Beach	Level 2 (Part)	N/A	N/A
7/2/2016	Coke Zero 400	Daytona Beach	Level 2 (Part)	N/A	N/A
10/6-20/2016	Hurricane Matthew	Countywide	Level 1 (Full)	N/A	493,500,000
2/26/2017	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	N/A
5/26-28/2017	Country 500	Daytona Beach	Level 2 (Part)	N/A	N/A
7/2/2017	Coke Zero 400	Daytona Beach	Level 2 (Part)	N/A	N/A
9/5-22/2017	Hurricane Irma	Countywide	Level 1 (Full)	N/A	371,091,000
2/18/2018	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	N/A
5/25-27/2018	Country 500	Daytona Beach	Level 2 (Part)	N/A	N/A
7/7/2018	Coke Zero 400	Daytona Beach	Level 2 (Part)	N/A	N/A
2/17/2019	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	N/A
7/7/2019	Coke Zero 400	Daytona Beach	Level 2 (Part)	N/A	N/A
9/2/2019	Hurricane Dorian	Countywide	Level 1 (Full)	N/A	2,600,600
2/16/20	Daytona 500 Race	Daytona Beach	Level 2 (Part)	N/A	N/A
8/1/20	Hurricane Isaias	Countywide	Level 2 (Part)	N/A	N/A
8/16/20	Nascar Series	Daytona Beach	Level 2 (Part)	N/A	N/A
8/19/20	Primary Day Tornado	DeLand	Level 2 (Part)	N/A	N/A
8/29/20	Coke Zero 400	Daytona Beach	Level 2 (Part)	N/A	N/A
2/16/21	Daytona 500	Daytona Beach	Level 2 (Part)	N/A	N/A
7/2/21	Hurricane Elsa	Countywide	Level 2 (Part)	N/A	N/A
8/28/21	Coke Zero 400	Daytona Beach	Level 2 (Part)	N/A	N/A
2/20/22	Daytona 500	Daytona Beach	Level 2 (Part)	N/A	N/A
8/28/22	Coke Zero Sugar 400	Daytona Beach	Level 2 (Part)	N/A	N/A
9/28/22	Hurricane Ian	Countywide	Level 1 (Full)	7,051	357,449,754
11/7/22	Hurricane Nicole	Countywide	Level 1 (Full)	615	495,385,828
2/19/23	Daytona 500	Daytona Beach	Level 2 (Part)	N/A	N/A
8/26/23	Coke Zero Sugar 400	Daytona Beach	Level 2 (Part)	N/A	N/A
8/28-8/30/23	Hurricane Idalia	Daytona Beach	Level 2 (Part)	N/A	N/A
1/18-1/19/24	Daytona 500	Daytona Beach	Level 2 (Part)	N/A	N/A
5/8-5/12/24	Rockville	Daytona Beach	Level 2 (Part)	N/A	N/A
8/24/24	Coke Zero Sugar 400	Daytona Beach	Level 2 (Part)	N/A	N/A
9/26/24	Hurricane Helene	Countywide	Level 2 (Part)	N/A	N/A
10/10/24	Hurricane Milton	Countywide	Level 1 (Full)	5,102	267,508,457
			**Totals -----> **	**53,414**	**$2,838,300,446**

Source: Volusia County Emergency Management Division (Revised 1/28/2025)

NOTE: ALL HISTORICAL OCCURRENCES IN THIS REPORT ARE THE MOST RECENT AS DOCUMENTED BY THE NATIONAL CLIMATIC DATA CENTER

NATURAL HAZARDS

5.2 AGRICULTURE

Background

Agriculture includes Infestations, Invasive Species, and Diseases Infestation or disease in agriculture is when biological entities such as insects, rodents, bacteria or viruses significantly increase in a given area, affecting crops to the point where human and animal health is threatened, valuable crops may be damaged, or significant environmental resources may be lost. Examples of common Volusia infestations are caused by mosquitos, citrus greening, southern pine beetle, Florida Dampwood Termites, rats, or noxious plants like Brazilian Pepper Tree, etc.

Cattle diseases like Mad Cow, Hartwater, and hoof-and-mouth and citrus disease like Greening and Canker are of concern to Volusia farmers. Coordination with the University of Florida IFAS and Volusia County Extension is the first step in mitigation planning for agricultural infestations and disease. A notable source of information on the distribution of invasive plants, insects, animals and diseases in Volusia can be found at the Early Detection and Distribution Mapping system website, http://www.eddmaps.org, known as EDDMapS. The EDDMapS web-based mapping system documents invasive species and disease distribution. The site combines data from other databases and organizations as well as volunteer observations to create a national network of invasive species distribution data that is used by scientists, researchers, land managers, landowners, educators, conservationists, ecologists, farmers, foresters, state and national parks. Florida has ecosystems not found in the other 47 contiguous states, and it also has more non-native species than any state other than Hawaii.

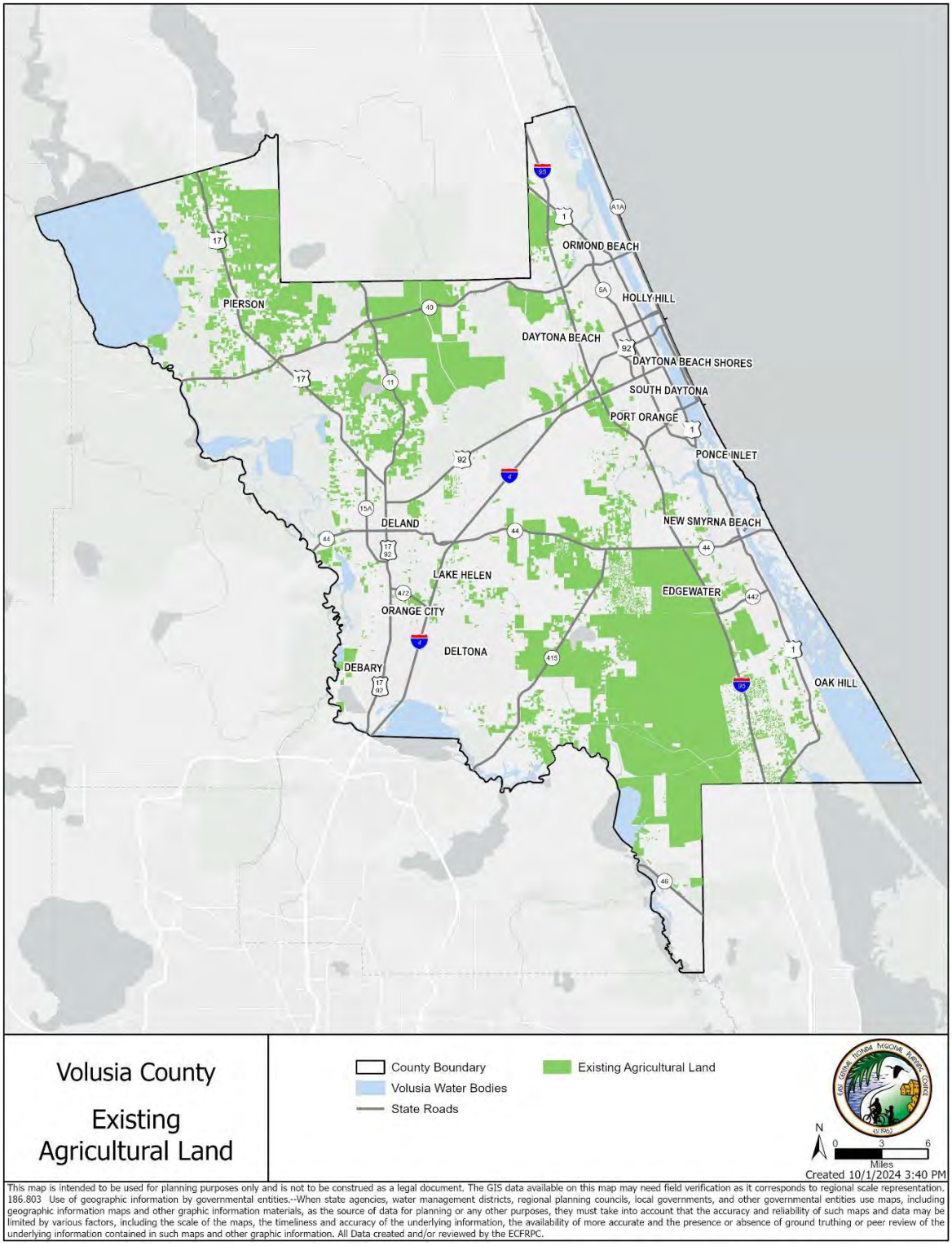
If important natural resources such as mangroves, sea oats, oyster beds, etc. are overrun by invading species, then the county will be more vulnerable to the consequences of all other hazards. With the disappearance of natural barriers, lower impacting hazards will have increasingly stronger impacts on residents, businesses, critical infrastructure and the ability of the County to provide uninterrupted program operations. Faculty members at the University of Florida currently are conducting research and outreach programs to better understand and control these exotic invasive species. Until controls are in place the entire population of Volusia is at risk to the effects of a degrading ecosystem.

Location and Spatial Extent

Agriculture incidents in Volusia County are quite rare and historically have not caused much damage to the community. In 2022, the county had 95,988 acres of farmland. Much of the agricultural land is located in the central western part of Volusia County, including Enterprise and Pierson. The extent encompasses small areas of crops within the county. Since 2022, there has been a 13% decrease in the number of farms that exist within the county. While the direct impacts may be rare, the indirect effects of an incident could be county-wide. From 2020 to 2024, at least 70 acres within the county are infested with non-native species.[1] **Section 5 Figure 1** displays the areas of the county most vulnerable to agricultural incidents based on areas zoned agricultural.

[1]https://www.eddmaps.org/tools/query/?observationDateStart=01/01/2020&observationDateEnd=08/12/2024&eradicationstatus=1,2&country=926&state=92612000&fipscode=92612127&records=current

Section 5: Figure 1: Volusia County Agricultural Land



Source: Volusia County Property Appraiser, ECFRPC

Section 5: Table 3: Farm Overview 2022[2]

	2022	% Change Since 2017
Number of Farms	1,374	-13
Land in Farms (Acres)	95,988	-16
Average Size of Farm (Acres)	70	-4

Historical Occurrences

With its plant-friendly south temperate/subtropical climate, Florida particularly suffers from the introduction and unchecked growth of exotic plants. Almost half (1,180) of the 3,834 plant species found in Florida have arrived here since European occupation. Since plants are the base of the food chain, exotic "takeovers" can jeopardize plant-dependent wildlife and the whole ecosystem. The Florida Exotic Pest Plant Council (FLEPPC) has identified 152 non-native invasive species that are invading and disrupting native plant communities (2011 list). In 2022, that has now increased to 172[3]. EDDMapS notes over 299 separate invasive plants, animal, and insect species found in Volusia County to date. Many of the listed species are distributed throughout the county and are found in natural and disturbed landscapes.

In Florida, at least 60 species of exotic birds have bred in the wild. Despite this fact, the chance of persisting survival of non-indigenous birds is uncertain. Among those species which have survived and thrived as pests are Muscovy ducks, rock doves, European starlings, house sparrows, and monk parakeets. Though troublesome in other respects, some species (such as feral pigs) are important as prey for native predators (Florida panthers) and serve as an attraction for hunters. However, negative impacts from invasive species include habitat destruction, competition with native species, predation, hybridization, disease and parasites.

Florida mammal pests include the Norway rat, roof rat, house mouse and feral pig. Siting of invasive fish in Volusia include Lionfish, and Nile Tilapia. Annually, insect pests cause an estimated $1 billion in damages in Florida, and many of the worst pests are non-indigenous. According to entomologist Dr. John Capinera, 1,218 invading insect species become established in Florida annually. These non-natives arrive by flying, walking, swimming, rafting and by stowing away on cargo (often on infested plants commercially imported).

In 1997 and 1998, Florida's agricultural community was forced to focus time and resources on communicating to the general public about the Mediterranean fruit fly (Medfly) and the control methods used to eradicate the pest when the fly threatened the state's $6.8 million agriculture industry. The Florida Agricultural Extension is a partnership between the University of Florida Institute of Food and Agricultural Sciences (IFAS), the United States Department of Agriculture (USDA) and county governments in Florida to provide scientific knowledge and expertise to the public through educational programs. Volusia County has cattle farms, citrus orchards, ferneries, and other agricultural enterprises that are vulnerable to infestations and disease. Information on these infestations and diseases is available at http://www.volusia.org/services/community-services/extension/.

[2]Source: 2022 Census of Agriculture County Profile
https://www.nass.usda.gov/Publications/AgCensus/2022/Online_Resources/County_Profiles/Florida/cp12127.pdf

[3]Source: https://www.floridainvasives.org/plant-list/2023-invasive-plant-species/

Probability of Future Occurrences

Agricultural threats will continue to pose a threat to Volusia County for years to come, but the probability remains low for catastrophic farming impacts. Agriculture does remain a threat because although the number of farms has decreased since 2017, the market value of products sold increased by 47% and farm related income by 116%.

5.3 COASTAL EROSION

Background

Coastal erosion is a hazard defined as the wearing away of land and loss of beach, shoreline, or dune material and is measured as the rate of change in the position or horizontal (landward) displacement of a shoreline over a period of time. Short-term erosion typically results from episodic natural events such as hurricanes and storm surge, windstorms and flooding hazards, but may be exacerbated by human activities such as boat wakes, removal of dune and vegetative buffers, shoreline hardening and dredging. Long-term erosion is a function of multi-year impacts such as wave action, sea level rise, sediment loss, subsidence and climate change. Climatic trends can change a beach from naturally accreting to eroding due to increased episodic erosion events caused by waves from an above-average number of storms and high tides, or the long-term effects of fluctuations in sea level.

Natural recovery from erosion can take years, often decades. If a beach or dune system does not recover quickly enough naturally, coastal and upland property may be exposed to further damage in subsequent coastal erosion and flooding events. Human actions to supplement natural coastal recovery, such as beach nourishment, dune stabilization and shoreline protection structures (e.g., sea walls, groins, jetties, etc.) can mitigate the hazard of coastal erosion, but may also exacerbate it under some circumstances.

Death and injury are not typically associated with coastal erosion; however, it can cause the destruction of buildings and infrastructure and represents a major threat to the local economies of coastal communities that rely on the financial benefits of recreational beaches.

Location and Spatial Extent

All coastal areas in Volusia County are susceptible to coastal erosion. The jurisdictions most vulnerable are displayed in **Section 5 Figure 2**. Using Florida Department of Environment (FDEP) field data beginning in 1972, it is clear that Volusia County shorelines are moving due to erosion, accretion, and beach nourishment projects[4]. Further, in July 2023, FDEP released a *Critically Eroded Beaches in Florida* report that identifies four critically eroded beach areas (27.2miles), two non-critically eroded beach area (2 miles) and one critically eroded inlet shoreline area (0.6 mile) in Volusia County.

A 16.6-mile segment of beach (R51 – R143) along Ormond Beach, Daytona Beach, Daytona Beach Shores, Wilbur By The Sea and the Town of Ponce Inlet is critically eroded, threatening development and recreational interests, as well as sea turtle nesting areas where the dry sand beach has become very narrow. Most of this segment is armored with seawalls.

Due to the erosional impacts of Hurricane Ian and Nicole in 2022, there is a 0.9-mile segment of a noncritically eroded beach within the Town of Ponce Inlet between R143 to R148.2 and no structures are threatened. The north shoreline (0.6-mile) of Ponce de Leon Inlet is critically eroded and threatens recreational interests at the county park. The 8.4 miles of beaches (R160.8 – R207.8) south of Ponce de Leon Inlet within New Smyrna Beach and Bethune Beach are critically eroded. Private development and recreational interests, as well as sea turtle nesting habitats, are threatened. Much of New Smyrna Beach

[4] Foster, Emmet and Jenny Cheng. Shoreline Beach Change Estimates, Volusia County, 2000. Office of Beaches and Coastal Systems, Florida Department of Environmental Protection; Beaches and Shores Research Center, Florida State University.

is armored with seawalls, with Bethune Beach protected by a boulder rock revetment. The New Smyrna Beach area has received inlet sand transfer material from dredging within Ponce de Leon Inlet and additional material from dredging the Atlantic Intracoastal Waterway. A 1.1-mile segment of the Canaveral National Seashore (R207.8 – R214) south of Bethune Beach is also non-critically eroded without any threatened interests at this time.[5]

The beach ridge in Volusia County ranges from 300 – 3,000 feet in width. A majority of the county, ranging approximately from Ormond Beach to Bethune Beach, has fine-grained quartz sand. Sand in areas north and south of this area consist of a shell-quartz mixture and have steeper slopes than the central county. The southernmost mile of shoreline in Volusia County makes up part of the Canaveral National Seashore Park, while the northernmost area is part of the North Peninsula State Recreation Area.

Historical Occurrences

Erosion events typically are part of other hazard events (e.g., storm surge and hurricanes) and the monetary damage for the erosion alone is unknown.

Section 5: Table 4: Historical Coastal Erosion Impacts

LOCATION	DATE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Volusia County	9/14/1999	0/0	$56,444,488 (2009 dollars)	Hurricane Floyd caused significant beach erosion in Volusia County. Of the property damage estimates, over $13 million was attributed to beach erosion.
St. Lucie and Volusia Counties	10/14/1999	0/0	$68,539,735 (2009 dollars)	Hurricane Irene caused beach loss of four to ten feet in the affected areas with damage in the millions.
Brevard and Volusia Counties	9/04/2001	0/0	$6,333,850 (2009 dollars)	Storm tide from a tropical storm reached two feet above normal, causing significant beach erosion.
St. Lucie and Volusia Counties	9/25/2004	0/0	$440,408,221 (2009 dollars)	Severe beach erosion was reported from Hurricane Jeanne, a category 3 storm.
Volusia County	8/21/2008	0/0	Unknown	New Smyrna Beach experienced a loss of 50 feet of new sand due to wind gust of over 45 MPH from Tropical Storm Fay. Even Orange and Seminole counties experienced riverine erosion along the St. Johns River.
St. Johns, Flagler, Volusia and Brevard Counties	10/6/16	0/0	$15.8 million	Under executive authority, Governor Rick Scott announced on January 27, 2017, that emergency funding of $15.8 million would be made available for emergency beach and dune repairs in response to the damage caused by Hurricane Matthew. The emergency funding was intended for

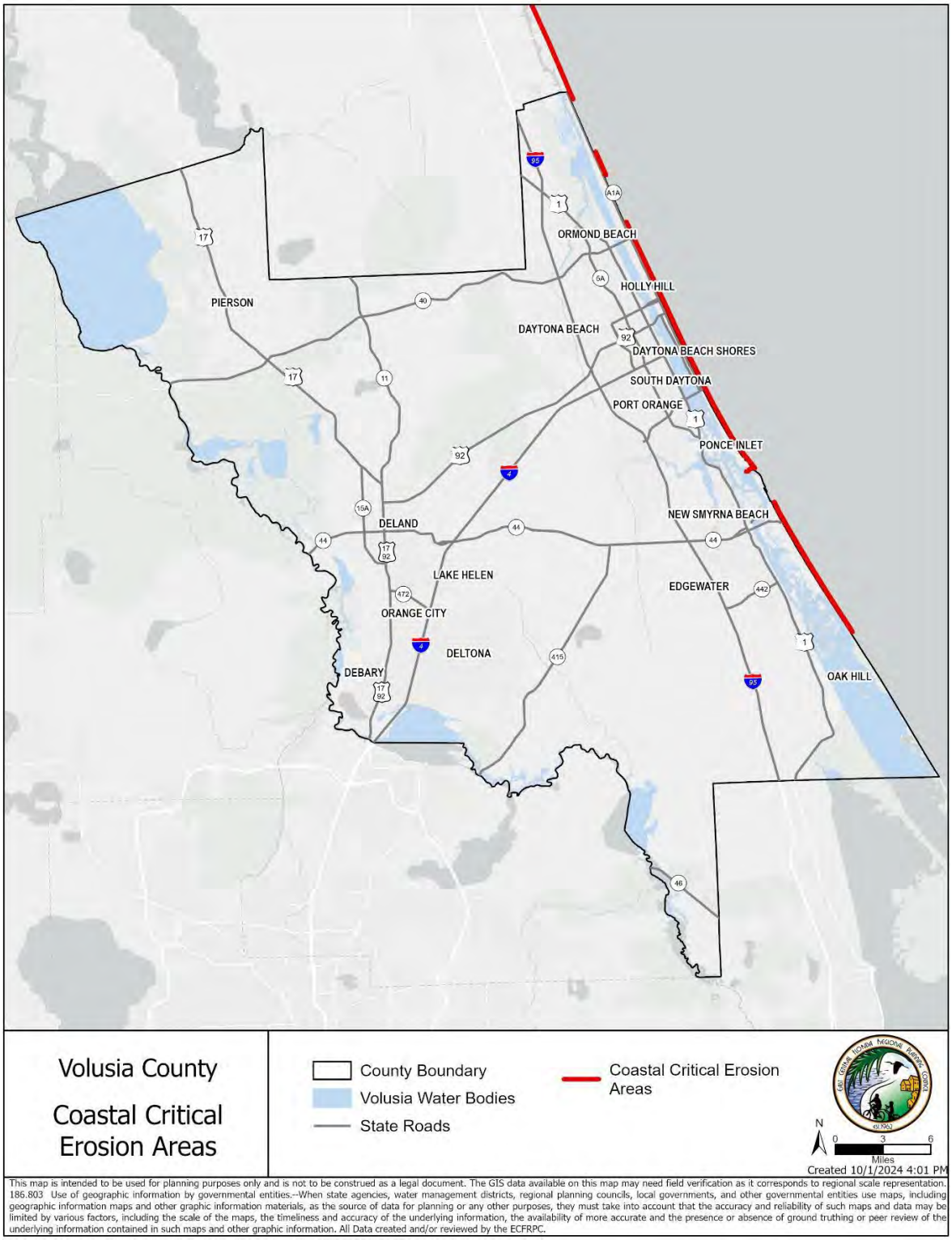
[5] Critically Eroded Beaches in Florida Office of Resilience and Coastal Protection Florida Department of Environmental Protection July 2023

LOCATION	DATE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
				immediate use to address critically eroded beaches where there was an imminent threat to beachfront structures, such as roadways, homes and businesses.
Volusia County	September-November 2022	0/0	Unknown	Several structures either partially or fully collapsed into the ocean throughout Volusia County. Elsewhere, significant damage was noted to dunes, beach access crossovers, seawalls, piers, and boardwalks, many of which were already in a weakened state due to Hurricane Ian. Numerous structures, including homes, condominiums, and hotels were deemed unsafe and required additional analysis by engineers as well as county and state officials. Elevated water levels along the intracoastal waters resulted in damage to numerous boat docks and marinas throughout the county.

Source: National Climatic Data Center

The severity of coastal erosion is typically measured through a quantitative assessment of annual shoreline change for a given beach cross-section of profile (feet or meters per year) over a long period of time. Erosion rates vary as a function of shoreline type and are influenced primarily by episodic events but can be used in land use and hazard management to define areas of critical concern.

Section 5: Figure 2: Critical Erosion Areas in Volusia County



Source: Florida Department of Environmental Protection, Division of Beaches and Coastal Systems, 2024

Probability of Future Occurrences

The probability of the continuing occurrence of coastal erosion in the coastal areas of Volusia County is high. Florida's Bureau of Beaches and Coastal Systems estimates an average of a one-foot loss annually for Volusia County in stable or accretionary areas. The area between Ormond Beach and Daytona Beach Shores are eroding at a rate between zero and 0.5 feet annually, according to a 2000 study. Northern areas of the county, including the North Peninsula State Recreation Area, lose between 0.5 and 1.5 feet annually. Areas south of Ormond Beach to Daytona Beach Shores stretch have lower expected erosion rates due to extensive armoring (e.g., beach walls and revetments). However, natural erosion is occurring southward from South of Ponce de Leon Inlet. Loss rates are as high as 1.5 feet per year and decrease heading in a southerly direction. The damaging impacts of coastal erosion are lessened through continuous (and costly) beach nourishment and structural shoreline protection measures. However, it is likely that the impacts of coastal erosion will increase in severity due to future episodic storm events.

The Local Mitigation Strategy recognizes that with a changing climate, there is a potential for an increasing risk of environmental impacts and that future mitigation and adaptation strategies related to this hazard should be considered.

5.4 DROUGHT

Background

Drought is a normal part of virtually all climatic regions, including areas with high and low average rainfall. Drought is the consequence of a natural reduction in the amount of precipitation expected over an extended period of time, usually a season or more in length. High temperatures, high winds, and low humidity can exacerbate drought conditions. In addition, human actions and demands for water resources can hasten drought-related impacts. Droughts are typically classified into one of four types[6]:

- **Meteorological:** The degree of dryness or departure of actual precipitation from an expected average or normal amount based on monthly, seasonal, or annual time scales.
- **Hydrologic:** The effects of precipitation shortfalls on stream flows and reservoir, lake, and groundwater levels.
- **Agricultural:** Soil moisture deficiencies relative to water demands of plant life, usually crops.
- **Socioeconomic:** The effect of demands for water exceeding the supply as a result of a weather-related supply shortfall.

Droughts are slow-onset hazards, but over time can have very damaging effects to crops, municipal water supplies, recreational uses, and wildlife. If droughts extend over a number of years, the direct and indirect economic impact can be significant. The National Weather Service alerts are displayed in **Section 5 Figure 3**.

Location and Spatial Extent

The Palmer Drought Severity Index (PDSI) is based on observed drought conditions and range from -0.5 (incipient dry spell) to -4.0 (extreme drought). Evident in **Section 5: Figure 3,** the Palmer Drought Severity Index Summary Map for the United States, droughts affect most areas of the United States but are less severe in the Eastern United States.

Drought typically covers a large area and cannot be confined to any geographic or political boundaries; thus, Volusia County and all its jurisdictions are equally susceptible. According to the Palmer Drought Severity Index, Florida has a relatively low risk for drought hazard. However, local areas may experience much more severe and/or frequent drought events than what is represented on the Palmer Drought Severity Index map. Further, it is assumed that Volusia County would be uniformly exposed to drought, making the spatial extent potentially widespread. During long periods of drought, disruption in the water cycle can have potentially damaging effects, including substantial crop loss in the northwestern portion of the county. Periods of drought can exacerbate the ignition of wildfires that can damage the natural and built environment, as has occurred before in Volusia County.

One of the most severe cases of drought in Florida occurred from October 2010 until June of 2012 in which a major portion of the state displayed D3 (Drought Extreme) conditions. During this extensive period, the two-month period of April and May of 2012, showed the highest level of drought concern with portions of the state under a D-4 Drought Exceptional condition (The National Drought Mitigation Center, 2014).

[6] Multi-Hazard Identification and Risk Assessment: A Cornerstone of the National Mitigation Strategy, FEMA

Thus, Volusia County can experience the full array of drought conditions, from D0 to D4. NOAA describes D4 events as having "extensive and widespread crop and pasture losses, fire risk, shortages of water in reservoirs, stream and wells that yield water emergencies. D4 can loosely be likened to a "once-in-a-generation" type of drought noted by the second percentile, or a 1 in 50-year drought.

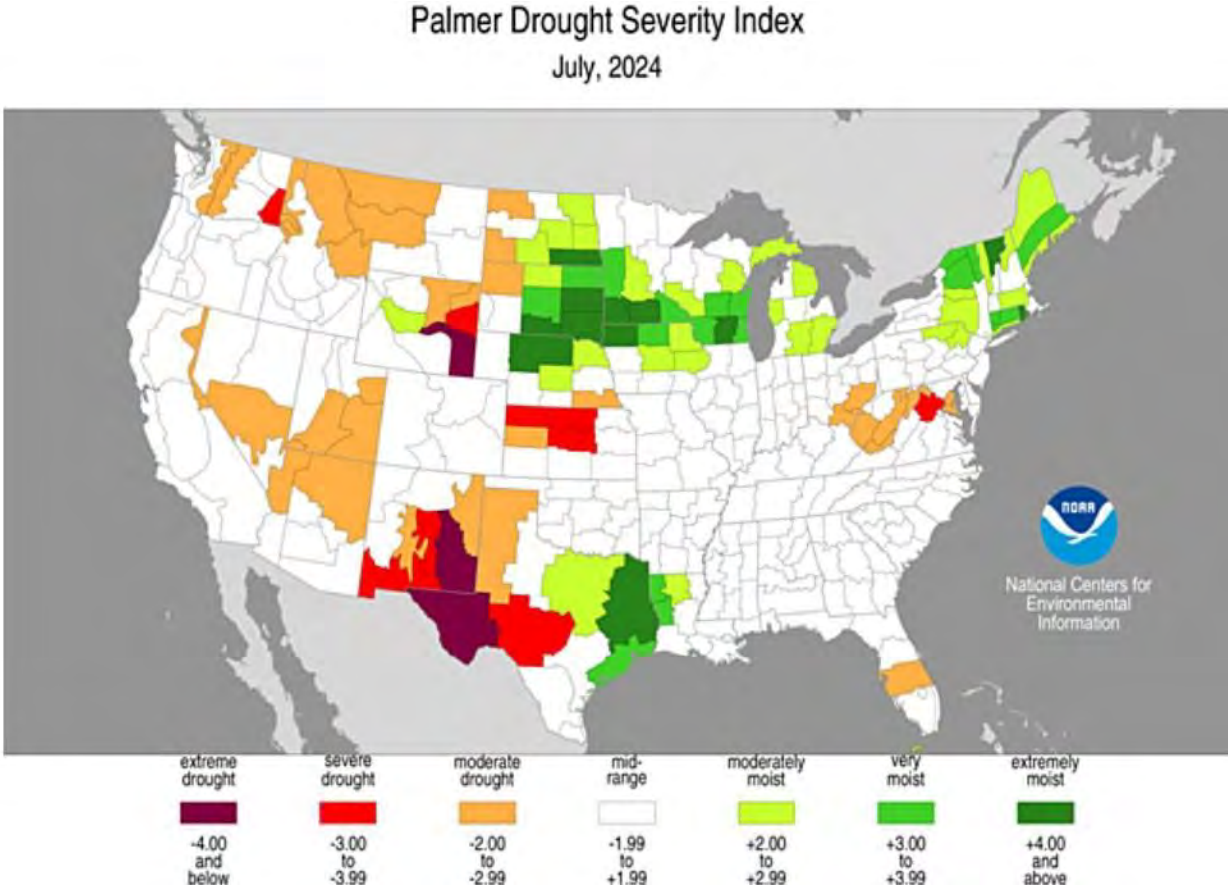
Section 5: Figure 3: Drought Monitor Intensities

National Weather Service Alerts	
Alert	Criteria
D0 Abnormally Dry	Going into drought: short-term dryness slowing planting, growth of crops or pastures. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered.
D1 Moderate Drought	Some damage to crops, pastures, streams, reservoirs, or wells low, some water shortages developing or imminent, and voluntary water-use restrictions requested.
D2 Severe Drought	Crop or pasture losses are likely, water shortages common and water restrictions imposed.
D3 Extreme Drought	Major crop and pasture losses with widespread water shortages or restrictions.
D4 Exceptional Drought	Exceptional and widespread crop and pasture loss, shortages of water in reservoirs, streams, and wells creating water emergencies.

Source: National Weather Service

Source: National Weather Service

Section 5: Figure 4: Palmer Drought Severity Index Summary Map for the United States



Source: NOAA (Note: This map updates frequently. This is only a snapshot in time and not a long-term trend or view)[7]

Historical Occurrences

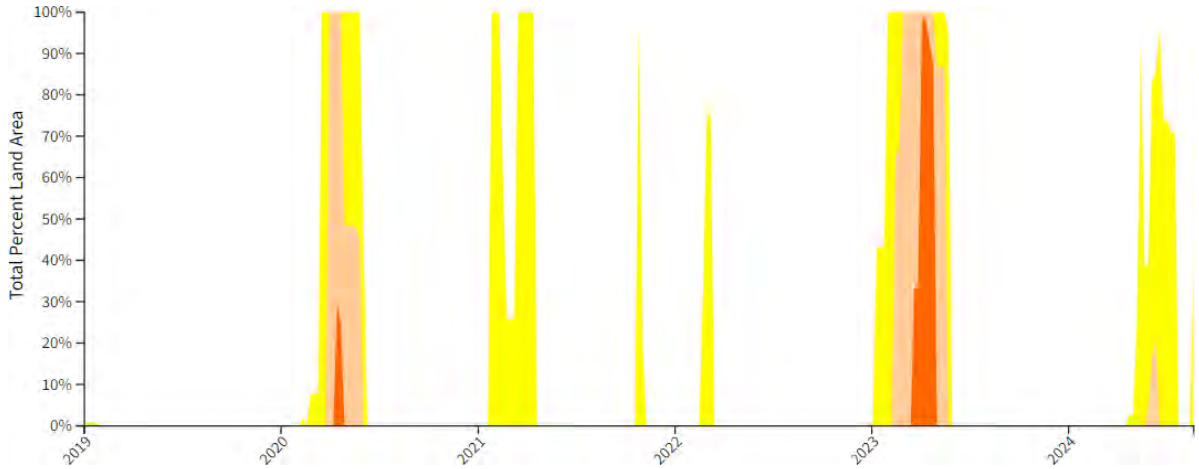
Secondary research was conducted to determine the historical drought occurrences in Volusia County. Volusia County is part of the St. Johns River Water Management District, which monitors well levels throughout its jurisdiction. The Keetch Bryam Drought Index is a numerical scale (0-800) that measures the amount of moisture in the soil. A zero indicates wet, full saturation conditions while an 800 represents extreme drought conditions. It is often used to assess the danger of wildfires but is also an indication of drought. Therefore, it is reported where information is available. The following highlights some of the events from the years.

1981: Drought conditions were reported throughout Southern Florida. Three firefighters narrowly escaped injury while fighting drought-related wildfire. Officials from St. Johns River Water Management District ordered a mandatory 15 percent reduction in water use for public water supply, industrial, commercial and self-supplied users[8].

[7] https://www.ncei.noaa.gov/access/monitoring/historical-palmers/maps/psi/202301-202407
[8] "Winds, Dry Weather Worsen Central Florida Fires. Ocala Star-Banner. Associated Press. July 1, 1981.

- **1985:** A short, six-month drought was reported in Volusia County. In addition to sparking wildfires, it led to a water warning calling for voluntary water usage restrictions[9]. On June 20, 1985, the water warning was expanded throughout St. Johns Water Management District. Volusia County had been placed under warning months earlier[10]. On August 14, the warning was lifted as counties were able to meet usage demands due to recent rainfall.
- **1998:** Volusia County reported a Drought Index reading of 700. Wildfires were abundant throughout the County. This year was reported as having the driest conditions in 50 years. The drought did not officially end until 2002[11].
- **January 1999:** Volusia County reported a Drought Index of 500.
- **May 2000:** The May Drought Index was reported at 432 – 570. By early 2001 the Drought Index average for Volusia County was 601.
- **February 2001:** During this drought, drought index D4 covered 39.08% of Florida.
- **April 2006 – August 2008:** This prolonged drought covered much of the state in D2 and D3 conditions.
- **October 2010 – June 2012:** This prolonged drought covered much of the state in D1 and D2 conditions. D3 conditions peaked in June 2012, covering more than 80% of the state.
- **Spring 2024:** Volusia County was in a drought nearly the entire first quarter of the year, reaching D2 conditions as shown in **Section 5 Figure 4**. [12]

Section 5: Figure 5: Drought Conditions for Volusia County



Source: NOAA

Probability of Future Occurrences

It is assumed that all of Volusia County is uniformly exposed to a drought event. As with any location, some areas of the county may be affected more severely than others during a drought. Given the

[9] "Fires Still Rage in Volusia County." Evening Independent. Associated Press.
[10] "St. John's Water District Expands Warning Area." Gainesville Sun. Associated Press. June 20, 1985.
[11] NAVARRO, MIREYA. "Thousands Flee Florida Homes as Fires Surge." July 2, 1998. Section A, page 1, New York Times.
[12] https://www.drought.gov/states/florida/county/volusia

frequency of previous events, warm temperatures, and average rainfall, the probability of future drought events is high.

In partnership with County and municipal staff and the St. Johns River Water Management District, a contingency plan is in place to restrict water use across the county in an effort assist with water conservation efforts during periods of drought. Some direct impacts related to drought include reduced crop production, increased fire hazards, reduced water levels at major lakes and rivers, damage to fish habitat, and income loss for the agriculture industry.

The Local Mitigation Strategy recognizes that with a changing climate, there is a potential for an increasing risk of environmental impacts and that future mitigation and adaptation strategies related to this hazard should be considered.

5.5 EXTREME TEMPERATURES

Background

Extreme temperature generally refers to temperatures that are unusually high or low compared to typical weather conditions for a specific location and time of year. However, defining what constitutes "extreme" can be challenging due to context, location, history, and duration. Volusia County defines extreme temperature in two ways.

- **Extreme cold** may include snow, sleet, freezing rain, or a mix of these wintry forms of precipitation. A winter storm can range from moderate snow over a period of a few hours to blizzard conditions with blinding wind-driven snow that lasts for several days. Ice storms occur when moisture falls and freezes immediately upon impact on trees, power lines, communication towers, structures, roads and other hard surfaces. Winter storms and ice storms can bring down trees, cause widespread power outages, damage property, and cause fatalities and injuries to human life. All winter storm events have the potential to present dangerous conditions to Volusia County.
- **Extreme heat** is defined as temperatures that hover 99 degrees or more above the average high temperature of 90°F for the region and last for 3 or more consecutive days. Humid or muggy conditions, which add to the discomfort of high temperatures, occur when a "dome" of high atmospheric pressure traps hazy, damp air near the ground.

Location and Spatial Extent

The entirety of Volusia County and its jurisdictions are susceptible to extreme temperatures. Volusia County, being in the southern portion of the nation, rarely experiences extreme cold events, and thus has a much lower risk than more northern areas of the country. Typically, there have not been many winter storms that have caused damage in Volusia County. Volusia County does succumb more frequently to extreme heat events.

A severe winter storm occurs when the surface air temperature is expected to be 32°F or below over a widespread area for at least 3 or more consecutive days (this is the minimum extent of a severe winter storm). Use of the term is usually restricted to aversive situations or occasions when wind or other conditions prevent frost. "Killing" may be used during the growing season when the temperature is expected to be low enough for a sufficient duration to kill all but the hardiest herbaceous crops. Extreme cold can immobilize an entire region. Even areas, such as Volusia County, that normally experience mild winters can be hit with a major extreme cold winter event. Winter storms can result in ice, localized flooding, closed highways, blocked roads, downed power lines and hypothermia.

There is a low probability that Volusia County and its jurisdictions will experience 72 consecutive hours of temperatures below 32°F on an annual basis. However, outlier storms (such as the Great Blizzard of 1899) have been observed within Volusia County and are often the result of arctic activity that affects the entire North American continent. These events are of low probability on an annual basis but can occur.

Volusia County and its jurisdictions are more likely to experience freezing temperatures for much shorter durations of time. More specifically, temperatures tend to dip below the freezing threshold during nighttime from the months of November to February.

The extent of extreme heat is determined as 3 -10 consecutive days of 99°F or higher and at least 50% of the County would be impacted during an event. Trends show increasing temperatures for longer durations. This puts the entire county and its residents at much greater risk of extreme heat events.

Historical Occurrences

Temperatures within Volusia County, Florida were recorded as low as 6 degrees Fahrenheit in December 1962, according to the National Oceanographic and Atmospheric Administration. Temperatures dropped to 6 degrees for five consecutive days, although the temperature did not sustain at this level continuously. According to a previous Volusia County Emergency Operations Management manager, there were also two severe winter freezes in the mid to late 80's. These events killed many orange groves in Volusia County and around the state. There were no reports of death, injuries, or property damage as a result of the winter weather.

Despite the rare chance of winter storm occurrence, one snow event was reported in 2008 according to NOAA National Climatic Data Center (NCDC). On January 3, 2008, cold breezes off the Atlantic produced brief snow flurries along the coast of Volusia County. On January 9, 2010, sleet was reported in Volusia County.

However, freezing temperatures are not likely to persist for more than 24 hours at a time. In most circumstances, temperatures will only dip below freezing for a small number of hours during the nighttime. A number of these events were reported in Volusia County in the 2014- and 2015-time frame, one of the most recent and severe being the 'polar vortex' super storm on January 6th and 7th, 2014. The early months of 2025 brought freezing temperatures across the state. Volusia County opened cold weather shelters and issued numerous freeze and cold weather advisories for residents.

According to scientists at NASA's Goddard Institute for Space Studies (GISS) in New York, July 2023 was hotter than any other month in the global temperature record. Temperatures above 95 F occur most often in June, July, August, and occasionally in May and September. From January 2020 to January 2025 Volusia County experienced temperatures 99 degrees or above on 2 occasions, June 23, 2022 at 101 degrees and August 10, 2023, at 99 degrees.

Probability of Future Occurrences

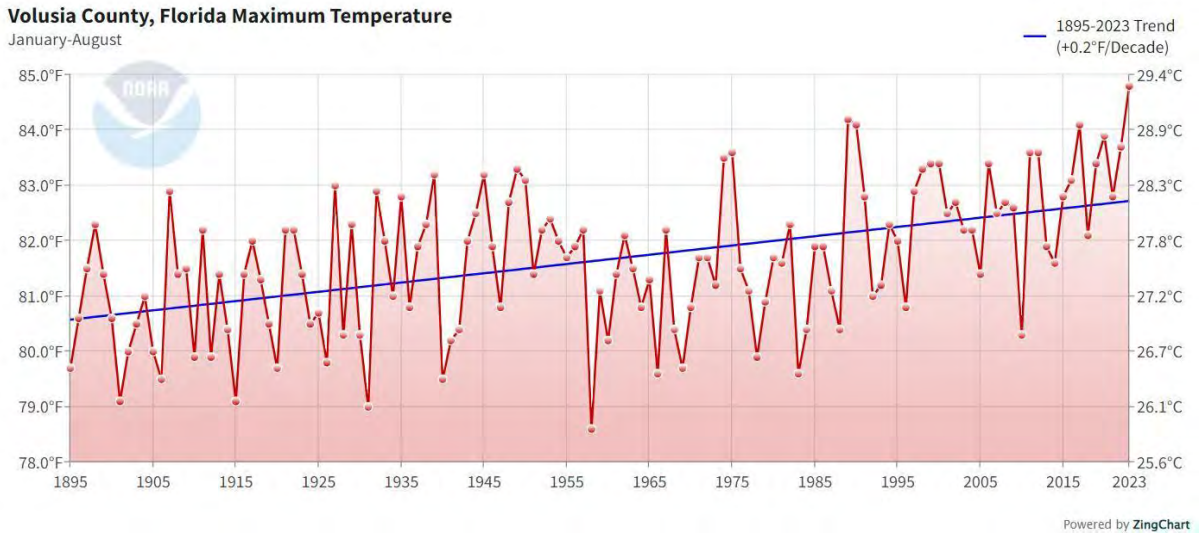
There is a low probability of future winter storm occurrences in Volusia County; however, outlier storms such as the 1899 Blizzard can occur with an extremely low probability. Winter storm events will remain an infrequent occurrence in Volusia County. Given the average winter temperature of 61.5 degrees Fahrenheit, it is highly unlikely that a winter event beyond light snow will occur. Based on the data produced by NOAA shown in **Section 5: Figure 7**, extreme cold trends are increasing.

It is assumed that Volusia County experiences extreme heat periodically and will continue to do so. The average temperature and number of consecutive days of extreme heat are likely to increase, bringing new challenges to human health and infrastructure. The historical county maximum temperature in January through August in 1895 was 79.7 degrees, whereas the current day maximum temperature is 84.8 degrees.[13] Based on the data produced by NOAA shown in **Section 5: Figure 6**, extreme heat trends are increasing.

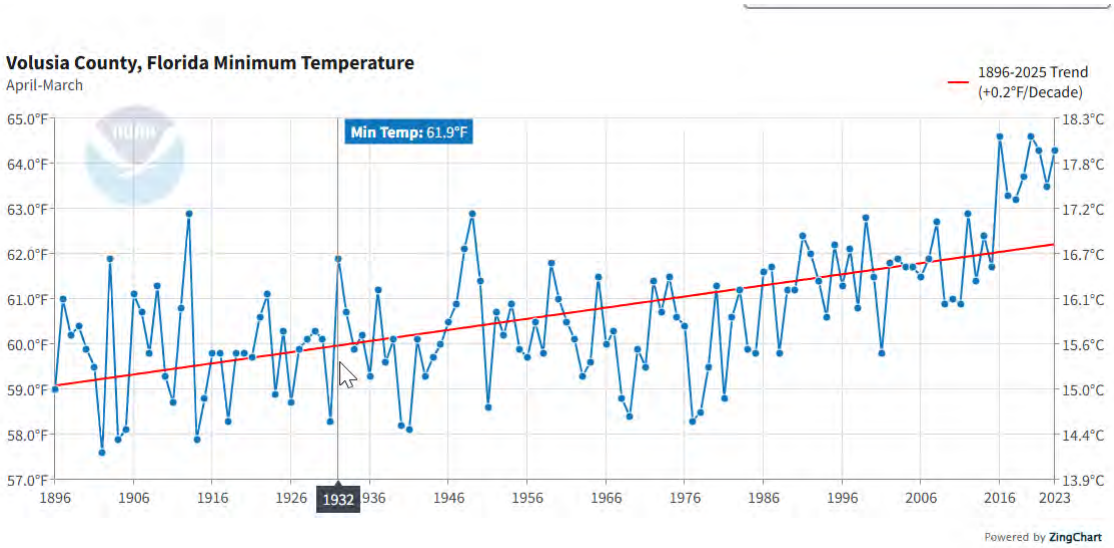
[13]Source: NOAA National Centers for Environmental information, Climate at a Glance: County Time Series, published August 2024, retrieved on August 13, 2024, from https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/county/time-series

Future impacts throughout Volusia County could include damage to crops, nurseries and tree farms (e.g., Pierson is the fern capital of the world), and other vegetation; sleet could increase the number of vehicular accidents); and the increased use of alternate heating sources in homes could cause potential structural fires. Also, agriculture may be disproportionately affected.

Section 5: Figure 6: Florida Maximum Annual Temperature Since 1895



Section 5: Figure 7: Florida Maximum Annual Temperature Since 1895



The Local Mitigation Strategy recognizes that with a changing climate, there is a potential for an increasing risk of environmental impacts and that future mitigation and adaptation strategies related to this hazard should be considered.

5.6 FLOOD

Background

Flooding is the most frequent and costly natural hazard in the United States, a hazard that has caused more than 10,000 deaths since 1900. Nearly 90 percent of presidential disaster declarations result from natural events where flooding was a major component.

Floods generally result from excessive precipitation and can be classified under two categories: general floods, precipitation over a given river basin for a long period of time along with storm-induced wave or tidal action; and flash floods, the product of heavy localized precipitation in a short time period over a given location. The severity of flooding events is typically determined by a combination of several major factors, including stream and river basin topography and physiography; precipitation and weather patterns; recent soil moisture conditions; and the degree of vegetative clearing and impervious surface.

- A **general flood** is usually a long-term event that may last for several days. The primary types of general flooding include riverine, coastal, and urban flooding. Riverine flooding is a function of excessive precipitation levels and water runoff volumes within the watershed of a stream or river. Coastal flooding is typically a result of storm surge, wind-driven waves and heavy rainfall produced by hurricanes, tropical storms and other large coastal storms[14]. Urban flooding occurs where manmade development has obstructed the natural flow of water and decreased the ability of natural groundcover to absorb and retain surface water runoff.

- Most **flash flooding** is caused by slow-moving thunderstorms in a local area or by heavy rains associated with hurricanes and tropical storms. However, flash flooding events may also occur from a dam or levee failure within minutes or hours of heavy amounts of rainfall, or from a sudden release of water held by a retention basin or other stormwater control facility. Although flash flooding occurs most often along mountain streams, it is also common in urbanized areas where much of the ground is covered by impervious surfaces.

Section 5: Figure 8: Flood Waters Covering Streets

Maytown Road experienced extreme flooding during the 2009 Volusia County rainstorms

[14] While briefly mentioned here, coastal flooding is more thoroughly addressed under the "rising coastal water" hazard.

The periodic flooding of lands adjacent to rivers, streams and shorelines (land known as floodplain) is a natural and inevitable occurrence that can be expected to take place based upon established recurrence intervals. Floodplains are designated by the frequency of floods that is large enough to cover them. There are two ways to determine the frequency of flood events

1. By plotting a graph of the size of all known floods for an area and determining how often floods of a particular size occur, and
2. the chance of occurrence in a given year, which is the percentage of the probability of flooding each year.

For example, the 1 percent annual chance flood refers to an area in the 100-year floodplain and has a 1 percent chance of occurring in any given year. Similarly, the 0.2 percent flood covers the 500-year floodplain and has a 0.2 percent chance of occurring in any given year. The recurrence interval of a flood is defined as the average time interval, in years, expected between a flood event of a particular magnitude and an equal or larger flood. Flood magnitude increases with increasing recurrence intervals.

Location and Spatial Extent

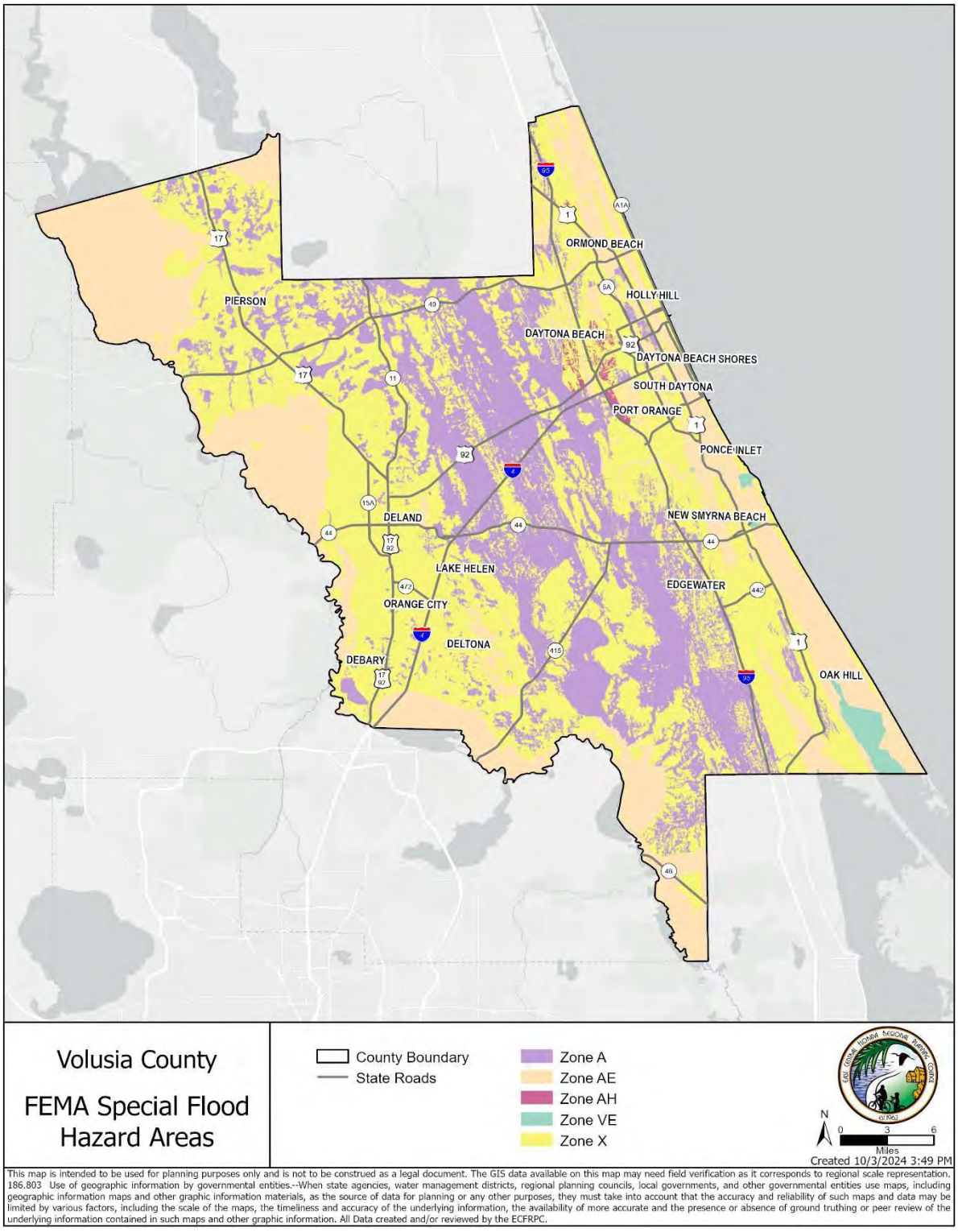
All areas of Volusia County are susceptible to riverine and urban (stormwater) flooding, and its coastal communities are also very susceptible to tidal and coastal flooding due to coastal storm events including storm surge.[15] **Section 5: Figure 9** illustrates the location and extent of currently mapped Special Flood Hazard Areas for Volusia County based on best available FEMA Digital Flood Insurance Rate Map (DFIRM) data.[16] As displayed in the image, the hazard differs across the county. The differences include Zones A/AE (100-year floodplain), Zone VE (100-year coastal flood zones, associated with wave action) and Zone X (500-year floodplain). It is important to note that while FEMA digital flood data is recognized as best available data for planning purposes, it does not always reflect the most accurate and up-to-date flood risk. Impacts have included flooding of hundreds of homes, schools, and roads, including the blockage of I-95 in Ormond Beach during a 2004 flash flood. Flooding and flood-related losses sometimes occur outside of delineated “100 year” special flood hazard areas during 500-year storm events or when rain events are exacerbated by strong winds. Changes in topography (and associated water runoff) generally do not impact Volusia County due to its flat terrain.

Water can rise to exceptional levels during hurricane, storm surge, flash flood and thunderstorm conditions. Water levels have historically risen to 6 feet within southwestern Volusia County following one of these events, with increased water heights for coastal communities due to Florida’s semidiurnal tides. Roadway flooding has been seen rising between 1 and 5 feet.

There are a number of areas that are disproportionately affected to flooding, including areas adjacent to the St. Johns River (Maytown to Enterprise).

[15] Storm surge is addressed separately within this section.

Section 5: Figure 9: Special Flood Hazard Areas in Volusia County



Source: Federal Emergency Management Agency

Historical Occurrences

According to the National Climatic Data Center, there have been over 20 reported flood events in Volusia County since 1994. According to the data as shown in **Section 5: Table 5**, there was over $20 million in property damage (not including recorded agricultural losses) during this period.

Section 5: Table 5: Historical Flood Impacts in Volusia County

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Peninsular	9/15/1994	Flood	0/0	$757,242	Two synoptic-scale systems, one tropical and one non-tropical brought heavy rain to most of peninsular Florida the last half of September. Other sections of Florida, particularly northeast and east central, experienced urban flooding which closed roads and flooded schools and homes in Duval County and flooded subdivisions in Flagler, Volusia, St. Johns and Brevard counties.
Countywide	10/11/1994	Flood	0/0	$757,242	Heavy rains across much of northeast Florida caused widespread flooding of roadways and vehicles and minor flooding of schools, businesses and residences. Strong onshore winds caused significant beach erosion and minor coastal flooding along portions of the northeast coast.
Oak Hill	9/19/1999	Flash Flood	0/0	$13,439	Heavy rain of 2 to 4 inches produced flooding in Oak Hill. Two homes had minor flooding.
Edgewater	9/14/2001	Flash Flood	0/0	$316,693	Rainfall from Tropical Storm Gabrielle flooded about 25 homes and apartments in Edgewater and New Smyrna Beach. About 5 homes were flooded along the Tomoka River in Daytona Beach. Roadway and small stream flooding was reported over much of the county.
Ponce Park	11/14/2001	Flash Flood	0/0	$633,385	Showers and thunderstorms dumped over 5 inches of rain in coastal sections of Volusia County. Thirty-five homes in the Ponce Inlet, Daytona Beach and Ormond by the Sea areas received some water damage.
Deltona	8/19/2002	Urban Flood	0/0	$0	Thunderstorms produced street flooding in Deltona.
Ormond Beach	8/8/2004	Flash Flood	0/0	$0	Heavy rain in the morning hours brought 24-hour rain totals to near 7 inches. Widespread street flooding with water in two homes in Ormond Beach was reported. A lane of Interstate 95 was blocked by flood waters.
Countywide	9/5/2004	Flash Flood	0/0	$0	From 10 to 12 inches of rain from the northern rain bands of Hurricane Frances produced widespread flooding of homes, businesses and roads across coastal communities as well as in Deltona, and DeLand.

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Countywide	9/9/2004	Flood	0/0	$5,564,516	Hurricane Frances produced 6 to 10 inches of heavy rain over much of the middle and upper St. Johns River Basin. Beginning on September 9th, water levels began to reach flood stage on the middle basin mainly around Geneva, and Sanford. Levels continued to rise well above flood stage and began to fall slightly until Hurricane Jeanne followed the same track across the state. Significant flooding followed with a record crest of 10.1 feet being reached at Lake Harney Gage. Many homes were flooded near Stone Island.
Countywide	8/21/2008	Flash Flood	0/0	$13,400,000	As Tropical Storm Fay drifted north in the Volusia County offshore waters, hours of torrential rain fell across southern Volusia County. Close to 200 homes were flooded. The damage was nearly $13 million. Torrential rain from Tropical Storm Fay produced widespread flooding across Brevard and central and southern Volusia counties.
Deltona	5/19/2009	Flood	0/0	$68,600,000	Multiple rounds of heavy rainfall over five days led to several feet of standing water in many areas of eastern Volusia County. Rainfall reached 18 to 28 inches in several coastal areas.
Ormond Beach	5/22/2009	Flash Flood	0/0	N/A	High levels of pre-existing flood waters were exacerbated as two to four inches of additional rainfall occurred in less than three hours. Standing water rose to three feet or higher in several locations. Flood waters entered additional homes. Flash flood damage estimates were included collectively in the five-day flood event from May 19-24.
Isleboro	9/23/2014	Flash Flood	0/0	$562,000	A very moist atmosphere coupled with a series of upper-level disturbances resulted in several persistent rain bands. Significant urban and small stream flooding affected portions of Melbourne/Palm Bay and Lake Mary/Winter Park. Flash flooding resulted in rapid water accumulation in New Smyrna Beach and from Holly Hill to Daytona Beach to Port Orange, where numerous roadways became impassable and over 100 homes sustained damage from the rising flood waters. Rainfall totals during the 24-hour period of greatest impact reached 6-12 inches. Flood damage estimates within Volusia County were 3.65 million dollars. No injuries reported.
Holly Hill	9/24/2014	Flash Flood	0/0	$3,090,000	Same as above.

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Ormond-by-the-Sea	10/6/2016	Flood	0/0	$0	Associated with Hurricane Matthew (see Hurricanes)
Seville	9/10/2017	Flood	0/0	$0	Associated with Hurricane Irma. (see Hurricanes)
Ormond-by-the-Sea	11/23/2017	Flood	0/0	$0	A strong thunderstorm embedded within a rain area ahead of a cold front intensified as it traveled quickly northeast across Volusia County. Mobile homes were damaged well inland in DeLand, then over 30 minutes later, the storm damaged mobile homes in Daytona Beach.
Daytona Beach	11/5/2021	Flood	0/0	$500,000	A very slow-moving front produced persistent heavy rains across a portion of Volusia County. The total of twenty-four-hour rain totals were 6-10 inches, however most of the rain fell in less than 12 hours, impacting Daytona Beach and Port Orange. As much as 5-6 inches accumulated between 1500 and 1800 LST. Numerous roadways were flooded, with as much as 1-2 feet of standing water in some localized areas, resulting in road closures.
Volusia County	9/28/2022	Flood	4/0	$3,400,000	Rainfall totals averaging between 10 to 16 inches, with locally higher amounts of up to 20 inches were reported particularly in the coastal part of the county, resulting in widespread residential, street, urban, and poor drainage flooding. A county damage assessment indicated 3554 structures affected, 2602 with minor damage, 645 with major damage, and 48 destroyed, mainly due to widespread and historic flooding. The combined effects of Hurricane Ian led to a total estimated damage of approximately $340M.

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Volusia County	11/08/2022	Flood	0/0	$0	Rainfall totals of 3-6 inches, which fell between 0700EST on the 8th and 1500EST on the 10th led to generally nuisance type to minor street flooding across portions of Volusia County. The St. Johns River at Astor, which was already in moderate flood stage due to the remnant effects of Hurricane Ian, experienced water level rises as early as the 8th due to increasing north to northeast winds impeding the river's flow. Renewed flooding was reported along numerous streets and communities along the river in Astor. At DeLand, already in minor flood stage, river gauges recorded a rise into moderate flood stage on the 9th.
West Holly Hill	9/30/2023	Flood	0/0	$0	Volusia County Fire Rescue reported flooding of several areas in Ormond Beach due to excessive rainfall.
Ormond Beach	9/30/2023	Flood	0/0	$0	Heavy rainfall led to flooding in Ormond Beach in Volusia County.
Volusia County	10/10/2024	Flood	0/0	$240,000,000	Volusia County Emergency Management reported significant urban, street, and low-lying flooding as a result of 6 to 12 inches of rain in association with Hurricane Milton. A period of very heavy rainfall rates associated with the core of the storm led to flash flooding during the overnight period (Oct 9 - 10). The heavy rain that fell as a result of the storm also led to a long-term river flood event along the St. Johns with the river near Geneva entering major flood on Oct 14, peaking at 10.15 feet on Oct 15. At DeLand, the river rapidly rose to major flood stage on Oct 11, peaking at 5.49 ft on Oct. 14. Downstream at Astor, the river was already in a minor flood stage at the beginning of the event and quickly rose to major the morning of Oct 10, peaking at 4.81 ft on Oct 12, a new record for the site.

Source: National Climatic Data Center[17]

NOTE: ALL HISTORICAL OCCURRENCES IN THIS REPORT ARE THE MOST RECENT AS DOCUMENTED BY THE NATIONAL CLIMATIC DATA CENTER

According to the emergency management officials from the Volusia County jurisdictions, another significant flood occurred during the Memorial Day Weekend in May 2009 that was not included in the

[17]https://www.ncdc.noaa.gov/stormevents/listevents.jsp?eventType=%28Z%29+Flood&beginDate_mm=05&beginDate_dd=01&beginDate_yyyy=2017&endDate_mm=05&endDate_dd=31&endDate_yyyy=2024&county=VOLUSIA%3A127&hailfilter=0.00&tornfilter=0&windfilter=000&sort=DT&submitbutton=Search&statefips=12%2CFLORIDA

NCDC database. This event caused high rains and four feet of storm surge. There was approximately $68 million in damage along the coastline from Ormond Beach to New Smyrna Beach. Approximately 1,000, infrastructure and various critical facilities were damaged. Daytona Beach, alone, had approximately 650 damaged homes.

Historical Summary of Insured Flood Losses

All jurisdictions in Volusia County participate in the National Flood Insurance Program (NFIP). **Section 5: Table 6** provides flood insurance policy and claim summary information for each of the participating jurisdictions. The reported losses include both inland (freshwater) and coastal flooding events. It should be emphasized that these numbers include only those losses to structures that were insured through the NFIP policies, and for losses in which claims were sought and received. It is likely that many additional instances of flood losses in Volusia County were either uninsured, denied claims payment, or not reported.

Section 5: Table 6: NFIP Policy and Claim Information

JURISDICTION	TOTAL CLAIMS SINCE 1978	TOTAL PAID SINCE 1978
Daytona Beach	1,701	$81,477,671
Daytona Beach Shores	175	$3,778,724
DeBary	108	$4,846,401
DeLand	19	$363,712
Deltona	125	$3,178,258
Edgewater	252	$7,528,013
Holly Hill	400	$10,505,116
Lake Helen	3	$14,481
New Smyrna Beach	1,229	$50,878,748
Oak Hill	18	$554,185
Orange City	19	$946,274
Ormond Beach	768	$11,608,018
Pierson	1	$8,834
Ponce Inlet	255	$7,965,454
Port Orange	1,451	$62,222,337
South Daytona	1,088	$54,614,519
Volusia County	2,391	$68,055,722
TOTAL	**10,003**	**$368,546,467**

Source: Volusia County Growth Management, FEMA (as of 01/27/2025)

Repetitive Loss Properties

FEMA defines a repetitive loss property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period, since 1978. A repetitive loss property may or may not be currently insured by the NFIP. Currently there are over 122,000 repetitive loss properties nationwide.

According to Volusia County repetitive loss property records (as of January 2025), there are over 1,000 repetitive loss properties located in Volusia County. Without mitigation, these properties will likely continue to experience flood losses. **Section 5: Figure 10** displays the general location of RL properties.

Section 5: Table 7: Repetitive Loss Properties Information

JURISDICTION	NUMBER OF RL PROPERTIES		
	TOTAL	NUMBER OF Structures BY LAND USE (Data provided by jurisdictions in 2025)	LOSSES BY LAND USE (Data provided by jurisdictions in 2020 LMS update)
Daytona Beach	273	226 residential, 47 commercial	2 residential
Daytona Beach Shores	11	6 residential, 5 commercial	NONE
DeBary	20	13 residential, 5 commercial, 2 government	NONE
DeLand	2	2 residential	10 residential
Deltona	13	13 residential	NONE
Edgewater	24	24 residential	1 residential
Holly Hill	72	72 residential	1 residential
Lake Helen	5	5 residential	NONE
New Smyrna Beach	116	110 residential, 6 commercial	18 residential
Oak Hill	0	0	NONE
Orange City	45	39 residential, 6 commercial	NONE
Ormond Beach	37	37 residential	24 residential
Pierson	0	0	NONE
Ponce Inlet	15	15 residential	NONE
Port Orange	355	347 residential, 4 commercial, 4 government	4 residential
South Daytona	411	402 residential, 9 commercial	2 residential
Volusia County	208	204 residential, 4 commercial	13 residential

Source: Individual jurisdictions, FEMA

Not all jurisdictions have severe repetitive loss properties. Those that have them identified for the 2025 update are:

- Port Orange, 50 Residential

Probability of Future Occurrences

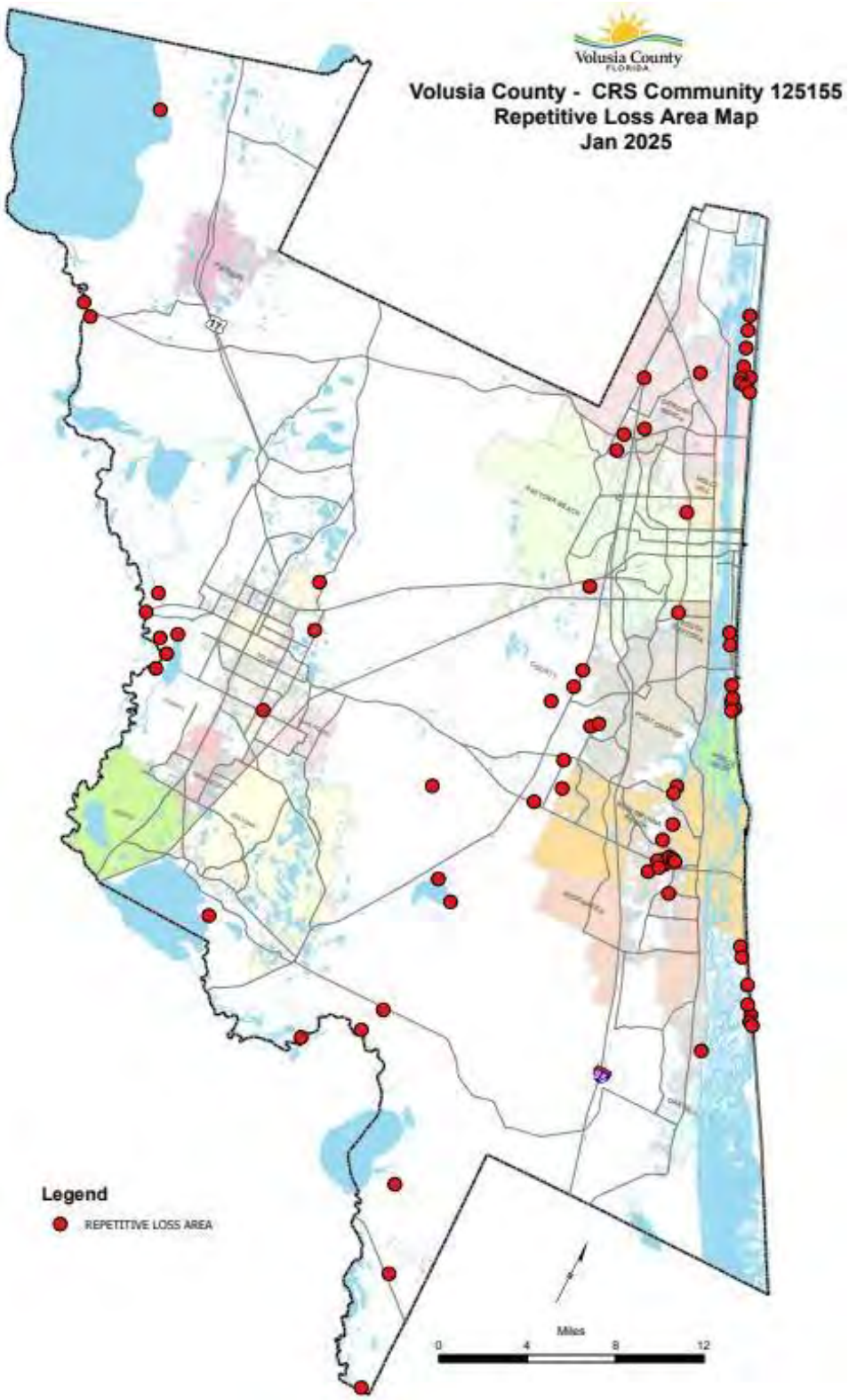
Flood events will remain a frequent occurrence in Volusia County, and the probability of future occurrences is high. The probability of future flood events based on magnitude and according to best

available data is illustrated in Figure 5.10, which indicates those areas susceptible to the 1 percent annual chance flood (100-year floodplain); the 1 percent annual chance flood with wave action (100-year coastal floodplain); and the 0.2 percent annual chance flood (500-year floodplain). Further, as described in other hazard profiles, it is highly likely that Volusia County will continue to experience inland and coastal flooding associated with large tropical storms, hurricanes and storm surge events.

Anticipated sea level rise will increase the probability and intensity of future tidal flooding. Rising sea level over time will decrease the return period (increasing the frequency) of significant flood events. For example, sea level rise of 1 foot over a typical project analysis period (50 years) may cause a flood event currently of annual probability of 2 percent (50-year flood) to become an event of 10 percent annual probability (10-year flood). This rise in sea level will increase the probability of the loss of coastal wetlands and erosion of sandy beaches that act as protective buffers against flood events.

There are repetitive loss properties within 13 of the 16 jurisdictions within Volusia County. This includes 1,280 properties in total. Countywide distribution of repetitive loss properties is somewhat weighted to the east, as a majority of the repetitive loss properties in the county are in Port Orange, South Daytona, and Daytona Beach. The western side of the county also has several repetitive loss properties, most notably the cluster within the Stone Island residential area in the southwestern portion of the county. Data collected showed that many properties have not undergone mitigation efforts; however, there is insufficient data to measure an actual percentage for the entire county.

Section 5: Figure 10: Repetitive Loss Areas in Volusia County



Source: Volusia County GIS

5.8 PUBLIC HEALTH EMERGENCY

Background

Public heath emergencies may be accidental, natural, or intentional. Under section 319 of the Public Health Service Act (42 U.S.C § 319), the Secretary of the Department of Health and Human Services (HSS) can declare a public health emergency.

Public health is the science and art of preventing disease, prolonging life, and promoting health through organized efforts and informed choices of society, organizations, the public, private communities, and individuals. According to the Centers for Disease Control and Prevention (CDC), disease outbreaks are identified by the occurrence of more cases of disease(s) than normally expected within a specific place, or among a group of people over a specified period of time. Potential health threats come from an increasing range of health hazards, including infectious diseases, HazMat incidents, food contamination, and threats associated with climate change including extreme weather events. Public health emergencies include medical surges (often from mass casualty events) that require hospitals to act beyond normal capacity. Pandemics are included in this category.

Location and Spatial Extent

All Volusia County residents face risks associated with public health emergencies. Risk factors, including income, gender, age, migration, health/nutritional status, displacement, and unplanned urbanization, increase people's exposure and vulnerability to these threats and hazards.

All Volusia County residents are at risk of public health emergencies such as pandemic influenza, pneumonic plague, epidemic, food contamination, etc. Youth (under 18) and the elderly (over 65) are especially vulnerable as their immune systems are more susceptible. Risks may also be increased in people of any age who have other serious health problems — such as heart or lung conditions, weakened immune systems, obesity, or diabetes. This is similar to what is seen with respiratory illnesses, such as the flu (influenza) and COVID-19.

Historical Occurrences

In 2016 and 2017 the Zika Virus cases were on the rise and led to several birth defects. In October of 2022, Dengue was reported in a Volusia County resident. In June 2023, four cases of Malaria were reported, treated, and recovered in Sarasota, Florida. Although rare, there have also been cases of West Nile Virus that led to encephalitis in the County.

Then in March 2020, the first cases of COVID-19 were reported in Florida. On March 11, 2020, the World Health Organization (WHO) officially declared COVID-19 a pandemic. By April, the governor had declared an executive order to restrict activities within the state unless deemed essential. The pandemic was declared over in May 2023, but continues to impact Florida's population through the time this plan was published.

Probability of Future Occurrences

Public health emergencies are expected to increase. Volusia County and the surrounding areas bring many tourists, which can be a contributor to the spread of health concerns or diseases. Although international

travel is a contributing factor, climate change and a growing population will continue to influence public health.

5.9 RISING COASTAL WATERS

Background

Rising coastal waters is a hazard that refers to unprecedented water levels along the coast, usually leading to inland affects. This hazard encompasses:

- **Storm Surge**: Storm surge occurs when the water level of a tidally influenced body of water increases above the normal astronomical high tide and is most common in conjunction with coastal storms with massive low-pressure systems with cyclonic flows such as hurricanes, tropical storms and nor'easters. The low barometric pressure associated with these storms causes the water surface to rise, and storms making landfall during peak tides have surge heights and more extensive flood inundation limits. Storm surges will inundate coastal floodplains by dune over wash, tidal elevation rise in inland bays and harbors, and backwater flooding through coastal river mouths. The duration of a storm is the most influential factor affecting the severity and impact of storm surges.
- **Sea Level Rise (SLR)**: Sea level rise is caused by warming of the earth's climate, the associated thermal expansion of water molecules, and generally impacts coastal, lagoon-adjacent and river-adjacent areas that are hydrologically connected to the ocean.
- **Tsunami**: In the open ocean, tsunami waves travel at speeds of up to 600 miles per hour but are too small to be observed, and the time between wave crests may be five to 90 minutes. As the waves approach shallow coastal waters, they slow down and may rise to several feet or, in rare cases, tens of feet. Although the waves slow down as they reach shallow water, the energy remains constant and when tsunami waves crash into the shoreline they may be as high as 100 feet. The first wave is almost never the largest; successive waves may be spaced tens of minutes apart and continue arriving for many hours. The coastal areas at greatest risk are less than 50 feet above sea level and within one mile of the shoreline. Tsunamis can cause great loss of life and property damage where they come ashore, and most tsunami deaths are the result of drowning. Associated risks include water pollution, damaged gas lines, and flooding.

Location and Spatial Extent

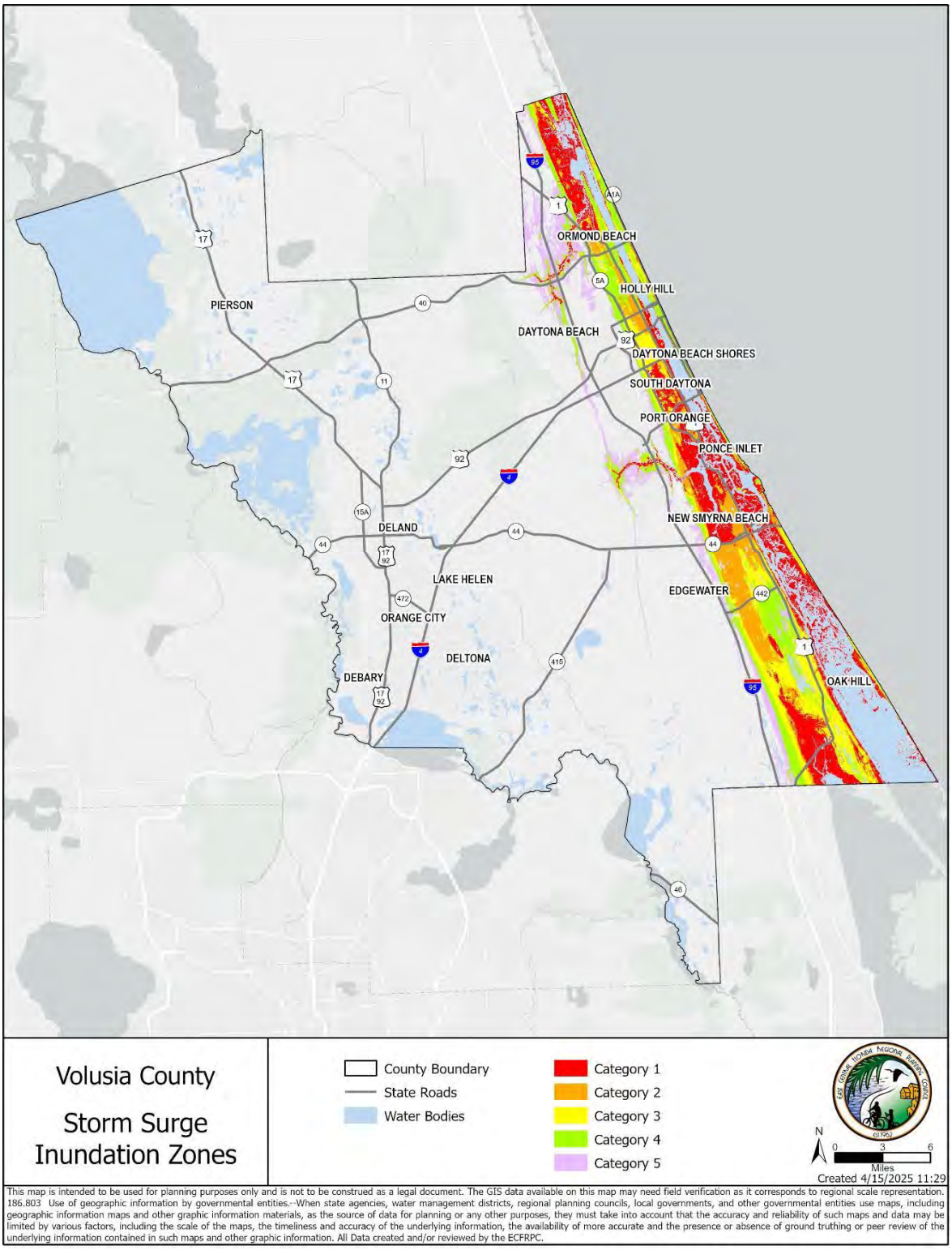
All of Volusia County and its jurisdictions are subject to rising coastal water inundation. Municipalities such as Ormond Beach, Holly Hill, Daytona Beach, Daytona Beach Shores, South Daytona, Port Orange, Ponce Inlet, New Smyrna Beach, Edgewater, and Oak Hill are most susceptible to rising coastal waters given their proximity to the coast.

- **Storm Surge**: As shown in **Section 5 Figure 11**, the entire east side of Volusia County is at high risk of storm surge inundation in addition to most riverine floodplains along major rivers in southern portions of the area. While areas not located immediately along the coast or major rivers may not be directly impacted by storm surge inundation except in extreme storm events, they might experience flooding caused by storm surge and extremely high tides that affect the drainage of areas further inland.
- **Sea Level Rise**: In Volusia County, areas susceptible to sea level rise include jurisdictions in close proximity to the Atlantic Ocean, the Indian River Lagoon, the Halifax River, the St. Johns River, and smaller riverine systems that provide hydro connectivity into the interior of the County. The extent of sea level rise would go beyond coastal communities, like Ormond Beach and New Smyrna Beach. Inland communities along waterways, such Astor and DeLand, will be impacted

during periods of high-water inundation since the water systems will be over capacity and exiting the system at slower rates.

- **Tsunami**: Tsunami activity is a greater risk along the Pacific Rim states (Washington, Oregon, California, Alaska, and Hawaii), but is still possible along the East Coast of the United States. In fact, as many as 40 tsunami or tsunami-like events have been reported along the East Coast since the early 1600s. Additionally, models and methodologies do not currently exist to accurately assess the tsunami hazard as it would relate to an inland community along the East Coast. The potential location and extent of the tsunami hazard for Volusia County is similar and slightly more extensive than the established flood hazard area. A tsunami event could cover all of Volusia County based on severity. However, the coastal jurisdictions are most at risk. The areas of Volusia County most at risk of a tsunami hazard are similar to those of storm surge and sea level rise. A tsunami's extent could go beyond the coastal areas, although they are at the greatest risk. High velocity waves that could cause severe catastrophic damage to structures and infrastructure. Its extent could result in massive amounts of vegetative and construction debris, boats would be washed ashore, impacted buildings could collapse, trees could be uprooted, above ground power poles and lines could collapse, and underground utilities could be unearthed and destroyed.

Section 5: Figure 11: Current Day Storm Surge Predications Based on Hurricane Category



Source: ECFRPC, NOAA

Historical Occurrences

Volusia County has experienced numerous rising water events associated with hurricanes, nor'easters and tropical storms. Water can rise to exceptional levels during hurricanes, storm surge, flash flood and thunderstorm conditions.

- **Storm Surge**: Water levels from storm surge have historically risen to 6 feet within Volusia County following one of these events, with increased water heights for coastal communities due to Florida's semidiurnal tides. Roadway flooding has been seen rising between 1 and 5 feet. Hurricane Nicole in 2022 produced an impactful storm surge along a large portion of the east coast of Florida, battering beaches with elevated water levels and wave action. Florida was previously hit by Hurricane Ian in late September which caused beach erosion along the east coast and freshwater flooding from rainfall in rivers and canals. The impact of Ian likely left the area more vulnerable to storm surge from Nicole. Additionally, Nicole's large wind field and its initial subtropical characteristics increased the potential for widespread wave and storm surge impacts. Port Orange, South Daytona, Ormond Beach, and Daytona Beach were most impacted during Hurricane Nicole, however most of this was from the tides increasing and influencing the intracoastal waterways. Please refer to the Hurricane Historical Occurrences listing for more information.
- **Sea Level Rise**: Sea level rise is currently impacting south and central Florida, with nearshore, high-tide flooding becoming a more frequent sea level rise-associated hazard in some locations. Historical occurrences of sea level rise are not easy to measure due to a lack of data existing from the early 20th Century as well as the time period of two epochs (38 years) needed to calculate the mean impacts of sea level rise, by location. According to U.S.SealevelChange.gov, Florida has seen 7 inches in sea level rise since 1970., As data collection and monitoring improve, the ability for the County to track historical occurrences will improve. One indicator of sea level rise is the frequency or nearshore, high tide flood events, also known as nuisance flooding. In 2016, a NOAA study found that nuisance flooding frequency was increasing to the north and south of Volusia County (in Mayport, FL; Fernandina Beach, FL; and Key West, FL). It is expected that these events will continue to increase in frequency in the future.
- **Tsunami**: In August 2008, a qualitative tsunami hazard assessment prepared by NOAA and USGS indicated that the U.S. Atlantic coast has a very low tsunami risk[18]. This qualitative assessment was based on National Geophysical Data Center (NGDC) and United States Geological Survey (USGS) databases. Specifically, Atlantic coast tsunami vulnerability was deemed very low based on very low wave runup, low tsunami hazard frequency, and no reported fatalities. Although an East Coast tsunami would be rare, two offshore areas are currently under investigation according to a 2002 National Geophysical Data Center report. One area of interest consists of large cracks northeast of Cape Hatteras, North Carolina that could foretell the early stages of an underwater landslide resulting in a tsunami. The other area of interest consists of submarine canyons approximately 150 kilometers from Atlantic City, New Jersey. Significant factors for consideration regarding these areas are recent discoveries along the East Coast that demonstrate the existence of pressurized hydrates and pressurized water layers on the continental shelf. This has produced speculation among the scientific community on possible triggers that could cause sudden and perhaps violent releases of compressed material that could factor into landslide events and the resulting tsunami waves. Although different from a tsunami, a rogue wave is relatively large (i.e., larger in height than a tsunami) and spontaneous ocean waves can cause similar impacts.

[18] NOAA and USGS. 2008. *U.S. States and Territories National Tsunami Hazard Assessment: Historical Record and Sources for Waves.* August 2008.

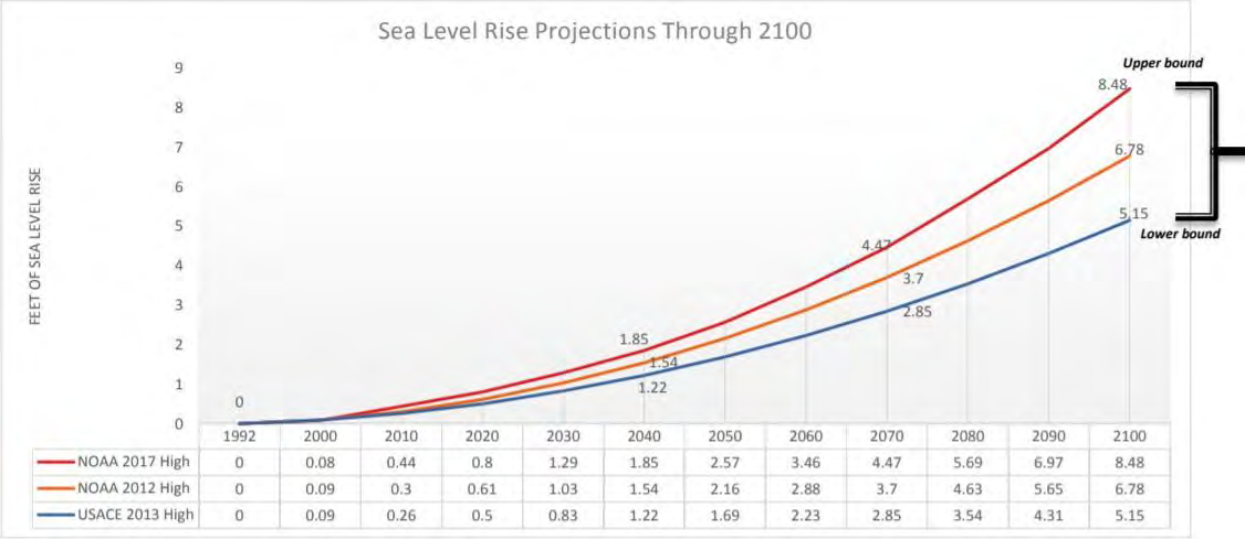
Although a defined tsunami has not impacted Volusia County, On July 3, 1992, a 27-mile-long, 18-foot rogue wave came onshore between Ormond Beach to New Smyrna Beach, centered at Daytona Beach. Sailboats crashed ashore, 200 cars were damaged and approximately 75 people were injured resulting in two hospitalizations. It is theorized that an underwater landslide caused the rogue wave, potentially categorizing this wave as a type of tsunami, or it was the result of a squall line.

Probability of Future Occurrences

There is a high probability that Volusia County will continue to experience rising coastal water associated with large tropical storms, hurricanes and squalls combined with high tides, based on the frequency of tropical cyclones as shown in **Section 5 Figure 13 and 14.**

As noted in previous sections (under Flood), anticipated sea level rise will increase the probability and intensity of future storm surge events. This rise in sea level will increase the probability and intensity of rising coastal water events but will also contribute to the loss of coastal wetlands and erosion of sand beaches that act as protective buffers against storm surge events. The National Oceanic and Atmospheric Administration (NOAA) and the U.S. Army Corps of Engineers have published numerous "sea level rise curves" that project the future impacts of sea level rise, in feet. The following sea level rise curves are being used to assess the potential impacts of sea level rise by municipalities in Volusia County.

Section 5: Figure 12: Sea Level Rise Projections



	1992	2000	2010	2020	2030	2040	2050	2060	2070	2080	2090	2100
NOAA 2017 High	0	0.08	0.44	0.8	1.29	1.85	2.57	3.46	4.47	5.69	6.97	8.48
NOAA 2012 High	0	0.09	0.3	0.61	1.03	1.54	2.16	2.88	3.7	4.63	5.65	6.78
USACE 2013 High	0	0.09	0.26	0.5	0.83	1.22	1.69	2.23	2.85	3.54	4.31	5.15

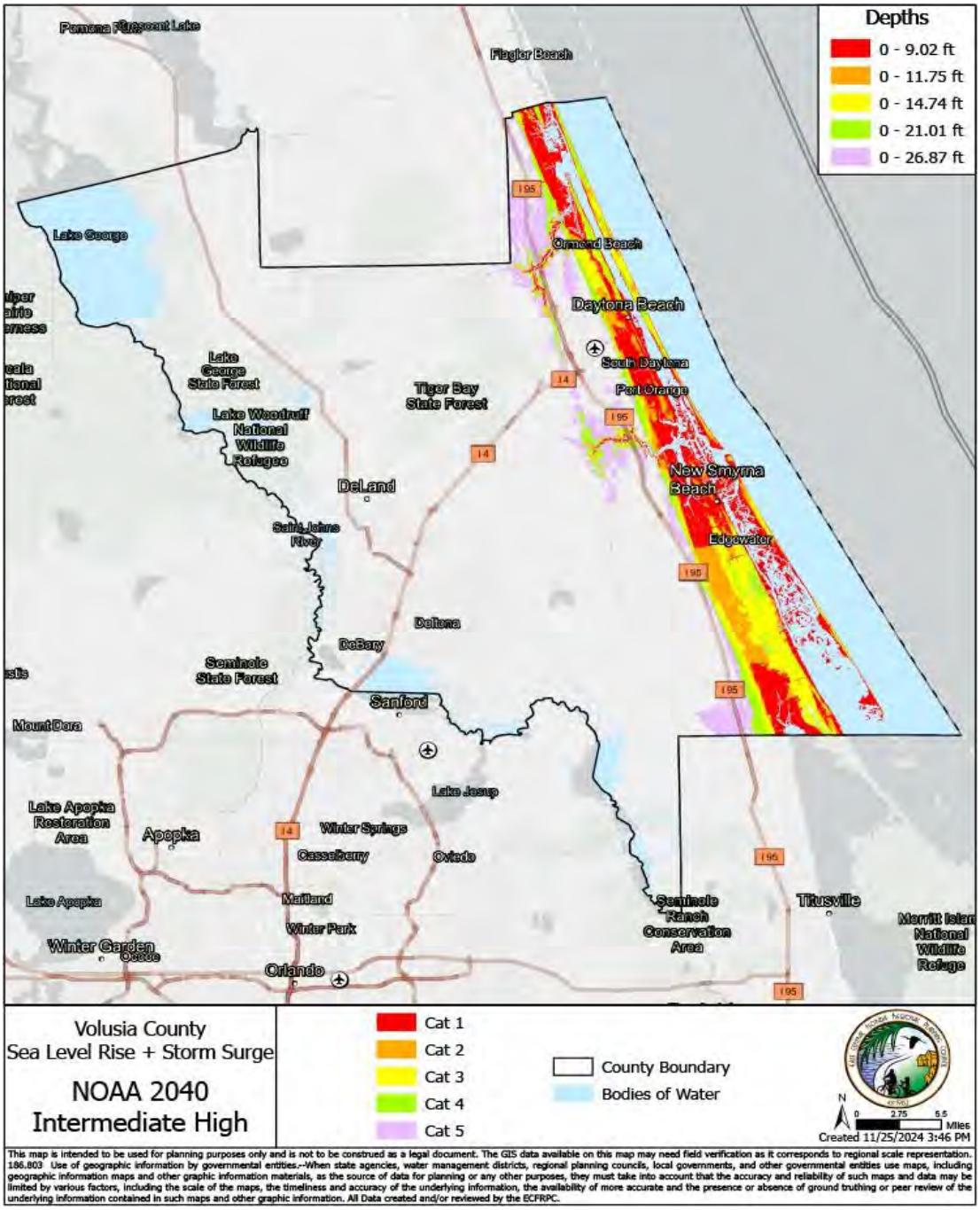
The probability of future storm surge events is dependent on the probability of future hurricanes and tropical storm events for Volusia County. According to NOAA statistical data, Volusia County is in an area with an annual probability of a named storm between 36 and 42 percent.

The probability of a future tsunami event affecting Volusia County is very low, as indicated in the 2008 NOAA-USGS tsunami hazards assessment. However, the consequences of even a moderate tsunami striking Volusia County would devastate lives, development, and the ability of the county to function.

The Local Mitigation Strategy recognizes that with a changing climate, there is a potential for an increasing risk of environmental impacts and that future mitigation and adaptation strategies related to this hazard

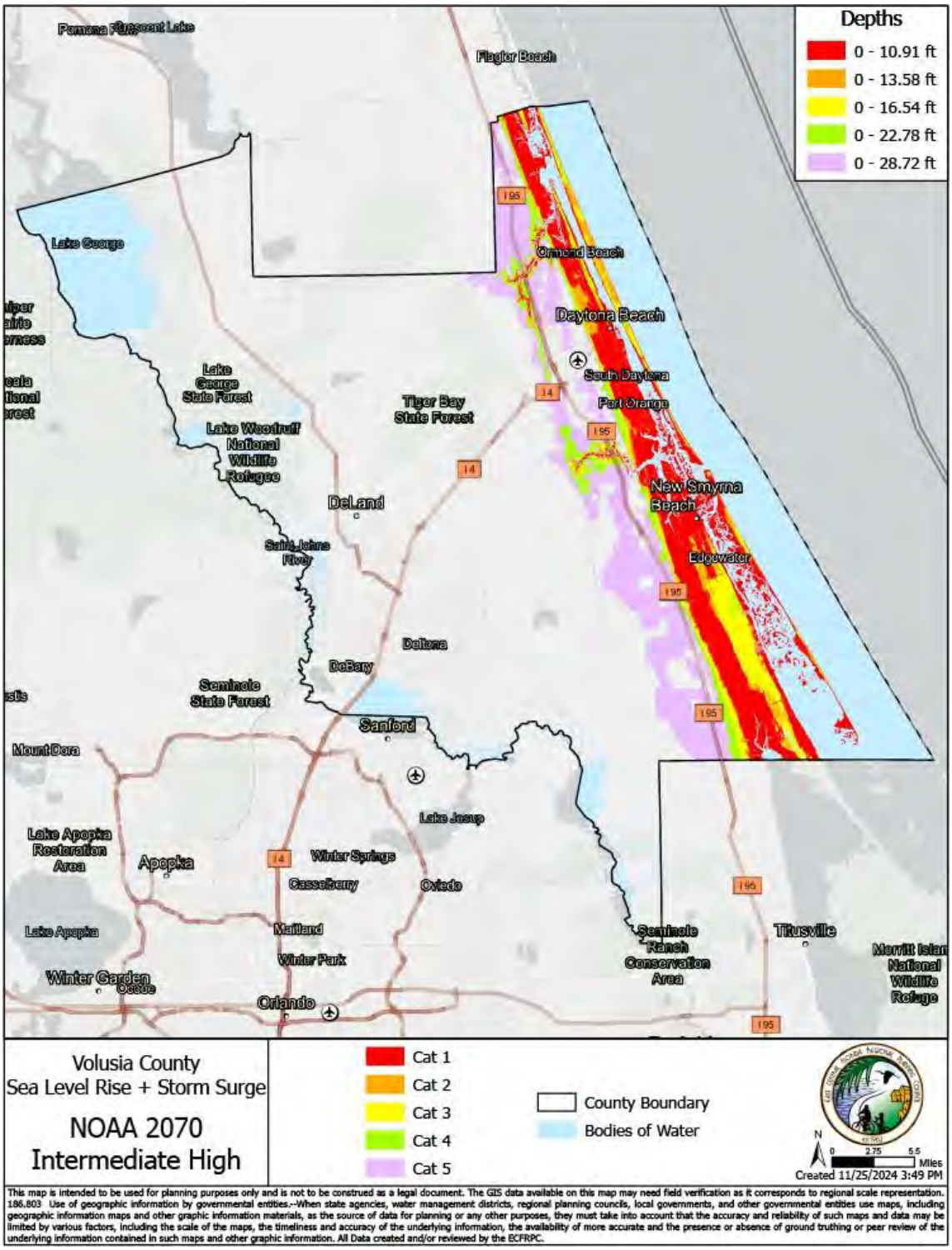
should be considered. The figures below represent the NOAA intermediate high projection for rising coastal waters in 2040 and 2070 with storm surge.

Section 5: Figure 13: 2040 Intermediate High Storm Surge



Source: ECFRPC, Volusia County Vulnerability Assessment

Section 5: Figure 14: 2070 Intermediate High Storm Surge



Source: ECFRPC, Volusia County Vulnerability Assessment

5.10 SEVERE WEATHER

Background

Severe weather refers to any significant or intense weather conditions that can cause damage, disruption, or pose a threat to safety. It encompasses a range of phenomena that are more extreme than typical weather conditions. Volusia County experiences severe weather in a variety of ways.

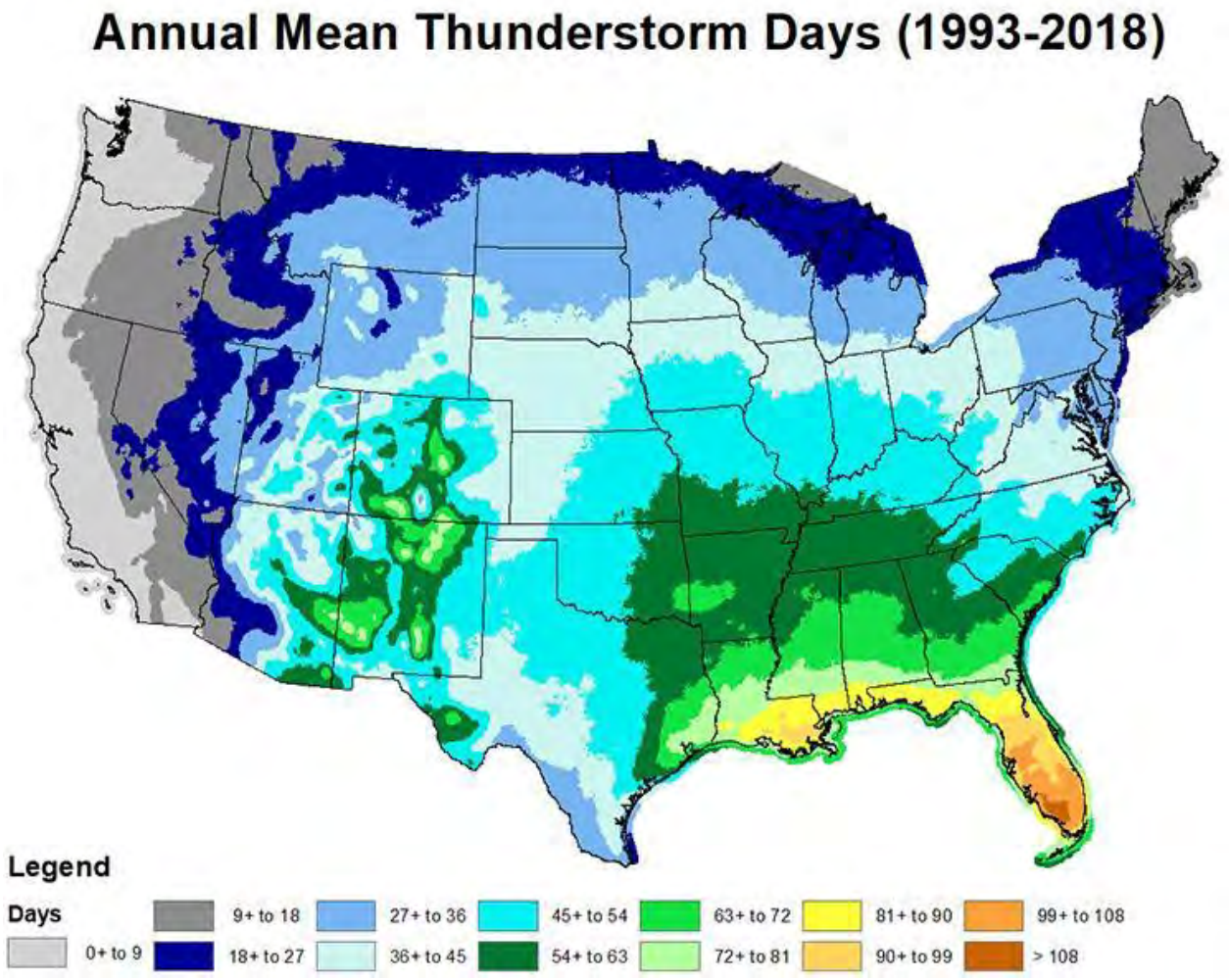
- **Hail** frequently accompanies thunderstorms and has potential to cause substantial damage. Early in the developmental stages of hail, ice crystals form within a low-pressure front due to the rapid rise of warm air into the upper atmosphere and the subsequent cooling of the air mass. Frozen droplets gradually accumulate on the ice crystals until they develop sufficient weight to fall as precipitation. Hail precipitation falls in spheres or irregularly shaped masses greater than 0.75 inches in diameter. The size of hailstones is a direct function of the size and severity of the storm. High velocity updraft winds are required to keep hail in suspension in thunderclouds. The strength of the updraft is a function of the intensity of heating at the Earth's surface. Higher temperature gradients relative to elevation above the surface result in increased suspension time and hailstone size.
- **Lightning** is a discharge of electrical energy resulting from the buildup of positive and negative charges within a thunderstorm, creating a "bolt" when the buildup of charges becomes strong enough. This flash of light usually occurs within the clouds or between the clouds and the ground. A bolt of lightning can reach temperatures approaching 50,000 degrees Fahrenheit. Lightning rapidly heats the sky as it flashes but the surrounding air cools following the bolt. This rapid heating and cooling of the surrounding air causes thunder which often accompanies lightning strikes. While most often affiliated with severe thunderstorms, lightning often strikes outside of heavy rain and might occur as far as 10 miles away from any rainfall.
    - According to FEMA, an average of 300 people are injured and 80 people are killed in the United States each year by lightning. Direct lightning strikes also can cause significant damage to buildings, critical facilities, and infrastructure. Lightning is also responsible for igniting wildfires that can result in widespread damage to property before firefighters have the ability to contain and suppress the resultant fire[19].
- **Thunderstorms** are common throughout Florida and occur throughout the year. Although thunderstorms generally affect a small area, they are very dangerous given their ability to produce accompanying hazards including high winds, hail, and lightning which all may cause serious injury or death, in addition to property damage[20].
    - According to the National Weather Service, more than 100,000 thunderstorms occur each year, though only about 10 percent of these storms are classified as "severe." A severe thunderstorm occurs when the storm produces one of three elements: 1) Hail of three-quarters of an inch; 2) Tornado; 3) Winds of at least 58 miles per hour.
    - Three conditions need to occur for a thunderstorm to form. First, it needs moisture to form clouds and rain. Second, it needs unstable air, such as warm air that can rise rapidly (this often referred to as the "engine" of the storm). Finally, thunderstorms need lift, which comes in the form of cold or warm fronts, sea breezes, mountains, or the sun's heat. When these conditions occur, air masses of varying temperatures meet, and a

[19]Wildfires are discussed in Section 5.14.
[20] Lightning and Hail are discussed in detail as separate hazards in this section.

thunderstorm is formed. These storm events can occur singularly, in lines, or in clusters. Further, they can move through an area very quickly or linger for several hours.

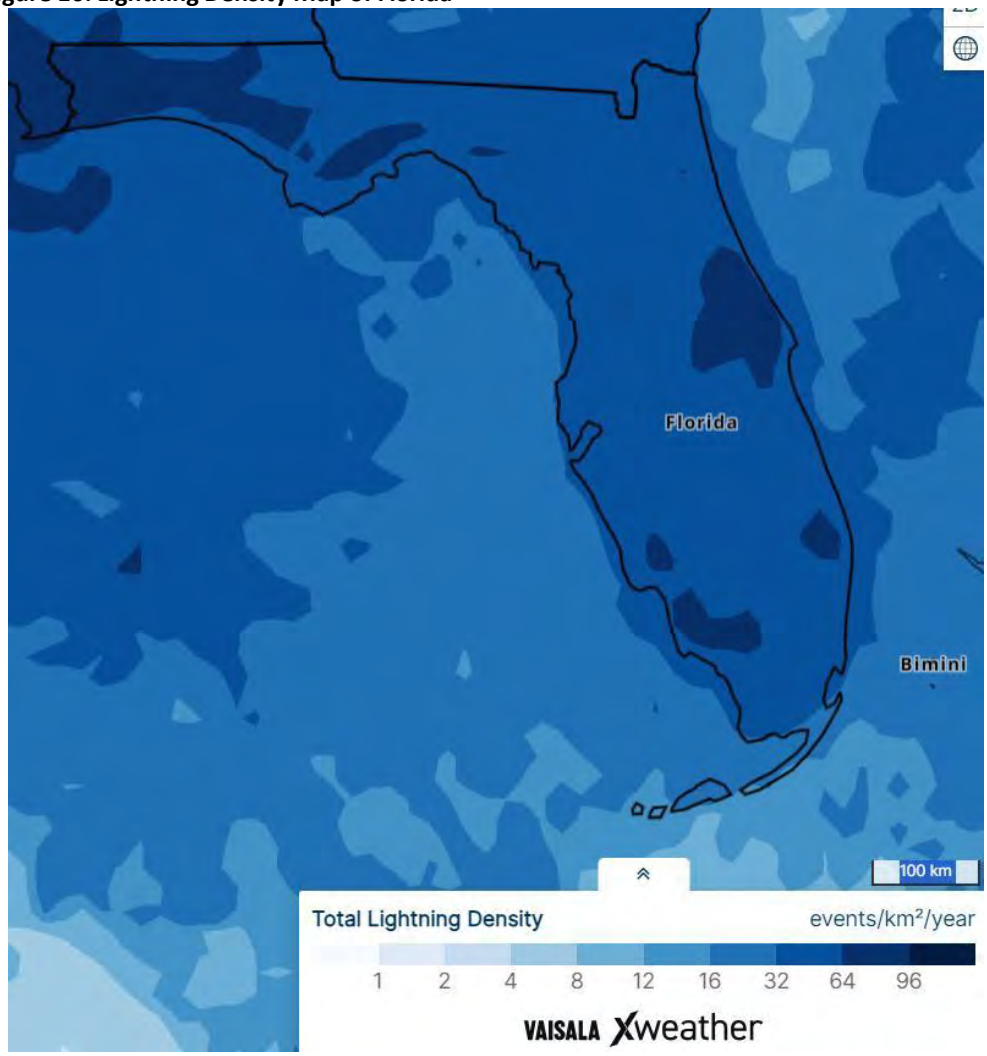
Severe weather can affect all jurisdictions within Volusia County and their duration can span from localized events (less than 10 minutes locally) to hours-long events (primarily in the case of hurricanes or large tropical systems).

Section 5: Figure 15: Average Annual Number of Thunder Events



Source: NOAA. 4/2023

Section 5: Figure 16: Lightning Density Map of Florida



Source: Vaisala U.S. National Lightning Detection Network 2024. https://interactive-lightning-map.vaisala.com/

Location and Spatial Extent

Severe storms are common and impact the entirety of Volusia County. Volusia County and its jurisdictions are in a region of the country that is particularly susceptible to these types of events.

Hail is often produced during a thunderstorm event which has no geographic limitations on the area it affects. Therefore, it is assumed that all of Volusia County is uniformly at risk to hail events. Impacts typically include downed power lines and trees and damage to vehicles and mobile homes. In terms of extent for Volusia County, tennis ball-sized hail (2.5-inch diameter based on NOAA hail conversions) has been observed on many occasions within Volusia County and is a probable occurrence on an annual basis. Larger hail conditions are less likely, but possible. The Local Mitigation Strategy recognizes that with a changing climate, there is a potential for an increasing risk of environmental impacts from hail and that future mitigation and adaptation strategies related to this hazard should be considered.

Lightning occurs randomly and is, therefore, impossible to predict where it will strike. It is assumed that all of Volusia County is uniformly exposed to lightning which strikes in very small, specific geographic areas. Impacts from lightning have included deaths and injuries, damage to electrical systems, and fires that have destroyed residential and commercial property. The most threatening and common type of lightning is cloud-to-ground lightning, where the extent of the threat causes lightning to make contact with whatever object is below. **Section 5 Figure 16** displays the spatial extent of the hazard.

Severe thunderstorms and their related hazardous elements (including lightning, hail, and straight-line winds) are not confined to any geographical boundaries and typically are widespread events. Thunderstorms can occur in all regions of the United States, but they are most common in the central and southern states because atmospheric conditions in those regions are favorable for generating these powerful storms as shown in **Section 5 Figure 15**. Therefore, it is assumed that Volusia County would be uniformly exposed to these hazards and that the extent of that impact would potentially be large. The extent of thunderstorm severity varies on an event-by-event-basis and is generally subject to the atmospheric conditions present at the time. While light thunderstorms are more common in frequency, severe thunderstorms (with associated Severe Thunderstorm Warnings) which include the added impacts of lightning and (more rarely) hail occur several times per year in Volusia County. The extent of severe thunderstorms are watches and warnings. A Severe Thunderstorm Watch is issued when severe thunderstorms are possible in and near the watch area. It does not mean that they will occur. It only means they are possible. A Severe Thunderstorm Warning is issued when severe thunderstorms are occurring or are imminent in the warning area.

Historical Occurrences

According to the National Climatic Data Center, there have been numerous recorded hail events in Volusia County as shown in **Section 5: Table 8**[21]. Hail sizes for these events range from 1.00 inches to 2.75 inches in diameter. The emergency management officials from the Volusia County jurisdiction determined that only hail that was greater than one inch in diameter was to be listed.

Section 5: Table 8: Historical Hail Impacts

LOCATION	DATE	MAGNITUDE (inches)	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Volusia County	8/16/1963	1.00	0/0	$0	Not Available
Volusia County	2/7/1971	2.75	0/0	$0	Not Available
Volusia County	3/13/1971	1.75	0/0	$0	Not Available
Volusia County	5/29/1971	1.75	0/0	$0	Not Available
Volusia County	4/4/1973	1.00	0/0	$0	Not Available
Volusia County	6/10/1975	1.75	0/0	$0	Not Available
Volusia County	5/12/1976	1.50	0/0	$0	Not Available
Volusia County	4/18/1978	1.00	0/0	$0	Not Available
Volusia County	4/8/1982	1.50	0/0	$0	Not Available
Volusia County	4/29/1982	1.75	0/0	$0	Not Available

[21] A Hail event that affects several jurisdictions on the same day is classified as a single event.

LOCATION	DATE	MAGNITUDE (inches)	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Volusia County	6/8/1985	1.00	0/0	$0	Not Available
Volusia County	6/18/1987	1.75	0/0	$0	Not Available
Volusia County	5/24/1988	1.50	0/0	$0	Not Available
Volusia County	2/21/1989	1.00	0/0	$0	Not Available
Volusia County	3/23/1989	1.25	0/0	$0	Not Available
Volusia County	5/1/1989	1.00	0/0	$0	Not Available
Volusia County	6/26/1990	1.00	0/0	$0	Not Available
Volusia County	5/2/1992	1.00	0/0	$0	Not Available
Edgewater	1/11/1993	1.50	0/0	$77,700	Strong downburst winds damaged 9 mobile homes. Most had aluminum awnings, carports, and family rooms ripped away. Trees and power lines were down. Up to golf ball-sized hail also fell.
Daytona Beach	3/31/1993	1.75	0/0	$0	Golf ball-sized hail fell at the Daytona Beach Airport.
Daytona Beach	6/19/1995	2.50	0/0	$36,809	Severe thunderstorms blew down dozens of trees in Deltona and produced one inch-diameter hail.
Daytona Beach	3/28/1996	1.75	0/0	$0	Strong downburst winds blew down trees destroyed a pool screen and produced two and one-half-inch-diameter hail in the Spruce Creek Village.
Barberville	6/15/1996	1.00	0/0	$0	Hail the size of quarters fell in Barberville, while quarter-sized hail fell in DeBary.
DeBary	6/15/1996	1.00	0/0	$0	
Daytona Beach	8/25/1996	1.00	0/0	$0	Not Available
Deltona	7/7/1997	1.00	0/0	$0	Not Available
DeBary	8/13/1997	1.00	0/0	$0	Not Available
Deltona	2/28/1998	1.00	0/0	$0	Not Available

LOCATION	DATE	MAGNITUDE (inches)	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
DeLand	3/20/1998	1.25	0/0	$0	Not Available
New Smyrna Beach	3/20/1998	1.00	0/0	$0	
Daytona Beach	6/25/1998	1.75	0/0	$0	Not Available
Port Orange	1/9/1999	1.00	0/0	$4,032	A few mobile homes were damaged by falling trees and quarter-sized hail in Port Orange.
Pierson	5/6/1999	1.75	0/0	$0	Not Available
Orange City	5/9/1999	1.75	0/0	$0	Not Available
Oak Hill	4/15/2000	1.00	0/0	$0	Not Available
DeLand	9/19/2000	1.75	0/0	$0	Not Available
Oak Hill	3/29/2001	1.00	0/0	$0	Not Available
DeLand	3/31/2001	1.00	0/0	$0	Not Available
New Smyrna Beach	8/21/2001	1.00	0/0	$0	Not Available
Deltona	3/19/2003	1.00	0/0	$0	Not Available
DeLand	4/25/2003	1.00	0/0	$0	Not Available
DeLand	7/18/2003	1.00	0/0	$0	Not Available
Oak Hill	7/21/2003	1.00	0/0	$0	Not Available
DeLand	10/7/2003	1.00	0/0	$0	Not Available
Port Orange	7/8/2004	2.00	0/0	$0	Not Available
Maytown	10/19/2004	1.00	0/0	$0	Not Available
Seville	3/25/2005	1.00	0/0	$0	Not Available
Daytona Beach	5/4/2005	1.75	0/0	$112,551	Not Available
Holly Hill	6/28/2006	1.75	0/0	$0	Not Available
DeLand	7/17/2006	1.00	0/0	$0	Not Available
Glencoe	3/7/2008	1.00	0/0	$0	A cold front moving across central Florida produced a line of thunderstorms that moved southeast across the area. One inch hail was reported in Port Orange. Quarter size hail was reported at Interstate 95 and Highway SR44, near Glencoe, and in Daytona Beach. The public reported nickel size hail in Deltona.
Port Orange	3/7/2008	1.00	0/0	$0	
Daytona Beach	3/7/2008	1.00	0/0	$0	

LOCATION	DATE	MAGNITUDE (inches)	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Seville	7/5/2008	1.00	0/0	$0	Quarter-sized hail was reported. A sea breeze thunderstorm produced hail and wind gusts in interior parts of E.C.F.
Seville	6/13/2009	1.00	0/0	$0	Numerous strong storms developed over east central Florida, with a few strengthening to severe levels and producing wind damage and large hail.
DeLeon Springs	3/31/2009	1.00	0/0	$0	A northward-lifting warm front combined with active sea breeze boundaries within an unstable atmosphere produced several severe thunderstorms with nickel to quarter sized hail and localized severe winds.
Ponce Park	2/22/2010	1.00	0/0	$0	Isolated thunderstorms developed in an unstable environment well ahead of a cold front. One of the storms became strong and produced small hail as it moved east out of the Ocala National Forest. The storm strengthened as it approached the coast, producing large hail on the barrier island east of central Daytona Beach.
Harbor Point	5/13/2011	1.00	0/0	$0	The collision of the east and west coast sea breezes formed a broken line of thunderstorms across East Central Florida. A couple of these pulse storms became severe in Orange and Volusia Counties.
Ormond by the Sea	3/31/2011	1.00	0/0	$0	A pre-frontal squall line moved rapidly across central Florida, bringing strong to severe thunderstorms with large hail and funnel clouds.
Glencoe	5/17/2012	1.75	0/0	$0	The east coast sea breeze formed in the early afternoon and

LOCATION	DATE	MAGNITUDE (inches)	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
					propagated inland, eventually colliding with the west coast sea breeze over the central peninsula. Storms moved to the east and northeast and produced large hail over Brevard and Volusia Counties.
Deltona	4/20/2012	1.75	0/0	$0	Several severe thunderstorms occurred as low to mid-level southwest winds brought a warm and very moist air mass into east central Florida. Much cooler and drier air above this moisture laden air allowed for vigorous storm development which acted to produce severe wind gusts and hail in many of the thunderstorms that developed.
Barberville	4/20/2012	1.25	0/0	$0	Several severe thunderstorms occurred as low to mid-level southwest winds brought a warm and very moist air mass into east central Florida. Much cooler and drier air above this moisture laden air allowed for vigorous storm development which acted to produce severe wind gusts and hail in many of the thunderstorms that developed.
DeBary	4/20/2012	1.00	0/0	$0	Several severe thunderstorms occurred as low to mid-level southwest winds brought a warm and very moist air mass into east central Florida. Much cooler and drier air above this moisture laden air allowed for vigorous storm development which acted to produce severe wind gusts and hail in many of the thunderstorms that developed.
DeLand Osteen	5/17/2012	0.75 (DeLand) 0.88 (Osteen)	0/0	$0	The east coast sea breeze formed in the early afternoon and

LOCATION	DATE	MAGNITUDE (inches)	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Glencoe		1.75 (Glencoe)			propagated inland, eventually colliding with the west coast sea breeze over the central peninsula. Storms moved to the ENE, producing large hail over Volusia County.
Daytona Beach International Airport	6/24/2014	0.88	0/0	$0	A thunderstorm developed rapidly along the east coast sea breeze over coastal Volusia County.
DeLeon Springs	6/26/2014	0.88	0/0	$0	A weather spotter observed hail up to nickel size in De Leon Springs as a strong thunderstorm affected the area.
Deltona	5/20/2015	1.00	0/0	$0	Strong thunderstorms developed over the mainland and became severe as they interacted with the east coast sea breeze over central Volusia and eastern Seminole County. Large hail, up to quarter-sized, was reported across sections of Deltona and Oviedo.
DeLeon Springs	7/6/2015	0.75	0/0	$0	Thunderstorms developed along the west coast sea breeze and became strong as they approached Volusia County, producing small hail and some minor tree damage in De Leon Springs.
DeLeon Springs	7/6/2016	1.00	0/0	$0	An isolated thunderstorm quickly became severe and hail up to quarter size as it moved slowly southeast across Deleon Springs.
Enterprise	2/15/2017	0.88	0/0	$0	Scattered thunderstorms developed ahead of a strong cold front, bringing small hail to Enterprise in Volusia County.
Harbor Point New Smyrna Beach Enterprise	6/1/2017	1.00 – 1.25	0/0	$0	A sea breeze collision produced a severe thunderstorm over east central Volusia County during the late afternoon. Several reports of quarter to half dollar sized hail

LOCATION	DATE	MAGNITUDE (inches)	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
					were received from Port Orange to New Smyrna Beach.
Enterprise	7/20/2017	1.00	0/0	$0	A collision of the east and west coast sea breeze over the interior of Central Florida produced two severe thunderstorms that resulted in quarter-sized hail in Orange and Volusia Counties. A funnel cloud was also reported in Osceola County.
Ormond Beach DeLeon Springs Daytona Beach Holly Hill	3/20/2018	1.00 – 2.00	0/0	$0	A deepening mid-level trough and associated strong cold front moved across north/central Florida. Conditions ahead and along the cold front were favorable for severe thunderstorms as 80-90 knot jet maxima produced sufficient upper level divergence. These conditions produced an enhanced risk of severe weather, sparking several rounds of severe thunderstorms, which affected Volusia, Seminole, Orange, Brevard and Okeechobee Counties.
New Smyrna Beach	4/9/2019	0.88	0/0	$0	An area of low pressure and a weak cold front moved across central Florida sparking numerous showers and thunderstorms across the area. Deep moisture was in place across the area, and instability had increased through the day due to daytime heating. The instability, combined with lift associated with the approaching cold front and cold temperatures in the middle part of the atmosphere, allowed a few thunderstorms to become severe. In Volusia County, a strong storm produced nickel sized hail. In Seminole County, damaging winds caused numerous trees to be uprooted. In Brevard County, a

LOCATION	DATE	MAGNITUDE (inches)	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
					severe thunderstorm produced a strong wind gust at the Cape.
Deltona	5/4/2019	0.75 – 1.00	0/0	$0	An area of high pressure located over the central Atlantic was the dominant feature affecting weather over central Florida. This led to west to southwest winds at the surface that pushed deep moisture from the Gulf across the area. Hot daytime temperatures, and cold temperatures in the middle atmosphere provided the necessary ingredients for strong to severe thunderstorms to develop. These storms developed along the sea breezes and outflow boundaries that were produced. One thunderstorm became severe in southwestern Volusia County where it produced hail and damaging winds.
Glencoe Hucomer	5/31/2019	0.88 – 1.00	0/0	$0	The Atlantic high-pressure ridge located south of Florida resulted in southwest winds across central Florida. This pushed deep moisture over the area, and when combined with daytime heating and cold temperatures in the middle atmosphere provided conditions for showers and thunderstorms to develop. One thunderstorm in eastern Volusia County interacted with the sea breeze front. This storm quickly became severe as it moved very slowly southward over New Smyrna Beach and Edgewater, and several reports of hail were received in these areas.
Cassadaga	5/21/2020	1.00	0/0	$0	The public reported quarter sized hail near the intersection of

LOCATION	DATE	MAGNITUDE (inches)	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
					Courtland Boulevard and Lockwood Boulevard in Deltona.
Orange City Deltona	8/9/2020	1.00-1.75	0/0	$0	Afternoon thunderstorms that developed along the sea breeze collision became severe, producing large hail in Volusia County, and damaging winds in Volusia and Orange Counties.
Blake	8/18/2020	1.00	0/0	$0	Numerous thunderstorms developed along the outflow boundary and sea breeze collisions. These storms produced two tornadoes in western Volusia County, including a rare August EF-2. In addition, other thunderstorms produced strong winds and hail along the Volusia and Brevard County coasts.
West Holly Hill Daytona Beach Daytona Beach Shores South Daytona Ponce Inlet Blake	3/6/2021	0.75-1.50	0/0	$0	Daytona International Speedway Emergency Management reported half dollar sized hail west of Interstate 95 near LPGA Boulevard. They also reported small hail had accumulated on the ground and was 4 to 5 inches deep in some spots.
Ormond by the Sea	4/18/2021	1.00	0/0	$0	An isolated severe thunderstorm developed over Flagler County near a stationary front. The storm moved quickly southeast along the Flagler-Volusia County line and produced large hail just south of the county line, in Ormond Beach.
New Smyrna Beach Coronado Beach	3/16/2022	1.75	0/0	$0	Numerous afternoon thunderstorms developed across east-central Florida, with several becoming severe. These severe storms produced large hail in Brevard, Seminole, and Volusia County, with wind damage to trees also occurring in Volusia County.

LOCATION	DATE	MAGNITUDE (inches)	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Orange City DeLand	5/21/2022	1.00-1.25	0/0	$0	Numerous afternoon thunderstorms developed across east-central Florida as the east coast sea breeze moved inland from the coast and eventually collided with the west coast sea breeze. Many storms became severe and produced quarter to half dollar sized hail over parts of Seminole, Volusia, and Lake Counties.
Cassadaga	6/6/2022	1.00	0/0	$0	Numerous severe thunderstorms developed across east-central Florida along the east coast sea breeze, and along the main sea breeze collision. Many storms became severe over Seminole and Volusia Counties where hail and wind damage occurred. Then, as storms moved offshore, they produced severe wind gusts along the coast in Brevard, Indian River, and Martin Counties. One storm produced an EF-0 tornado in Saint Lucie County west of Fort Pierce.
Lake Helen	5/18/2023	1.00	0/0	$0	Strong storms produced severe hail near Lake Helen in Volusia County.

Source: National Climatic Data Center

NOTE: ALL HISTORICAL OCCURRENCES IN THIS REPORT ARE THE MOST RECENT AS DOCUMENTED BY THE NATIONAL CLIMATIC DATA CENTER

According to the National Climatic Data Center, there have been recorded lightning events in Volusia County as listed in **Section 5: Table 9**. However, these are only the lightning events that have been reported to NCDC. According to emergency managers from various Volusia County jurisdictions thousands of lightning strikes occur each day during the summer afternoon thunderstorms. For example, in 1997 the Port Orange Police Department was struck by lightning twice in a two-week period, each time knocking out the 911 consoles. In addition, during September 2007, there was a lightning event that occurred in Port Orange causing damages totaling $310,000 to a property which had an appraisal value of $350,000 and another which occurred in August 2009, in DeBary causing damages of $500,000 to a church which had burned to the ground. Volusia has the second greatest number of lightning strikes in Florida, behind the Tampa Bay area. The corridor between I-75 and I-95 in the North Central Florida area experiences a high number of lightning strikes.

Section 5: Table 9: Historical Lightning Occurrences

LOCATION	DATE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Holly Hill	7/23/1994	0/1	$0	A 17-year-old male riding a bike was hospitalized with burns to his chest after lightning struck the boy.
New Smyrna Beach	9/18/1994	1/1	$0	A fast-moving thunderstorm, which had produced rain for only a few minutes, produced the flash which struck the victims directly. One death and one injury resulted.
New Smyrna Beach	6/24/1995	0/1	$0	A lifeguard on top of a high observation tower was struck and injured by lightning.
Ormond Beach	6/28/1995	0/1	$0	A woman was injured by lightning while talking on a telephone in her home.
Daytona Beach	9/23/1995	1/1	$0	Two men were struck by a lone lightning bolt. Both men were hospitalized in critical condition. One of the two died three days later.
DeBary	6/15/1996	0/0	$285,935	Fires started by lightning destroying two condominiums.
New Smyrna Beach	6/19/1996	0/0	$100,077	Fire started by lightning severely damaged a house.
Edgewater	8/20/1997	0/1	$0	Lightning knocked a plumber unconscious while he was under a mobile home.
New Smyrna Beach	8/3/1999	0/0	$4,032	A Volusia County Sheriff's Office horse was killed by lightning while standing under a tree.
Daytona Beach	7/4/2002	0/0	$24,597	Lightning started a fire that damaged an apartment building in Daytona Beach.
Daytona Beach	7/4/2002	0/8	$0	Eight spectators were struck and injured by lightning at Daytona Beach International Speedway. Two of the victims were hospitalized. Six were treated and released at the scene.

LOCATION	DATE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Port Orange	8/3/2002	1/0	$0	A 62-year-old man was killed by lightning outside his home.
Edgewater	8/20/2002	0/0	$18,448	Lightning started a fire that damaged a carpet store in Edgewater.
Oak Hill	7/21/2003	0/0	$35,822	Fire started by lightning destroyed a mobile home.
Deltona	8/25/2003	0/0	$298,513	Fire from a lightning strike destroyed a church in Deltona.
Port Orange	9/14/2003	0/0	$298,513	Lightning struck a warehouse in Port Orange.
Daytona Beach	6/3/2004	0/2	$0	Two spectators suffered minor injuries from a lightning strike at Daytona Beach International Speedway.
Pierson	7/7/2004	0/2	$0	Two convenience store workers were briefly hospitalized after being injured by a lightning strike while working in the store kitchen.
Edgewater	5/24/2005	0/1	$0	A 27-year-old man was seriously injured by lightning while in a wooded area near Edgewater.
DeLand	7/29/2005	0/0	$0	Lightning strikes down trees and power lines in DeLand.
DeBary	5/26/2006	0/1	$0	A woman carrying a child outside was struck by lightning. The child was uninjured. The woman was transported to a hospital in critical condition.
Deltona	6/25/2007	0/0	$26,523	Lightning heavily damaged a home in Deltona.
Ponce Park	9/12/2007	0/2	$0	A small boat was struck by lightning in the Halifax River, resulting in minor injuries for two people.
DeBary	7/16/2008	0/0	$4,120	Lightning ignited a barn fire near DeBary.
DeBary	7/16/2008	0/0	$500,000	A lightning strike from an intense thunderstorm started a fire with burned a church to the ground.
Holly Hill	7/24/2009	0/1	$0	Sea breeze boundaries collided over coastal Volusia County, resulting in the rapid development of a severe storm near Ormond Beach. This cell then back-built south-southwest along a boundary during the late afternoon, producing a complex of strong to severe cells farther inland. A waterspout developed within the initial severe cell offshore of Ormond Beach and moved onto the beach as a tornado, reaching the adjacent backyard of several homes just beyond the beach. This vortex meandered

LOCATION	DATE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
				south along the beach and near-shore Atlantic waters for about ten minutes. Early in the evening, another tornado (EF-0) developed inland over Port Orange and damaged 150 mobile homes before lifting.
Daytona Beach and South Peninsula	8/05/2009	0/1	$0	Strong thunderstorms produced frequent cloud to ground lightning strikes across Volusia County. Two individuals were injured by lightning strikes in separate incidents about 30 minutes apart within Daytona Beach and South Peninsula.
DeBary	8/20/2009	0/0	$4,000	Sea breeze thunderstorms produced lightning across central Florida. Lightning ignited a barn fire near DeBary.
Blake	6/9/2015	0/1	$0	Lightning associated with thunderstorms developing along the east coast sea breeze injured a boy fishing in the water at Daytona Beach Shores.
Harbor Point	6/26/2015	1/0	$0	Thunderstorms developed over northern Volusia County along the east coast sea breeze. Lightning struck and killed a 25-year-old male in Port Orange as he worked outdoors.
Daytona Beach Shores	6/24/2016	1/2	$0	Lightning from a thunderstorm located about 4 miles to the north struck a woman walking at waters edge on Daytona Beach Shores, resulting in a fatality.
Ponce Park	8/14/2016	0/1	$0	A severe thunderstorm produced wind damage to trees and structures in Lake County during the middle of the afternoon. About an hour later, another storm produced lightning which injured a man on a Volusia County beach.
Ellison Acres	1/7/2017	0/1	$0	A line of strong thunderstorms moved quickly east across Volusia County early in the morning, crossing Ponce Inlet prior to sunrise. A fisherman on the north jetty was injured when lightning struck his fishing pole.
Ormond by the Sea	7/22/2017	0/1	$0	Lightning struck close to a woman standing in shallow water in Ormond by the Sea, resulting in injuries.
Maytown	8/5/2017	0/0	$200,000	An afternoon thunderstorm produced a lightning strike that hit a house in Oak Hill. The house caught fire and suffered extensive damage. No injuries or fatalities were reported.

LOCATION	DATE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Ellison Acres	6/14/2018	0/3	$0	Numerous showers and thunderstorms developed along the collision of the east and west coast sea breeze in eastern Orange and eastern Seminole County. One storm became strong and produced penny-sized hail just east of Geneva. Then, as these storms pushed east towards the coast, one storm produced a lightning strike that injured three people that were near the edge of the boardwalk in New Smyrna Beach.
Harbor Point	6/21/2018	0/0	$275,000	This storm produced a severe wind gust in Melbourne Beach. In Port Orange, a home was destroyed after being struck by lightning and catching fire.
DeLand	8/28/2018	0/1	$0	A woman standing in a parking lot in DeLand was struck and seriously injured by a lightning strike.
Ormond Beach	6/9/2019	1/0	$0	A motorcyclist was killed when he was struck by lightning while on Interstate 95 in Volusia County.
Mission City	7/19/2022	1/1	$0	Lightning struck and injured two people at two different locations in New Smyrna Beach. A 27-year-old man was seriously injured and transported to a local hospital, where he later died from his injuries. A 66-year-old man suffered minor injuries after lightning struck nearby.
Deltona	5/22/2023	1/0	$0	Lightning struck and killed a 24-year-old man while he was working on a roof in Volusia County, causing him to fall off of the roof.

Source: National Climatic Data Center

NOTE: ALL HISTORICAL OCCURRENCES IN THIS REPORT ARE THE MOST RECENT AS DOCUMENTED BY THE NATIONAL CLIMATIC DATA CENTER

Section 5: Table 10 shows historic thunderstorm events, including thunderstorm winds and high winds, which resulted in property damage in Volusia County. (Other windstorms, such as tornadoes and hurricanes, are addressed separately.)

Section 5: Table 10: Historical Thunderstorm Occurrences Resulting in Property Damage

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Pierson	3/27/2000	Thunderstorm Winds	0/0	$19,572	Severe thunderstorm winds blew down trees on a house near Pierson.
Deltona	7/26/2000	Thunderstorm Winds	0/1	$15,657	Thunderstorm winds blew down power lines and trees in the Deltona Area. One woman was injured when a tree fell on her car as she was driving in Deltona.
Orange City	9/03/2000	Thunderstorm Winds	0/0	$39,143	Thunderstorm winds blew down numerous trees and power lines in Orange City. Falling trees damaged six residences.
Emporia	9/04/2000	Thunderstorm Winds	0/0	$13,048	Thunderstorm winds blew down a large shed cover at a fern nursery.
Daytona Beach	3/13/2001	Thunderstorm Winds	0/1	$38,003	Strong microburst winds hit the barrier island in Daytona Beach destroying a large tent and a beach tollbooth. One person was injured.
Daytona Beach	6/16/2001	Thunderstorm Winds	0/0	$19,002	Thunderstorm winds blew a 50-foot section off the roof of a restaurant in Daytona Beach.
New Smyrna Beach	8/21/2001	Thunderstorm Winds	0/0	$20,268	Thunderstorm winds swept across the New Smyrna Beach Airport overturning a small plane and damaging six others.
DeBary	8/05/2002	Thunderstorm Winds	0/0	$12,299	Thunderstorm winds blew down trees on a mobile home in Debary.
Deltona	3/07/2003	Thunderstorm Winds	0/0	$1,194	Thunderstorm winds blew down numerous trees and power lines in Deltona.
Deltona	3/19/2003	Thunderstorm Winds	0/0	$119,405	Strong thunderstorm winds swept across the Deltona area blowing down dozens of trees that damaged houses and vehicles.

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Holly Hill	7/12/2003	Thunderstorm Winds	0/0	$21,493	Thunderstorm winds destroyed a large gas station roof awning in Holly Hill.
Osteen	4/08/2004	Thunderstorm Winds	0/0	$255,040	Thunderstorm winds produced widespread damage to a mobile home community southwest of Osteen. Many of the homes had damage to attached sunrooms, awnings and sheds. About 15 trees were blown down. The event was accompanied by a large amount of small hail.
Port Orange	6/16/2005	Thunderstorm Winds	0/0	$45,020	Thunderstorm winds overturned a mobile home and damaged two others east of Port Orange.
Daytona Beach	6/17/2005	Thunderstorm Winds	0/0	$11,255	Thunderstorm winds blew down a large tree which damaged a truck.
Deltona	5/28/2006	Thunderstorm Winds	0/0	$27,318	Thunderstorm winds downed power lines and power transformers in Deltona. downed trees
Daytona Beach International Airport	7/15/2007	Thunderstorm Winds	0/0	$21,218	Thunderstorm winds peeled back part of a roof on an apartment complex on the barrier island. A band of thunderstorms moved from central Florida to the coast and Lake Okeechobee producing hail, strong winds and funnel clouds.
DeLand	4/03/2008	Thunderstorm Winds	0/0	$1,030	Thunderstorm winds blew down large tree branches that took out power lines in DeLand. Afternoon pulse thunderstorms produced wind damage in DeLand.
Edgewater	4/05/2008	Thunderstorm Winds	0/0	$8,240	Thunderstorm winds blew down trees and power lines in Edgewater. A pre-frontal squall line produced widespread wind damage and hail across central Florida.
New Smyrna Beach	4/05/2008	Thunderstorm Winds	0/0	$12,360	Thunderstorm winds blew down trees and power lines in New Smyrna Beach. A pre-frontal squall line produced widespread wind damage and hail across central Florida.
Ormond Beach	6/19/2008	Thunderstorm Winds	0/0	$2,060	Ormond Beach dispatch reported trees down on power lines at Nova

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
					Road. The daily east coast sea breeze pushed inland and produced thunderstorms over coastal sections of Central Florida.
Fatio	6/21/2008	Thunderstorm Winds	0/0	$5,150	Law enforcement reported three trees down across County Road 42. The daily east coast sea breeze pushed inland and produced thunderstorms over coastal and interior sections of Central Florida.
Beresford	6/21/2008	Thunderstorm Winds	0/0	$1,030	Law enforcement reported a large tree down across State Road 44. The daily east coast sea breeze pushed inland and produced thunderstorms over coastal and interior sections of Central Florida.
DeBary, Holly Hill, Osteen, and Daytona Beach	10/9/2008	Thunderstorm Winds	0/0	$0	A north moving warm front produced widespread thunderstorms across central Florida.
Orange City	4/14/2009	Thunderstorm Winds	0/0	$0	A squall line well ahead of a cold front produced numerous thunderstorms with damaging straight-line winds, large hail and a brief, weak tornado. Several Line Echo Wave Pattern (LEWP) features were apparent on radar with rotating comma head signatures.
Harbor Point	6/18/2009	Thunderstorm Winds	0/0	$0	Numerous strong storms impacted central Florida ahead of a stalled frontal boundary far to the north. Local sea breeze interactions combined with a large-scale outflow boundary propagating to the region prompted the storm development. Many storms produced small hail and wind gusts 45-55 mph, with two storms strengthening to severe levels and resulting in damaging wind gusts.
DeLand	6/13/2009	Thunderstorm Winds	0/0	$0	Numerous strong storms developed over east central Florida, with a few strengthening to severe levels and producing wind damage and large hail.
DeLand	3/31/2009	Thunderstorm Winds	0/0	$0	A northward-lifting warm front combined with active sea breeze

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
					boundaries within an unstable atmosphere produced several severe thunderstorms with nickel to quarter sized hail and localized severe winds.
Lake Harney	8/3/2009	Thunderstorm Winds	0/0	$0	Thunderstorms along the east coast sea breeze boundary progressed inland and intensified to produce minor wind damage and a funnel cloud.
DeLand	1/21/2010	Thunderstorm Winds	0/0	$0	Numerous strong thunderstorms moved across the county, well ahead of a cold front during the late afternoon and evening. One of the storms became severe and produced localized wind damage. A funnel cloud was also observed by the Daytona Beach Airport (KDAB) weather observer.
Ormond Beach	6/3/2010	Thunderstorm Winds	0/0	$0	Numerous strong thunderstorms lifted northeast across east-central Florida from mid-afternoon through early evening. Two of the storms became severe and produced damaging winds which downed several trees and large limbs within Orange and Volusia Counties.
DeLand	8/22/2010	Thunderstorm Winds	0/0	$0	Saturated grounds from previous rains, along with recent heavy rain and 30 mph wind gusts from a thunderstorm passing 30 minutes earlier, caused a large pine tree to topple as a vehicle was traveling beneath, resulting in a fatality.
Ormond Beach	4/5/2011	Thunderstorm Winds	0/0	$0	A pre-frontal squall line crossed central Florida during the morning and early afternoon. A few of the storms became strong to severe and produced high winds and a funnel cloud, primarily across Volusia and Brevard Counties.
Volusia County	6/17/2011	Thunderstorm Winds	0/0	$0	Numerous strong to severe storms formed along the east coast sea breeze across the central Florida interior and Volusia County, producing dime to quarter sized hail and winds of 50 to 60 mph.

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Volusia County	3/30/2011	Thunderstorm Winds	0/0	$0	A rare Florida derecho affected the region during the late afternoon and early evening, well ahead of a strong cold front. The rapidly moving squall line, contained multiple bow echoes as it moved across the central portion of Florida at 60 mph.
DeBary	3/30/2011	Thunderstorm Winds	0/0	$0	A rare Florida derecho affected the region during the late afternoon and early evening, well ahead of a strong cold front. The rapidly moving squall line, contained multiple bow echoes as it moved across the central portion of Florida at 60 mph.
DeBary	3/30/2011	Thunderstorm Winds	0/0	$0	A rare Florida derecho affected the region during the late afternoon and early evening, well ahead of a strong cold front. The rapidly moving squall line, contained multiple bow echoes as it moved across the central portion of Florida at 60 mph.
Deltona	3/30/2011	Thunderstorm Winds	0/0	$0	A rare Florida derecho affected the region during the late afternoon and early evening, well ahead of a strong cold front. The rapidly moving squall line, contained multiple bow echoes as it moved across the central portion of Florida at 60 mph.
DeLand	8/13/2011	Thunderstorm Winds	0/0	$5,000	An isolated severe thunderstorm developed along a boundary collision in central Volusia County and produced wind damage.
Glencoe	5/17/2012	Thunderstorm Winds	0/0	$0	The east coast sea breeze formed in the early afternoon and propagated inland, eventually colliding with the west coast sea breeze over the central peninsula. Storms moved to the east and northeast and produced large hail over Brevard and Volusia Counties.
Oak Hill	8/8/2012	Thunderstorm Winds	0/0	$0	A line of storms developed along the west coast sea breeze and intensified as it interacted with the

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
					east coast sea breeze. One of the storms in this line became severe near Haulover Canal.
Volusia County	6/30/2013	Thunderstorm Winds	0/0	$0	Deep southwesterly flow led to the development of several strong to severe thunderstorms, which moved from the Orlando area to the coast of Volusia and Brevard Counties. Peak winds gusts reached 66 mph in Orlando. Thunderstorm winds also peeled back part of a roof from a home in Port Orange.
Volusia County	9/11/2013	Thunderstorm Winds	0/0	$10,000	An isolated heavy shower moved onshore from the Atlantic late at night and produced wind damage to the upper story of an apartment complex.
Deltona	12/15/2013	Thunderstorm Winds	0/0	$1,000	A broken line of showers and thunderstorms moved rapidly southeast across Volusia County. Two cells along the line caused minor wind damage to trees, but no structural damage. Part of a tree fell onto powerlines and a vehicle in Deltona, and tree limbs temporarily blocked a road in Osteen.
Coronado Beach	02/12/2014	Thunderstorm Winds	0/0	$0	A squall line developed out ahead of a cold front over the eastern Gulf of Mexico. Thunderstorms within the squall line produced damaging winds and large hail (although hail was not reported in Volusia County)
Daytona Beach	04/01/2014	Thunderstorm Winds	0/0	$0	A broken line of showers moved northeast across Volusia and Brevard Counties. A severe thunderstorm developed near the northern edge of the line and caused localized wind damage near Daytona Beach International Airport and Embry-Riddle Aeronautical University Campus.
Cassadaga Lake Helen	6/10/2014	Thunderstorm Winds	0/0	$5,000	Thunderstorms developed over the interior and produced locally damaging winds along with quarter sized hail.

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Daytona Beach International Airport	6/24/2014	Thunderstorm Winds	0/0	$0	A thunderstorm developed rapidly along the east coast sea breeze over coastal Volusia County and produced severe wind gusts and hail up to nickel size at Daytona Beach Airport.
DeLeon Springs	7/14/2014	Thunderstorm Winds	0/0	$0	Strong thunderstorms moved into western Volusia County and interacted with the east coast sea breeze.
Coronado Beach	7/25/2014	Thunderstorm Winds	0/0	$245,000	An EF-1 tornado touched down within a rural airpark and affected adjacent neighborhoods. Several buildings and small planes were damaged at the airpark, and many trees were damaged or uprooted within the adjacent neighborhood as the tornado tracked northeast. The thunderstorm which produced the tornado was also responsible for wind damage to a fence and the roof of an apartment building on the barrier island in New Smyrna Beach.
Orange City	6/1/2015	Thunderstorm Winds	0/0	$0	Several strong to severe thunderstorms developed along the east coast sea breeze as it pushed inland to the Interstate 4 corridor during the afternoon and interacted with other outflow boundaries. Large hail, up to golf ball sized was reported across DeBary, Sanford, Lake Mary, Altamonte Springs and Oakland. Strong winds also felled numerous trees and large tree branches leading to damage to homes and cars in DeBary, Astatula, and Lake Mary.
Lake Helen	3/24/2016	Thunderstorm Winds	0/0	$2,000	An upper-level weather disturbance, together with a very unstable airmass and mesoscale boundaries resulted in numerous strong thunderstorms across the central Florida peninsula. Two of the storms produced large hail, from quarter to golf ball size.

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Edgewater	9/13/2016	Thunderstorm Winds	0/0	$5,000	A tropical disturbance, with a well-defined surface circulation, moved onshore near Vero Beach during the early morning hours, then lifted northward along the coast to Volusia County (and beyond) through the evening. By late evening, the system was upgraded to Tropical Storm Julia, as it approached Jacksonville. A rain band associated with the system spawned an EF-0 tornado in southern Brevard County during the early afternoon, resulting in damage to a few residences. Other passing rain bands produced strong wind gusts along the coast of Brevard and Volusia Counties, one of which resulted in damage to a home in Edgewater. A funnel cloud was also sighted in Lake County.
Hucomer	9/29/2016	Thunderstorm Winds	0/0	$0	A thunderstorm became severe over southeast Volusia County and produced damage to several trees and powerlines in the town of Edgewater.
New Smyrna Beach Fatio	1/22/2017	Thunderstorm Winds	0/0	$0	An unusually strong jet stream aided development of an intense squall line which moved rapidly across east central Florida during the evening of January 22. Several thunderstorms developed ahead of the main squall line and became severe, as well as other storms within the squall line itself. Reports of quarter sized hail, wind gusts over 60 mph and funnel clouds were received. A localized area of tree damage also occurred.
DeLand Municipal Airport Holly Hill	11/23/2017	Thunderstorm Winds	0/0	$50,000	A strong thunderstorm embedded within a rain area ahead of a cold front intensified as it traveled quickly northeast across Volusia County. Mobile homes were damaged well inland in DeLand, then over 30 minutes later, the storm damaged mobile homes in

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
					Daytona Beach. Rain totals reached five to seven inches in a short period of time from Ormond-by-the-Sea to Holly Hill. High levels of standing water and some impassible roadways occurred.
DeLand Municipal Airport Allandale	4/15/2018	Thunderstorm Winds	0/0	$0	The Storm Prediction Center had designated a slight change of severe weather for all of east central Florida. A high amplitude shortwave over the Mississippi River Valley quickly moved south across the Florida peninsula during the afternoon and evening hours. A cold front associated with the intensifying trough was also observed crossing the Florida peninsula. Ahead of the cold front moderate thermodynamic instability with 700mb temperatures between -7 to -8 degrees Celsius, and 500mb between -9 to -10 degrees Celsius, resulting in lapse rates of 6-6.5 C/km. 90 knot winds atop a hot streak over the north central Gulf of Mexico created resulting flow from the southwest. Numerous showers and thunderstorms developed along the cold front, eventually forming a line that crossed across all of east central Florida.
Ormond Beach	7/22/2018	Thunderstorm Winds	1/1	$0	One person was killed, and another injured in Ormond Beach when winds from a non-severe thunderstorm knocked over a large, mostly dead tree onto them.
Deltona	5/4/2019	Thunderstorm Winds	0/0	$0	An area of high pressure located over the central Atlantic was the dominant feature affecting weather over central Florida. This led to west to southwest winds at the surface that pushed deep moisture from the Gulf across the area. Hot daytime temperatures, and cold temperatures in the middle atmosphere provided the necessary

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
					ingredients for strong to severe thunderstorms to develop.
DeLand	6/9/2019	Thunderstorm Winds	0/0	$0	Rich moist air was moving across the Florida peninsula as the area was sandwiched between the Atlantic high pressure to the south and a low-pressure system over the eastern half of the U.S. This combination of weather systems provided substantial energy in the atmosphere, that when combined with daytime heating and southwest winds at the surface led to the development of numerous strong thunderstorms across east central Florida. As these storms pushed across the peninsula they produced and interacted with many outflow boundaries and the east coast sea breeze. Several storms became severe as they moved over Seminole and Volusia Counties, where wind damage was reported. Also, a motorcyclist was killed when he was struck by lightning while on Interstate 95 in Volusia County.
Daytona Beach	09/18/2019	Thunderstorm Wind	0/0	$0	A strong storm came onshore in Volusia County and quickly became severe over Daytona Beach. Observations of 50 knot or greater winds occurred at three separate, but close by locations.
Fatio	04/20/2020	Thunderstorm Wind	0/0	$0	As a broken line of severe thunderstorms moved through Seminole County, one storm produced a brief waterspout/tornado on and near Lake Jesup. A second thunderstorm produced damaging winds in Volusia County, while a third thunderstorm produced damaging winds and hail in Martin County.
Cassadaga	05/28/2020	Thunderstorm Wind	0/0	$0	Scattered strong to severe storms moved across Lake and Volusia counties producing minor wind damage and small hail.

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Daytona Beach	06/06/2020	Thunderstorm Wind	0/0	$5,000	A National Weather Service damage survey confirmed straight-line winds estimated at 55-65 mph impacted the Daytona Flea and Farmers Market in Daytona Beach. Damage consisted of the removal of a large portion of a corrugated roof, with metal roofing peeled back on several adjacent buildings. Roof debris was blown downwind 100 yards onto adjacent portions of Interstate 95, causing the roadway to be closed for several hours. No other damage was noted in the area and there were no injuries or fatalities.
DeBary	08/09/2020	Thunderstorm Wind	0/0	$0	Afternoon thunderstorms that developed along the sea breeze collision became severe, producing large hail in Volusia County, and damaging winds in Volusia and Orange Counties.
Coronado Beach	08/18/2020	Thunderstorm Wind	0/0	$0	Numerous thunderstorms developed along the outflow boundary and sea breeze collisions. These storms produced two tornadoes in western Volusia County, including a rare August EF-2. In addition, other thunderstorms produced strong winds and hail along the Volusia and Brevard County coasts.
DeLand	08/20/2020	Thunderstorm Wind	0/0	$0	A thunderstorm became severe as it moved north through DeLand where it caused damage to planes and hangers at the airport, as well as nearby homes.
Samsula	10/28/2021	Thunderstorm Wind	0/0	$1,000	Numerous thunderstorms were moving across Volusia County, where one storm became strong and produced localized wind damage in New Smyrna Beach.
DeLand	03/01/2022	Thunderstorm Wind	0/0	$10,000	A strong thunderstorm that moved through DeLand in Volusia County produced minor wind damage that resulted in old trees falling into several power lines.

LOCATION	DATE	TYPE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Samsula	03/16/2022	Thunderstorm Wind	0/0	$0	Numerous afternoon thunderstorms developed across east-central Florida, with several becoming severe. These severe storms produced large hail in Brevard, Seminole, and Volusia County, with wind damage to trees also occurring in Volusia County.
Edgewater	07/19/2022	Thunderstorm Wind	0/0	$3,000	Strong thunderstorms that developed along the sea breeze collision moved east and offshore of Volusia County. One storm became severe where it produced wind damage in Edgewater.
Orange City	08/17/2022	Thunderstorm Wind	0/0	$4,000	A thunderstorm became severe in western Volusia County where it produced tree and powerline damage in Orange City.

Source: National Climatic Data Center

NOTE: ALL HISTORICAL OCCURRENCES IN THIS REPORT ARE THE MOST RECENT AS DOCUMENTED BY THE NATIONAL CLIMATIC DATA CENTER

Probability of Future Occurrences

Severe weather events will continue to have high occurrences in the future. Based on the frequency of hail events in the past, the probability of future hail occurrences in Volusia County is high. Over the past 45 years, Volusia County has been impacted by two or more hail events per year. It can be expected that future hail events will continue to cause minor to severe damage to property and vehicles throughout Volusia County.

The probability of occurrence for future lightning events in Volusia County is high. According to NOAA, Volusia County is in an area of the country that experiences 8-16 lightning flashes per square kilometer per year (approximately 20,224 to 40,448 flashes countywide per year). Given this regular frequency of occurrence, it can be expected that future lightning events will continue to threaten life and property throughout Volusia County.

Thunderstorms are frequent in Volusia County. During the summer, Volusia County experiences thunderstorms nearly every afternoon. They will undoubtedly continue to occur, thereby threatening the lives, safety, and property in Volusia County. Therefore, the probability of future occurrences is high.

The Local Mitigation Strategy recognizes that with a changing climate, there is a potential for an increasing risk of environmental impacts from severe weather and that future mitigation and adaptation strategies related to this hazard should be considered.

5.11 TORNADO

Background

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud extending to the ground. Tornadoes are most often generated by thunderstorm activity (but sometimes result from hurricanes and other tropical storms) when cool, dry air intersects and overrides a layer of warm, moist air forcing the warm air to rise rapidly. The damage caused by a tornado is a result of the high wind velocity and wind-blown debris, also accompanied by lightning or large hail. According to the National Weather Service, tornado wind speeds normally range from 40 to more than 300 miles per hour and are a few yards wide. The most violent tornadoes have rotating winds of 250 miles per hour or more and can cause extreme destruction, carving a path over a mile wide and several miles long and turning normally harmless objects into deadly missiles.

Over 800 tornadoes are reported nationwide annually, resulting in an average of 80 deaths and 1,500 injuries (NOAA, 2007). They are more likely to occur during the months of March through May and can occur at any time of day but are likely to form in the late afternoon and early evening. Further, the tornadoes associated with tropical cyclones are most frequent in September and October when the incidence of tropical storm systems is greatest. The destruction caused by tornadoes ranges from light to inconceivable depending on the intensity, size and duration of the storm. Typically, tornadoes cause the greatest damage to structures of light construction, including residential dwellings (particularly mobile homes). The magnitude of tornadic activity is reported using the Enhanced Fujita Scale. However, tornado magnitudes prior to 2005 were classified using the traditional version of the Fujita Scale.

Section 5: Table 11: Enhanced Fujita Scale for Tornadoes (Effective 2005 and after)

F-SCALE NUMBER	INTENSITY	WIND SPEED (MPH)	TYPE OF DAMAGE DONE
F0	GALE	65–85	Some damage to chimneys; breaks branches off trees; pushes over shallow-rooted trees; damages to sign boards.
F1	MODERATE	86–110	Peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads; attached garages may be destroyed.
F2	SIGNIFICANT	111–135	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated.
F3	SEVERE	136–165	Roof and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted.
F4	DEVASTATING	166–200	Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown and large missiles generated.
F5	INCREDIBLE	Over 200	Strong frame houses lifted off foundations and carried considerable distances to disintegrate; automobile sized missiles fly through the air in excess of 100 meters; trees debarked; steel re-enforced concrete structures badly damaged.

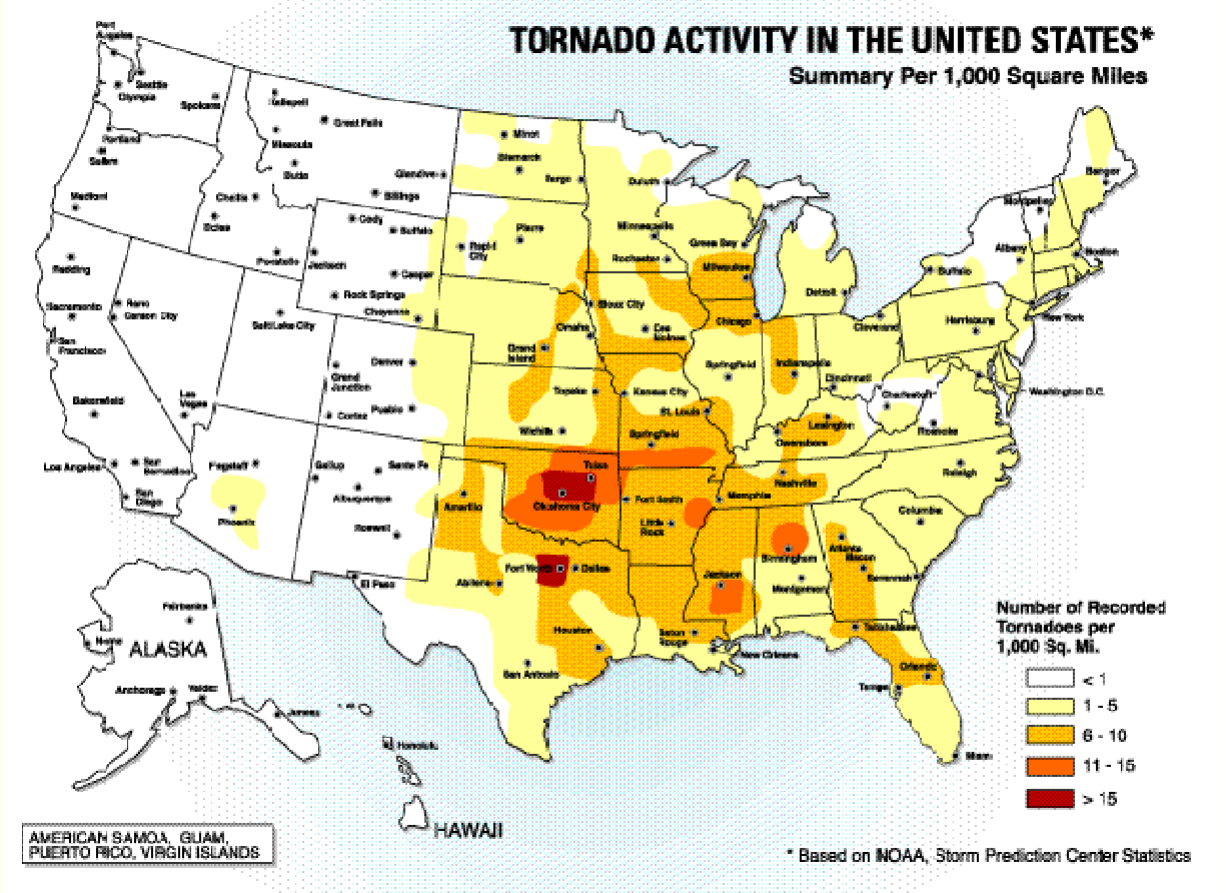
Section 5: Table 12: The Fujita Scale (Effective Prior to 2005)

F-SCALE NUMBER	INTENSITY	WIND SPEED (MPH)	TYPE OF DAMAGE DONE
F0	GALE	40–72	Some damage to chimneys; breaks branches off trees; pushes over shallow-rooted trees; damages to sign boards.
F1	MODERATE	73–112	Peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads; attached garages may be destroyed.
F2	SIGNIFICANT	113–157	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated.
F3	SEVERE	158–207	Roof and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted.
F4	DEVASTATING	208–260	Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown, and large missiles generated.
F5	INCREDIBLE	261–318	Strong frame houses lifted off foundations and carried considerable distances to disintegrate; automobile sized missiles fly through the air in excess of 100 meters; trees debarked; steel re-enforced concrete structures badly damaged.
F6	INCONCEIVABLE	319–379	These winds are very unlikely. The small area of damage they might produce would probably not be recognizable along with the mess produced by F4 and F5 wind that would surround the F6 winds. Missiles, such as cars and refrigerators would do serious secondary damage that could not be directly identified as F6 damage. If this level is ever achieved, evidence for it might only be found in some manner of ground swirl pattern, for it may never be identifiable through engineering studies.

Source: National Weather Service

According to the NOAA Storm Prediction Center (SPC), the highest concentration of tornadoes in the United States has been in Oklahoma, Texas, Kansas and Florida. Although the Great Plains region of the Central United States does favor the development of the largest and most dangerous tornadoes (earning the designation of "tornado alley"), Florida experiences the greatest number of tornadoes per square mile of all U.S. states (SPC, 2002). **Section 5: Figure 17** shows tornado activity in the United States based on the number of recorded tornadoes per 1,000 square miles.

Section 5: Figure 17: U.S. Tornado Activity



Source: Federal Emergency Management Agency

Location and Spatial Extent

Based on historic data, tornadoes occur throughout the state of Florida at a rate of 1-10 confirmed touchdowns per 1,000 square miles. Florida tornadoes typically impact a relatively small area; however, events are completely random, and it is not possible to predict specific areas that are more susceptible to a tornado strike over time. Therefore, it is assumed that all of Volusia County and its jurisdictions are uniformly exposed to this hazard. **Section 5 Figure 17** displays were where the hazard has been identified.

April, May, and June are considered the peak months for Florida tornadoes. A review of historical data shows that tornadoes within Volusia County are typically in the F0, F1 and, more rarely, the F2 range. F3 and F4 tornadoes are very rare, with three occurring since 1950. The county has never experienced a F5 tornado on record.

Historical Occurrences

According to the National Climatic Data Center, these events occurred in the Volusia County study area as listed in **Section 5: Table 13**.

Section 5: Table 13: Historical Tornado Impacts

LOCATION	DATE	MAGNITUDE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Volusia County	5/8/1950	F1	0/0	$27,851	Not Available
Volusia County	7/12/1959	unknown	0/0	$0	Not Available
Volusia County	10/12/1959	unknown	0/0	$0	Not Available
Volusia County	7/14/1960	unknown	0/0	$0	Not Available
Volusia County	7/19/1960	unknown	0/0	$0	Not Available
Volusia County	8/29/1961	F2	0/0	$188,115	Not Available
Volusia County	7/7/1963	F1	0/0	$21,995	Not Available
Volusia County	8/9/1963	unknown	0/0	$0	Not Available
Volusia County	1/12/1964	F0	0/0	$21,772	Not Available
Volusia County	8/28/1964	unknown	0/0	$0	Not Available
Volusia County	8/30/1968	F2	0/0	$160,999	Not Available
Volusia County	7/22/1969	unknown	0/0	$18,329	Not Available
Volusia County	10/2/1969	unknown	0/0	$0	Not Available
Volusia County	7/17/1970	F0	0/0	$0	Not Available
Volusia County	8/27/1971	F2	0/1	$16,624	Not Available
Volusia County	5/20/1972	F2	0/0	$134,368	Not Available
Volusia County	6/19/1972	F1	0/0	$134,368	Not Available
Volusia County	8/22/1972	F2	0/0	$134,368	Not Available
Volusia County	4/11/1975	F0	0/0	$12,504	Not Available
Volusia County	4/14/1975	F0	0/0	$0	Not Available
Volusia County	5/15/1975	F0	0/0	$104,204	Not Available

LOCATION	DATE	MAGNITUDE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Volusia County	8/9/1975	F0	0/0	$12,504	Not Available
Volusia County	5/22/1976	F0	0/0	$987,344	Not Available
Volusia County	5/23/1976	F0	0/0	$0	Not Available
Volusia County	7/3/1976	F0	0/0	$11,848	Not Available
Volusia County	4/18/1978	F1	0/0	$861,249	Not Available
Volusia County	6/9/1978	F0	0/0	$10,335	Not Available
Volusia County	7/27/1978	F0	0/0	$0	Not Available
Volusia County	8/13/1978	F1	0/1	$86,125	Not Available
Volusia County	9/4/1978	F0	0/0	$10,335	Not Available
Volusia County	9/22/1978	F0	0/0	$0	Not Available
Volusia County	9/27/1978	F0	0/0	$0	Not Available
Volusia County	1/24/1979	unknown	0/0	$77,363	Not Available
Volusia County	5/5/1979	F1	0/0	$773,633	Not Available
Volusia County	5/8/1979	F1	0/6	$7,736,328	Not Available
Volusia County	9/3/1979	F2	0/0	$1,624,629	Not Available
Volusia County	9/29/1979	F0	0/0	$0	Not Available
Volusia County	3/7/1982	F1	0/0	$25,000	Not Available
Volusia County	6/17/1982	F1	0/0	$253,000	Not Available
Volusia County	4/15/1983	F1	0/0	$6,765	Not Available
Volusia County	4/23/1983	F1	0/0	$56,375	Not Available
Volusia County	11/20/1983	F2	0/0	$5,637,514	Not Available
Volusia County	4/14/1984	F0	0/0	$53,991	Not Available

LOCATION	DATE	MAGNITUDE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Volusia County	6/27/1984	F1	0/0	$5,399,069	Not Available
Volusia County	2/8/1986	F0	0/0	$51,206	Not Available
Volusia County	3/14/1986	F1	0/1	$51,206	Not Available
Volusia County	1/21/1988	F1	0/0	$474,030	Not Available
Volusia County	5/11/1988	F0	0/0	$0	Not Available
Volusia County	11/9/1990	F0	0/3	$5155	Not Available
Edgewater	10/7/1996	F2	0/0	$3,431,216	In Edgewater, a 400-yard-wide F2 tornado touched down near I-95. The smaller F0 tornadoes in Pierson, Deltona, and Daytona Beach Shores caused minor in the affected areas, including blowing out 12 windows in Daytona Beach Shores.
Pierson	10/7/1996	F0	0/0	$0	
Deltona	10/7/1996	F0	0/0	$0	
Daytona Beach Shores	10/7/1996	F0	0/0	$7,148	
New Smyrna Beach	4/23/1997	F0	0/0	$0	The F0 tornado downed trees and damaged dozens of homes, including 20 in New Smyrna Beach alone.
Pierson	4/23/1997	F0	0/0	$83,856	
Port Orange	4/23/1997	F0	0/0	$167,713	
New Smyrna Beach	4/23/1997	F0	0/0	$349,402	
Oak Hill	7/5/1997	F0	0/0	$41,928	The brief touchdown damaged 2 houses and 8 mobile homes.
New Smyrna Beach	11/2/1997	F3	0/32	$19,566,485	A rapidly intensifying tornado initially touched down in New Smyrna Beach about 1 mile west of U.S. Highway 1 between Enterprise and Wayne Avenues. The tornado moved east northeast at about 50 mph damaging several homes and downing trees and power lines. It lifted just west of Highway 1 after passing Chisholm Elementary School. The tornado then struck New

LOCATION	DATE	MAGNITUDE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
					Smyrna Beach High School producing Fujita Scale F1 damage. As the tornado intensified to a strong F3 category, it passed through the Venetian Villas subdivision and the Diamond Head Condominiums. A number of large well-built homes were destroyed. Many of the units in the 10 story Diamond Head Condominiums received major damage as high winds blew out exterior glass walls and blew furniture into the adjoining Indian River Lagoon. The tornado then crossed the Intracoastal Waterway and passed over the barrier island between Robinson Road and East Street where a number of large well-built homes were almost completely destroyed. The tornado then moved over the Atlantic Ocean. In all 32 people were injured, six requiring hospitalizations. Thirty-one homes were destroyed and 290 were damaged. Damage estimates were near 14 million dollars.
Emporia	2/16/1998	F0	0/0	$111,808	Sixteen mobile homes were damaged, and one was destroyed.
Daytona Beach	2/22/1998	F2	1/3	$5,504,681	This tornado cell caused extensive damage and two deaths throughout Volusia County. In Daytona Beach one person was killed and three others were injured while in a mobile home. In Osteen, a man staying in a recreational vehicle was killed.
Osteen	2/23/1998	F3	1/0	$1,376,170	
Oak Hill	2/23/1998	F2	0/0	$688,085	
Port Orange	7/28/1998	F0	0/0	$137,617	Thirty-three mobile homes were damaged with this F0 tornado.
New Smyrna Beach	9/17/2000	F0	0/0	$13,048	This tornado caused minor damage including power outages and downed signs and trees.
Daytona Beach	3/13/2001	F1	0/5	$6,333,850	This F1 damaged over 100 houses and dozens of vehicles, many due to fallen trees. Five people were injured.

LOCATION	DATE	MAGNITUDE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
New Smyrna Beach	9/14/2001	F0	0/0	$70,939	This tornado was a result of a rainstorm associated with Tropical Storm Gabriel. Twelve mobile homes were damaged and three were destroyed.
Daytona Beach	8/8/2004	F0	0/0	$0	A waterspout came ashore, blowing branches from trees.
South Daytona	8/13/2004	F1	0/0	$0	This tornado cell was associated with Hurricane Charley. It caused minor damage to homes, commercial buildings, and trees.
Daytona Beach Shores	8/13/2004	F0	0/1	$0	
DeLand	12/25/2006	F2	0/5	$2,731,818	An F2 tornado touched down just west of North Stone Street in DeLand and moved northeast crossing Highway 17. It moved across the Fernwood mobile home community and continued northeast over Meadowlea Estates mobile home community. It lifted just north of Carter Road. Fifty-two residences were destroyed and 162 were damaged. Five people were seriously injured.
Daytona Beach International Airport	12/25/2006	F2	0/6	$54,636,350	The same system that caused fived injuries and damaged 162 homes in DeLand touched down at Daytona Beach International, destroying 40 Embry Riddle University aircraft and the two-story administration building. East of Embry Riddle Aeronautical University, 48 apartments units were destroyed and 200 were damaged.
Beresford	2/2/2007	F3	0/42	$55,166,800	The tornado that killed 13 people in Lake County moved east across the St. Johns River, crossed into Volusia county at Lake Beresford and moved across DeLand as an F3 tornado. It was still moving east northeast at 50 MPH as it damaged 277 and destroyed 106 residences in the DeLand area. There were no fatalities in Volusia County but 42 people were injured.
New Smyrna Beach (Airport)	2/2/2007	F1	0/0	$6,365,400	

LOCATION	DATE	MAGNITUDE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
Lake George	7/7/2007	F0	0/0	$31,827	Tornado-force winds caused damage to a restaurant and apartment complex.
Port Orange and Ormond Beach	7/24/2009	F0	0/1	$ 2,500,000	This tornado was caused by a sea breeze merger, when winds from both coasts meet and cause the rotation. Although it was classified as the mildest of twisters, it caused damage to 163 homes in Port Orange. Of these, seven were totally destroyed, eight had major damage, and twenty-six had moderate damage. The same system produced a waterspout that came ashore in Ormond Beach, destroying a catamaran.
Edgewater	8/7/2010	F0	0/0	$58,000	A waterspout formed within a thunderstorm over the intracoastal river, then moved onshore the adjacent barrier island in New Smyrna Beach and produced minor damage as it crossed to the Atlantic coast.
Edgewater	8/11/2010	F0	0/0	$5,000	Scattered thunderstorms trained northward near the Florida east-central coast, within a strong southerly flow due in part to the presence of Tropical Depression Five remnants near the central Gulf coast. Around mid-day, a waterspout developed over the intracoastal river and moved onshore the mainland in Edgewater, producing minor damage. Several hours later, another storm developed rotation and produced a brief touchdown in a

LOCATION	DATE	MAGNITUDE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
					wooded area, farther inland over southern Volusia County.
Glencoe	8/11/2010	F0	0/0	$0	Scattered thunderstorms trained northward near the Florida east-central coast, within a strong southerly flow due in part to the presence of Tropical Depression Five remnants near the central Gulf coast. Around mid-day, a waterspout developed over the intracoastal river and moved onshore the mainland in Edgewater, producing minor damage. Several hours later, another storm developed rotation and produced a brief touchdown in a wooded area, farther inland over southern Volusia County.
Volusia County	12/10/2012	F0	0/0	$1,000	Very moist southwest winds developed across east-central Florida well in advance of a cold front and associated upper level disturbance. Strong daytime heating, combined with moderate low-level wind shear, resulted in numerous strong storms, two of which produced tornadoes. The first tornado began as a waterspout over Lake Apopka, then crossed the northeast shore of the lake and remained on the ground for a short distance. Although the waterspout/tornado affected a rural area, several citizens witnessed the event. The second tornado impacted a mobile home park and adjacent wooded area in Edgewater, then became a waterspout as it crossed the intracoastal river, before moving across the barrier island as a tornado. Significant damage occurred at the mobile home park, with only minor damage on the barrier island. Several funnel clouds were also observed.
Volusia County	12/10/2012	F1	0/2	$1.7 Million	
Edgewater	7/25/2014	F0	N/A	N/A	A tornado struck down in Edgewater at Park Avenue and Wildwood Drive near Massey Air Park at 4:30pm, causing damage to several hangars

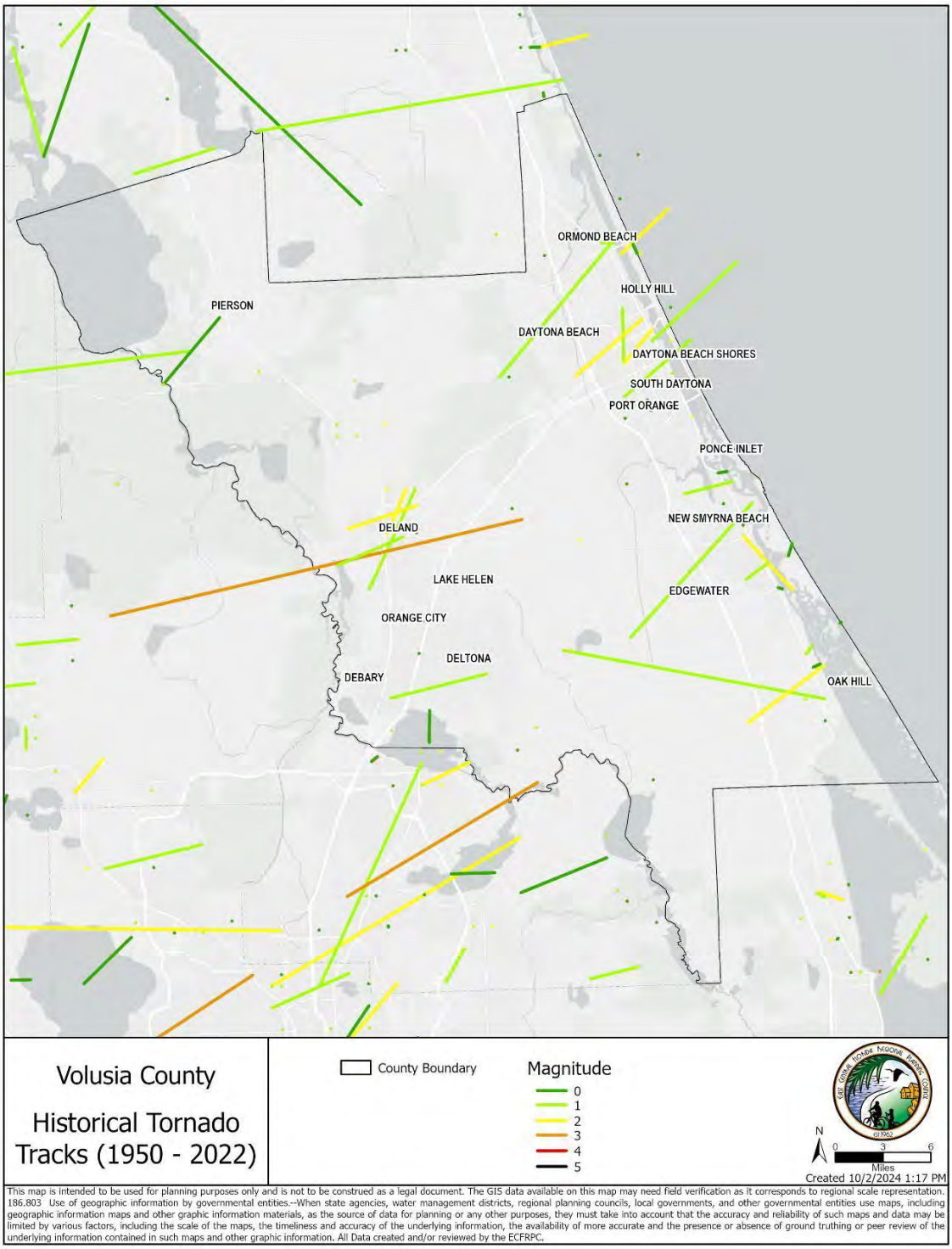
LOCATION	DATE	MAGNITUDE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
					and planes. Winds reached 65 to 85 mph.
Ormond Beach	9/10/2017	F1	0/0	$0	Associated with Hurricane Irma.
Ariel	6/9/2018	F0	0/0	$10,000	After storms developed over Orlando, they pushed east towards the southeastern Volusia County coastline. One storm managed to produce a very weak, short-lived tornado (land spout) in Oak Hill.
Beresford	01/04/2020	EF1	0/0	$25,000	A severe thunderstorm moving across central Florida produced two tornadoes, one in Okahumpka in Lake County, then another in DeLand in Volusia County.
Enterprise	06/06/2020	EF0	0/0	$0	A waterspout that came onshore and developed into a tornado. Based on this report, along with only minor damage to trees near the lakefront, peak winds were estimated between 45 and 55 mph.
DeLand	08/18/2020	EF2	1/0	$8,010,339	The tornado generally tracked east-northeast across the city resulting in many downed medium to large tree branches, downed power lines, and numerous large trees being uprooted, which led to many local and major roadways being blocked. Many homes and vehicles suffered moderate to major damage as large tree branches or entire trees fell on them. There were 163 damaged structures, with 49 sustaining minor damage, 40 sustaining major damage, and 5 that were destroyed.
Orange City	08/18/2020	EF0	0/0	$40,000	The tornado tracked along a 0.1 mile long path, with maximum winds estimated between 65-75 mph. The tornado had a maximum width of approximately 70 yards.
Isleboro	08/02/2021	EF0	0/0	$0	Based on information provided by the Volusia County Sheriffs Office, a short-lived tornado touched down just west of U.S. Highway 1, near the

LOCATION	DATE	MAGNITUDE	DEATHS/ INJURIES	PROPERTY DAMAGE	DESCRIPTION
					intersection of Sleepy Hollow Road, in New Smyrna Beach. Peak winds are estimated around 55-65 mph.
Coronado Beach	07/22/2023	EF0	0/0	$0	Thunderstorms produced a landspout tornado in Volusia County and a severe wind gust in Brevard County.

Source: National Climatic Data Center

NOTE: ALL HISTORICAL OCCURRENCES IN THIS REPORT ARE THE MOST RECENT AS DOCUMENTED BY THE NATIONAL CLIMATIC DATA CENTER

Section 5: Figure 18: Locations of Historical Tornado Events in Volusia County



Source: National Oceanic and Atmospheric Administration

Probability of Future Occurrences

The probability of a future tornado affecting Volusia County is high. According to historical records, Volusia County experiences, on average, more than one (1.2) confirmed tornado event annually. While many of these events are small in terms of size, intensity and duration, a greater number of stronger storms (i.e., F2 and F3 tornadoes) have been reported in the past decade. Further, even minor tornadoes can cause substantial damage. In conclusion, tornadoes pose a significant threat to lives and property in Volusia County.

The Local Mitigation Strategy recognizes that with a changing climate, there is a potential for an increasing risk of environmental impacts from tornadoes and that future mitigation and adaptation strategies related to this hazard should be considered.

5. TROPICAL CYCLONES

Background

Hurricanes and tropical storms are classified as tropical cyclones and defined as any closed circulation developing around a low-pressure center in which the winds rotate counterclockwise in the Northern Hemisphere (or clockwise in the Southern Hemisphere) and whose diameter averages 10 to 30 miles across. A tropical cyclone refers to any such circulation that develops over tropical waters. Tropical cyclones act as a "safety-valve," limiting the continued build-up of heat and energy in tropical regions by maintaining the atmospheric heat and moisture balance between the tropics and the pole-ward latitudes. The primary damaging forces associated with hurricanes and tropical storms are high-level sustained winds, heavy precipitation, and tornadoes. Coastal areas are also vulnerable to the additional forces of storm surge, wind-driven waves and tidal flooding which can be more destructive than cyclone wind.

The key energy source for a tropical cyclone is the release of latent heat from the condensation of warm water. Their formation requires a low-pressure disturbance, warm sea surface temperature, rotational force from the spinning of the earth and the absence of wind shear in the lowest 50,000 feet of the atmosphere. Many hurricanes and tropical storms form in the Atlantic Ocean, Caribbean Sea, and Gulf of Mexico during the official Atlantic hurricane season, which encompasses the months of June through November. The peak of the Atlantic hurricane season is early to mid-September, and the average number of storms that reach hurricane intensity per year in this basin is about six.

As an incipient hurricane develops, barometric pressure (measured in millibars or inches) at its center falls and winds increase. If the atmospheric and oceanic conditions are favorable, it can intensify into a tropical depression. When maximum sustained winds reach or exceed 39 miles per hour, the system is designated a tropical storm, given a name, and is closely monitored by the National Hurricane Center in Miami, Florida. When sustained winds reach or exceed 74 miles per hour the storm is deemed a hurricane. Hurricane intensity is further classified by the Saffir-Simpson Scale (**Section 5: Table 14**), which rates hurricane intensity on a scale of 1 to 5, with 5 being the most intense[22].

Section 5: Table 14: Saffir-Simpson Scale

CATEGORY	MAXIMUM SUSTAINED WIND SPEED (MPH)	MINIMUM SURFACE PRESSURE (MILLIBARS)	STORM SURGE (FEET)
Tropical Storm	39–73	n/a	0–2
1	74–95	Greater than 980	3–5
2	96–110	979–965	6–8
3	111–129	964–945	9–12
4	130–156	944–920	13–18
5	157 +	Less than 920	19+

Source: National Hurricane Center

The Saffir-Simpson Scale categorizes hurricane intensity linearly based upon maximum sustained winds, barometric pressure and storm surge potential, which are combined to estimate potential damage.

[22] Although a tropical storm is not part of the Saffir-Simpson Scale, it is listed here for comparative purposes.

Categories 3, 4, and 5 are classified "major" hurricanes. Hurricanes within this range comprise only 20 percent of total tropical cyclone landfalls, but they account for over 70 percent of the damage in the United States. **Section 5: Table 15** describes the damage that could be expected for a tropical storm and each category of hurricane. Damage during hurricanes may also result from spawned tornadoes, storm surge and inland flooding associated with heavy rainfall that usually accompanies these storms.

Section 5: Table 15: Hurricane Damage Classifications

STORM CATEGORY	DAMAGE LEVEL	WIND SPEED	DESCRIPTION OF DAMAGES	PHOTO EXAMPLE
Tropical Storm	MINOR	39-73 mph	Breaks twigs and branches off trees, damages signboards, and windows may break.	
1	MINIMAL	74-95 mph	No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery, and trees. Also, some coastal flooding and minor pier damage.	
2	MODERATE	96-110 mph	Some roofing material, door, and window damage. Considerable damage to vegetation, mobile homes, etc. Flooding damages piers and small craft in unprotected moorings may break their moorings.	
3	EXTENSIVE	111-129 mph	Some structural damage to small residences and utility buildings, with a minor amount of curtainwall failures. Mobile homes are destroyed. Flooding near the coast destroys smaller structures, with larger structures damaged by floating debris. Terrain may be flooded well inland.	
4	EXTREME	130-156 mph	More extensive curtainwall failures with some complete roof structure failure on small residences. Major erosion of beach areas. Terrain may be flooded well inland.	
5	CATASTROPHIC	157+ mph	Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. Flooding causes major damage to lower floors of all structures near the shoreline. Massive evacuation of residential areas may be required.	

Sources: National Hurricane Center; Federal Emergency Management Agency,
Tropical Storm Photo: FEMA/George Armstrong; Other Photos: PBS&J Photo Library

Location and Spatial Extent

Tropical cyclones threaten the entire Atlantic and Gulf seaboard of the United States. Coastal jurisdictions are directly exposed to the brunt of a land-falling storm due to where the hazards occur, but its impact is often felt hundreds of miles inland. Volusia County is susceptible to all the hazards wrought by hurricanes and tropical storms as shown **Section 5 Figure 19**. All areas throughout the county are susceptible to the accompanying hazard effects including extreme wind, flooding, and tornadoes. In addition, the coastal areas of the county are extremely susceptible to the added effects of rising coastal water (storm surge and others), wave action, coastal erosion and tidal flooding[23]. This includes the cities and towns of Ormond Beach, Holly Hill, Daytona Beach, South Daytona, Daytona Beach Shores, Port Orange, Ponce Inlet, New Smyrna Beach, Edgewater and Oak Hill.

The extent of tropical cyclones in terms of strength in Volusia County is consistent when reviewing historical data. Storms hitting the county are primarily in the Tropical Storm to Category 1 range, with winds seldom exceeding 95 miles per hour. A hurricane of any size could impact the entire county.

Historical Occurrences

Section 5: Table 16 provides for each event the date of occurrence, name (if applicable), maximum wind speed (as recorded within 100 miles of Volusia County) and Category of the storm based on the Saffir-Simpson Scale.

[23] Distinct hazard area locations for flooding, rising coastal water, and coastal erosion are discussed elsewhere in this section.

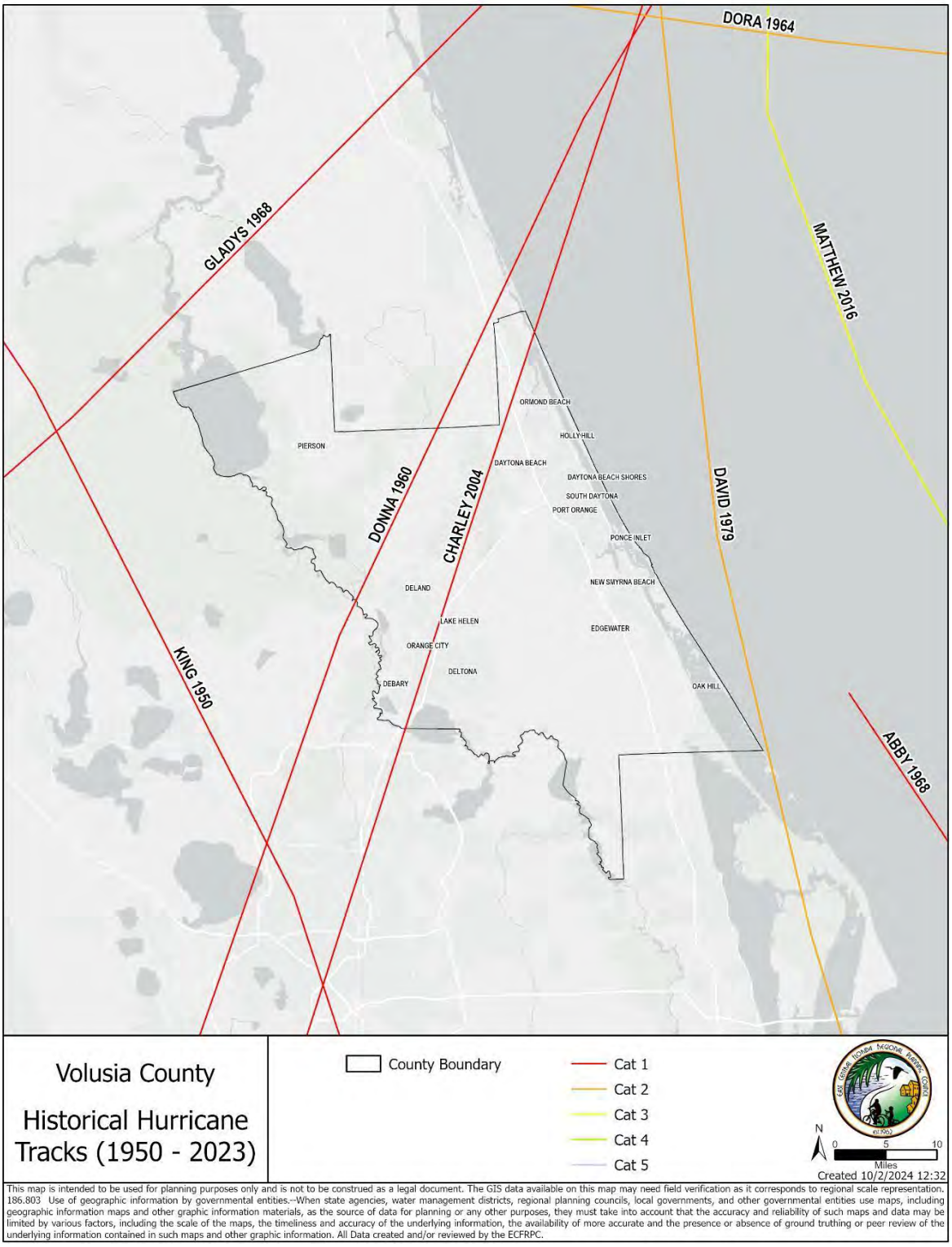
Section 5: Table 16: Historical Storm Tracks within 75 Miles of Volusia County

DATE OF OCCURRENCE	STORM NAME	MAXIMUM WIND SPEED (MPH)	STORM CATEGORY
10/20/1941	Not Named	35	Tropical Storm
10/19/1944	Not Named	65	Category 1 Hurricane
06/24/1945	Not Named	80	Category 1 Hurricane
09/16/1945	Not Named	110	Category 1 Hurricane
10/08/1946	Not Named	40	Tropical Storm
11/02/1946	Not Named	35	Tropical Storm
09/23/1947	Not Named	50	Tropical Storm
08/27/1946	Not Named	130	Category 4 Hurricane
09/06/1950	EASY	85	Category 2 Hurricane
10/18/1950	KING	75	Category 1 Hurricane
10/09/1953	HAZEL	55	Tropical Storm
09/11/1960	DONNA	105	Category 3 Hurricane
08/27/1964	CLEO	75	Category 1 Hurricane
09/10/1964	DORA	100	Category 3 Hurricane
06/04/1968	ABBY	55	Tropical Storm
10/19/1968	GLADYS	70	Category 1 Hurricane
8/20/1976	DOTTIE	45	Tropical Storm
09/03/1979	DAVID	85	Category 2 Hurricane
09/04/1979	DAVID	85	Category 2 Hurricane
08/19/1981	DENNIS	40	Tropical Storm
08/25/1983	BARRY	40	Tropical Storm
09/10/1984	DIANA	60	Tropical Storm
09/28/1984	ISIDORE	45	Tropical Storm
07/24/1985	BOB	60	Tropical Storm
10/10/1985	ISABEL	45	Tropical Storm
08/28/1988	CHRIS	40	Tropical Storm
11/23/1988	KEITH	55	Tropical Storm
11/17/1994	GORDON	55	Tropical Storm
08/02/1995	ERIN	75	Category 1 Hurricane
08/24/1995	JERRY	35	Tropical Storm
10/16/1999	IRENE	65	Category 1 Hurricane
09/14/2001	GABRIELLE	60	Tropical Storm
08/13/2004	CHARLEY	125	Category 4 Hurricane
09/05/2004	FRANCES	80	Category 1 Hurricane
09/26/2004	JEANNE	95	Category 2 Hurricane
10/05/2005	TAMMY	45	Tropical Storm
08/21/2008	FAY	45	Tropical Storm
10/26/2012	SANDY	43	Tropical Storm

DATE OF OCCURRENCE	STORM NAME	MAXIMUM WIND SPEED (MPH)	STORM CATEGORY
06/06/2016	COLIN	45	Tropical Storm
10/06/2016	MATTHEW	84	Category 1 Hurricane
09/10/2016	IRMA	68	Category 1 Hurricane
09/02/2019	DORIAN	45	Tropical Storm
08/03/2020	ISAIAS	69	Tropical Storm
11/12/2020	ETA	50	Tropical Storm
09/29/2022	IAN	69	Tropical Storm
11/10/2022	NICOLE	75	Category 1 Hurricane
08/30/2023	IDALIA	35	Tropical Storm
10/10/2024	MILTON	76	Tropical Storm

Source: National Climatic Data Center & NOAA

Section 5: Figure 19: Historical Storm Tracks within 75 Miles of Volusia County



Source: National Oceanic and Atmospheric Administration

Some of the notable tropical cyclone events that occurred in Volusia County within the last two decades are described below:

Tropical Storm Gordon, 1994: Tropical Storm Gordon made landfall in South Florida on November 13, 1994. Gordon caused a total of 8 deaths, 43 injuries, and $400 million in damages ($605,793,853; 2009 dollars). It affected a number of Florida Counties, including Dade and Brevard, but Volusia was hit especially hard. Volusia County experienced $500,000 in both agricultural and property damage. Single-family, multi-family, and mobile home structures (a total of 1236 units) reported flood damage and losses were estimated at over $26 million.

Hurricane Floyd, 1999: On September 15, 1999, the center of Hurricane Floyd passed about 115 statute miles off the coast of Central Florida, causing substantial damage to the coastal counties of Brevard and Volusia. Winds gusts near 70 miles per hour were reported in both counties. In total, Floyd caused over $61 million in property damage, but there were no reports of deaths or injuries ($81,978,899; 2009 dollars). Over $42 million in damages were reported in Volusia County, $10 million of which was attributed directly to coastal erosion. In addition, over 300 homes were damaged by wind and trees.

Hurricane Irene, 1999: Hurricane Irene reached hurricane status over the Florida Straits and the calm of the center moved over Key West on October 15, 1999. Most of the hurricane force winds were confined to the east of Irene's center over the lower to middle Keys. As Hurricane Irene moved across Southeast Florida, it brought tropical storm conditions with sustained winds between 39 and 73 miles per hour. Hurricane Irene caused considerable damage in South Florida due to flooding. In some residential areas, flooding lasted for a week, displacing several hundred people and isolating thousands more. Volusia County estimated that damages to approximately 185 properties; totaling more than $16.8 million. The total losses (agricultural and property) were estimated near $800 million in of the state of Florida. An estimated 700,000 customers lost electricity. There were eight indirect deaths reported in Florida.

Hurricane Charley, 2004: Hurricane Charley produced wind gusts over 80 miles per hour as it traversed Volusia County on August 13, 2004. The storm caused over $106 million in property damage in Volusia County. In addition, two fatalities were attributed to Hurricane Charley. Widespread power outages, roadway flooding, and fallen trees also occurred. A strong F1 tornado also touched down in South Daytona Beach contributing to the total damage from the event.

Hurricane Frances, 2004: Hurricane Frances, a Category 2 storm, made landfall on September 4, 2004, in Martin County, Florida. As it moved north, Volusia County experienced a hurricane force wind for several hours. Daytona Beach International Airport recorded wind gusts of 94 miles per hour. In addition to wind impacts, over 13 inches of rain fell in Volusia County which caused substantial flooding. Wind and flooding impacts resulted in damages of over $390 million within Volusia County. Total damage estimates for all impacted counties include over $4.8 billion for property damage and $93.2 million for crop damage. Despite widespread and severe damage, no deaths or injuries were reported.

Hurricane Jeanne, 2004: Hurricane Jeanne made landfall on the east coast of Florida on September 26, 2004, with winds estimated at 120 mph. Widespread rainfall of up to eight inches accompanied Hurricane Jeanne as it moved across eastern, central and northern Florida. A narrower band of 11 to 13 inches was observed in the vicinity of the eye wall track over Osceola, Broward and Indian River counties of east central Florida. A storm surge of approximately four feet above normal astronomical tide levels was measured at Trident Pier at Port Canaveral, Florida about an hour after landfall. Storm surge flooding of

up to six feet above normal tides likely occurred along the Florida east coast from the vicinity of Melbourne southward to Ft. Pierce. Damages were estimated to be over $59 million in Volusia County. The American Insurances Service Group reported that Frances caused a total of $4.11 billion in Florida. There were three direct deaths reported in Florida, with total deaths exceeding 3,000.

Tropical Storm Fay, 2008: Moving over Key West, Tropical Storm Fay made its first Florida landfall on August 18, 2008. As the tropical storm drifted north in Volusia County offshore waters, hours of heavy rain fell across southern Volusia County. Tropical Storm Fay's primary impact was inland flooding. Rainfall amounts ranged from three to five inches over Miami-Dade and Broward counties and seven to 10 inches over northern Collier, Hendry and Glades counties near the center path of Fay. Storm surges were relatively minimal for this tropical storm. In Florida, wind damage was confined to mostly downed trees and power lines, plus minor roof damage to homes. Homes, personal property and motor vehicles were the primary damage losses in the United States. Volusia County reported damages in excess of $13.5 million. The total damage estimate, compiled by Property Claim Services, is $245 million, including $195 million in Florida. Flood damage losses reported by the National Flood insurance Program were about $36 million.

Tropical Storm Sandy, 2012: A New Smyrna Beach mesonet site (XNSB) recorded sustained north winds of 43 mph and other spotter reports confirmed tropical storm winds along the immediate coast of Volusia County. Gusts of 50-55 mph occurred, especially during passing squalls. Hurricane Sandy moved slowly northwest, parallel to the Florida Coast, approximately 200-250 miles offshore.

Hurricane Matthew, 2016: Matthew paralleled the Florida coast, remaining just offshore as a Category 3 hurricane. The eye reached its closest point of approach to land, only 25 miles east of Cape Canaveral near 0800LST on October 7, and was 35 miles east of Daytona Beach around 1100LST, as it continued moving northwest, just offshore the northeast Florida coast. Hurricane force winds (sustained or frequent gusts) affected coastal areas from Vero Beach northward, extending inland across the mainland portions of Brevard and Volusia Counties, with tropical storm force winds experienced across much of the remainder of east-central Florida.

Hurricane Irma, 2017: Hurricane Irma made a northerly turn toward Florida on Sunday, September 10. Hurricane Irma had maximum sustained winds of 185 MPH at its peak in the Atlantic Ocean, which maintained for over 35 hours, making it one of the strongest storms on record in the Atlantic basin. Making its second continental U.S. landfall, Irma slowly weakened as it continued north northwestward across north Florida and southwest Georgia through Monday September 11.

Hurricane Dorian, 2019: On September 1, Dorian reached Category 5 intensity, with maximum sustained winds of 185 mph, and a maximum central pressure of 910 mb (26.87 inHg) while making landfall in Elbow Cay, Bahamas. Dorian made another landfall on Grand Bahama several hours later. The ridge of high-pressure steering Dorian westward collapsed on September 2, causing Dorian to stall just north of Grand Bahama for about a day. It is the strongest known system to impact the Bahamas. A combination of cold-water upwelling and an eyewall replacement cycle weakened Dorian to a Category 2 hurricane the next day. On the morning of September 3, Dorian began to move slowly towards the north-northwest.

Hurricane Ian, 2022: After making landfall as a major hurricane in southwest Florida near Cayo Costa, Ian crossed the peninsula and into east central Florida (southern Osceola County) as a Category 1 Hurricane with estimated maximum sustained winds of 75 mph. The system was downgraded to a tropical storm shortly thereafter and emerged into the Atlantic Ocean near Cape Canaveral. Ian's slow movement and

large wind field led to a long period of tropical storm force winds across all east central Florida, as well as hurricane force gusts in squalls and historic rainfall and flooding across parts of the area. Widespread rainfall totals of 4 to 8 inches were reported throughout the area, with a corridor of 10 to 20 inches across Osceola, Orange, Seminole, Volusia, and northern Brevard counties. The maximum observed rainfall total was 21.09 inches in Spruce Creek, Volusia County. The St. Johns River experienced historic rises with record crests set at Astor, DeLand, Sanford, and Lake Harney in the days and weeks following Ian's heavy rainfall. A tornado briefly touched down and crossed US-192 in rural Brevard County with no damage to structures reported. Persistent onshore flow before and during the storm led to water level rises (storm surge) of 1-3 feet along east central Florida, bringing moderate to severe beach erosion, with the most significant effects noted in Volusia County. Collectively, the effects of Hurricane Ian led to 15 storm-related fatalities (6 direct and 9 indirect) and between $800-900M in property damage across east central Florida.

Hurricane Nicole, 2022: Hurricane Nicole made landfall near Vero Beach, Florida as a Category 1 Hurricane on Thursday, November 10, 2023, with estimated maximum sustained winds of 75 mph. The system was originally classified as a subtropical storm after forming several hundred miles east of the Bahamas before it gained tropical characteristics as it approached Grand Bahama and Abaco Island. The interplay between Nicole and an expansive area of high pressure over the eastern United States produced a large wind field of tropical storm force over the western Atlantic, with a long northeast fetch that stretched over 1000 miles. These onshore winds generated very large seas more than 30 feet offshore, which over multiple unusually high tide cycles led to moderate to severe beach erosion across east central Florida. Damage to coastal structures was extensive, particularly across Volusia County where an already weakened shoreline due to Hurricane Ian succumbed to the long-duration high surf event.

Hurricane Helene, 2024: Volusia County began experiencing impacts from Hurricane Helene overnight on September 25 as the storm advanced closer to the Big Bend area. Hurricane Helene's closest approach to Volusia County occurred on the afternoon of September 26. Volusia County experienced 0.5 to 1.5 inches of rain and wind gusts between 45 to 55 mph. There were no injuries, fatalities, or evacuations and damage consisted of fallen trees and powerlines. Throughout Hurricane Helene, Volusia County had tornado watches, tornado warnings, and wind advisories.

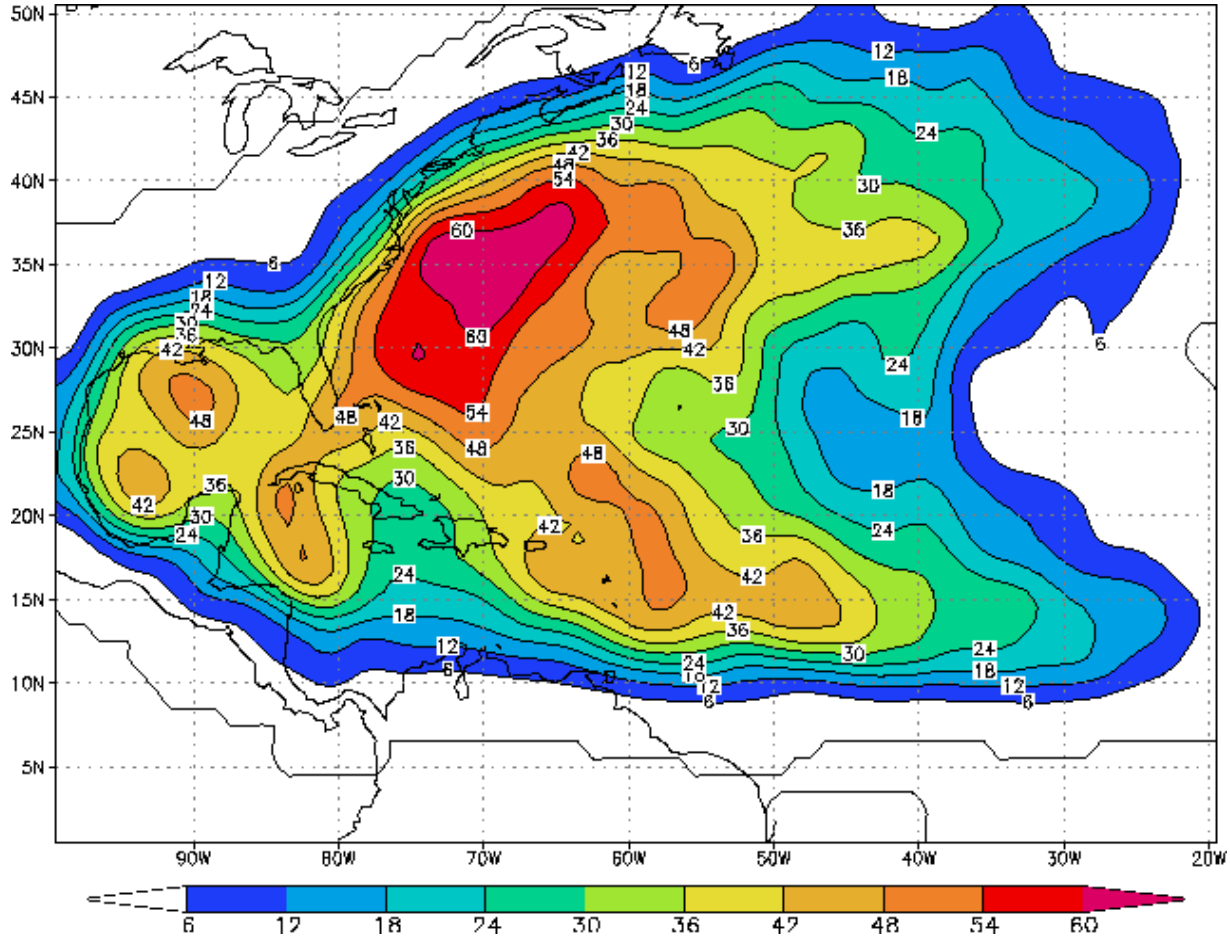
Hurricane Milton, 2024: Volusia County began experiencing impacts from Hurricane Milton on Wednesday, October 09 as the storm advanced closer to the west coast and approached landfall. Hurricane Milton's closest approach to Volusia County occurred overnight from October 09 to October 10. Volusia County experienced 7 to 17 inches of rain and wind gusts between 50 and 99 mph with one observation near Ponce Inlet recorded at 99 mph. The St. John's River entered major flood stage at both Astor and DeLand. There were two direct fatalities and two indirect fatalities due to Milton. Damage consisted of downed trees, powerlines, and flooding with many public, residential, and commercial property damages. Throughout Hurricane Milton, Volusia County had tropical storm warnings, hurricane watches, hurricane warnings, tornado watches, tornado warnings, flood watches, flood warnings, and wind advisories

Probability of Future Occurrences

The probability of future hurricanes and tropical storm events for Volusia County is high. According to NOAA statistical data, Volusia County is in an area with an annual probability of a named storm between 36 and 42 percent.

Section 5 Figure 20 below shows for any location what the chance is that a tropical storm or hurricane will affect the area sometime during the Atlantic hurricane season. This illustration was created by NOAA's Hurricane Research Division using data from 1944 to 1999 and counting hits when a storm or hurricane was within approximately 100 miles (165 km) of each location.

Section 5: Figure 20: Empirical Probability of a Named Hurricane or Tropical Storm



Source: National Oceanic and Atmospheric Administration

The probability of storm occurrences will vary significantly based on the return interval for different categories of magnitude. The probability of less intense storms (lower return periods) is higher than more intense storms (higher return periods). The Local Mitigation Strategy recognizes that with a changing climate, there is a potential for an increasing risk of environmental impacts from tropical cyclones and that future mitigation and adaptation strategies related to this hazard should be considered.

5.12 WILDLAND FIRE

Background

A wildfire is any fire occurring in a wildland area (i.e. grassland forest, brush land) except for fire under prescription.[24] Wildland fires are part of the natural management of forest ecosystems but may also be caused by human factors. Nationally, over 80 percent of forest fires are started by negligent human behavior such as smoking in wooded areas or improperly extinguishing campfires. The second most common cause for wildland fire is lightning.

There are three classes of wildland fires: surface, ground and crown fire. A surface fire is the most common of these three classes and burns along the floor of a forest, moving slowly and killing or damaging trees. A ground fire (muck fire) is usually started by lightning or human carelessness and burns on or below the forest floor. Crown fires spread rapidly by wind and move quickly by jumping along the tops of trees. Wildland fires are usually signaled by dense smoke that fills the area for miles around.

Wildfire probability depends on local weather conditions, outdoor activities such as camping, debris burning, and construction, and the degree of public cooperation with fire prevention measures. Drought conditions and other natural hazards (such as tornadoes, hurricanes, etc.) increase the probability of wildland fire by producing fuel in both urban and rural settings. Forest damage from hurricanes and tornadoes may also block interior access roads and fire breaks; pull down overhead power lines, or damage pavement and underground utilities.

Many individual homes and cabins, subdivisions, resorts, recreational areas, organizational camps, businesses and industries are located within high wildfire hazard areas. Further, the increasing demand for outdoor recreation places more people in wild lands during holidays, weekends and vacation periods. Unfortunately, wildland residents and visitors are rarely educated or prepared for wildfire events that can sweep through the brush and timber and destroy property within minutes.

Wildfires can result in severe economic losses as well. Businesses that depend on timber, such as paper mills and lumber companies, often experience losses that are passed on to consumers through higher prices. In some cases, this has resulted in the loss of jobs. The high cost of responding to and recovering from wildfires can deplete state resources and increase insurance rates. The economic impact of wildfires can also be felt in the tourism industry if roads and tourist attractions are closed due to health and safety concerns.

State and local governments can impose fire safety regulations on home sites and developments to help curb wildfire. Land treatment measures such as fire access roads, water storage, helipads, safety zones, buffers, firebreaks, fuel breaks and fuel management can be designed as part of an overall fire defense system to aid in fire control. Fuel management, prescribed burning, and cooperative land management planning can also be encouraged to reduce fire hazards.

[24] Prescription burning, or “controlled burn,” undertaken by land management agencies is the process of igniting fires under selected conditions, in accordance with strict parameters.

Location and Spatial Extent

Volusia County and its jurisdictions are not uniformly exposed to wildland fire risk. Although the county typically receives a high amount of precipitation each year (around 50 inches), there is a risk of wildfire due to the hot, dry summer months. Further, drought and drought-like conditions may occur which could increase the probability of wildfire occurrence.

The wildfire potential for Volusia County is shown in **Section 5: Figure 19**. All areas of the county may be susceptible to wildfire, and the wildland-urban interface is an area of concern as more property may be at risk of fire damage in these areas. This hazard occurs in the southern, western, and central parts of the county most likely; although, there are pockets of wildland fire locations dispersed across the county.

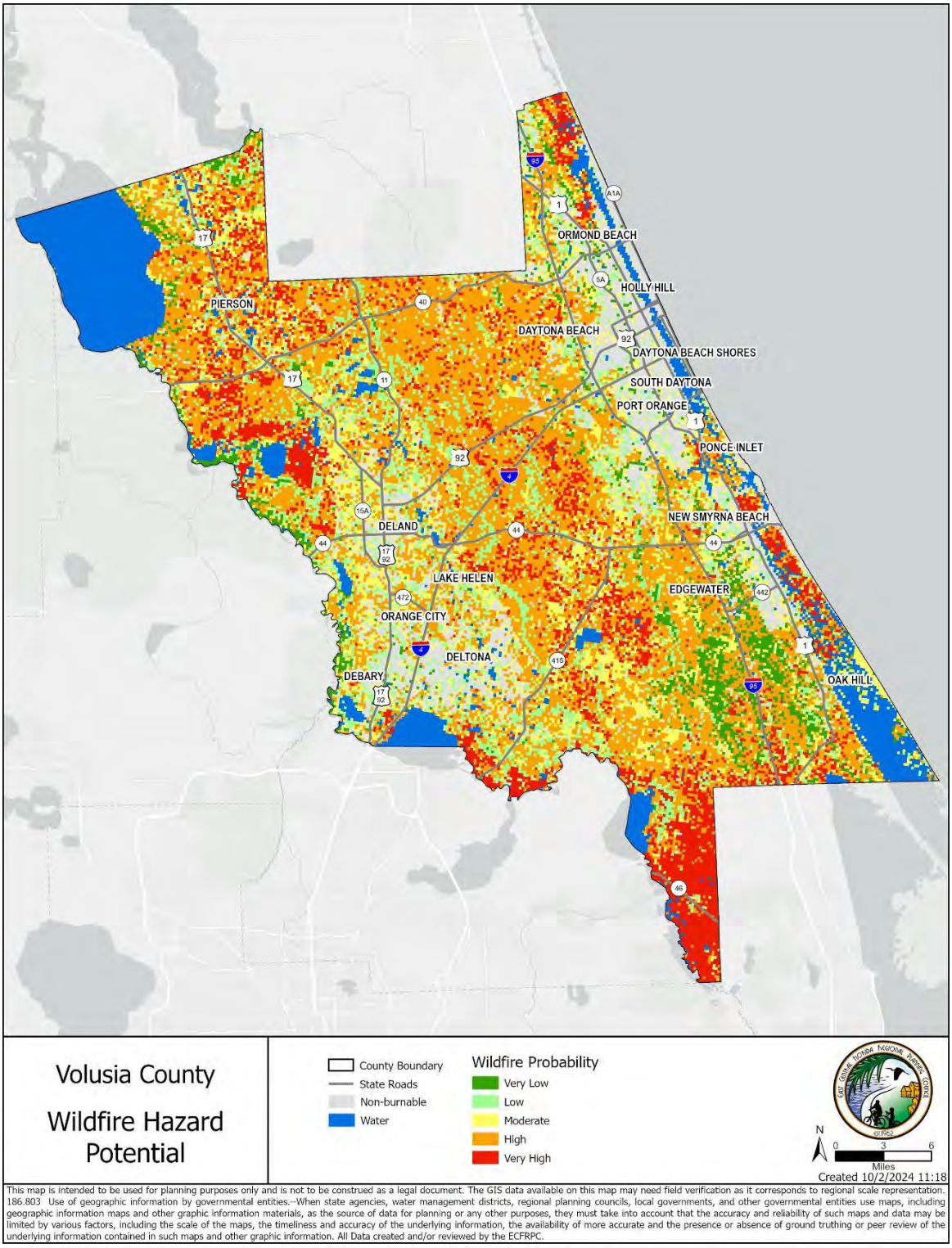
The extent of fire weather can be determined in two ways. A Fire Weather Watch is issued to alert fire officials and firefighters of potentially dangerous fire weather conditions within the next 24 to 36 hours. They are issued when the following three criteria are met:

1. Surface relative humidity (RH) less than 30 % for VA and MD; RH less than or equal to 25% for WV AND
2. Sustained surface wind of 20 MPH or greater AND
3. 10-hour fuel moisture less than 8% for VA; less than or equal to 8% for MD and WV

A Red Flag Warning is issued to alert fire officials and firefighters of potentially dangerous fire weather conditions within the next 12 to 24 hours. They are issued when the following three criteria are met:

1. Surface relative humidity (RH) less than 30 % for VA and MD; RH less than or equal to 25% for WV AND
2. Sustained surface wind of 20 MPH or greater AND
3. 10-hour fuel moisture less than 8% for VA; less than or equal to 8% for MD and WV

Section 5: Figure 21: Wildland Fire Risk in Volusia County



Source: U.S. Forest Service

Historical Occurrences

According to the Florida Division of Forestry, Florida experiences an average of 3,060 wildfires annually, burning nearly 154,000 acres[25]. The most common cause of Florida wildfire events is lightning which ignited over 700 fires annually between 2000 and 2009. Volusia County experienced 1,306 fires that burned over 22,600 acres between January 2000 and August 2009. Lightning caused nearly half of these fires. **Section 5: Table 17** lists the number of reported wildfire occurrences in Volusia County between the years 2001 and 2018.

Section 5: Table 17: Historical Wildfire Occurrences in Volusia County (2001-2018)

YEAR	2001	2002	2003	2004	2005	2006	2007	2008	2009	Annual Average
# of Fires	116	31	71	145	64	213	195	121	127	120
Acres Burned	383	371	2,011	746	198	5,037	1,826	1,482	8,839	2,321
YEAR	2010	2011	2012	2013	2014	2015	2016	2017	2018	Annual Average
# of Fires	128	237	208	104	74	104	174	132	TBD	145
Acres Burned	672	8,952	3,832	1,404	626	788	1,421	1,150	TBD	2,355

Source: Florida State Fire Marshal Report

It should also be noted that 1998 was a particularly significant year for wildland fires in Volusia County. That year, drought conditions were prevalent throughout the County. A total of 233 wildfires were reported, the largest single cause being lightning. In all, over 163,000 acres were burned. The fires threatened 29,000 homes and hindered travel as wildfires jumped highways. However, after weeks of burning, just six houses, one mobile home, and two businesses were destroyed, totaling $2.1 million ($2,889,598; 2009 dollars). Timber, conversely, took the brunt of the damage with losses of over $60 million ($85,570,222; 2009 dollars). No fatalities or civilian injuries were reported but ten firefighters did have minor injuries.

These events have had devastating impacts on Volusia County. Homes and businesses have been damaged or destroyed, causing economic and social hardship, while several agricultural resources (such as timber, as described above) have been lost in these events. Families and vulnerable populations can be displaced temporarily or permanently by these events, while businesses can be lost forever. Human life is also at great risk to fires, as fires can quickly consume buildings and prevent escape. Smoke inhalation is a common cause of death due to fire, rather than the fire itself. Updating and enforcing building codes can help prevent fire disasters.

One of the largest fires recorded in Volusia County over the last decade was the Iron Horse Fire, which occurred in 2011 in southeastern Volusia County. Approximately 17,000 acres burned during this event, and a full Fire Operations Center (FOC) activation was executed. One mobile home, three outbuildings and three camp structures were destroyed, while 140 total structures were threatened. Interstate 95 was completely shut down due to smoke limiting driver visibility (intermittently over a two-day period), and a firefighter was injured during the event. Also, in 2011, the Maytown Road Fire burned approximately

[25] Average information based on information between January 2000 and August 2009.

2,500 acres of land and affected local weather conditions by increasing cloud coverage. In 2012, several smaller fires affected the DeLand and DeBary areas of Volusia County.

In March 2013, the Durrance Road Fire destroyed 1,100 acres and forced evacuations of unincorporated areas of Volusia County near the Flagler County line west of Interstate 95. Approximately 300 homes were evacuated during this event. Interstate 95 from US1 to SR40 was shut down due to smoke.

Probability of Future Occurrences

There is a high probability of future wildfire events in Volusia County, especially during drought cycles and abnormally dry conditions, based on prior occurrence. Volusia County experienced nearly 130 wildfires per year from 2000 – 2008. As development continues to grow, there is an increasing chance for wildfires to reach the urban interface. This will increase the probability of economic loss and fatalities.

The Local Mitigation Strategy recognizes that with a changing climate, there is a potential for an increasing risk of environmental impacts from wildfire and that future mitigation and adaptation strategies related to this hazard should be considered.

MANMADE HAZARDS

5.13 CIVIL DISTURBANCE

Background

Civil disturbances can occur due to socio-economic, political or other reasons. Events of civil disturbances can be classified as armed violence, riots, protests, and threats against the military or the government. The proper planning and prevention methods aid in the mitigation of such events. For threats of civil disturbance utilizing armed violence, it is likely that joint jurisdictional management of operations will take effect, coordinated at the county level between the Sheriff's Office, Florida Department of Law Enforcement (FDLE), and the Office of Emergency Management. These types of events typically occur in public places.

According to FEMA, civil disturbance is an activity such as a demonstration, riot, or strike that disrupts a community, and requires intervention to maintain public safety and order. Most protestors are law abiding citizens who intend their protest to be nonviolent. However, sometimes these situations become highly emotional and tense and can turn a peaceful crowd into a violent riot. Most crowds are orderly, nonviolent, and do not cause problems for authorities, but there are three types of crowds that can create a civil disturbance:

- **Public Disorder**: the basic breach of civic order, meaning the crowd tends to disrupt the normal flow of operations around them, such as traffic
- **Public Disturbance**: a demonstration that is designed to cause turmoil and disruption. These crowds chant, yell, and sing to voice collective opinions
- **Riot**: when a disturbance turns violent. The crowd suddenly becomes a mob that violently expresses itself by destroying property, assaulting others, and creating an extremely volatile environment

Location and Spatial Extent

Civil disturbances tend to occur in urban areas but can occur anywhere. These types of events typically occur in public gathering places, including court houses or civic spaces. While the spatial extent of the hazard would be 25% or less, civil disturbances could have county-wide effects.

Historical Occurrences

Civil Disturbances have been occurring since the beginning of time. There are several examples of civil disturbances in Florida in recent years. Some significant events that have impacted Central Florida and Volusia County through racially charged protests are outlined.

- **2012**: Trayvon Martin's death in Sanford, Florida. There were public protests, school walk outs, and thousands of planned rallies across the nation.
- **2020**: George Floyd's death in Minneapolis, Minnesota; Breonna Taylor's death in Louisville, Kentucky; Ahmaud Arbery's death in Brunswick, Georgia.
- **2021**: Othal Wallace's arrest for the death of a Daytona Beach police officer.

Probability of Future Occurrences

It is likely that occurrences of civil disturbance will continue in the future. There have been several in Florida in previous years and protesting is a fundamental right protected by the US Constitution; therefore, civil disturbances will continue into the future.

5.14 MASS MIGRATION

Background

Mass-migration occurs when people of one geographic area move in large numbers to another geographic location. According to United States Code Title 8, Chapter 12 (8 U.S.C. § 1101), the definition of mass migration is a migration of undocumented aliens that is of such magnitude and duration that it poses a threat to the national security of the United States.

This usually refers to an event, or series of events, that may take place over the course of several years or even decades. The event could be economic, social, or political in nature but it is something that causes a mass exodus.

Location and Spatial Extent

There are no particular geographic areas in Volusia County with a more ideal jurisdiction for this hazard to take effect. Volusia County contains the intersection of the state's two busiest highway systems, I-95 and Interstate 4 (I-4). Because Volusia County is the intersection of these two major state transportation networks, people traveling from any direction of the state might travel to or through the area as refugees. The county also contains State Road A1A (SR A1A) which runs north and south through the entire county. Florida's proximity to the Caribbean basin makes it a vulnerable point of entry for a massive influx of refugees entering the United States. The spatial extent of this hazard would affect less than 25% of the geographical area.

Historical Occurrences

The United States has often been seen as a golden refuge for many immigrants, especially those in poor economic circumstances. Major policy changes can be a driving cause for mass migration. Since 1995, the "wet-foot, dry-foot" policy has allowed Cubans who reach American soil a fast-tracked path to citizenship. The policy was reversed by Former President Barak Obama in 2016, making the Cuban immigration process the same as any other immigrant. President Donald Trump's first administration took a strict stance on immigration, leading many Cubans to flock to America before he took office. The U.S. recorded increased Cuban Refugees from 2015 and 2016. According to the US Coast Guard, 7,358 Cubans tried to enter the U.S. illegally in the 2015-2016 fiscal year and were intercepted. Meanwhile 50,082 Cubans managed to enter (38,310 illegally and 11,772 with visas) in that same period.

Section 5: Table 18: Mass Migration Occurrences

Year	Description
2010	January – Operation Haiti Relief after an earthquake brought displaced and some injured people through Orlando Sanford International Airport.
2017	Hurricane Maria – mass migration of evacuees from the island of Puerto Rico to the Central Florida area after the hurricane. Over 250 families resettled in Seminole County and over 6,500 in Central Florida.
2024	March of 2024, overwhelming gang violence and the overthrow of the Haitian government caused mass evacuations of American citizens from Haiti back to the United States.

While Florida typically has a fast-growing population, many local municipalities are facing pressures from the booming population moving legally from other parts of the country in recent years. In the post-World War II era after 1946, Florida's percentage increase in population each year fluctuated but has always been positive. Between 2010 and 2020, national growth dipped from 0.9% to 0.5% each year while Florida's increases ranged from 1.0% to 2.0%. In 2022, Florida's growth was nearing 1.9%, not high compared to past gains but still the fastest among the states.

Probability of Future Occurrences

It is possible that any Florida county could be impacted by refugees and migrants. Florida is in proximity to islands such as Cuba, Puerto Rico, Dominican Republic and Haiti, and the Gulf Coast is within proximity of Mexico. Mass migration can also occur domestically due to an impending hazard causing large groups of citizens to head north or inland to other counties to evacuate. The probability of a migration influx in Florida is perceived to be high, and planning must be done to ensure safety and security. As political unrest and large-scale natural disasters continue to increase within the Caribbean and South American regions, people will continue to migrate throughout Florida.

The overall vulnerability of mass migration and repatriation in Volusia County and its jurisdictions is low. While lack of housing and community resources could be a concern with mass migration, due to the low probability and lack of physical impacts, Volusia County is not extremely vulnerable to this hazard. Each jurisdiction is equally vulnerable to this possibility.

5.15 TERRORISM

Background

Terrorism includes any attempt to attack, cripple or damage public goods, public infrastructure or citizens on a large scale. Volusia County should be prepared for a terrorist-related event that could occur with or without notice. Since terrorism can take many different forms, including weapons of mass destruction, and be directed at many kinds of targets, it poses some very complex, technical problems in planning and response. **Section 5: Table 19** displays the types of terrorism Volusia County is susceptible to.

Section 5: Table 19: Types of Possible Terrorism

Types of Terrorism	Description
Agro-Terrorism	The deliberate introduction of disease-causing organisms and chemicals into the food supply through agriculture. It could impact the public if crops or agricultural foods contaminated with disease-causing organisms were to enter the food chain. The secondary effects of which can be disease, famine and massive economic loss.
Cyber Terrorism	Unlawful attacks and threats of attack against computers, networks, and the information stored therein; and used to intimidate or coerce a government or its people in furtherance of political or social objectives.
Domestic Terrorism	Violent, criminal acts committed by individuals and/or groups to further ideological goals stemming from domestic influences, such as those of a political, religious, social, racial, or environmental nature.
International Terrorism	Violent, criminal acts committed by individuals and/or groups who are inspired by, or associated with, designated foreign terrorist organizations or nations (state-sponsored).

Location and Spatial Extent

Violent events can happen at any time at any place. Terrorism can be targeted at large gatherings, such as concerts or shopping malls, as has been seen in previous occurrences across the country. Event centers like the Daytona Beach Speedway and the Daytona Beach Ocean Center are indicated locations. But because terrorism thrives on fear, places such as community spaces, civic buildings, or historical monuments need additional precautions. A terrorist attack would most likely be very localized and isolated and impact less than 25% of the geographic area of the County, however effects could be county-wide.

Historical Occurrences

The nation as a whole has been affected by various acts of terrorism. Cyber terrorism is becoming an increasing threat, and residents are particularly vulnerable to subtle attacks such as credit card fraud. **Section 5: Table 20** outlines two major acts of terrorism.

Section 5: Table 20: Historical Occurrences of Terrorism

Year	Description
2016	At 2:00 AM on June 12, 2016, an active shooter walked into Pulse Nightclub in Downtown Orlando, FL, and opened fire into the crowd of approximately 300 people. One hundred two (102) people were directly impacted as 49 people were killed and 53 were injured. Another five people had non–gunshot related injuries. The attack began as an active shooter incident, transitioned into a hostage situation, and ended around 5:15 AM. It was one of the deadliest terrorist attacks in the United States since September 11, 2001. With assistance from various agencies and organizations around the area, victims were evacuated and transported.
2023	ABB (a leading technology electrification and automation company that works with public and private organizations) determined that an unauthorized third-party accessed the company's systems. Black Basta ransomware was deployed that shut down business operations. The company was forced to terminate VPN connections with various customers to prevent the spread of the ransomware to other networks.

Probability of Future Occurrences

Any community can be impacted by terrorism. Each year domestic terrorism increases across the country and becomes more deadly. There are no discernable patterns or methods to indicate the probability of future occurrence. Because terrorist attacks can take many forms and include many types of weapons, it is difficult to reduce the county's overall vulnerability to these incidents. First response agencies attempt to reduce vulnerability through prevention tactics and intelligence sharing. No jurisdiction in Volusia County is more vulnerable to attack than another.

TECHNOLOGICAL HAZARDS

5.16 COASTAL OIL SPILL

Background

Coastal oil spills pose a threat to human health and safety and frequently result in significant impacts to natural and cultural resources. Thousands of oil spills occur in U.S. waters each year. Most of these spills are small (e.g., oil spills while refueling ships), but these spills can still cause harm, especially if they happen in sensitive environments, like beaches, mangroves, and wetlands. Large oil spills are major and dangerous disasters. This tends to happen when pipelines break, big oil tanker ships sink, or drilling operations fail. Consequences to ecosystems and economies can be felt for decades following a large oil spill.

An oil spill is the release of liquid petroleum hydrocarbon into the environment, especially marine areas, due to human activity. The term is usually applied to marine oil spills, where oil is released into the ocean or coastal waters, but spills may also occur on land.

Location and Spatial Extent

Oil spills can happen anywhere oil is drilled, transported, or used. While oil spills would primarily affect the Gulf coast of Florida, oil spills can negatively affect tourism and ecological conditions on the Atlantic coast of Florida. The location of these incidents would be located within these large bodies of water.

Historical Occurrences

In 2010, an explosion occurred on the Deepwater Horizon drilling platform in the Gulf of Mexico. The explosion, which killed 11 men, caused the rig to sink and started a catastrophic oil leak from the well. The spill took three months to cap and approximately 134 million gallons of oil spilled into the Gulf, becoming the largest offshore oil spill in U.S. history. The economic impacts to commercial and recreational fishing for the period between 2010–2020 are a loss of roughly 24,000 job-years, $2.1 billion in industry output, $1.1 billion in total value-added or Gross Regional Product, $650 million in labor income, $140 million in state and local tax revenues, and $160 million in federal tax revenues. In addition, The Deepwater Horizon spill resulted in the largest natural resource damage assessment ever undertaken. The parties responsible owed a record-setting settlement with BP Exploration & Production for an unprecedented $5.5 billion Clean Water Act penalty and up to $8.8 billion in natural resource damages.

Although this incident did not happen in Volusia County, it severely impacted the state of Florida because the spill took place off the shore of Louisiana and impacted the Gulf of Mexico which runs along Florida's west coast. The economic condition of the county could be seriously impacted by a coastal oil spill event. During the Deepwater Horizon oil spill, tourism in Volusia County suffered since people thought all of Florida was impacted. In the event of another spill, the charter fishing industry would likely be devastated. If a coastal oil spill were to occur in Volusia County, tourism would greatly decrease, and tax revenue would be severely impacted.

Probability of Future Occurrences

Although there are no documented major oil refineries in the central Florida region, there are thousands in the Gulf of Mexico. The likelihood of a coastal oil spill directly impacting Volusia County is low, but any ships transporting oil in the Atlantic Ocean pose a threat.

5.17 CRITICAL INFRASTRUCTURE FAILURE

Background

Critical infrastructure failures refer to the disruption of public utility services such as drinking water, stormwater and wastewater collection/treatment, electric power, transportation, supply chains systems that support food and fuel, and communications. These services contribute to the economic well-being and public health and safety of the communities they serve. A critical infrastructure failure can occur from a cascading emergency such as terrorism or a hurricane.

Widespread power outages can occur without warning. Generally warning times will be short in the case of technological failure, such as a fire at a sub-station, traffic accident, human error, or terrorist attack. In cases where a power failure is caused by natural hazards, greater warning time is possible. For example, high wind events such as tornados and hurricanes often cause widespread power failure and are often forecasted before they affect a community so that residents can prepare.

The Federal Highway Administration's (FHWA) 2000 Traffic Incident Management Handbook defines a major traffic disturbance as "any non-recurring event that causes a reduction of roadway capacity or an abnormal increase in demand". Under this definition, events such as traffic crashes, disabled vehicles, spilled cargo, highway maintenance, reconstruction projects, and special non-emergency events (e.g., ball games, concerts, or any other event that significantly affects roadway operations) are classified as an incident.

Location and Spatial Extent

All of Volusia County is at risk of critical infrastructure failure as there are numerous facilities throughout the county, making a direct location difficult to identify. Locations could range from traffic light intersections to wastewater facilities. Impacts from disruption could impact more than 50% of the county, but most likely would have county-wide effects. Critical infrastructure failures are usually localized and are usually the result of a natural hazard event involving flooding or high winds, like hurricanes. A major transportation incident would mostly involve a highway or roadway, but the county's airports and proximity to major water systems poses a threat to an incident taking place.

Historical Occurrences

Many critical infrastructure failures resulted as a cascading impact from a natural hazard, such as a hurricane. As recently as October 2024, Hurricane Milton swept through Florida and resulted in more than 3.2 million power losses. 77% of all homes and businesses in the combined Volusia County/Flagler County area, according to newly revised numbers from the Florida Public Service Commission. At least 305,152 customers lost power out of the 395,582 total served in the two-county area.

In May 2024, the strongest geomagnetic storm in twenty years hit Earth causing disruptions to power grids, broadband technology, and GPS satellites in space.

Probability of Future Occurrences

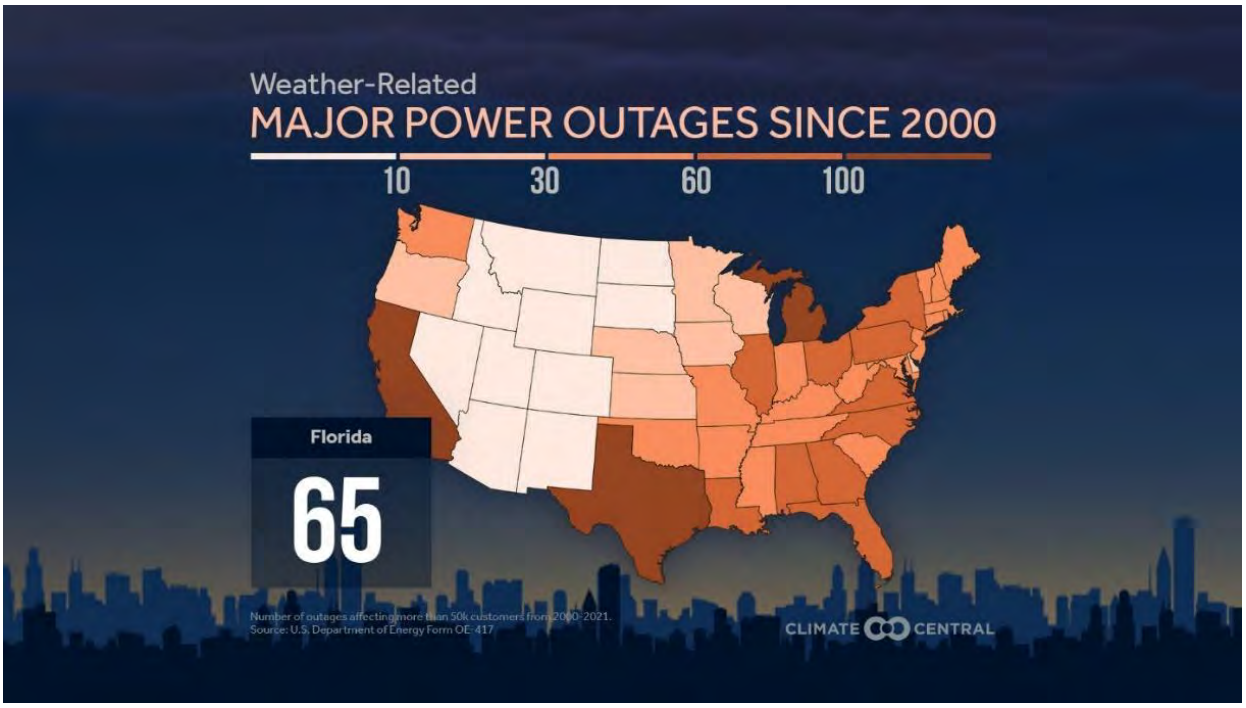
While the probability of future utility service disruption in Volusia County is difficult to predict, past outages indicate that significant failures have and will occur because of natural hazards, technological

failures, and outdated utility infrastructure. As infrastructure ages beyond its intended lifespan, it is likely to become less reliable and lead to higher likelihoods of failure.

In addition, climate change may also impact the probability of utility failure occurrences because of an increase in the frequency and intensity of severe weather events. Storms with high winds will increase the chance that the power-related infrastructure will be impacted. Extreme temperatures are predicted to have an impact as well. During the hot summer months, the potential for power overload will grow as demand for power increases due to air conditioning units having to work harder. Extreme heat can also lead to transformer failures because the electric distribution equipment does not have the opportunity to cool sufficiently between periods of heavy use, leading to blackouts. **Section 5 Figure 22** displays the number of weather-related major power outages since 2000.

The power grid is essential, yet vulnerable. Florida is the third-largest electricity consumer in the nation. Disruptions can be minimized by providing a diverse set of utility service sources. If a particular system fails or is attacked, alternative sources can minimize impacts and provide the support to get operations back to normal.

Section 5: Figure 22: Weather-Related Major Power Outages Since 2000



Source: Climate Central[26]

[26] https://www.climatecentral.org/graphic/surging-weather-related-power-outages?graphicSet=Weather-related+Outages+by+State&location=Florida&lang=en on December 26, 2024

As population continues to rise in the area and the need for transportation increases, accidents will continue to rise. While most are expected to be minor, the possibility of a major event increases. Automobiles pose the most risk, but other examples include:

- **Aviation**: Volusia County has numerous airports throughout the county which present the possibility of traffic disruptions in the event of an aviation-related crash. General aviation aircraft pass over the county en-route to and from Daytona, Orlando, Sanford, Jacksonville, and other small airports located around Volusia County.
- **Marine**: The county is located on the Atlantic Ocean, Halifax River, Indian River Lagoon, and Mosquito Lagoon which provides traffic on water transportation routes. The Tomoka River and other local waterways consists of mostly recreational/sports activities.

5.18 HAZMAT / INDUSTRIAL INCIDENT

Background

Hazardous material (HazMat)/industrial incidents include events when liquid, solid or gaseous chemicals that are harmful or fatal to humans or ecological infrastructure are dispersed. HazMat events occur when liquid, solid, gaseous chemicals, or a combination of all three (which may include dust, fumes, gas, vapor, mist, and smoke)—diffuse into the environment and become harmful or fatal to humans, infrastructure, or ecosystems.

Hazardous waste is dangerous, and can be ignited, corrosive, reactive, or toxic. Paint products, pool chemicals, household cleaners, and pesticides are common examples, but can also include toxic chemicals, fuels, nuclear waste products, biological, chemical, and radiological agents.

Location and Spatial Extent

There are numerous facilities and plants throughout the county that hold hazardous material. This includes residential and commercial swimming pools that keep dangerous chemicals (liquid, powdered, and gas chlorine, acids, etc.). These chemicals are stored in bulk in several retail stores throughout the county. Chemicals are also used in water and wastewater treatment facilities in Volusia County. Additional threats are created by the transportation of hazardous materials on I-95 and other roadways. The Florida East Coast Railway also runs through the eastern part of the county, which transports hazardous materials along Florida's east coast. **Section 5 Figure 23** displays the variety of locations this hazard can occur at, ranging from waterway systems to major traffic corridors.

Any hazardous material accident would have very localized impacts and would account for less than 25% of the county's geographic area.

Historical Occurrences

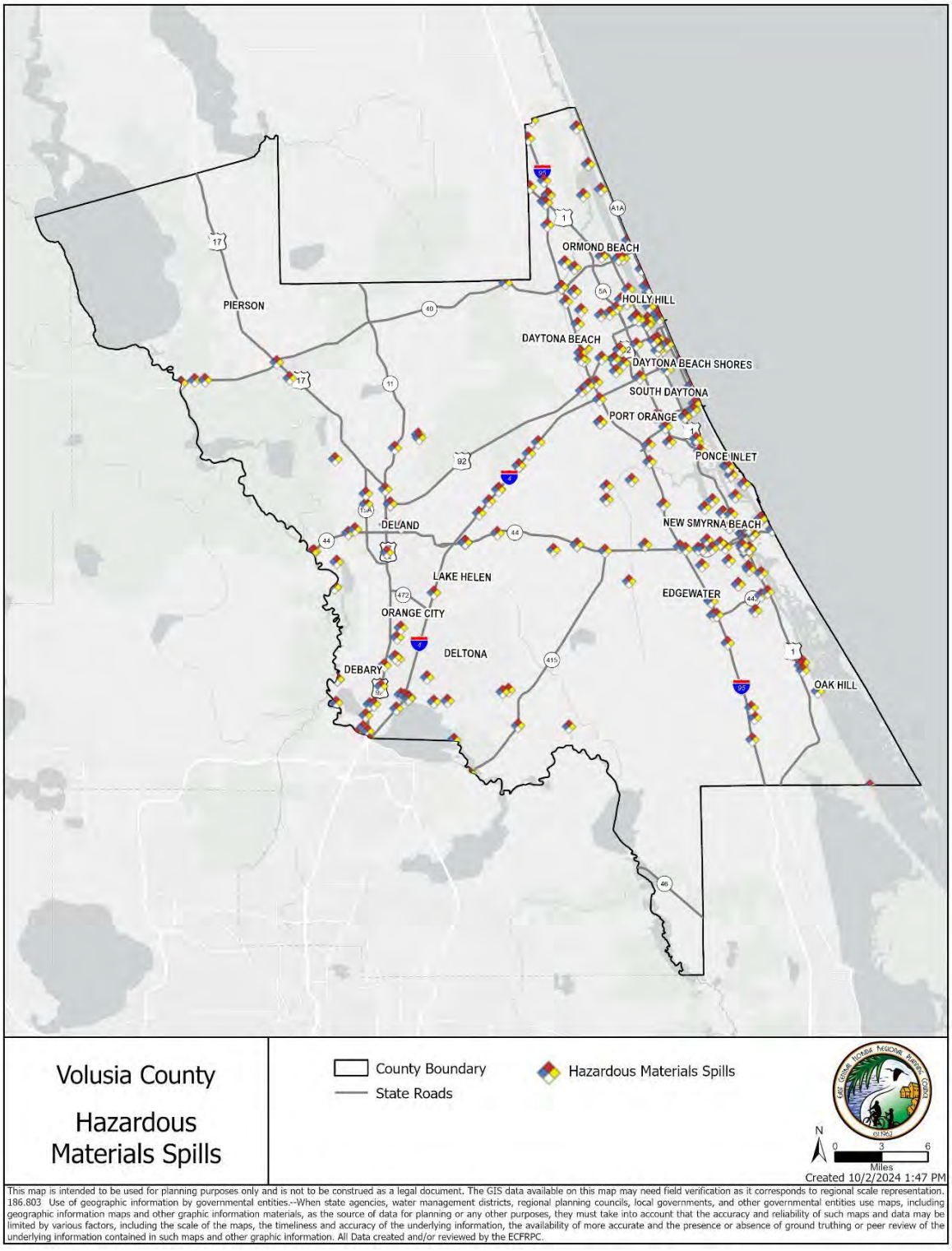
Section 5 Figure 23 displays recent HazMat incidents in the county. In Ormond Beach on September 7th, 2018, a toxic industrial chemical, Sodium Hypochlorite, was accidentally released from an aboveground tank into a nearby storm drain. A city employee reported that 1,484 gallons of 7% chlorine was released and that the drain discharged into the Halifax River. A dechlorinator was added to the storm drain as part of the cleanup effort.

As recently as May 10, 2022, a citizen reported a possible HazMat issue just south of the Granada Bridge. The citizen reported that approximately two-dozen old, abandoned boats were leaking oil and fuel into the Indian River Lagoon and Halifax River. The boats have been abandoned in this location for 3 to 4 years. This was classified as a petroleum spill and oil release, and although major waterways were affected, no cleanup actions were reported.

Probability of Future Occurrences

It is likely that HazMat incidents will continue, whether they are reported or not.

Section 5: Figure 23: Hazardous Spill in County 2019-2024



Source: FDEP

5.18 CONCLUSIONS ON HAZARD RISK

The hazard profiles presented in this section were developed using best available data and result in what may be considered principally a qualitative assessment as recommended by FEMA in its "How-to" guidance document titled *Understanding Your Risks: Identifying Hazards and Estimating Losses* (FEMA Publication 386-2). It relies heavily on historical and anecdotal data, stakeholder input, and professional and experienced judgment regarding observed and/or anticipated hazard impacts. It also carefully considers the findings in other relevant plans, studies and technical reports.

Hazard Risk Scoring

Volusia County threats and hazards are scored using the Calculation and Rating Score Development (CPRI). Frequency (probability), impact (magnitude/severity), warning time, and duration are the main factors used to assign a score to every hazard. To provide a comprehensive assessment of each hazard, the hazards were scored based on several vulnerability factors including area(s) of impact, health and safety of the population, property, environment, and economic vulnerability. Each of these factors, considered magnitude/severity, has been assigned a number between one and four, based on risk, with four being the greatest. The values then were summed and multiplied by the probability of occurrence factor, which is also a one to four scale. Warning time and duration of each hazard are also considered and factored into the scoring. The resulting value is a risk rating for each hazard. **Section 5: Table 21** provides the CPRI scoring categories and rating system. Further, the Vulnerability Assessment (Section 6) also provides information on hazard vulnerability at the jurisdictional level.

CPRI Calculation and Rating Score Development

CPRI = [(Probability X .45) + (Magnitude X .30) + (Warning Time X .15) + (Duration X .10)]

Section 5: Table 21: CPRI Scoring Categories

CPRI CATEGORY	DEGREE OF RISK			ASSIGNED WEIGHTING FACTOR
	LEVEL ID	DECRIPTION	INDEX VALUE	
Frequency (Probability)	Highly Likely	• Common events with a well-documented history of occurrence. • Annual probability is greater than 1.	4	45%
	Likely	• Frequent occurrences with at least two or more documented historical events. • Annual probability is between 1 and 0.1.	3	
	Possible	• Infrequent occurrences with at least one documented or anecdotal historic event. • Annual probability is between 0.1 and 0.01.	2	
	Unlikely	• Rare with no documented history of occurrences or events. • Annual probability of less than 0.01.	1	
Magnitude / Severity	Catastrophic	• Severe property damages (greater than 50% of critical and non-critical facilities and infrastructure). • Injuries or illnesses result in permanent disability and multiple deaths. • Shut down of critical facilities for more than 1 month.	4	30%
	Critical	• Moderate property damages (greater than 25% and less than 50% of critical and non-critical facilities and infrastructure). • Injuries or illnesses result in permanent disability and at least 1 death. • Shut down of critical facilities for more than 1 week and less than 1 month.	3	
	Limited	• Slight property damages (greater than 5% and less than 25% of critical and non-critical facilities and infrastructure). • Injuries or illnesses do not result in permanent disability and there are no deaths. • Moderate quality of life lost. • Shut down of critical facilities for more than 1 day and less than 1 week.	2	
	Negligible	• Negligible property damage (less than 5% of critical and non-critical facilities and infrastructure).	1	

		• Injuries or illnesses are treatable with first aid and there are no deaths. • Negligible quality of life lost. • Shut down of critical facilities for less than 24 hours.		
Warning Time	Less than 6 hours	Self-explanatory.	4	15%
	6 to 12 hours	Self-explanatory.	3	
	12 to 24 hours	Self-explanatory.	2	
	More than 24 hours	Self-explanatory.	1	
Duration	More than 1 week	Self-explanatory.	4	10%
	Less than 1 week	Self-explanatory.	3	
	Less than 1 day	Self-explanatory.	2	
	Less than 6 hours	Self-explanatory.	1	

Final Determinations

The conclusions drawn from the hazard profiling process for Volusia County resulted in the classification of risk for each identified hazard according to three categories: High, Moderate and Low Risk. For the purposes of these classifications, risk is expressed in relative terms according to the estimated impact that a hazard will have on human life and property throughout all of Volusia County. A more quantitative analysis to estimate potential dollar losses for each hazard has been performed separately and is described in the *Vulnerability Assessment* section.

It should be noted that although some hazards are classified below as posing low risk, their occurrence of varying or unprecedented magnitudes is still possible in some cases and their assigned classification will continue to be evaluated during future updates.

Hazard	Probability				Magnitude/Severity				Warning Time				Duration				CPRI Score
	Unlikely	Possibly	Likely	Highly Likely	Negligible	Limited	Critical	Catastrophic	< 6 hours	6 - 12 hours	12 - 24 hours	> 24 hours	< 6 hours	< 24 hours	< 1 week	> 1 week	
NATURAL HAZARDS																	
AGRICULTURE	X				X					X						X	1.6
COASTAL EROSION				X			X					X				X	3.25
DROUGHT			X				X					X			X		2.7
EXTREME TEMPERATURES			X				X					X			X		2.7
FLOOD				X				X				X			X		3.45
PUBLIC HEALTH EMERGENCIES		X				X				X						X	2.35
RISING COASTAL WATER				X				X				X			X		3.75
SEVERE WEATHER				X		X			X				X				3.1
TORNADO			X				X		X				X				2.95
TROPICAL CYCLONES				X				X				X			X		3.45
WILDLAND FIRE			X			X			X						X		2.85
MANMADE HAZARDS																	
CIVIL DISTRUBANCE		X			X					X				X			1.85
MASS MIGRATION		X				X				X						X	2.35
TERRORISM		X					X		X					X			2.6
TECHNOLOGICAL HAZARDS																	
COASTAL OIL SPILL	X					X			X						X		1.95
CRITICAL INFRASTRUCTURE FAILURE		X					X		X						X		2.7
HAZARDOUS MATERIALS / INDUSTRIAL INCIDENT			X				X			X						X	3.1

Section 5: Table 22: Conclusions on Hazard Risk for Volusia County

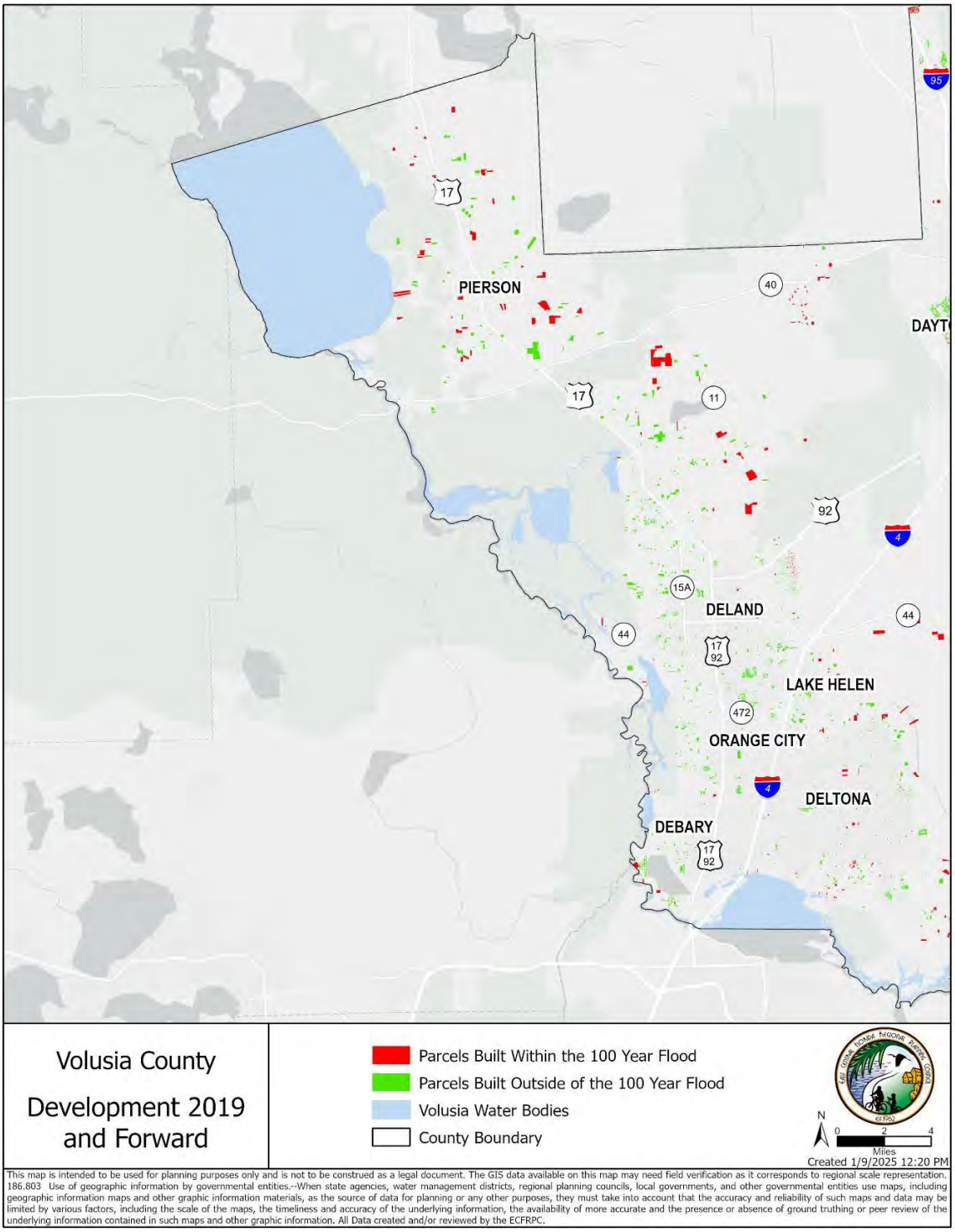
5.19 DEVELOPMENT SINCE 2020 (LAST LMS SUBMITTAL)

The maps on the next page in Section 5 **Figure 24 and Figure 25** shows development in Volusia County from 2019 to 2024 with exposure to the 100-year floodplain. While the eastern portion of the county is susceptible to more hazards than the western portion, the eastern side has seen the largest growth in the number of properties built since 2019. Areas such as Ormond Beach, Daytona Beach, Holly Hill, South Daytona, Ponce Inlet, and New Smyrna Beach have experienced growth since 2020, much of it along the barrier islands to the east of the Halifax River, Indian River Lagoon, and Mosquito Lagoon. These areas are susceptible to tropical cyclones, flooding, and rising coastal waters. The western portion of the county has also experienced growth. Deltona, DeBary, DeLand and Orange City are typically more susceptible to wildland fires and flooding.

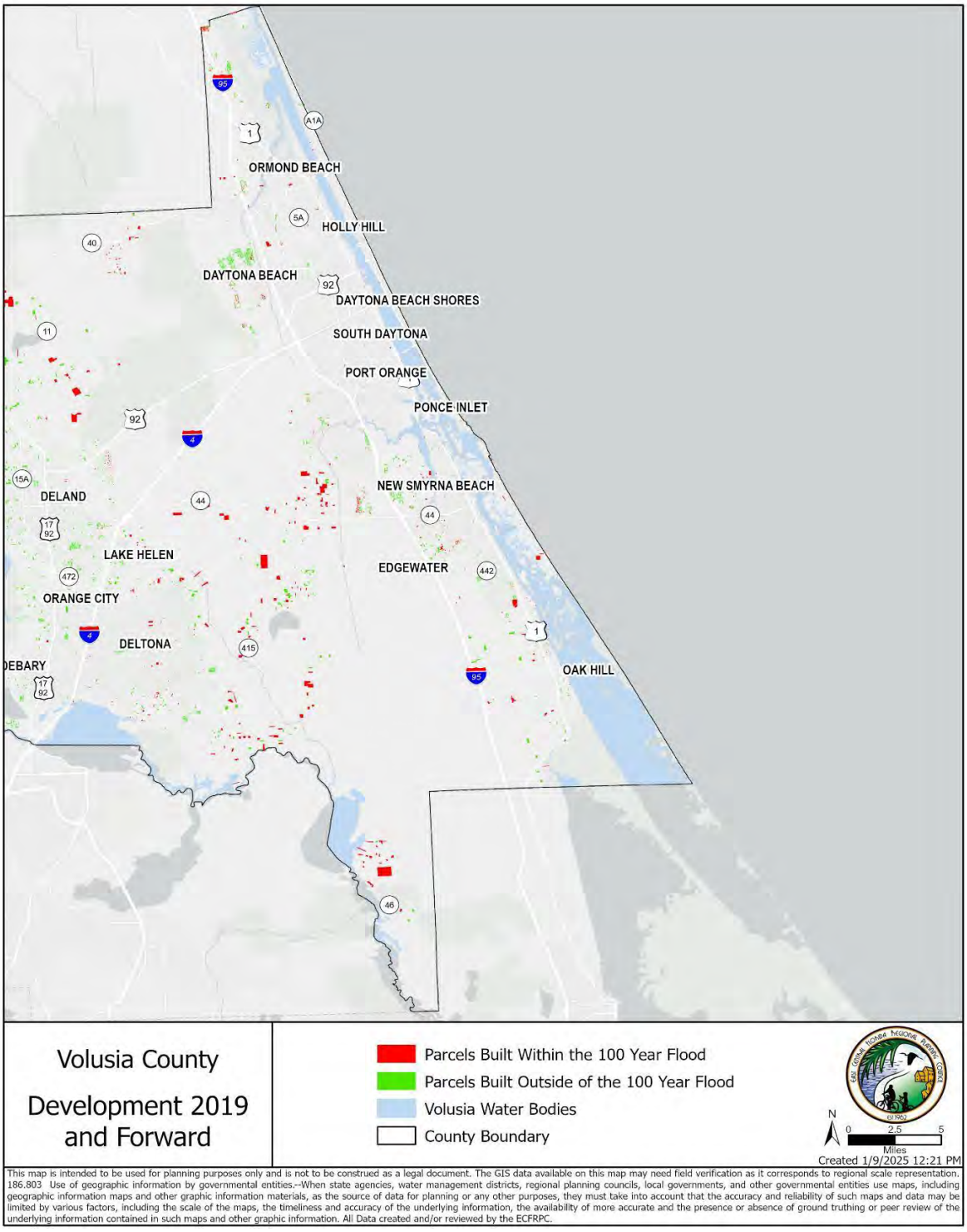
Since 2019, 6,005 properties have been built in the 100-year floodplain countywide. The total county taxable value of these new properties is $1,970,544,855 according to the ECFRPC analysis. The jurisdiction experiencing the most development is New Smyrna Beach. Daytona Beach is a close second.

For more information on recent developments in the hazard zones covered in this report, view the Vulnerability Assessment in Section 6.

Section 5: Figure 24: Development in 100-Year Floodplain since 2019. West Side of Volusia County



Section 5: Figure 25: Development in 100-Year Floodplain since 2019. East Side of Volusia County



Source: FEMA, Volusia County Property Appraiser, ECFRPC

SECTION 6 – VULNERABILITY ASSESSMENT

44 CFR Requirement

44 CFR Part 201.6(c)(2)(ii): The risk assessment shall include a description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. The description shall include an overall summary of each hazard and its impact on the community. The plan should describe vulnerability in terms of: (A) The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas; (B) An estimate of the potential losses to vulnerable structures identified in paragraph (c)(2)(ii)(A) of this section and a description of the methodology used to prepare the estimate; (C) Providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.

6.1 OVERVIEW

This section builds upon the information provided in Section 5: *Hazard Profiles* by identifying and characterizing an inventory of assets in Volusia County and then assessing the potential impact and number of damages that can be expected to be caused by each identified hazard event. The primary objective of the vulnerability assessment is to quantify exposure, and the potential loss estimates for each hazard. In so doing, Volusia County and its participating jurisdictions and partners may better understand their unique risks to identify hazards and be better prepared to evaluate and prioritize specific hazard mitigation actions.

This section begins with an explanation of the methodology applied to complete the hazard vulnerability assessment, followed by a summary description of the asset inventory as compiled for Volusia County. The remainder of this section focuses on the results of the assessment and is organized by hazard as listed below.

- **Natural**
  - Agriculture
  - Coastal Erosion
  - Drought
  - Extreme Temperature
  - Flood
  - Public Health Emergencies
  - Rising Coastal Waters
  - Severe Weather
  - Tornado
  - Tropical Cyclones
  - Wildland Fire
- **Manmade**
  - Civil Disturbance
  - Mass Migration
  - Terrorism

- **Technological**
  - Coastal Oil Spill
  - Critical Infrastructure Failure
  - HazMat/ Industrial Incident

6.2 ASSESSMENT METHODOLOGY

This vulnerability assessment was conducted utilizing three distinct methodologies based on an appropriate analysis of that hazard:

1. Geographic Information System (GIS)-based analysis
2. A qualitative analysis based on the risk to people, property, the environment, government operations, the public, first responders, continuity of operations, facilities and infrastructure, economic conditions, and public confidence in governance.

Each approach provides estimates for the potential impact of hazards by using a common, systematic framework for evaluation, including historical occurrence information. The results of the vulnerability assessment are provided for each identified hazard. The versions of HAZUS used for this assessment were 6.1 and 7.0. All versions of HAZUS are designed to conduct the same analyses for the same purposes.

GIS-Based Analysis

For the GIS-based assessment, digital data was collected from local, state and national sources. ESRI® ArcPro 3.4.0 was used to assess risk utilizing digital data including local tax records for individual properties and georeferenced point locations. Using these data layers, risk was assessed by estimating the assessed building value associated with properties determined to be in identified hazard areas. The critical asset inventory was compiled from FEMA's built-in asset inventory within HAZUS, the ECFRPC's critical asset inventory compiled for FDEP's statewide Resilient Florida Vulnerability Assessment, and additional assets provided by Volusia's jurisdictions. Parcel and land use data was retrieved from Volusia County's GIS Department and Property Appraiser.

To estimate population in hazard areas, Census 2020 population data by census block was obtained from HAZUS 7.0 and census blocks intersecting with hazard areas were used to determine improved property value, land value, building value, assessed value, taxable county value were obtained from Volusia County's Property Appraiser and properties intersecting with hazard areas were used to determine financial exposure and potential financial loss.

Census 2020 data was used for analyses as it is available by census block. There are other population estimates that are provided by reputable sources; however, they are only available at the jurisdiction level (e.g., county or city). When the next decennial census population data is available the county will consider reassessing the populations that are vulnerable to various hazards.

The objective of the GIS-based analysis was to determine the estimated vulnerability of people, buildings and critical facilities to the identified hazards for Volusia County using the best available geospatial data. In so doing, local databases made available through Volusia County such as local tax assessor records, parcel boundaries and critical facilities data were used in combination with digital hazard data. The results

of the analysis provided an estimated number of people, as well as the numbers and values of buildings and critical facilities determined to be potentially at risk to those hazards with delineable geographic hazard boundaries.

Financial exposure of parcels to hazards was assessed by intersecting parcel data to the extent of the hazards. Per the guidance of Volusia County Emergency Management, financial exposure to hazards for parcels with stacked properties was handled in two manners. Hazard analysis regarding wind, wildland fire, and sea level rise was conducted for all properties within a parcel, capturing the financial exposure of each floor within condominiums and other buildings. Hazard analysis regarding storm surge and FEMA flood zones was conducted only for first floor properties.

For storm surge, the data was retrieved from the National Oceanic and Atmospheric Administration's National Hurricane Center. The storm surge data is derived from the Maximum of the Maximum Envelope of High Water (MEOW), or MOM, which provides a worst case snapshot for a particular storm category. Each MOM considers combinations of forward speed, trajectory, and initial tide level. No single hurricane will produce the regional flooding depicted in the MOMs. Instead, the product is intended to capture the worst-case high-water value at a particular location for hurricane evacuation planning. The MOMs are also used to develop the nation's evacuation zones.

For wildland fire risk, the U.S. Forest Service's Wildfire Hazard Probability dataset was used to evaluate the wildfire risk for Volusia's critical assets. The Wildfire Hazard Probability dataset recognizes impervious surfaces as "non-burnable." As the majority of Volusia's critical assets are built on top of paved surfaces, they were marked as non-burnable by the dataset. However, due to the nature of wildfire and its ability to jump onto structures although they may be built upon impervious surfaces, geostatistical methods were employed to interpolate the fire risk for areas originally marked as non-burnable. The raster dataset provided by the U.S. Forest Service was altered to remove cells marked as non-burnable. This altered raster was run through Empirical Bayesian Kriging (EBK) to generate new wildfire risk scores for areas previously categorized as non-burnable. EBK is a geostatistical method utilized for making spatial predictions based upon existing patterns. Using EBK to fill in the gaps of the Wildfire Hazard Probability dataset allowed for a more comprehensive analysis of wildfire risk for the County's critical assets.

For tropical cyclone wind hazards, HAZUS 6.1 was used to run a probabilistic hurricane wind analysis. Probabilistic hurricane analysis is a method of predicting the likelihood of hurricane-related events by using a range of possible outcomes. This method can help to estimate the risk of hurricane damage and inform decision making. Return periods of 10, 20, 50, 100, and 500 were used to analyze peak wind gusts across Volusia County.

6.3 ASSET INVENTORY

An inventory of Volusia County's georeferenced assets was created in order to identify and characterize those properties potentially at risk to the identified hazards. By understanding the type and number of assets that exist and where they are located in relation to known hazard areas, the relative risk and vulnerability for such assets can be assessed. Three categories of assets were created and assessed through GIS analysis, including:

1. Improved Property: Includes properties with improved property (i.e., structures)

2. Critical Assets: Includes Volusia County's emergency operations centers, fire stations, police stations, schools and hospitals. This was derived from the FEMA HAZUS asset inventory and critical assets identified through the Volusia 2024 VA.

3. Transportation Infrastructure: Includes primary roads and active railroads.

Improved Property

Section 6 Table 1 displays total assessed value of improvements for unincorporated Volusia County and the incorporated areas with improved property.

Section 6: Table 1: Total Value of Improved Properties

JURISDICTION	TOTAL IMPROVED VALUE OF IMPROVED PROPERTIES
Daytona Beach	$11,412,838,706.00
Daytona Beach Shores	$2,643,078,172.00
DeBary	$2,829,659,586.00
DeLand	$4,555,243,217.00
Deltona	$8,243,140,783.00
Edgewater	$2,478,786,764.00
Holly Hill	$1,108,379,506.00
Lake Helen	$273,588,377.00
New Smyrna Beach	$7,693,963,655.00
Oak Hill	$232,951,847.00
Orange City	$1,439,235,489.00
Ormond Beach	$6,202,742,902.00
Pierson	$145,434,493.00
Ponce Inlet	$1,426,666,290.00
Port Orange	$6,642,257,338.00
South Daytona	$1,215,618,172.00
Unincorporated	$14,307,435,560.00
TOTAL	**$72,851,020,857.00**

Source: Volusia County Property Appraiser Data (2024)

Critical Assets

Section 6 Table 2 lists Volusia County's critical facilities, as identified by each jurisdiction in Volusia County. A full listing of the critical facilities and their exposure to each hazard included in this vulnerability assessment is in **Appendix E**. This information is not available for public distribution as it contains sensitive information. The critical facilities data is on file with Volusia County Emergency Management.

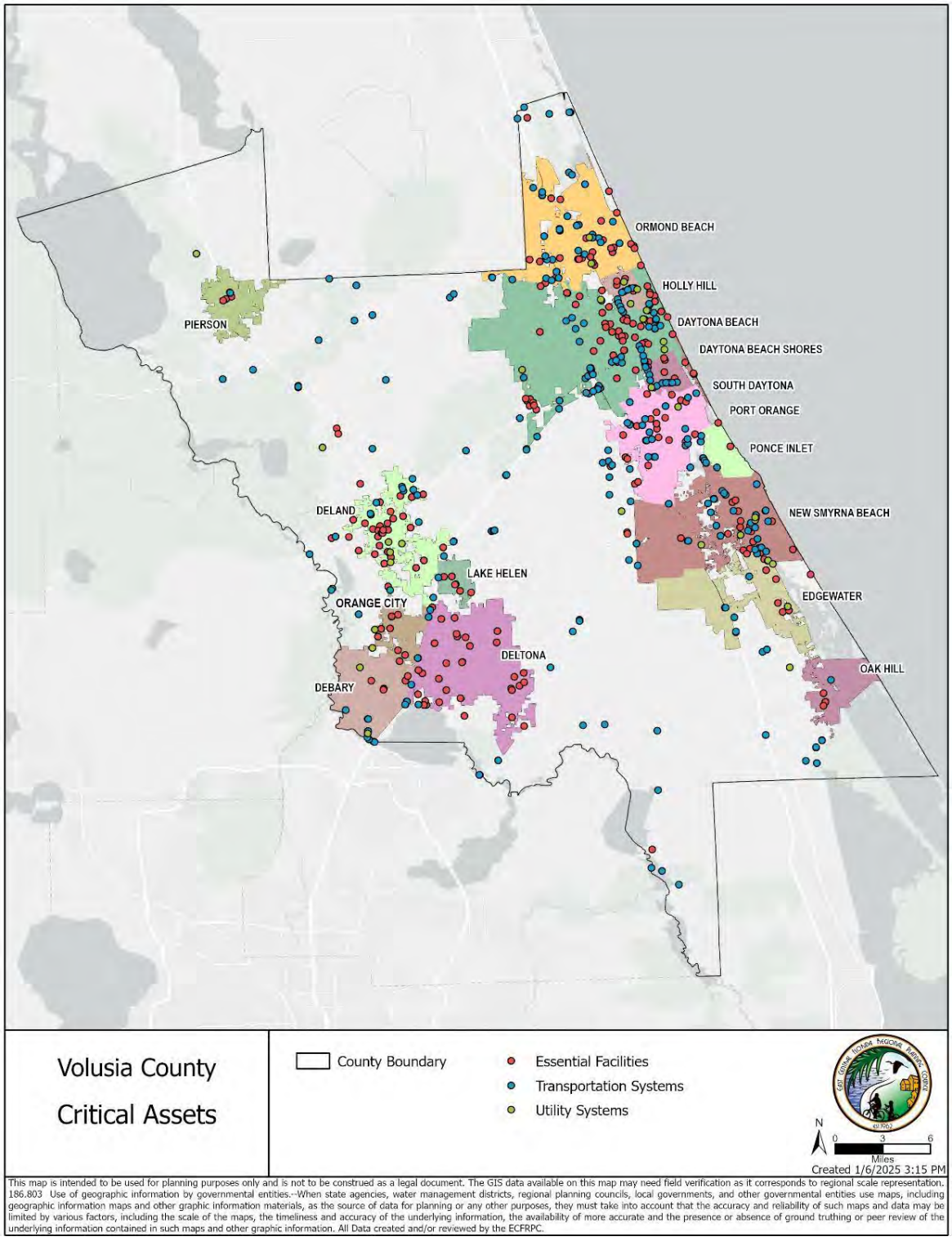
Section 6: Table 2: Number of Critical Facilities

JURISDICTION	Number of Critical Assets
Daytona Beach	74
Daytona Beach Shores	2
DeBary	7
DeLand	47
Deltona	27
Edgewater	14
Holly Hill	10
Lake Helen	6
New Smyrna Beach	28
Oak Hill	4
Orange City	9
Ormond Beach	31
Pierson	4
Ponce Inlet	2
Port Orange	22
South Daytona	6
Unincorporated	578
Multi-Jurisdictional	276
TOTAL	**1,147**

Source: All Jurisdictions (Cities, County), HAZUS

Section 6 Figure 1 illustrates the general locations of the critical facilities and infrastructure according to the current georeferenced point and line locations. Facilities were identified through a combination of jurisdiction-provided data, 2024 Vulnerability Assessment (VA), and HAZUS 7.0 asset inventory.

Section 6: Figure 1: Volusia County Critical Facilities



Source: All Jurisdictions (Cities, County), HAZUS

Transportation Infrastructure

Section 6: Table 3: Transportation Infrastructure

JURISDICTION	Railroad (mi)	Arterial (mi)	Collector (mi)	Interstate (mi)	Local (mi)	Ramp (mi)	Beach Ramp (mi)	Park (mi)
Daytona Beach	4.45	68.4	3.1	4.98	308	6.15	0.92	-
Daytona Beach Shores	-	5.19	1.04	-	5.94	-	0.65	-
DeBary	6.62	8.54	-	0.22	152	0.1	-	1.7
DeLand	0.64	16.94	9.38	-	190.73	0.25	-	-
Deltona	-	21.82	6.58	6.28	451.57	4.53	-	-
Edgewater	4.16	11.58	2.96	1.11	140.82	0.71	-	-
Holly Hill	2.86	6.42	-	-	59.51	-	-	-
Lake Helen	-	0.34	6.17	1.11	31.54	0.62	-	-
New Smyrna Beach	7.77	22.38	3.45	4.7	189.3	1.91	1.58	0.32
Oak Hill	1.2	4.74	1.03	-	25.39	-	-	-
Orange City	-	11.35	0.69	-	70.78	1.14	-	-
Ormond Beach	8.88	22.84	12.68	3.41	236.01	1.29	0.49	-
Pierson	3.07	3.11	3.36	-	27.44	-	-	-
Ponce Inlet	-	-	3.03	-	15.21	-	0.17	0.69
Port Orange	4.97	28.86	1.81	5.79	282.03	1.51	-	0.25
South Daytona	2.75	4.38	1.35	-	53.29	-	-	-
Unincorporated	48.06	188.64	133.22	45.91	1353.43	12.95	0.22	2.17
TOTAL	95.43	425.53	189.85	73.51	3592.99	31.16	4.03	5.13

Source: Volusia County GIS, ECFRPC

6.4 AGRICULTURE

Vulnerability

Agriculture in Volusia County is a sector that encompasses crops, livestock, and environmental resources. This sector is vulnerable to a variety of threats, including infestations, invasive species, and diseases. Infestation or disease in agriculture refers to the significant increase of biological entities such as insects, rodents, bacteria, or viruses in a given area, which can adversely affect crops, threaten human and animal health, damage valuable crops, or lead to the loss of significant environmental resources.

In Volusia County, common agricultural threats include infestations by mosquitoes, citrus greening, southern pine beetle, Florida dampwood termites, rats, and noxious plants like the Brazilian pepper tree. These threats can impact key agricultural crops such as citrus, vegetables, and ornamental plants. For instance, citrus greening, a bacterial disease, severely affects citrus crops, leading to significant economic losses. Similarly, the southern pine beetle can devastate pine forests, impacting timber production, while invasive species like the Brazilian pepper tree can outcompete native plants and disrupt local ecosystems. Livestock in Volusia County, including cattle, poultry, and horses, are also at risk from various diseases. Diseases such as foot-and-mouth disease and avian influenza can spread rapidly, causing substantial harm to livestock and posing a risk to human health. Contaminated water supplies used for irrigation or livestock drinking water can exacerbate these issues, leading to widespread problems for all residents in and near Volusia County.

The overall vulnerability of Volusia County and its jurisdictions to agricultural diseases and pests is low. Although there is not a large percentage of farmland in the county, disease can spread quickly if response is not immediate. The cities of Oak Hill and Pierson and unincorporated parts of Volusia County are most vulnerable to agricultural incidents because this is the largest area of farmland countywide. Climate change may exacerbate agricultural threats via the movement of invasive species. **Section 6: Figure 2** displays the areas of the county with the most vulnerability. The Western and Southern portions of the county are at highest risk.

Impacts

Environmental impacts include ecosystem disruption through the destruction of crops, contamination of soil and water, and displacement of native species by invasive plants. These disruptions can lead to the loss of biodiversity, affecting the region's ecological balance. There are many natural springs located on the west side of the county, such as Blue Spring, DeLeon Springs, Green Springs, and Gemini Springs, that attract tourism and protect native species.

On top of having profound ecological impacts, invasive species cost Floridians over $500 million each year; these costs include monitoring, testing, management, eradication, and restoration efforts. Future conditions may exacerbate the concern. Temperature changes, extended growing seasons, and altered rainfall patterns can support the spread of organisms into new territories. Additionally, as climate zones shift, the natural predators of pests might not migrate at the same rate, potentially leading to an imbalance where pest populations can grow unchecked. The probability of invasive species continuing to impact Volusia County is considered likely, occurring once a year or more. The economic impact of agricultural infestations and diseases in Volusia County can be profound, especially for the South and Western parts of

the county where there is a significant agriculture presence. Financial losses can result from crop destruction, decreased yields, and the costs associated with pest control and disease management. This is particularly relevant for Enterprise and Pierson.

Public health, especially of residents living in proximity to agriculture, is another critical area affected by agricultural threats. Additionally, vector-borne diseases spread by pests like mosquitoes, such as West Nile virus, dengue fever, and Zika virus, pose direct health risks to the public.

Responders dealing with agricultural infestations or disease outbreaks face health risks if exposed to harmful organisms or chemicals. Ensuring the safety of responders requires robust safety protocols, including the use of personal protective equipment (PPE) and decontamination procedures. Despite these risks, the continuity of operations in most sectors is unlikely to be significantly impacted by agricultural infestations or diseases. Essential services and functions can generally continue with minimal interruption. However, ensuring the continuity of operations for emergency response agencies is critical to effectively managing these threats.

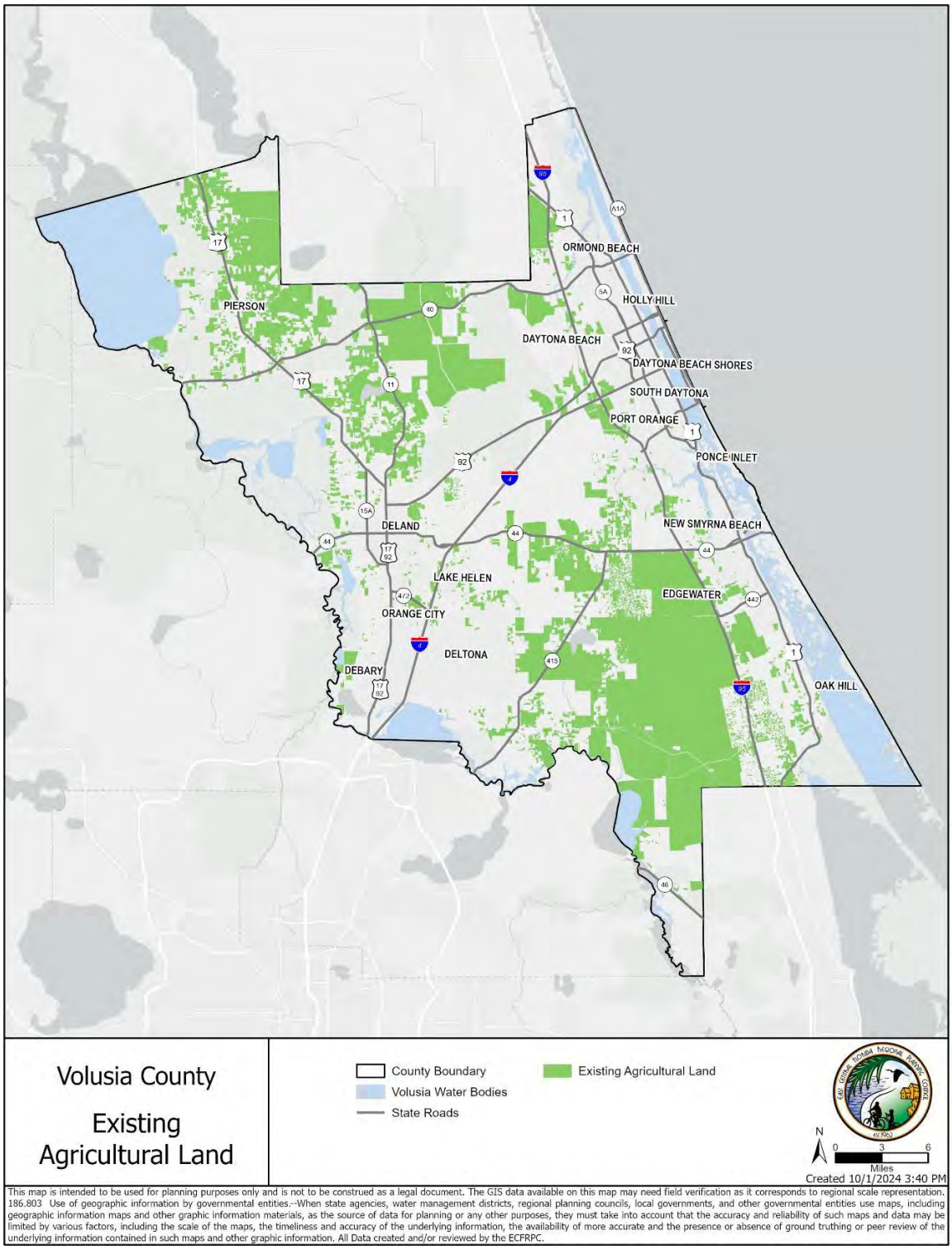
Agricultural infestations and diseases are also unlikely to directly impact property, facilities, or infrastructure in urbanized areas of the county. The primary effects are concentrated on the agricultural lands. To mitigate these risks, it is essential to implement robust surveillance systems to detect and respond to biological threats quickly. Regular monitoring of crops, livestock, and the environment for signs of infestation or diseases is crucial. Education and training programs for farmers, agricultural workers, and first responders are necessary to ensure they can recognize and respond to agricultural threats effectively.

Clear communication channels between local, state, and federal agencies are vital for a coordinated response. This includes mutual aid agreements and support from the Florida Division of Emergency Management (FDEM). Emergency preparedness plans should be developed and regularly updated to include specific protocols for addressing agricultural infestations and diseases, covering containment, decontamination, and recovery processes.

Investing in research to develop resilient crop varieties and livestock breeds that are less susceptible to diseases is also important. Promoting the development of rapid detection technologies for pests and pathogens can enhance the county's ability to respond to agricultural threats. Every jurisdiction must integrate pest management (IPM) practices that can control pest populations using environmentally sustainable methods, such as biological control, habitat manipulation, and resistant crop varieties.

In conclusion, while Volusia County's agricultural sector faces low risks from infestations, invasive species, and diseases, proactive measures can significantly reduce these risks and mitigate their impacts. By enhancing surveillance, improving coordination, and investing in education and research, the county can better protect its agricultural assets and ensure food security. Comprehensive planning and preparedness efforts can minimize the overall public health, environmental, and economic impacts of agricultural threats. Existing land use was derived from parcel data provided by Volusia County GIS as seen in **Section 6 Figure 2**.

Section 6: Figure 2: Existing Agricultural Land in Volusia County



Source: Volusia County Property Appraiser, ECFRPC

6.5 COASTAL EROSION

Vulnerability

Coastal erosion is a significant concern for Volusia County, with all coastal areas prone to this natural process. Nearly half of the county's 47 miles of shoreline are considered critically eroded. While the population is not explicitly threatened by coastal erosion, the economic impact on beachfront properties can be substantial. Coastal erosion is typically measured as the annual shoreline change for a given beach cross-section over a long period.

Coastal erosion poses a considerable threat to beachfront properties within five jurisdictions of the county, as well as unincorporated areas. More than 5,000 properties are at direct risk, representing over $800 million in property value. Properties at the highest risk are those with low elevations, as wave action and dune degradation can compromise the integrity of the lot foundation. Properties with lower foundations, or those not elevated above the base flood elevation, are at higher risk for water damage, loss of personal property, electrical damage, structural collapse, and, in rare instances, loss of life.

Daytona Beach Shores and New Smyrna Beach are particularly vulnerable to coastal erosion due to their extensive shoreline properties. Additionally, storm surge presents a unique financial challenge, as beachfront properties are typically high value. Volusia County has engaged in beach renourishment activities and hardening shorelines with gray infrastructure, such as seawalls, and green infrastructure, such as living shorelines. Continued development along the shorelines and storm surges increasing in intensity and frequency contribute to the vulnerability of the coastal cities in Volusia County.

Impacts

The county's Lifeguard Headquarters and Administration Building, located on the beach in Daytona Beach, provides public safety and lifeguard services to the entire beach area. The Ponce Inlet Lighthouse, another significant site, has undergone extensive work by the U.S. Army Corps of Engineers to re-nourish the sand and install rock jetties to protect the area.

There are two piers with restaurants vulnerable to storm surge, including Joe’s Crab Shack on the Main Street Pier, which is a major tourist attraction in Daytona Beach’s Boardwalk Entertainment Area. The entire shoreline, along with condominiums, residential homes, businesses, and restaurants, can be susceptible to coastal erosion depending on the strength and direction of storms. The North Peninsula State Recreation Area in Ormond-By-The-Sea and the A1A roadway in that area are at higher risk than other county areas, although it remains mostly undeveloped.

Coastal erosion can be a consequence of tropical storms, hurricanes, and nor'easters. Homes and structures built along the coastline may be damaged or even destroyed during these events, with protective dunes potentially obliterated. All property along the coast of Volusia County is at risk, with private property in some areas losing inches or feet of beach each year. Coastal erosion has caused over $400 million in damage.

The environment is highly vulnerable to coastal erosion. Erosion can occur via wind or water, leading to sedimentation in waterways, loss of habitat for coastal ecosystems, and changes in coastal geomorphology. Protective dunes on the shore may be reduced or washed away in hurricanes and high surf, further exacerbating erosion issues.

Responders are not directly impacted by coastal erosion, and the Volusia County Emergency Management Division will not face issues in continuing operations and delivering services due to this hazard. Although coastal erosion does not directly threaten program operations, as the Volusia County Emergency Operations Center is located 20 miles inland, the public faces numerous consequences. Homes can collapse into the ocean, and critical utilities and roadways may be compromised if beaches erode, and water inundates their systems. Coastal erosion also affects many public beaches in Volusia County, leading to the loss of recreational areas and potential destruction of private property and homes. In some rare cases, homes and businesses may fall into the ocean.

The consequences for the environment from coastal erosion are severe. Erosion by wind or water can deplete coastal ecosystems, reduce protective dunes, and cause sand and soil to enter water and sewer systems, leading to public and environmental issues. Coastal erosion is costly, with beach nourishment expenses averaging around $2.00 per cubic yard, placing a financial burden on local economies.
Despite these challenges, public confidence in government should not be significantly impacted by coastal erosion, as rapidly eroding beaches remain a high priority for nourishment efforts.

Coastal erosion also impacts tax revenue as some residents may choose to move away or cannot afford to fix a property after a storm. This can lead to condemned buildings that are unsightly and unsafe.

Section 6 Table 4 provides the number of people and number and value of improved properties that are susceptible to coastal erosion. Coastal erosion is very likely to continue impacting the coastal areas of Volusia County. Jurisdictions with critically eroded beaches in Volusia County actively participate in the federal beach nourishment program.

Section 6: Table 4: Total Exposure from Coastal Erosion for Ocean Shorelines & Lagoons

JURISDICTION	AT-RISK AREAS (within 250 feet of shoreline)		
	Total Number of Properties at Risk	Total Improved Value of Buildings at Risk	Total County Taxable Value
Daytona Beach	3914	$1,573,304,260.00	$1,137,404,025.00
Daytona Beach Shores	522	$317,920,506.00	$263,536,865.00
Edgewater	318	$351,929,936.00	$224,619,720.00
Holly Hill	647	$255,000,654.00	$200,624,664.00
New Smyrna Beach	3947	$2,905,660,684.00	$2,029,296,261.00
Oak Hill	391	$164,494,791.00	$92,141,021.00
Ormond Beach	1362	$1,303,941,624.00	$953,112,793.00
Ponce Inlet	615	$368,335,931.00	$255,695,564.00
Port Orange	777	$377,236,994.00	$230,213,454.00
South Daytona	439	$196,332,861.00	$140,465,685.00
Unincorporated	5080	$2,701,737,784.00	$1,903,028,923.00

Sources: Volusia County Property Appraiser Data (2024), Florida Fish and Wildlife, ECFRPC

6.6 DROUGHT

Vulnerability

Volusia County and its jurisdictions are uniformly vulnerable to drought and overall vulnerability to drought is high. During the dry months of the year, drought can cause serious consequences and have compounding effects. Tactics such as water usage restrictions are implemented to save water. Extreme temperature events are increasing in frequency and intensity deepening vulnerabilities. Volusia County and its jurisdictions have continued to increase in population and the continuous growth is expected to worsen residents' vulnerabilities the water shortages.

Impacts

Typically associated with crop damage rather than damage to the built environment, droughts can have significant secondary effects. Historical data indicate that drought conditions have led to wildfires in the years 1985, 1988, 1998, and 2009. These conditions can impact the Florida Aquifer, affecting the water supply for Volusia County residents, many of whom rely on personal wells or the county's public water supply, which is also drawn from wells.

Drought can lead to substantial crop loss, livestock reductions, and disruption of fish habitats. Furthermore, it is often associated with an increased wildfire threat, placing both human and wildlife populations at heightened risk. The environment is at risk from drought. Vegetation and sensitive ecosystems can suffer without adequate water, and stream flows may be reduced, impacting riparian and riverine ecosystems. Reduced lake and canal depths can impact boating traffic and access to certain waterways, diminishing property values in these locations. Notably, the Lake Beresford area in DeLand, which attracts tourists for fishing and houseboat rentals, could suffer from severe drought conditions. The St. John's River, which runs from south to north, can also be affected by droughts occurring as far south as Lake Okeechobee.

Although droughts do not directly affect the building stock within the county, they can cause numerous indirect losses to personal property and critical facilities. For instance, agricultural areas, especially in the northwest part of the county including the Town of Pierson, are particularly vulnerable. Losses within the agricultural industry can have a cascading effect on local businesses, such as those selling tools or heavy machinery, resulting in indirect financial losses. Consequently, residents may lose jobs, leading to a net economic loss for the county. Therefore, the most significant losses from drought are financial rather than physical, unlike other hazards.

The secondary physical impact of drought is the potential for sinkholes. Both excess rainfall (flooding) and drought conditions can negatively affect Florida's limestone bedrock. Thus, sinkholes represent a primary physical risk to the county's building stock due to drought conditions. The western portion of the county is particularly vulnerable to this because sinkholes happen more commonly than the eastern side of the county. Droughts can also result in increased wildfire activity. For instance, the 1998 drought directly contributed to wildfires that burned over 163,000 acres. Drought can significantly impact the county's economy, with the agricultural and natural resources industries contributing $781 million annually. An extended period of drought could seriously harm this sector.

Public confidence in government is unlikely to be significantly affected by a drought occurrence, as these are common occurrences in Florida. Insurance and assistance programs are widely available to farmers.

The public may not always experience direct consequences of drought, but government-imposed water restrictions may affect residential lawns and gardens. Chapter 50, Article III Minimum Environmental Standards, Division 8 Water Conservation references watering restrictions required for all jurisdictions within Volusia County.

Overall, program operations are not impacted by drought conditions. Responders are generally not impacted by drought, although caution and adequate hydration are necessary during extreme heat. Historically, the Volusia County Emergency Management Division has not faced issues continuing operations and delivering services during droughts events.

While homes, businesses, critical facilities, and infrastructure are generally not significantly impacted by drought and extreme heat, certain hydrologic processes, such as irrigation capacities and tourism-related activities (e.g., lakes and golf courses), can be affected. The St. Johns River Water Management District may restrict lawn irrigation, impacting residences and golf courses. Additionally, wells may reach dangerously low levels.

People are at risk from drought due to its negative effects on agriculture and livestock, which may impact long term food supplies. Farmers are the most directly affected by drought. Property may be at high risk from drought under extreme circumstances. Extended drought periods can significantly impact agricultural products and farmlands, particularly the fern industry in Volusia County, which experienced droughts in 1981, 1985, 1998, 1999, and 2000.

6.7 EXTREME TEMPERATURE

Vulnerability

Overall vulnerability to extreme temperature is medium in Volusia County and its jurisdictions. While property is unlikely to be affected by extreme temperature conditions, unhoused populations are highly vulnerable to extreme heat with approximately 700 unhoused citizens between Flagler and Volusia counties on any given day as of 2024[1]. Extreme temperatures can also pose greater vulnerabilities on outside workers, the elderly, and infant populations. Extreme temperatures would make all of Volusia County and its jurisdictions equally vulnerable.

Agricultural areas are the most vulnerable areas to extreme temperatures. However, damage to critical facilities, businesses and homes can occur as a result of these events. Annualized losses for these events are very hard to measure.

Impacts

Extreme temperatures have significant impacts when they occur. Winter storms can range from moderate snow over a few hours to blizzard conditions lasting several days. Ice storms, which occur when moisture falls and freezes upon impact, can cause widespread power outages, bring down trees, damage property, and result in fatalities and injuries. Extreme heat events are more common and pose significant challenges to Volusia County. Extreme heat is defined as temperatures that hover 9 degrees or more above the average high temperature of 90°F for the region and last for three or more consecutive days. These events can lead to widespread impacts:

All existing and future buildings, facilities, and populations in Volusia County are considered to be exposed to extreme temperature. The potential impacts include:

- **Public Risks:** All populations of Volusia County are vulnerable to extreme temperatures. Hypothermia and frostbite or heat illness are significant concerns, especially for vulnerable populations such as the elderly, young children, and the unhoused. Power outages can lead to HVAC failures, increasing the risk of illnesses. Heat exhaustion and heatstroke are serious health concerns, particularly for the elderly, children, outdoor workers, and those with pre-existing health conditions. Increased electricity demand for air conditioning can strain the power grid and lead to outages, leaving residents without cooling during the hottest periods. There is a growing concern for the unhoused population and extreme heat as climate change continues to impact frequency of events.
- **Responders' Risks:** Icy conditions can hinder emergency response, delaying response times. First responders must be prepared for the cold and heat to ensure they have the necessary equipment to operate safely. First responders must take precautions during extreme heat events to avoid heat-related illnesses. Ensuring adequate hydration and monitoring for signs of heat exhaustion and heatstroke are critical.
- **Property and Infrastructure:** Ice can accumulate on power lines, leading to outages that affect homes, businesses, and critical facilities. Burst pipes due to freezing temperatures can lead to

[1] https://www.vfcch.org/#:~:text=There%20are%20over%20600%2C000%20people,in%20Volusia%20and%20Flagler%20Counties.

significant water damage. Winter storms tend to affect transportation infrastructure (such as bridges and boat traffic) in addition to power sources. Consecutive high heat days may overload the electrical grid, also leading to power outages. Prolonged high temperatures can cause roads and bridges to expand and crack, leading to maintenance challenges. Power lines and transformers are also more likely to fail under high demand and heat stress.

- **Environmental Impact:** Wildlife may struggle to find food and shelter, and plants not adapted to extreme temperatures may be damaged or killed. Water bodies can warm, leading to reduced oxygen levels that harm aquatic life. Vegetation can suffer from heat stress, leading to reduced crop yields and increased wildfire risk.
- **Economic Impact:** Agricultural areas, particularly the Town of Pierson known as the "Fern Capital of the World," are vulnerable to severe financial losses. Transportation infrastructure, such as bridges and boat traffic, can also be affected, impacting the economy further. Moreover, areas heavy with agriculture could be at greater risk from an economic perspective, as these land uses can incur heavy losses during extreme temperatures. Extreme heat is associated with drought, thus can severely impact the agricultural sector. The annual economic impact of Volusia County's agriculture and natural resources industries is $781 million. An extended period of heat could seriously impact this.

Consequences for the public from extreme temperatures are the potential loss of power, with the unhoused population being the most affected. Shelters may need to be opened during these events. Public confidence in government is likely to remain stable during such events as they are rare in the county.

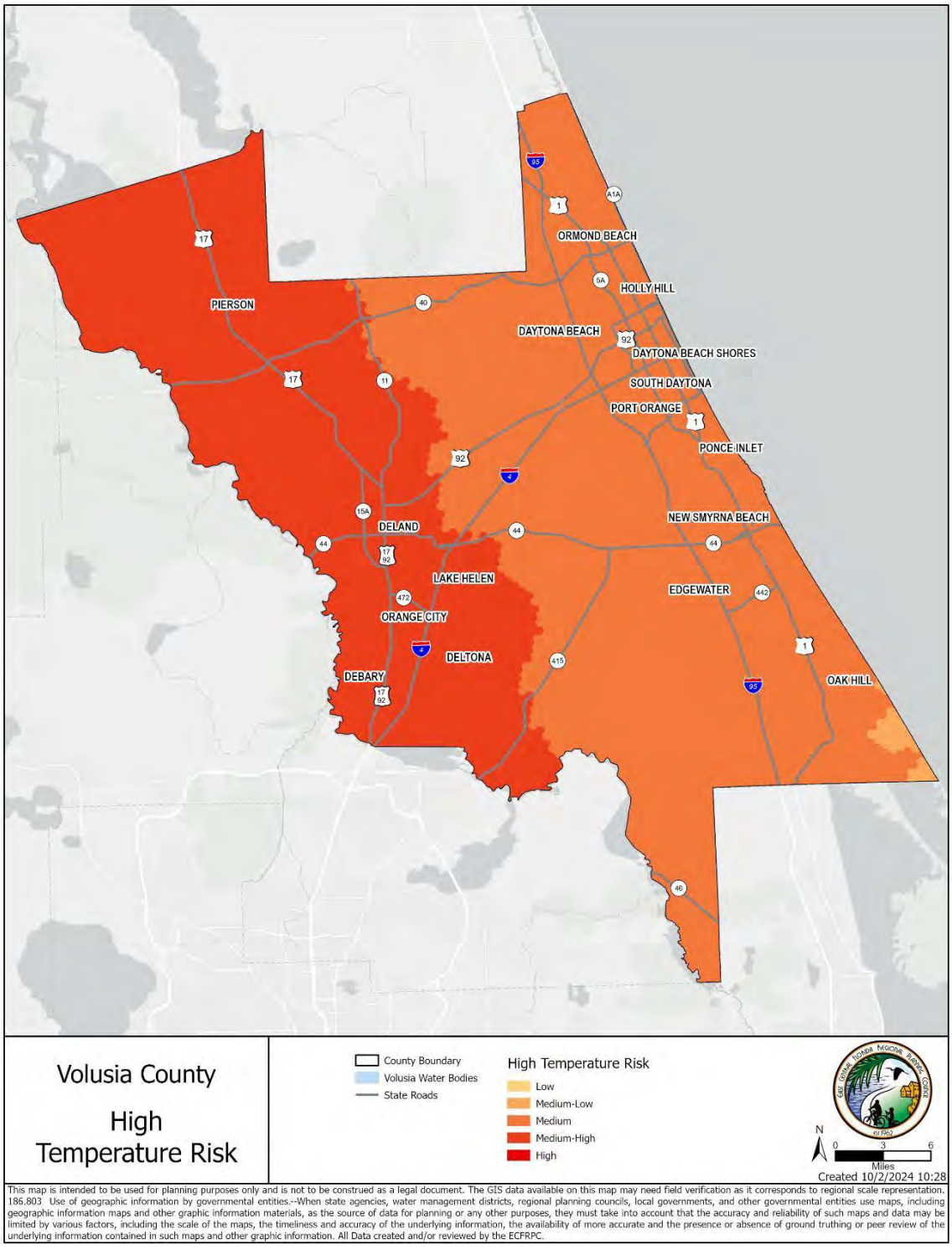
Responders are not expected to be adversely impacted due to the limited duration of extreme temperatures in Volusia County. Government operations are expected to continue during these events, with Volusia County Emergency Management maintaining operations through redundant power, IT, and communication systems.

Consequences of extreme heat on the public are not always direct but include impacts on agriculture and the food supply. Water restrictions may be implemented, affecting residential lawns and gardens.
Responders must exercise caution in extreme heat, ensuring adequate hydration. Historically, Volusia County Emergency Management has not faced significant issues in continuing operations during extreme heat events. Program operations are expected to continue without significant disruptions.

The data used for the extreme high temperature risk map in **Section 6 Figure 3** was derived from the ECFRPC's Resilience Collaborative Risk Assessment. Dr. Christopher Emrich from the University of Central Florida developed this data through the VMAP platform.

Overall, extreme heat poses a more consistent threat to Volusia County compared to extreme cold. While extreme cold events are rare, they can cause significant disruption and damage when they occur. Extreme heat is more common and presents ongoing challenges to public health, infrastructure, and the environment. Both types of extreme temperatures require effective preparedness and response plans to mitigate the impacts on the county's residents, infrastructure, and natural resources.

Section 6: Figure 3: Extreme Heat Risk in Volusia County[2]



[2] https://www.hazardrisk.org/

6.8 FLOOD

Vulnerability

Flooding is one of the most destructive and costly natural hazards, not only in Volusia County but across the United States. FEMA identifies flooding as the most expensive natural hazard in terms of damage, with long-term psychological and economic impacts for affected communities. While all 50 states are at risk for flooding, Volusia County faces unique vulnerabilities due to its geography, environmental systems, and population distribution.

The overall vulnerability to floods in Volusia County and its jurisdictions are high. With several large bodies of water in the county and municipalities including Lake Monroe, Indian River Lagoon, Tomoka River, Halifax River, and the St. John's River; the community is very vulnerable to flooding. Enforcing floodway restrictions and building codes reduces vulnerability; however, with heavy rains caused by severe weather and tropical cyclones, flooding is possible in any jurisdiction of the county.

Flooding in Volusia County typically results from prolonged rainfall, storm surges, or overflow from rivers and streams. Although flash flooding, characterized by rapidly rising water, does not occur in the county, localized flooding can cause significant damage and disruption. An inch of water in a home can cause extensive property damage and standard homeowner's or renter's insurance policies do not cover flood-related losses, making homeowners vulnerable. A separate National Flood Insurance Program (NFIP) policy must be purchased to provide coverage. Unfortunately, many residents without flood insurance may receive little to no assistance in repairing their homes and property following a flood event. The frequency of flooding events has continued to increase and each year the recovery costs rise.

Properties most vulnerable to flooding damage are those with the lowest elevations. While a flood zone can envelop properties at a specified range of elevations, the variability in the elevations within those zones make certain buildings more prone to flooding damage than others. Additionally, structures that are located below the roadway system adjacent to the building (without a bio-swale buffer) are at extreme risk for flooding, as transportation networks are among the first areas to become inundated in a flood situation.

Many critical facilities are located within the 100-year floodplain. Adverse to the results when analyzing properties within each zone on a county level, the majority of critical facilities that are located within a flood zone in Volusia County are located within Flood Zone 'A'. A majority of the critical facility structures located within the 100-year floodplain are located in Volusia County's beach side communities. These include fire stations in New Smyrna Beach, Ponce Inlet, Daytona Beach Shores, Daytona Beach and Ormond Beach. There are hospitals at risk in low lying areas in Orange City and DeLand. Maytown Road in Oak Hill to Osteen/Enterprise is not an evacuation route because of repeated flooding. It is recommended that the County and all jurisdictions within the county enact policies to limit or disallow future development within the 100-year floodplain.

To assess flood risk, a GIS-based analysis was used to estimate exposure to flood events using FEMA's preliminary Digital Flood Insurance Rate Map (DFIRM) data in combination with local tax assessor records. The determination of assessed value at-risk (exposure) was calculated using GIS analysis by summing the total assessed building values for improved properties that were confirmed to be located

within an identified Zone A/AE (100-year floodplain), Zone VE (100-year coastal flood zone, associated with wave action), and Zone X (500-year floodplain). This analysis is parent parcel data. It is recommended that the flood analyses be revised once new flood maps are available. Flooding can impact all populations, primarily those who live, work or recreate anywhere within the county. Flooding can also cause property loss to structures located within the 100-year floodplain.

Section 6 Table 5 lists the number of properties that are in both 100-year (A/AE) flood zone and 500 (X) flood zone, and the total value of the properties in the zones. This includes the entire property, although only a portion of the property may be located within the flood zone. The table corresponds with **Section 6 Figure 5**, which depicts all flood hazard zones. For a listing and generalized map of all Repetitive Loss Properties within the County and its 16 jurisdictions, please reference the 2025 Floodplain Management Plan. The table below summarizes types of flooding advisories.

Section 6: Figure 4: National Weather Service Alerts

Alert	Criteria
Flood Watch	Atmospheric conditions over a large area, varying in size from multiple counties to multiple states, support the development of heavy rain and/or thunderstorms that are capable of producing flooding. A flood watch implies a longer period of relatively lighter rains, adding up to a large amount of rain. Longer-term flooding implies a slower or steadier rise in the water levels of creeks, streams and larger rivers. Roads can also become flooded, but it is usually more gradual, allowing motorists to monitor conditions more closely.
Flood Warning	A Flood Warning is issued by the National Weather Service when heavy rain has been occurring, and flooding is either occurring or will occur within a specified time, usually within 60 minutes.
Flash Flood Watch	Implies a shorter period of heavier rain. Generally, if flooding is expected within six hours of the onset of rain, a Flash Flood Watch is most appropriate. Flash flooding by definition suggests rapidly rising water, such as a surge of water heading rapidly downstream in a creek or small river. It could also be rapidly rising water on roadways, which can cause motorists to become stranded in vehicles, or even worse, washed into creeks and small rivers due to rapid runoff.
Flash Flood Warning	Atmospheric conditions over a large area, varying in size from multiple counties to multiple states, support the development of heavy rain and/or thunderstorms that are capable of producing flash flooding: A Flash Flood Warning is issued by the National Weather Service when heavy rain has been occurring, and flash flooding is either occurring or will occur within a specified time, usually within 60 minutes.
Urban and Small Stream Advisory	Flooding of small streams, streets and low-lying areas, such as railroad underpasses and urban storm drains is occurring.

Source: National Weather Service

Impacts

Flooding can devastate homes and businesses, washing away entire structures or causing irreparable damage. Roads and bridges may be washed out, limiting access to essential services and isolating

communities. In some cases, flooding is a secondary hazard following a hurricane or tropical storm. Critical infrastructure, including utilities, emergency response facilities, and government buildings, is also at risk.

Structural damage because of flooding can result in a loss of electricity, which can cause communication problems throughout the county. Moreover, physical damage due to water can result in the loss of personal property (for business owners and homeowners), while heavy, often expensive equipment located within critical facilities can be damaged.

The Volusia County Emergency Operations Center is not located within an SFHA, but access roads and surrounding areas may be impacted by severe flooding. During extreme flood events, access to the EOC could become difficult. Contingency plans, such as the use of Volusia County Sheriff's Office helicopter assets or all-terrain vehicles, are in place to maintain operations.

Flooding poses a significant risk to Volusia County's sensitive ecosystems. Riverbed erosion caused by floodwaters introduces sediments into waterways, potentially clogging stormwater systems and affecting water quality downstream. Floods can also carry hazardous materials and pollutants into rivers and streams, damaging aquatic habitats and riparian ecosystems. Additionally, nutrient-rich runoff, such as water released from Lake Okeechobee into the Intracoastal Waterway, can lead to algal blooms and oxygen depletion in rivers, causing fish die-offs. Although historical data on environmental impacts specific to Volusia County is limited, these events highlight the need for proactive monitoring and mitigation efforts.

The consequences of flooding on the public can be severe. Floodwater can trap individuals in vehicles or homes, leading to injuries or fatalities. Recovery from a flood is often costly and time-consuming, taking weeks, months, or even years for individuals and communities to fully recover. For uninsured residents, the financial burden can be insurmountable.

Economically, flooding disrupts transportation, agriculture, business continuity, and government services. Agricultural areas, a key component of Volusia County's economy, are particularly vulnerable to flood damage. Historical data shows that between 1994 and 2009, 11 major flood events caused over $100 million in agricultural related damage in the county. The frequency of flooding events has continued to increase and each year the recovery costs rise.

Responders face significant challenges during flood events, including swift water rescues and navigating damaged or obstructed infrastructure. For instance, during Tropical Storm Fay, responders conducted numerous water rescues, highlighting the risks to both citizens and emergency personnel. Despite these challenges, the VCEOC has historically remained operational during flood events. Mutual aid agreements, including the Emergency Management Assistance Compact (EMAC), allow Volusia County to request additional resources and support during significant incidents.

To reduce the impact of flooding and maintain public confidence, Volusia County has implemented several education and mitigation initiatives. In collaboration with FEMA, NOAA, USACE, FDEM, ECFRPC, and the Florida Department of Insurance, the county provides residents with information on flood risks and the importance of flood insurance.

Since 1996, Volusia County Emergency Management has distributed over 5,000 NOAA weather radios to mobile home residents and created social media campaigns to disseminate critical information during flood events. The county has also developed an app for mobile devices.

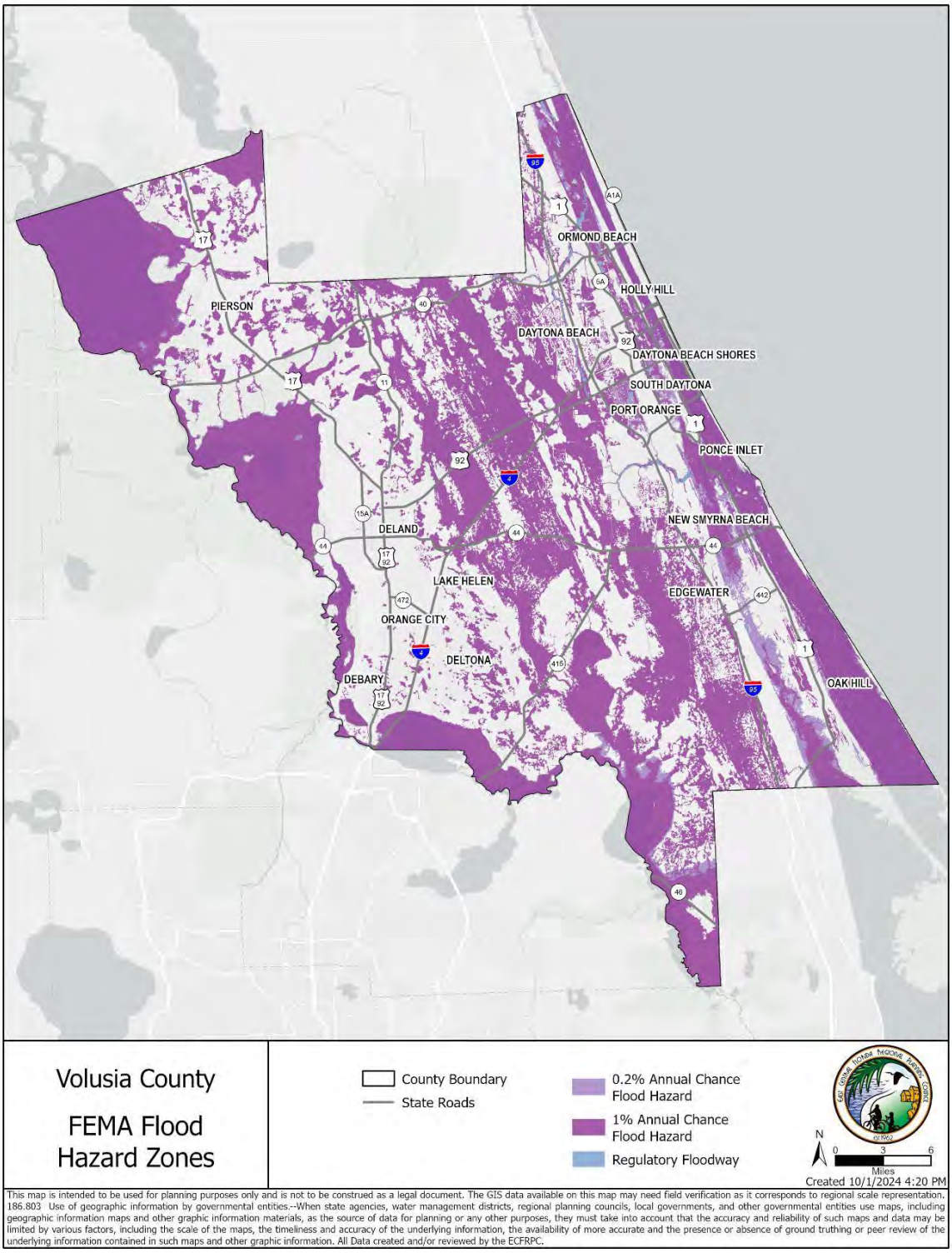
Mitigation activities, combined with education and public awareness campaigns, play a crucial role in reducing the financial and social burden of flooding while fostering community resilience. These efforts ensure that residents and businesses are better prepared to recover quickly and effectively after a flood event.

Section 6: Table 5: Property Exposure to Flood Hazard Zones

Jurisdiction	Number of Properties	Total Improved Value	County Taxable Value
Daytona Beach	13,847	$6,658,435,543	$4,082,706,747
Daytona Beach Shores	507	$437,389,147	$373,912,678
DeBary	1,387	$590,820,327	$340,103,975
DeLand	369	$234,887,960	$120,198,104
Deltona	5,522	$1,545,648,555	$668,644,860
Edgewater	1,564	$690,712,173	$417,012,709
Holly Hill	3,160	$18,630,680	$14,443,385
Lake Helen	288	$755,792,246	$502,823,799
New Smyrna Beach	10,556	$78,324,628	$36,649,988
Oak Hill	891	$5,286,195,924	$3,238,539,783
Orange City	74	$268,013,123	$143,174,110
Ormond Beach	5,093	$254,676,169	$131,349,031
Pierson	163	$2,993,289,460	$2,032,959,092
Ponce Inlet	1,083	$37,715,903	$17,576,761
Port Orange	8,567	$683,896,424	$450,947,795
South Daytona	4,311	$3,029,147,801	$1,859,130,800
Unincorporated	31,415	$1,285,011,052	$765,792,886
TOTAL	**88,797**	**$24,848,587,115**	**$15,195,966,503**

Source: EFCRPC, FEMA, Volusia County Property Appraiser

Section 6: Figure 5: Flood Zones in Volusia County



Source: FEMA

6.10 PUBLIC HEALTH EMERGENCIES

Vulnerability

Public health emergencies encompass a range of incidents, including disease outbreaks, pandemics, and mass casualty events that place extraordinary strain on healthcare systems. These emergencies may arise from natural causes, accidental exposure, or intentional acts, such as bioterrorism. Under Section 319 of the Public Health Service Act (42 U.S.C. § 319), the Secretary of the Department of Health and Human Services (HHS) has the authority to declare a public health emergency, which often prompts hospitals and other healthcare providers to exceed their normal operating capacities.

Volusia County's overall vulnerability to public health emergencies is medium. The people of Volusia County are highly vulnerable to the spread of disease due to the population size and proximity to tourist hotspots with travelers from all over the country and the world. All jurisdictions in the county are similarly vulnerable.

All residents of Volusia County are potentially vulnerable to public health emergencies, though the severity of impact often varies across demographic groups. Particularly at risk are the very young and the elderly, whose immune systems are more susceptible to illness. Volusia County has previously experienced isolated cases of imported malaria and West Nile virus (WNV) encephalitis, though WNV is asymptomatic in 80% of cases. Recent outbreaks of dengue fever (DEN-1) in nearby Martin County underscore the potential for emerging infectious diseases to pose a future threat. Communities with high density are more likely to spread illnesses faster, such as Daytona Beach and Deltona.

Impacts

Although public health emergencies primarily impact human health, agriculture could serve as the source of an outbreak in rare cases, such as with foodborne illnesses or zoonotic diseases transmitted from livestock to humans. The residents with the highest risk for this type of transmission are those in agricultural parts of the county. See Agriculture for further details on vulnerable locations. However, property and infrastructure are not directly at risk in these scenarios.

The environment is unlikely to be directly affected by most public health emergencies, except in cases of bioterrorism or hazardous materials (HAZMAT) incidents, where contamination could impact air, soil, or water quality. For further details on these scenarios, see the HAZMAT/Terrorism sections of this report.

Public health emergencies can disrupt program operations, especially if key personnel become ill or are otherwise unavailable. Historically, Volusia County's Emergency Operations Center has not experienced significant operational disruptions due to public health emergencies. However, in the event of a widespread outbreak or pandemic, reduced staffing levels may necessitate virtual communications or remote work for some personnel. In extreme cases, the county may rely on support from neighboring jurisdictions through the Emergency Management Assistance Compact.

If the primary Volusia County Emergency Operation Center becomes contaminated, operations may shift to an alternate location to maintain continuity. Detailed contingency plans are outlined in the Volusia County Emergency Management (VCEM) Continuity of Operations Plan (COOP).

The consequences of public health emergencies for residents can range from temporary illness to long-term health issues or death, depending on the nature and scale of the event. Overwhelmed healthcare facilities may lead to crowded hospitals, long wait times for treatment, and limited availability of medications or vaccines.

Emergency responders are also at risk during public health emergencies, as they may be exposed to contagious diseases or hazardous substances. To protect themselves, responders may need vaccinations, protective equipment, and training to safely navigate these incidents.

A widespread public health emergency could have significant economic repercussions for Volusia County. High infection rates may reduce workforce availability, leading to interruptions in business operations and consumer spending. Early detection, vaccination programs, and public health interventions are critical for minimizing these economic disruptions. Tourism activities could also be slowed or halted, disrupting the entire county.

Maintaining public confidence in governance is a key component of managing a public health emergency. The Volusia County Health Department plays a vital role in monitoring air and water quality, tracking emerging infectious diseases, and providing educational resources to residents. The department also coordinates hospital preparedness programs and healthcare coalitions to ensure a robust response to public health threats. Through its transparency and preparedness efforts, including online resources and public outreach campaigns, VCHD demonstrates its capacity to protect public health. This proactive approach minimizes the potential for a loss of public confidence during a crisis.

6.11 RISING COASTAL WATERS

Vulnerability

Rising coastal water is a significant hazard for Volusia County, encompassing storm surge, sea level rise, and tsunamis. This combination of immediate, catastrophic threats and long-term challenges has the potential to impact on the county's population, property, environment, economy, and government operations. The risks are particularly acute in coastal and low-lying areas near the Atlantic Ocean, Indian River Lagoon, Halifax River, St. Johns River, and other water-adjacent regions.

The municipalities most at risk are displayed in **Section 6 Table 6** and **Figure 6.** Rising coastal water poses the greatest risk to: Daytona Beach, Daytona Beach Shores, Edgewater, Holly Hill, New Smyrna Beach, Oak Hill, Ormond Beach, Ponce Inlet, Port Orange, south Daytona, and Unincorporated Volusia County due to its geographic proximity to the coast. Continued development along the shoreline also increases vulnerability to rising coastal waters for existing and future residents in these jurisdictions.

Residents in coastal areas of Volusia County face varying levels of risk from rising coastal water events.

- **Storm Surge:** The eastern portion of the county is highly susceptible to storm surge during hurricanes, with the worst-case scenario (Category 5 hurricane) potentially causing inundation almost as far inland as Interstate 95. Vulnerable populations in areas like Ponce Inlet, Daytona Beach Shores, and Ormond Beach face the highest immediate risks.
- **Tsunamis:** Although the U.S. Atlantic coast has a very low tsunami risk, the potential for significant impact exists. Coastal populations could experience rapid inundation, particularly in densely populated areas along the Halifax River and Atlantic coast. Tsunami events would likely allow for a minimum six-hour warning, enabling evacuation of at-risk populations. The most likely scenario for a tsunami in Volusia County would be triggered by a seismic event in Puerto Rico or off the western coast of Africa. Such events can affect populations thousands of miles away.
- **Sea Level Rise:** Sea level rise is currently being studied as a vulnerability to properties located near oceans, and many areas of eastern Volusia County would be inundated with water if sea level rise occurs as modeled by the U.S. Army Corps of Engineers. This long-term hazard poses no immediate threat to life but increases vulnerability to storm surge and coastal flooding over time. Impacts to residents in areas near the Indian River Lagoon, Halifax River, and St. Johns River are expected to escalate between 2040 and 2070.

Impacts

Rising coastal water poses substantial risks to property across Volusia County.

- **Storm Surge:** Coastal and low-lying areas east of Interstate 95, including properties along Spruce Creek and the Tomoka River, are vulnerable to storm surge inundation. Key at-risk locations include:
    - Barrier islands in Daytona Beach Shores and Ponce Inlet, which contain critical facilities like fire stations and city halls.
    - Infrastructure along the Halifax River, Indian River Lagoon, and Mosquito Lagoon, such as bridges (Main Street, Highbridge, Silver Beach, and North Bridge in New Smyrna Beach).
    - Iconic landmarks like the Ponce Inlet Lighthouse and Daytona Beach's Main Street Pier.
- **Tsunamis:** Property impacts would mirror those of a major storm surge, with debris transported inland, structural foundations compromised, and critical infrastructure disrupted.

- **Sea Level Rise:** Long-term property damage is expected in coastal areas adjacent to the Atlantic Ocean, Indian River Lagoon, Halifax River, and St. Johns River. Facilities near water bodies may require relocation, especially those handling hazardous materials. Saltwater intrusion could deteriorate stormwater infrastructure, including outfalls, lift stations, and pump stations, while older structures face heightened risks of damage.

The environmental impacts of rising coastal water in Volusia County are significant and varied.

- **Storm Surge and Tsunamis:** These events can devastate ecosystems, introducing saltwater into sensitive estuaries like the Indian River Lagoon and Halifax River. Saltwater intrusion into aquifers, the county's primary drinking water source, would be particularly harmful. Inundation could also damage dune systems and spread sewage and pollutants into the environment.
- **Sea Level Rise:** Coastal and riverbank ecosystems, including beaches and dune systems, are at risk of long-term degradation. Sensitive habitats, such as those for marine turtles, could face irreversible damage. Saltwater intrusion into stormwater infrastructure may exacerbate environmental harm.

The economic consequences of rising coastal water are profound. **Section 6 Table 7** and **Table 8** display financial exposures.

- **Storm Surge:** Damage to homes, businesses, and tourism infrastructure would result in substantial economic losses. A Category 5 hurricane could result in damages exceeding $1 billion, while impacts on tourism—a cornerstone of the county's economy—would be severe.
- **Sea Level Rise:** Gradual loss of property values, businesses, and community assets such as beaches will weaken the economic foundation of coastal areas. Investments in mitigation can reduce long-term risks but require substantial funding in the near term.
- **Tsunamis:** Like storm surge, tsunamis would devastate tourism, disrupt businesses, and impact the property tax base.

Public confidence in government could be significantly influenced by how rising coastal water events are managed.

- **Storm Surge and Tsunamis:** Delays in recovery or perceived inefficiencies could diminish public trust.
- **Sea Level Rise:** Public dissatisfaction could stem from either perceived inaction or over-investment in mitigation efforts. Balancing proactive measures with economic constraints is critical.

Rising coastal water could strain government operations and continuity.

- **Storm Surge and Tsunamis:** Response and recovery operations could be overwhelmed by the scale of damage, requiring mutual aid from adjacent counties, the state, and FEMA. Program operations may take months to return to normal.
- **Sea Level Rise:** While its effects are gradual, proactive relocation of facilities and infrastructure will be necessary to maintain operational continuity.

Volusia County has taken substantial steps to address these hazards, including participation in:

- The East Central Florida Regional Resiliency Action Plan and Resilience Collaborative.
- Sea level rise studies conducted by the Florida Department of Environmental Protection (FDEP).
- Development of a tsunami response plan and analysis of storm surge vulnerabilities.

These efforts, combined with the county's focus on adaptive strategies, demonstrate a commitment to protecting its residents, economy, and natural resources from the multifaceted threats posed by rising coastal water.

The interconnected challenges of storm surge, sea level rise, and tsunamis necessitate a comprehensive and adaptive approach. By leveraging regional collaboration, scientific research, and proactive planning, Volusia County can mitigate risks and build resilience to safeguard its future against the impacts of rising coastal water.

Storm surge data was obtained from the NOAA National Hurricane Center, which uses the hydrodynamic Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model to simulate storm surges from tropical cyclones. Storm surge composites – Maximum Envelopes of Water (MEOWs) and Maximum of MEOWs (MOMs) – are created to assess and visualize storm surge risk under varying conditions. This analysis used MOMs, which show maximum storm surge heights for each hurricane category.[3]

[3] https://www.nhc.noaa.gov/nationalsurge/?text

Section 6 Table 6 shows the number of properties at risk, per jurisdiction, to Category 1, Category 3 and Category 5 storm surge effects. The table corresponds with **Section 6 Figure 6**, which depicts the storm surge hazard zones.

Section 6: Table 6: Properties at Risk to Category 1/3/5 Storm Surge by Jurisdiction

JURISDICTION	Properties at Risk (Cat. 1)	Properties at Risk (Cat. 3)	Properties at Risk (Cat. 5)
Daytona Beach	2,548	11,700	17,070
Daytona Beach Shores	641	1,113	1,316
DeBary	-	-	-
DeLand	-	-	-
Deltona	-	-	-
Edgewater	666	5,862	12,452
Holly Hill	278	2,654	5,437
Lake Helen	-	-	-
New Smyrna Beach	6,748	13,105	14,273
Oak Hill	620	1,718	1,837
Orange City	-	-	-
Ormond Beach	5,573	5,596	16,156
Pierson	-	-	-
Ponce Inlet	1,252	1,865	2,059
Port Orange	5,197	11,027	15,453
South Daytona	3,905	5,216	5,324
Unincorporated	6,019	12,636	23,323
TOTAL	**29,447**	**72,492**	**114,700**

Sources: NOAA National Hurricane Center, Volusia County Property Appraiser Data (2024)

Section 6: Table 7: Property Financial Exposure to Storm Surge Zones (by Hurricane Category)

Hazard Zone	Properties	Land Value	Building Value	Assessed Value	County Taxable Value
Category 1	29,447	$5,695,379,097	$8,590,261,772	$14,285,640,870	$9,100,097,404
Category 2	47,855	$7,783,692,785	$12,513,410,495	$ 20,297,103,281	$12,707,503,091
Category 3	72,492	$10,040,742,120	$17,391,421,198	$27,432,163,319	$6,992,999,337
Category 4	101,794	$12,625,555,628	$23,968,191,165	$36,593,746,794	$22,494,898,569
Category 5	114,700	$ 13,949,115,459	$27,809,655,741	$41,758,771,201	$25,593,734,627

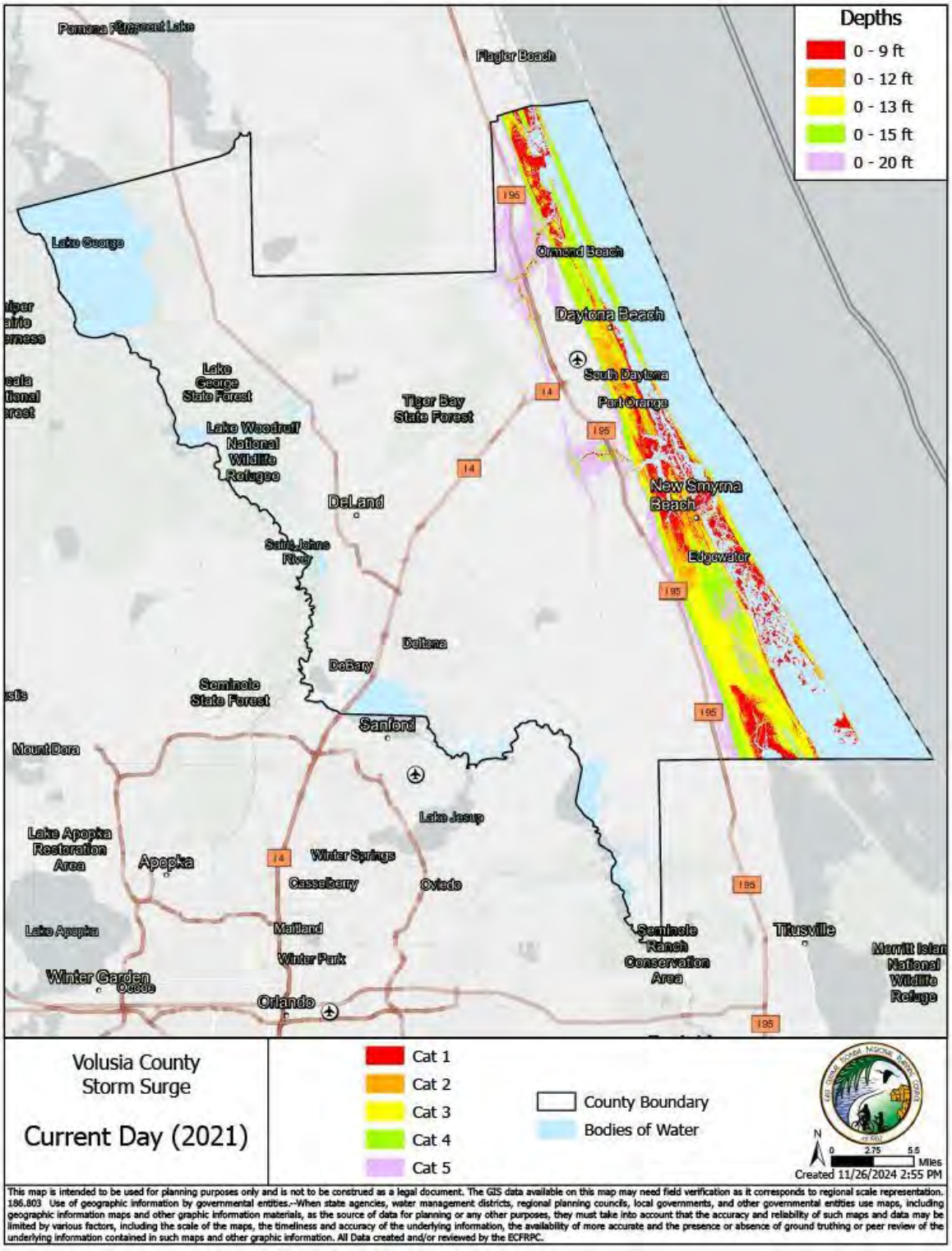
Source: NOAA NHC, Volusia County Property Appraiser Data (2024)

Section 6: Table 8: Property Financial Exposure to Sea Level Rise

Jurisdiction	Properties	Land Value	Building Value	Assessed Value	County Taxable Value
Daytona Beach	1,795	$169,014,252	$629,417,387	$798,431,640	$664,021,379
Daytona Beach Shores	2,506	$111,725,822	$1,035,616,002	$1,147,341,824	$983,518,299
Ormond Beach	635	$145,553,584	$423,703,299	$569,256,883	$484,558,201
Ponce Inlet	337	$63,575,696	$153,180,138	$216,755,834	$183,980,752
Unincorporated	1,857	$129,003,996	$543,256,684	$672,260,680	$524,005,469

Source: ECFRPC, Florida Fish and Wildlife, Volusia County Property Appraiser Data (2024)

Section 6: Figure 6: Current Day Storm Surge



Source: ECFRPC, Volusia County VA

6.12 SEVERE WEATHER

Vulnerability

Severe weather, including hail, lightning, and thunderstorms, is a recurring concern in Volusia County. Each hazard poses unique threats to populations, property, and infrastructure, but come with little to no warning. It encompasses a range of phenomena that are more extreme than typical weather conditions. Severe weather events can impact all areas of Volusia County, depending on the location of the storm, its direction, and its lateral speed across the Earth's lower atmosphere. These events can cause damage to structures, disruption of utilities and surface/air transportation.

Vulnerability to severe weather is medium due to its frequency in nature combined with our ability to monitor and predict when severe weather will impact Volusia County and its jurisdictions. While severe weather can have damaging effects on people and property, widespread awareness and lead time before storms reduces our overall vulnerability to its effects. Vulnerability to severe weather is consistent throughout all jurisdictions.

Hailstorms can occur unpredictably across Volusia County, impacting all buildings, facilities, and populations equally. Hailstones in Florida are typically penny to quarter-sized but can occasionally grow as large as golf balls or baseballs, causing significant damage to property and infrastructure. Vulnerable areas of structures include roofs, windows, and pool screens, as well as exposed personal property like vehicles and outdoor decor. Communication facilities may be at a higher risk of a lightning strike, while school assets such as football stadiums with lighting could also be at an increased level of vulnerability. Structures that are isolated in areas of low tree coverage are at a higher risk for lightning strikes. Jurisdictions within the county where this could be more common include DeLand, Lake Helen, Orange City, and Pierson. These areas are generally more rural in nature and have a higher rate of isolated critical facilities and structures.

In situations where tornadoes are present, hail may have a higher likelihood of being present. Moreover, structures that have partial or full tree coverage could have lessened property damage due to hail as a result of the slowing speed of the hail before impact with property. Severe hail can also damage emergency vehicles and communication systems, disrupting response efforts.

Beachside structures located near or along the Atlantic Ocean are also at a higher vulnerability to lightning damage due to historical occurrences. There are not many critical facilities located along the Atlantic Ocean in Volusia County, as the majority of those facilities are located inland along the barrier islands or are located west of the Intracoastal Waterway. Vulnerable areas for lightning include recreational spaces, golf courses, and the county's 47 miles of Atlantic Ocean beaches, where tourists and residents engaging in outdoor activities face heightened risks. Lightning is a dangerous threat to people in the United States, particularly those who are outside during the summer. The number one area for fatalities due to lightning strikes is open fields, making Volusia County's 47 miles of Atlantic Ocean beach among the most dangerous in the County. This heightens the risk for the tourist population who may be unaware of the imminent danger of quickly approaching tropical systems that emit lightning.

Communication systems and power sources are among the most vulnerable land uses to this hazard due to their electrical nature. Volusia County has approximately 30 golf courses, along with private and public recreational facilities, the Daytona Beach International Speedway and 2 additional smaller outdoor

racetracks, 2 intracoastal waterways traversing the county, school facilities, and parks located throughout the County. Individuals participating in the following recreational activities could be vulnerable to lightning including: golf, football, baseball, soccer, surfing, horseback riding, walking, jogging, tennis, boating, fishing, kite flying, kayaking, paddle boarding, beach activities, picnicking, camping, hiking, gardening, hunting, swimming, basketball, softball, cycling, wind surfing, lacrosse, archery, track and field events, stock car races, outdoor festivals and numerous other outdoor activities. It is estimated that at least 75% of the population participates in at least one of these recreational activities and is thus vulnerable to lightning.

Thunderstorms are frequent throughout the year in Volusia County, often bringing high winds, hail, and lightning. From 2019 to 2024, the county experienced 14 severe thunderstorm events, causing $23,000 in property damage. Downed trees, power outages, and damage to homes and infrastructure are common consequences. Unhoused populations, outdoor event spectators, and those engaging in recreational activities are particularly vulnerable.

Impacts

Lightning can spark structure fires, damage electrical systems, and contribute to wildfire during dry seasons. Critical facilities with tall antennas, isolated structures, or those in rural areas like DeLand, Lake Helen, Orange City, and Pierson are at increased risk of lightning strikes. Beachside properties, including hotels and utilities, are also vulnerable. As it cannot be predicted where lightning may strike, all existing and future buildings, facilities and populations in Volusia County are exposed to this hazard and could potentially be impacted. As the lightning capital of the U.S., Florida experiences a high frequency of lightning strikes, with Volusia County recording approximately 4,000 lightning strikes weekly during summer.

Beachside structures located near or along the Atlantic Ocean are also at a higher vulnerability to lightning damage. Many utilities are in these locations. Most of the buildings located along the beach are hotels, businesses and high-rise condos. There are not many critical facilities located along the Atlantic Ocean in Volusia County, as the majority of those facilities are located inland along the barrier islands or are located west of the Intracoastal Waterway.

Thunderstorms frequently occur in Volusia County. Since it cannot be predicted where thunderstorms may occur, all existing and future buildings, facilities and populations are exposed to this hazard and could potentially be impacted. Thunderstorm winds can disrupt transportation and utilities, while heavy rain may lead to localized flooding. Critical roadways may be blocked by downed trees or power lines, complicating emergency response. Thunderstorms can also exacerbate other hazards, such as hail and lightning, increasing their overall impact on the county.

While severe weather generally has minimal long-term environmental impacts, it can cause immediate issues such as downed vegetation, localized flooding, and occasional wildfires. Economically, damages are often covered by insurance, limiting their broader impact on the local economy.

Volusia County Emergency Management has systems in place to maintain operations during severe weather events. Redundant communication systems, backup power, and a Continuity of Operations Plan (COOP) ensure the county can respond effectively, even in catastrophic scenarios. However, responders

may face challenges such as blocked roads, downed power lines, and unsafe conditions caused by lightning or hail.

Public confidence in government is unlikely to be significantly affected by severe weather events, as Volusia County provides timely information through NOAA weather radios, social media, and the county's website. Recovery efforts for most severe weather events are typically completed within days.

6.13 TORNADO

Vulnerability

Historical evidence confirms that Volusia County is vulnerable to tornadoes, which can result from severe thunderstorms, tropical storms, or hurricanes. These hazards are unpredictable, with no specific area immune from their potential impacts. All buildings, facilities, and populations in Volusia County are considered exposed to tornadoes, regardless of location. Vulnerable populations, such as the unhoused, elderly, and lower-income residents, are particularly at risk, as are those living in mobile home parks and manufactured housing communities. Volusia County has mobile home/manufactured home parks throughout the county, both east and west sides which are equally vulnerable to impacts of tornadoes. Many of the parks are 55 and older only while others have very old mobile homes that are not built to today's standards, leaving the elderly and low-income populations more at risk. Many of these structures, particularly older ones, are not built to current building standards, making them highly susceptible to damage from high winds and flying debris. **Section 6 Table 9** displayed each jurisdiction's number of homes and when the homes were built. Daytona Beach and Unincorporated Volusia have the highest number of homes built pre-1969, making residents of those jurisdictions more vulnerable.

Impacts

While tornadoes are relatively rare in Volusia County compared to other hazards, they can have devastating effects when they occur. The strongest tornado to impact Volusia County was an EF3, capable of leveling well-constructed buildings, uprooting trees, and creating automobile-sized projectiles that can travel for miles. Although large tornadoes are uncommon, their potential for destruction makes them a significant threat to both life and property.

Two primary types of tornadoes typically impact Volusia County. Larger tornadoes, in the EF2 to EF4 range, often form in central Florida near the Orlando metropolitan area and tend to move from the west-southwest to the east-northeast. These tornadoes cover large areas and are more likely to affect the western portions of Volusia County, particularly near its borders with Seminole and Lake Counties. Historical patterns suggest that tornado activity often reaches the eastern coastline after being detected in Central Florida, offering some warning for communities in the storm's path.

Smaller tornadoes, typically in the EF0 to EF1 range, occur more frequently in Volusia County and are less predictable. These tornadoes do not follow consistent geographic patterns, and their touchdowns can appear randomly. Despite this, a disproportionate number of these smaller tornadoes have been observed near the Intracoastal Waterway. Rarely have tornadoes been recorded crossing Interstate 95 in Volusia County, further illustrating the widespread vulnerability of the area to these storms.

The consequences of tornadoes on property, infrastructure, and the environment can be severe. Tornadoes can demolish homes, businesses, and critical facilities, while also disrupting utilities such as power and communication systems. Roads may become impassable due to debris, downed trees or power lines, and complicated emergency response efforts. Older structures are particularly vulnerable, as building codes have become more stringent over time to better withstand high winds. Infrastructure in the western portions of the county faces higher risks from larger tornadoes, which develop over longer periods and allow less time for mitigation or protective measures. Thus, critical facilities at the highest risk for strong tornado damage (and loss of human life) would generally be those located in the western portion of the

county due to the shorter duration of time allowed for mitigation of these properties in the event of an incoming storm.

The environmental impacts of tornadoes vary depending on their intensity. Even weaker EF0 tornadoes can uproot trees and vegetation, while stronger tornadoes can scatter debris over great distances, sometimes miles from the point of origin. This debris can contaminate waterways or cause secondary hazards if it includes hazardous materials from damaged vehicles or storage facilities. Agencies such as Volusia County Environmental Management and the County Health Department would monitor these environmental impacts to mitigate risks.

Emergency response efforts in the aftermath of a tornado are critical but can be challenging. Search and rescue operations may be required in heavily impacted areas, and responders may encounter destroyed communication systems, missing landmarks, and blocked roadways. Power lines and debris present additional hazards, necessitating extreme caution for first responders. Despite these challenges, the Volusia County Emergency Operations Center is fortified to withstand an EF4 tornado, ensuring its continued operation even during severe events. In the unlikely event of direct damage to the VCEOC, alternative plans outlined in the COOP would allow emergency services to continue without significant interruption.

Tornadoes also pose economic risks to the county. While smaller tornado events may only have a localized impact, larger tornado outbreaks can devastate entire communities, crippling local economies and requiring substantial recovery resources. Assistance from the Volusia County Community Organizations Active in Disaster (COAD), including the American Red Cross, would be mobilized to support affected residents and businesses.

Public awareness and preparedness play crucial roles in mitigating the impacts of tornadoes. The county utilizes NOAA weather radios, social media platforms, and premade media materials to disseminate information during and after tornado events. Some communities in Volusia County are equipped with tornado sirens and safe rooms, further enhancing public safety during these hazardous events.

In conclusion, while tornadoes are not as frequent as other hazards in Volusia County, their potential for catastrophic damage makes them a significant concern. All areas and populations within the county are at risk, and continued efforts in preparedness, infrastructure hardening, and public education remain essential to minimizing their impact and ensuring the safety and resilience of the community.

Section 6: Table 9: Year Range of Built Homes for each Municipality

JURISDICTION	Pre- 1969	1970-1979	1980-1989	1990-1999	2000-2024
Daytona Beach	10,816	3,919	4,114	1,090	8,353
Daytona Beach Shores	578	1,257	1,842	1,276	1,637
DeBary	1,562	735	1,577	2,120	3,567
DeLand	2,767	1,114	587	815	8,120
Deltona	2,568	4,325	12,629	6,455	10,181
Edgewater	1,111	1,173	3,517	1,518	2,969
Holly Hill	2,490	600	664	174	834
Lake Helen	399	223	164	414	232
New Smyrna Beach	3,370	3,391	3,506	1,671	7,095
Oak Hill	176	107	183	129	483
Orange City	682	366	588	345	1,251
Ormond Beach	4,318	3,537	3,736	2,029	3,593
Pierson	228	93	91	47	81
Ponce Inlet	88	612	568	739	1,059
Port Orange	1,331	3,984	6,819	3,895	6,585
South Daytona	1,714	1,261	980	449	517
Unincorporated	12,400	8,877	10,243	6,916	13,829

Sources: Volusia County Property Appraiser Data (2024). Some properties were not provided with a land use code by VCPAO.

6.14 TROPICAL CYCLONE

Vulnerability

Tropical cyclones, encompassing hurricanes and tropical storms, pose significant risks to Volusia County. The overall vulnerability of tropical cyclones is high within all jurisdictions of Volusia County. The possibility of harm to humans, high property damage, and potential infrastructure losses all combine to make tropical cyclones one of the highest threat hazards. Volusia County is vulnerable to tropical cyclones to a similar level in all jurisdictions because of the spatial extent of a hurricane or tropical storm. The LMS works to protect critical infrastructure and residents in order to reduce the vulnerability of the community.

These events often affect large areas and cross jurisdictional boundaries, exposing all existing and future buildings, facilities, and populations to potential impacts. Volusia County has a lower risk compared to other areas of the state such as the western panhandle and southeastern Florida.

The county's coastal region, home to over 45% of the population, is particularly vulnerable. Vulnerable populations, including the unhoused, disabled, elderly, and lower-income residents, face heightened risks during these events. Additionally, residents living on the barrier islands or adjacent to the Intracoastal Waterway system are particularly susceptible due to their proximity to storm surge zones and areas prone to flooding.

Impacts

Critical infrastructure, including communication systems and power sources, is vulnerable to tropical cyclones. These storms bring a combination of high winds, flooding, coastal erosion, and heavy precipitation, making it challenging to estimate total potential losses. Historical data suggest that Volusia County is at a relatively lower risk for direct impacts compared to areas like the western Florida Panhandle or southeastern Florida. However, regions closer to the Atlantic Ocean or in the southeastern part of the county face the highest risk of wind damage.

This area also drives much of the county's tourism, which faces significant disruption during tropical cyclone events. One of Volusia County's most significant hurricane seasons on record occurred in 2004, with Hurricanes Charley, Frances, and Jeanne causing back-to-back impacts. While Charley was the only storm to bring hurricane-force winds to the county, the cumulative effects of these storms caused extensive damage to homes, infrastructure, and the environment. Over 40% of homes sustained damage, and the total economic losses exceeded $560 million. Annualized losses to residential buildings in the county are estimated at over $280 million, with an additional $70 million in annualized losses for non-residential structures.

Beyond high winds, tropical cyclones bring cascading hazards, including inland flooding, tornadoes, storm surge, and severe beach erosion. These hazards significantly impact on the environment, causing downed trees, eroded coastal dunes, and loss of animal habitat, like sea turtle nesting areas. Additionally, debris and hazardous materials may wash into waterways, further harming sensitive ecosystems. The monetary cost of erosion alone is challenging to calculate as it often occurs alongside other impacts. Agencies such as Volusia County Environmental Management and the County Health Department play vital roles in monitoring and mitigating environmental consequences.

Program operations and emergency response efforts can be strained during a major tropical cyclone, particularly a Category 3 or higher hurricane. While routine operations generally continue during tropical depressions or weaker storms, a direct hit from a significant hurricane could severely disrupt county functions. In such cases, Volusia County may require assistance from neighboring counties, the state, or FEMA through mutual aid agreements like the Emergency Management Assistance Compact (EMAC). Recovery may take months or even years to return operations to pre-storm levels, depending on the storm's severity.

The public faces numerous challenges during and after tropical cyclones, including injuries, fatalities, destruction of homes and businesses, and prolonged disruptions to essential services like water, power, and sewage. Recovery is often costly, time-consuming, and emotionally taxing for affected residents, even with insurance or disaster assistance. These events can have lasting psychological impacts, especially on those who experience repeated storm impacts. All residents are vulnerable.

Responders face extreme challenges in tropical cyclone events. Downed trees, power lines, damaged infrastructure, and impassable roads complicate rescue and recovery efforts. Critical facilities such as the EOC, fire stations, hospitals, and government buildings may also sustain damage, limiting their functionality. Responders must operate with heightened awareness of their risks, especially in hazardous conditions caused by the storm.

The economic consequences of tropical cyclones are substantial. The 2004 hurricane season remains the costliest disaster in Volusia County's history, with damages to tourism alone amounting to millions of dollars per day. Recovery from a single major hurricane can take years, with long-term financial impacts on the county and affected communities.

To mitigate these risks and maintain public confidence, the Volusia County Emergency Management has implemented various preparedness and public awareness initiatives. These include a video disaster preparedness guide, behavioral surveys following hurricane evacuations, public presentations, and an annual media campaign in collaboration with local outlets like the Daytona Beach News Journal. During hurricane events, the Public Information Office (PIO) uses pre-prepared materials and social media campaigns to provide timely updates. Year-round preparedness information can be disseminated through the county's weekly Podcast called Volusia Today.

Through these efforts, Volusia County Emergency Management aims to ensure residents are informed and confident in the county's ability to respond to and recover from tropical cyclones. These storms remain a significant threat to Volusia County, necessitating ongoing vigilance and community resilience to minimize the impacts.

Section 6: Tables 10-14 display individual municipalities vulnerability and potential financial impacts. **Section 6: Figures 7-11** display the jurisdictions most vulnerable to tropical cyclone wind.

Section 6: Table 10:Total Exposure and Potential Losses from Tropical Storm 10 Year Wind Event

JURISDICTION	Category Storm	Total Properties Impacted	Total Improved Value	Total County Taxable Value
Daytona Beach	Tropical Storm (10 Year Wind)	30,119	$12,633,494,317	$7,749,648,103
Daytona Beach Shores	Tropical Storm (10 Year Wind)	1,996	$882,003,599	$738,195,556
DeBary	Tropical Storm (10 Year Wind)	10,711	$3,435,586,766	$1,891,223,406
DeLand	Tropical Storm (10 Year Wind)	14,334	$4,967,030,224	$2,807,390,723
Deltona	Tropical Storm (10 Year Wind)	38,625	$10,394,231,629	$4,998,200,319
Edgewater	Tropical Storm (10 Year Wind)	15	$29,363,698	$1,306,086
Holly Hill	Tropical Storm (10 Year Wind)	5,918	$1,396,507,074	$940,757,855
Lake Helen	Tropical Storm (10 Year Wind)	1,611	$380,061,877	$187,817,740
New Smyrna Beach	Tropical Storm (10 Year Wind)	4,550	$1,792,674,363	$1,085,721,035
Oak Hill	Tropical Storm (10 Year Wind)	NA	NA	NA
Orange City	Tropical Storm (10 Year Wind)	4,152	$1,804,174,621	$1,132,329,161
Ormond Beach	Tropical Storm (10 Year Wind)	19,640	$8,159,700,002	$5,171,008,626
Pierson	Tropical Storm (10 Year Wind)	998	$201,935,655	$75,064,369
Ponce Inlet	Tropical Storm (10 Year Wind)	2	$1,602,240	$-
Port Orange	Tropical Storm (10 Year Wind)	21,960	$8,081,425,788	$4,806,901,213
South Daytona	Tropical Storm (10 Year Wind)	5,744	$1,603,899,506	$995,389,225
Unincorporated	Tropical Storm (10 Year Wind)	58,314	$17,039,658,509	$8,978,042,429
Total		**218,689**	**$72,803,349,868**	**$41,558,995,846**

Section 6: Table 11: Total Exposure and Potential Losses from Category 1 Hurricane 10 Year Wind Event

JURISDICTION	Category Storm	Total Properties Impacted	Total Improved Value	Total County Taxable Value
Daytona Beach	Category 1 (10 Year Wind)	92	$53,804,064	$27,475,696
Daytona Beach Shores	Category 1 (10 Year Wind)	5,068	$2,030,402,176	$1,648,277,480
Edgewater	Category 1 (10 Year Wind)	11,391	$3,194,704,166	$1,760,195,467
New Smyrna Beach	Category 1 (10 Year Wind)	14,973	$8,240,653,427	$5,484,596,621
Oak Hill	Category 1 (10 Year Wind)	1,508	$347,201,180	$174,501,154
Ponce Inlet	Category 1 (10 Year Wind)	3,501	$1,905,167,040	$1,371,503,690
Port Orange	Category 1 (10 Year Wind)	2,149	$540,957,713	$331,306,371
Unincorporated	Category 1 (10 Year Wind)	9,540	$3,814,506,610	$2,446,202,323
Total		**106,536**	**$37,167,054,885**	**$22,222,101,231**

Section 6: Table 12: Total Exposure and Potential Losses from Category 1 Hurricane 100 Year Wind Event

JURISDICTION	Category Storm	Total Properties Impacted	Total Improved Value	Total County Taxable Value
Pierson	Category 1 (100 Year Wind)	998	$201,935,655	$75,064,369
Unincorporated	Category 1 (100 Year Wind)	4,667	$1,091,440,399	$461,913,478
Total		**5,665**	**$1,293,376,054**	**$536,977,847**

Section 6: Table 13: Total Exposure and Potential Losses from Category 2 Hurricane 100 Year Wind Event

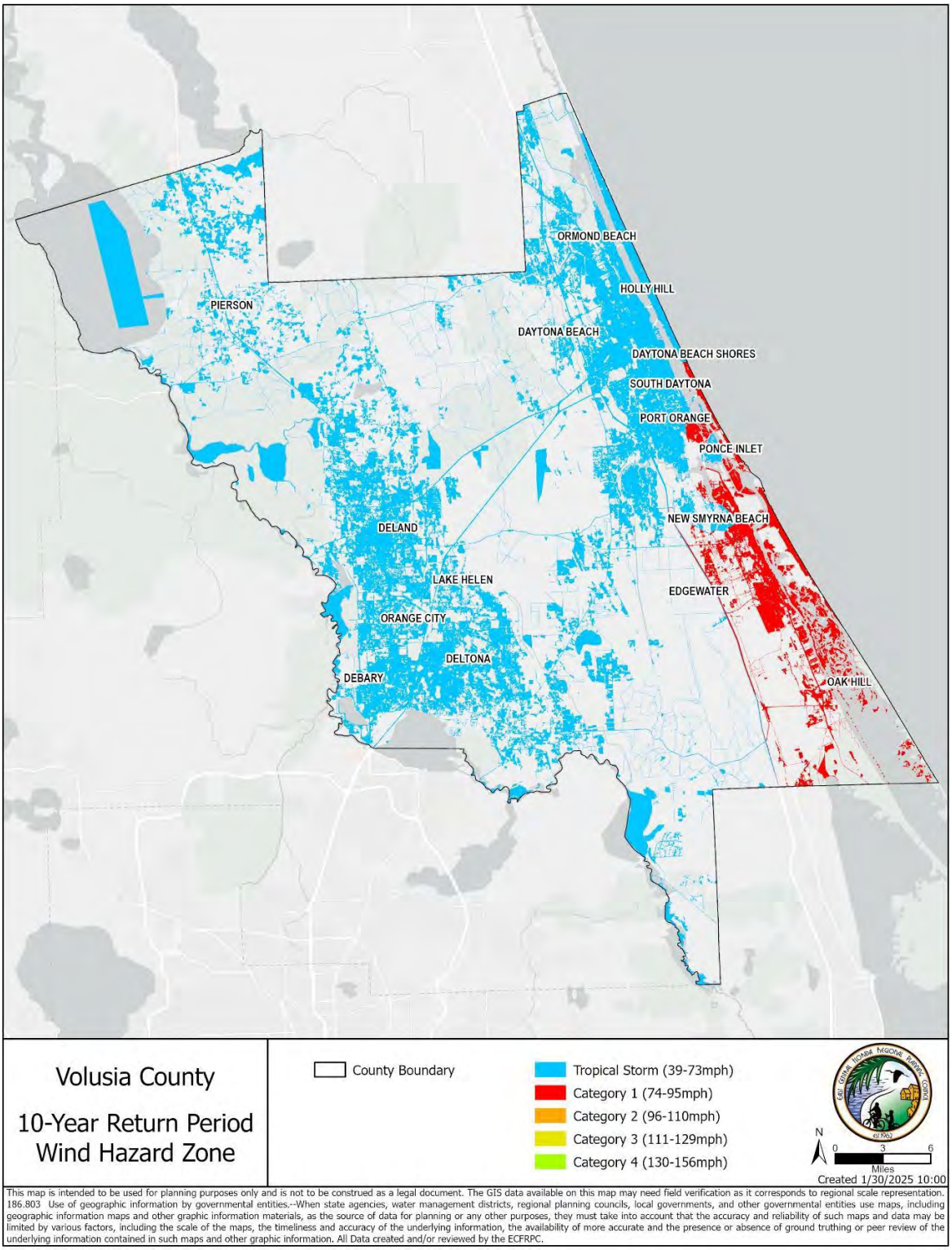
JURISDICTION	Category Storm	Total Properties Impacted	Total Improved Value	Total County Taxable Value
Daytona Beach	Category 2 (100 Year Wind)	30,211	$12,687,298,381	$7,777,123,799
Daytona Beach Shores	Category 2 (100 Year Wind)	5,384	$2,255,645,845	$1,818,525,882
DeBary	Category 2 (100 Year Wind)	10,711	$3,435,586,766	$1,891,223,406
DeLand	Category 2 (100 Year Wind)	14,334	$4,967,030,224	$2,807,390,723
Deltona	Category 2 (100 Year Wind)	38,625	$10,394,231,629	$4,998,200,319
Holly Hill	Category 2 (100 Year Wind)	5,918	$1,396,507,074	$940,757,855
Lake Helen	Category 2 (100 Year Wind)	1,611	$380,061,877	$187,817,740
New Smyrna Beach	Category 2 (100 Year Wind)	3,955	$1,230,060,289	$707,080,447
Orange City	Category 2 (100 Year Wind)	4,152	$1,804,174,621	$1,132,329,161
Ormond Beach	Category 2 (100 Year Wind)	19,640	$8,159,700,002	$5,171,008,626
Ponce Inlet	Category 2 (100 Year Wind)	2	$1,602,240	$-
Port Orange	Category 2 (100 Year Wind)	23,962	$8,585,291,721	$5,109,672,839
South Daytona	Category 2 (100 Year Wind)	5,744	$1,603,899,506	$995,389,225
Unincorporated	Category 2 (100 Year Wind)	48,474	$14,257,690,656	$7,695,806,165
Total		**218,388**	**$72,452,156,885**	**$41,769,304,034**

Section 6: Table 14: Total Exposure and Potential Losses from Category 3 Hurricane 100 Year Wind Event

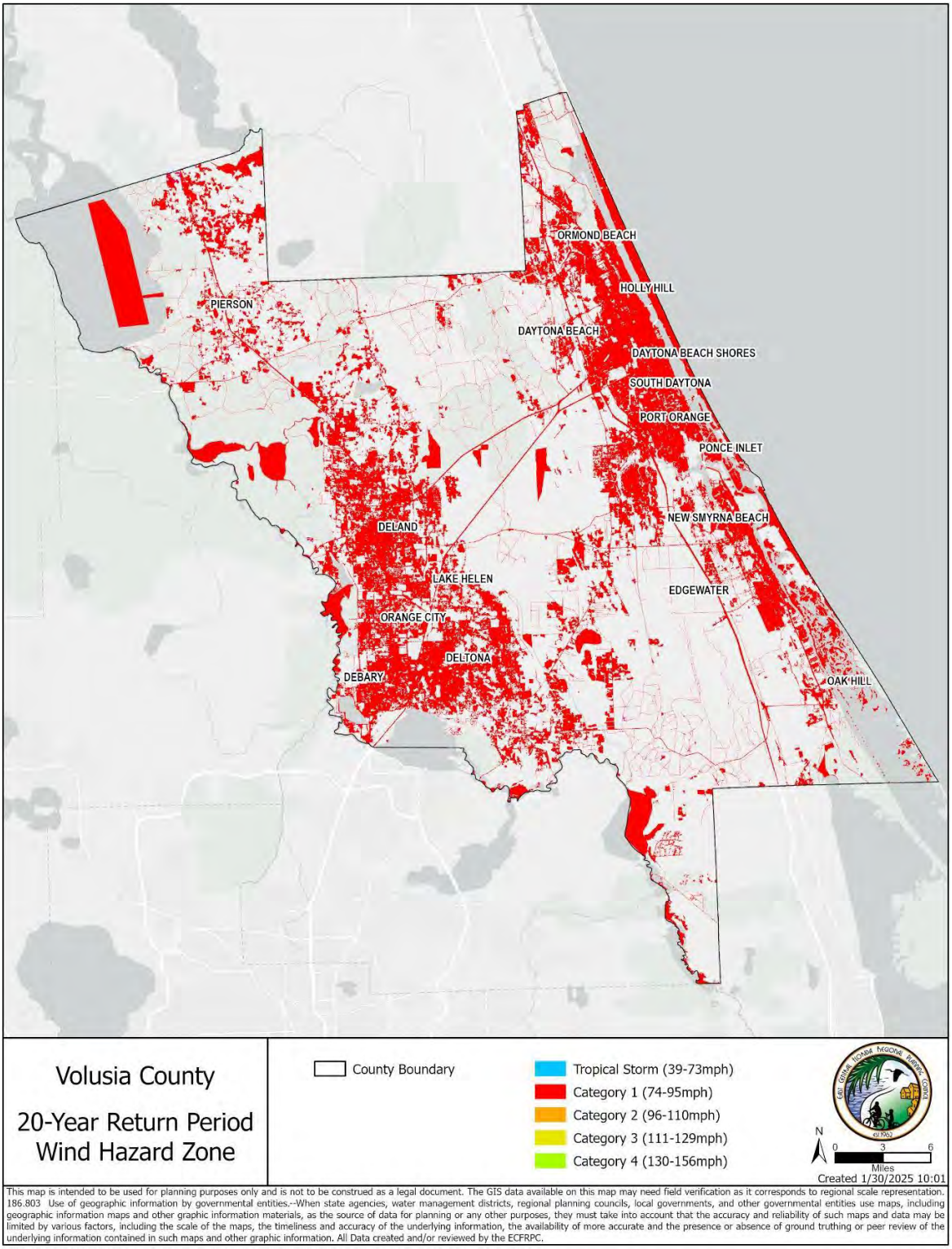
JURISDICTION	Category Storm	Total Properties Impacted	Total Improved Value	Total County Taxable Value
Daytona Beach Shores	Category 3 (100 Year Wind)	1,680	$656,759,930	$567,947,154
Edgewater	Category 3 (100 Year Wind)	11,406	$3,224,067,864	$1,761,501,553
New Smyrna Beach	Category 3 (100 Year Wind)	15,568	$8,803,267,501	$5,863,237,209
Oak Hill	Category 3 (100 Year Wind)	1,508	$347,201,180	$174,501,154
Ponce Inlet	Category 3 (100 Year Wind)	3,501	$1,905,167,040	$1,371,503,690
Port Orange	Category 3 (100 Year Wind)	147	$37,091,780	$28,534,745
Unincorporated	Category 3 (100 Year Wind)	14,713	$5,505,034,064	$3,266,525,109
Total		**96,997**	**$34,736,280,015**	**$20,729,556,779**

Sources: FDEM, HAZUS, Volusia County Property Appraiser Data (2024)

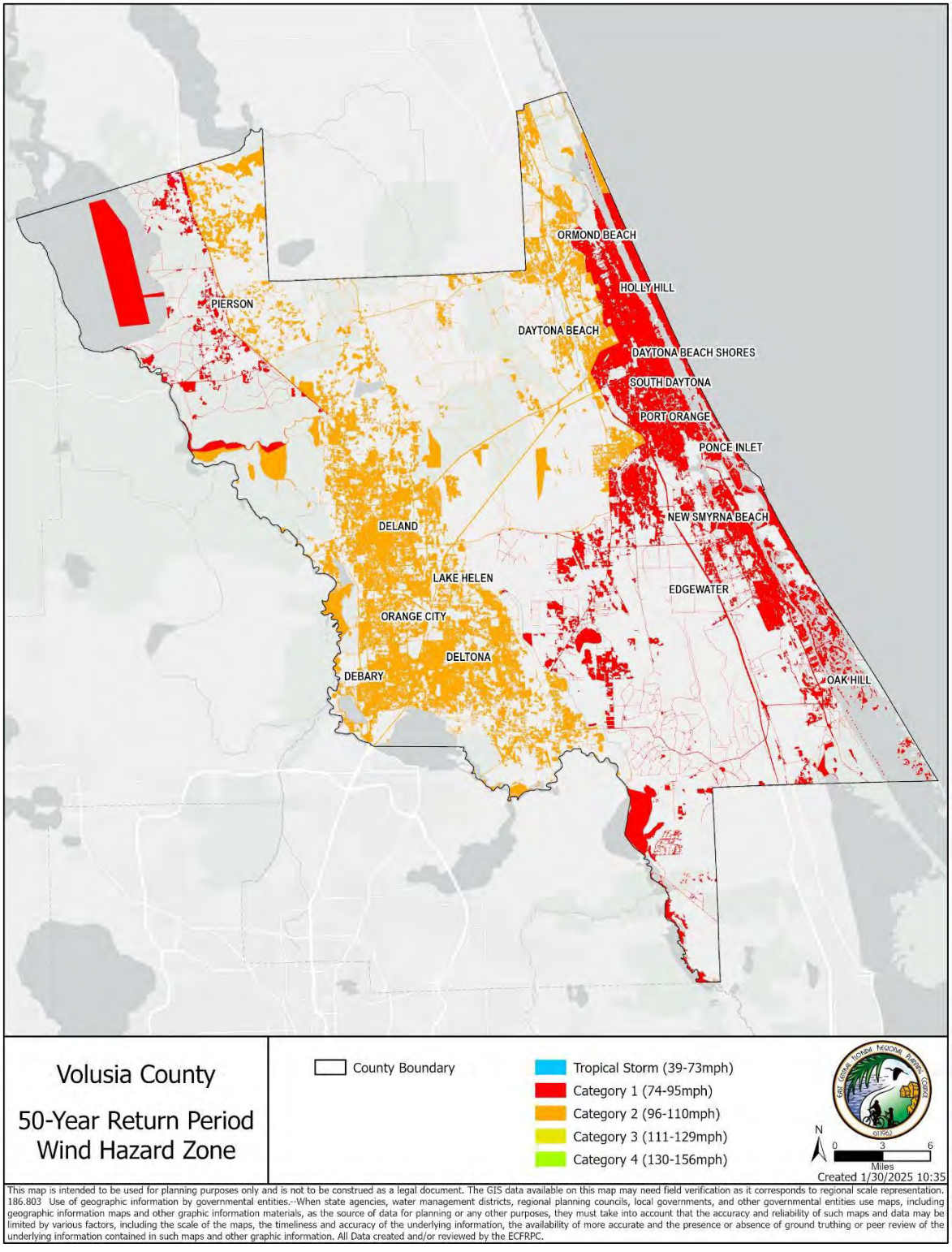
Section 6: Figure 7: Wind Hazard Zones 10-Year Event



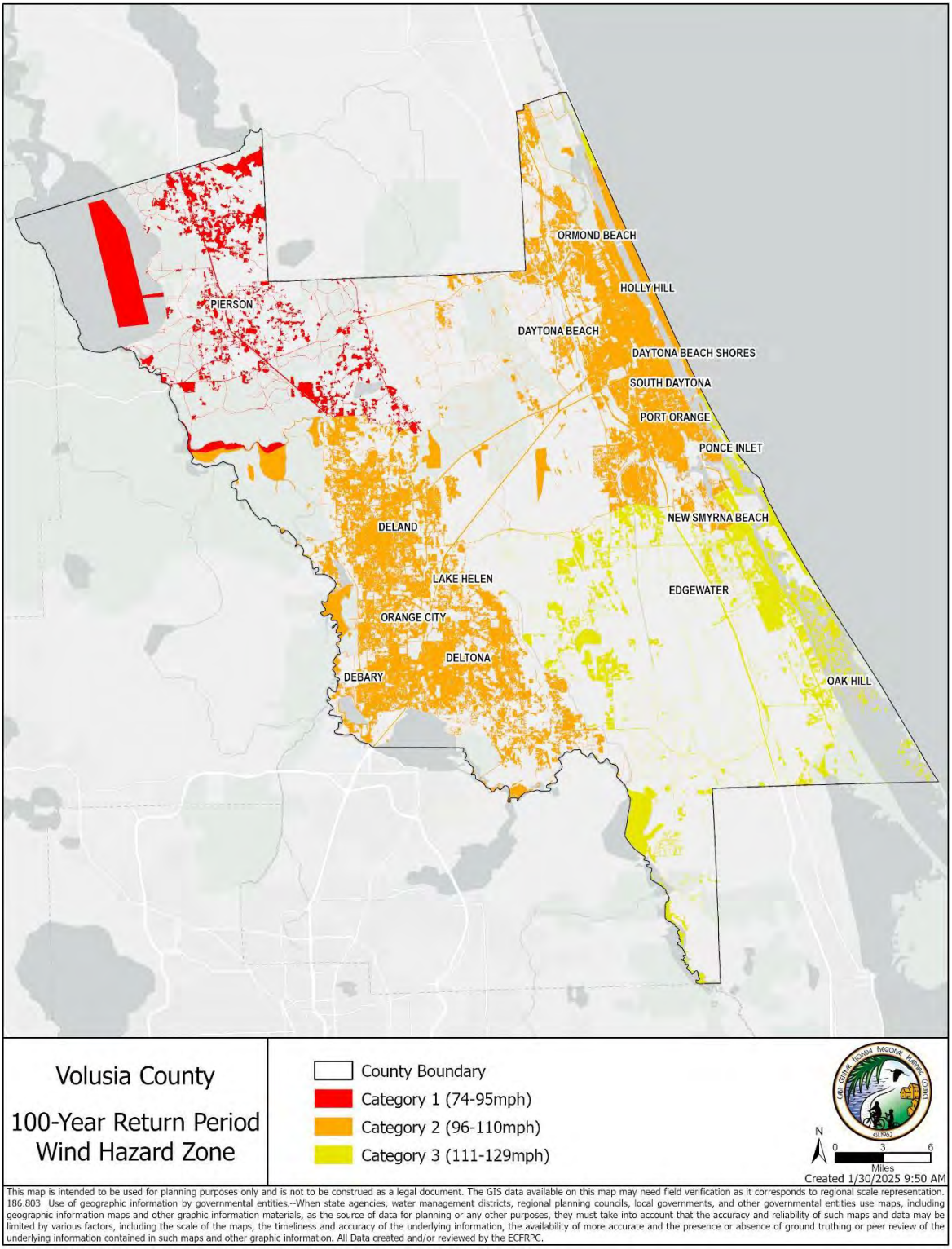
Section 6: Figure 8: Wind Hazard Zones 20-Year Event



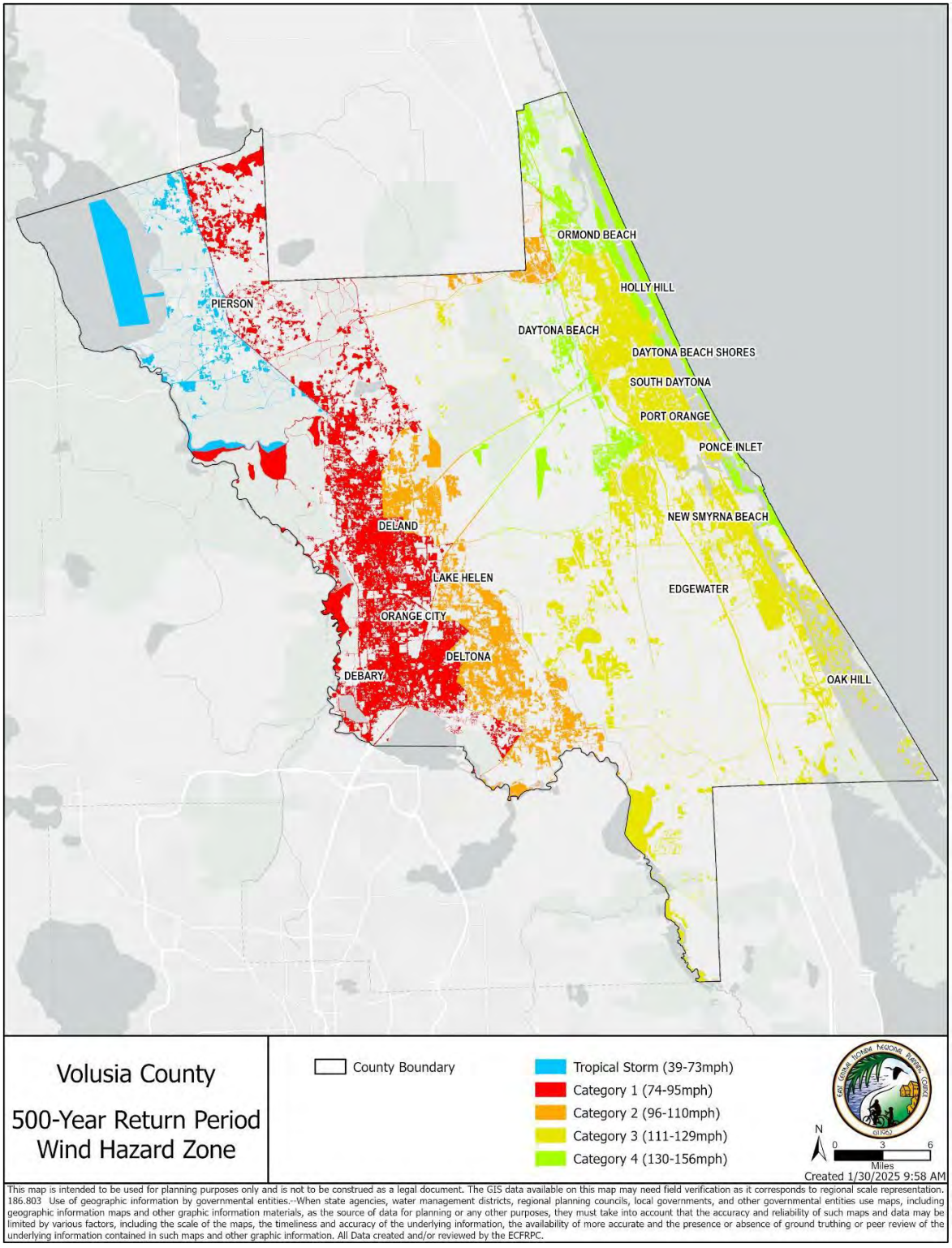
Section 6: Figure 9: Wind Hazard Zones 50-Year Event



Section 6: Figure 10: Wind Hazard Zones 100-Year Event



Section 6: Figure 11: Wind Hazard Zones 500-Year Event



6.15 WILDLAND FIRE

Vulnerability

Overall vulnerability to wildland fires is medium. Wildland fires can happen quickly and cause widespread damage. Volusia County faces a uniform risk of wildland fires, particularly during hot, dry summer months and periods of drought. Wildland fires most frequently affect wooded areas with low population densities, posing a heightened threat to rural areas. Although large population centers generally have lower risk, wildland fires can still cause significant damage to structures and critical infrastructure and pose serious health hazards, including injuries and fatalities from smoke inhalation.

The build year of a property is a critical metric in assessing wildland fire vulnerability due to the evolution of building codes over time. Modern codes restrict the use of flammable materials and promote mitigation strategies, reducing the risk for newer structures. While Volusia County has an older building stock overall, properties within fire hazard zones tend to be newer compared to those vulnerable to other hazards. Areas such as Ormond Beach's rural regions along SR 40 west of I-95 are particularly susceptible, with heavily wooded single-family subdivisions like Timber Creek, Hunters Ridge, Breakaway Trails, and Plantation Pines being at heightened risk.

In terms of land use, low-density residential properties dominate the fire hazard zones. Agricultural areas and extensive woodlands throughout the county also contribute significantly to the overall vulnerability. Wildland fires can spread through two primary mechanisms: burning ashes from tree lines that can “jump” across roadways or other barriers, and the less visible but equally dangerous underground energy transfer, where fires spread beneath the surface. This heightens the danger for residents in isolated rural areas surrounded by dense vegetation.

Impacts

The public faces direct consequences when wildland fires impact homes or businesses. Fires can destroy property, disrupt utility services, and limit access to roadways. Smoke and ash also contribute to air pollution, exacerbating health risks, particularly for vulnerable populations.

Responders face significant challenges during wildland fire events. The unpredictable and dynamic nature of fires, driven by changing wind and environmental conditions, requires substantial resources and strategic planning. Smoke inhalation poses health risks to emergency personnel, emphasizing the importance of protective measures during response efforts.

While wildland fires are a natural part of the ecosystem, they can severely impact the environment. Beyond damaging native vegetation and wildlife habitats, wildfires contribute to air and water pollution. Smoke and ash can contaminate waterways, while the loss of tree cover can exacerbate soil erosion. Volusia County Fire Services and the Health Department actively monitor and address air and water quality concerns during wildfire events.

Despite these challenges, Volusia County Emergency Management anticipates no significant disruptions to operations or service delivery during a wildland fire. The county's COOP ensures uninterrupted emergency management functions even in the event of a direct impact on the Emergency Operations Center.

Economically, wildland fires in Volusia County tend to have localized impacts. However, larger fires that are difficult to control may disrupt events or industries critical to the county's economy. For example, smoke from past wildland fires led to the postponement of the Coke Zero race. Small, rural communities are particularly vulnerable, as fire could devastate local economies. Recovery efforts would rely on organizations such as the County Community Organizations Active in Disaster and the American Red Cross.

Public confidence in government typically remains stable during wildfire events, supported by Volusia County's preparedness and outreach efforts. The county maintains premade media materials and actively uses social media and NOAA weather radios to provide timely updates. The success of past wildfire responses, such as the 1998 fires where 29,000 homes were at risk but only six homes, one mobile home, and two businesses were lost, continues to bolster public confidence.

While wildland fires pose a persistent hazard in Volusia County, ongoing mitigation efforts, strategic response plans, and public outreach programs aim to reduce risks and strengthen resilience for residents and communities.

Section 6 Table 15 lists the number of properties and the property values that are in the high, moderate, and low-risk wildfire zones for each jurisdiction. The table depicts exposure to different fire hazard zones utilizing 2024 property data.

Section 6: Table 15: Financial Exposure to Hazard Zones – Cumulative Financial Values within Zones

Fire Class	Jurisdiction	Properties in Zone	Improved Value	County Taxable Value
High	Daytona Beach	3,960	$1,621,910,972	$1,100,871,625
High	DeBary	595	$123,696,392	$71,260,689
High	DeLand	1,996	$557,354,485	$315,406,868
High	Deltona	4,860	$1,360,101,355	$614,732,256
High	Edgewater	218	$78,888,888	$63,852,351
High	Flagler Beach	87	$18,630,680	$14,443,385
High	Lake Helen	41	$5,131,605	$3,953,680
High	New Smyrna Beach	3,791	$2,390,211,297	$1,658,049,388
High	Oak Hill	81	$25,793,217	$17,252,942
High	Orange City	453	$176,845,248	$88,972,631
High	Ormond Beach	731	$312,658,433	$189,904,269
High	Pierson	449	$64,216,525	$26,878,577
High	Ponce Inlet	231	$155,549,724	$96,787,982
High	Port Orange	799	$230,558,080	$144,915,655
High	Unincorporated - Northeast	1,335	$540,111,625	$278,077,559
High	Unincorporated - Silver Sands	706	$417,407,739	$296,803,246
High	Unincorporated - Southeast	5,963	$521,456,019	$188,861,028
High	Unincorporated - Westside	11,761	$2,225,133,609	$969,991,162
Moderate	Daytona Beach	31,147	$12,533,260,053	$7,919,658,941
Moderate	Daytona Beach Shores	2,893	$1,350,116,182	$1,103,966,152
Moderate	DeBary	9,920	$3,241,368,607	$1,798,776,829
Moderate	DeLand	14,393	$4,828,128,637	$2,923,508,334
Moderate	Deltona	30,375	$8,169,433,604	$4,035,835,045
Moderate	Edgewater	8,964	$2,519,384,642	$1,420,329,636
Moderate	Holly Hill	5,800	$1,361,329,064	$918,257,259
Moderate	Lake Helen	1,689	$393,647,375	$194,327,113
Moderate	New Smyrna Beach	15,921	$7,558,573,110	$4,981,167,216
Moderate	Oak Hill	1,263	$297,652,301	$162,899,267
Moderate	Orange City	3,354	$1,236,228,469	$839,929,754
Moderate	Ormond Beach	14,772	$5,778,695,551	$3,582,902,957
Moderate	Pierson	810	$154,118,140	$56,040,892
Moderate	Ponce Inlet	2,989	$1,655,563,637	$1,191,977,161
Moderate	Port Orange	22,399	$7,791,882,881	$4,649,882,613
Moderate	South Daytona	5,762	$1,608,002,471	$998,519,879
Moderate	Unincorporated - Northeast	15,536	$5,227,758,862	$3,244,407,793

Moderate	Unincorporated - Silver Sands	2,745	$1,713,146,335	$1,309,887,634
Moderate	Unincorporated - Southeast	9,184	$1,758,930,289	$841,658,194
Moderate	Unincorporated - Westside	35,298	$7,479,184,708	$3,593,309,755
Low	Daytona Beach	747	$530,545,157	$238,590,165
Low	Daytona Beach Shores	4,172	$1,562,586,675	$1,282,789,651
Low	DeBary	1,339	$373,434,741	$232,160,537
Low	DeLand	1,141	$377,415,088	$145,436,734
Low	Deltona	4,876	$1,147,809,284	$548,445,778
Low	Edgewater	3,306	$831,842,929	$433,342,933
Low	Holly Hill	180	$42,526,903	$27,647,622
Low	New Smyrna Beach	2,813	$1,061,141,079	$612,135,406
Low	Oak Hill	493	$95,609,757	$34,729,020
Low	Orange City	954	$525,873,104	$297,400,216
Low	Ormond Beach	5,421	$2,372,164,665	$1,609,183,009
Low	Pierson	22	$2,644,082	$1,590,126
Low	Ponce Inlet	378	$137,595,600	$106,466,095
Low	Port Orange	2,151	$976,911,461	$611,499,955
Low	Unincorporated - Northeast	3,010	$1,067,953,541	$659,959,894
Low	Unincorporated - Southeast	2,681	$991,431,484	$637,550,426
Low	Unincorporated - Westside	1,457	$252,536,634	$124,140,462

Source: ECFRPC, Volusia County Property Appraiser Data (2024), U.S. Forest Service. Some properties were not provided with a land use code by VCPAO.

6.16 CIVIL DISTURBANCE

Vulnerability

The overall vulnerability of civil disturbances in Volusia County is low as there is no major political critical infrastructure like those of Tallahassee. While moderate human impact is possible, civil disorder can spread quickly and disrupt the public's confidence in the jurisdictions' governance. There are no major civil disturbances recorded, but all jurisdictions of Volusia County are vulnerable to civil disorder. The infrastructure most vulnerable is those around municipal buildings. The City of DeLand is most vulnerable due to the municipal complex hosting many of the county-wide departments.

Impacts

Civil disturbances, while relatively rare, pose a potential risk to public safety, property, and the overall perception of stability in Volusia County. These events typically arise from social, political, or economic grievances and can escalate quickly, resulting in harm to individuals, damage to property, and disruptions to community operations.

The public is the most directly affected by civil disturbances, particularly individuals in the immediate vicinity of the event. Bystanders may be injured or, in severe cases, killed during such incidents. The risk is heightened during large gatherings, such as major NASCAR events, Biketoberfest, or Bike Week, when Volusia County hosts hundreds of thousands of visitors. These annual events spread throughout the county, but are concentrated in cities such as Daytona Beach, Daytona Beach Shores, and Ormond Beach. Civil disturbances during these events could lead to mass casualties, panic, and chaos, straining local emergency response systems.

Private and public properties are at significant risk during civil disturbances. Rioters may engage in vandalism, looting, or arson, causing extensive damage. The financial toll of such actions can reach hundreds of thousands of dollars, disrupting businesses, displacing residents, and burdening local governments with costly repairs. Florida's history includes seven major riots, such as the 1980 and 1982 Miami riots and the 1996 St. Petersburg riots, which highlight the potential for widespread property destruction.

The environment may experience moderate consequences from civil disturbances. Fires resulting from arson can release toxic gases, fumes, and fluids into the air, soil, and water, posing risks to human health and local ecosystems. Additionally, burned vehicles and structures can leave behind hazardous debris that require specialized cleanup and disposal efforts.

Volusia County's program operations are not expected to be significantly disrupted by a civil disturbance. The Volusia County Emergency Operations Center (VCEOC) is a secure facility, designed to maintain continuity of operations even during extreme events. In the event of a large-scale disturbance, mutual aid agreements with neighboring counties can provide additional resources to manage the situation.

Responders face unique challenges during civil disturbances. They must navigate highly volatile situations where they may be targeted by individuals instigating violence. The risk of injury or death is real, requiring responders to exercise extreme caution and rely on specialized training to de-escalate tensions while ensuring public safety.

The impact of civil disturbances on property and infrastructure can be substantial. Homes, businesses, and critical facilities, such as government buildings and transportation hubs, may be damaged or destroyed. Streets may become blocked or impassable, complicating response efforts and further exacerbating the situation.

The economic fallout from a civil disturbance can be severe. Damaged homes and businesses require costly repairs, and disruptions to local commerce may reduce tax revenue. If civil disturbances occur during major tourist events, the county's reputation as a safe destination may suffer, deterring future visitors and negatively impacting the local economy. Businesses reliant on tourism could face prolonged downturns, compounding financial losses.

Public confidence in government can be adversely affected by civil disturbance, particularly if the response is perceived as slow or inadequate. Effective and timely action by law enforcement and emergency management is critical to maintaining trust. Volusia County must demonstrate its capacity to manage such events to reassure residents and visitors that their safety is a priority.

Civil disturbances pose a range of risks, from direct harm to individuals and property to broader economic and social consequences. By leveraging secure facilities like the Volusia County Emergency Operations Center, mutual aid agreements, and specialized training for responders, Volusia County is prepared to address these challenges. Proactive communication and decisive action during a disturbance are essential to mitigating impacts and maintaining public trust.

6.17 MASS MIGRATION

Vulnerability

The overall vulnerability of mass migration in Volusia County and its jurisdictions is low. While lack of affordable housing and community resources could be a concern with mass migration, due to the low probability and lack of physical impacts, Volusia County is not very vulnerable to this hazard. While it is possible people migrating to the county may choose a more urban area to move to such as Daytona Beach, each jurisdiction is equally vulnerable to this possibility.

Impacts

The citizens of Volusia County face minimal direct risk from a mass migration event. However, an influx of migrants, whether due to political upheaval, natural disasters, or humanitarian crises in neighboring regions or countries, could present logistical and social challenges. The likelihood of such an event remains low, but the county must remain prepared to manage a sudden increase in population to ensure the safety and well-being of all residents, including the migrants themselves.

Property within Volusia County would not be directly at risk from a mass migration event. Migrants arriving in the county are unlikely to cause physical damage to homes, businesses, or infrastructure. However, depending on the scale of the event, temporary facilities such as shelters, processing centers, or housing accommodations may need to be established, potentially requiring the repurposing of public spaces or other properties. Additionally, there may be a strain on available affordable housing, spiking up rent prices for existing residents.

The environment would experience minimal impact from a mass migration event. Temporary facilities and increased resource use may place localized stress on certain systems, such as water and waste management, but these effects would likely be short-term and manageable with proper planning and resources. Environmental risks could be mitigated through coordinated efforts to ensure that shelter locations and services are established in environmentally sustainable ways.

Programming operations within the county would also experience minimal disruption. Volusia County Emergency Management Department and other relevant agencies have contingency plans in place to address scenarios involving a sudden population influx. Should the situation exceed local resources, mutual aid agreements with adjacent counties and support from state and federal agencies would ensure that operations continue with minimal interruption.

The public is unlikely to experience significant, direct consequences from a mass migration event, though there may be concerns or perceptions about how the government is managing the situation. With effective communication and transparent planning, the direct impacts on the daily lives of Volusia County residents would remain minimal.

Responding to the event would play a critical role in managing a mass migration event. Law enforcement, public health, and emergency management personnel would be responsible for organizing, processing, screening, and housing the migrant population. Although the physical and mental demands on responders may increase during such an event, their training and preparedness would help ensure the situation is managed effectively and humanely.

The county's economy is unlikely to be significantly impacted by a mass migration event. Migrants are typically transient and may not remain in the county for an extended period. Temporary costs associated with shelter, food, and medical services would likely be covered by state or federal aid. Long-term economic impacts would depend on whether migrants integrate into the local population and contribute to the economy or if the county becomes a hub for repeated migration events.

Public confidence in government could be affected by a mass migration event, particularly if the public perceives that the government is unprepared or inefficient in managing the situation. Delays in organizing processing, screening, or housing for migrants could lead to frustration among residents. To mitigate these risks, Volusia County would need to maintain open and consistent communication with the public, emphasizing its plans and progress in addressing the situation and ensuring that public safety and order are upheld.

Continuity of operations for the county government would not be significantly impacted by a mass migration event. In a larger-scale scenario, mutual aid from surrounding counties, as well as state and federal resources, would provide additional support. The Volusia County Emergency Operations Center would coordinate these efforts to ensure that essential services continue without interruption.

Overall, the consequences of a mass migration event for property, facilities, and infrastructure in Volusia County would be minimal. Temporary strains on resources and systems may occur, but with proper planning and coordination, these challenges would be manageable. The county's proactive approach to emergency management ensures that any potential impacts from a mass migration event are addressed efficiently and effectively, preserving the safety and well-being of all individuals in the community.

6.18 TERRORISM

Vulnerability

Terrorism remains a persistent and evolving threat, with a wide array of potential impacts ranging from physical destruction and loss of life to disruptions of critical services and public confidence. In Volusia County, these risks are particularly relevant due to its high-profile events, significant agricultural sector, and increasing reliance on digital infrastructure. This assessment examines the vulnerabilities and consequences of various forms of terrorism, including agroterrorism, cyber terrorism, and conventional attacks.

Overall vulnerability to a terrorist attack is moderate within Volusia County and its jurisdictions. Human and property impacts could be severe and widespread depending on the nature of the attack. Because terrorist attacks can take many forms and include many types of weapons, it is difficult to reduce the county's overall vulnerability to these incidents. First response agencies attempt to reduce vulnerability through prevention tactics and intelligence sharing. No jurisdiction in Volusia County is more vulnerable to attack than another.

Impacts

The public faces significant risks in the event of a terrorist attack. Volusia County is home to numerous mass gatherings, such as NASCAR events at Daytona International Speedway, which attract over 100,000 spectators, as well as Bike Week and Biketoberfest, which draw an estimated 500,000 participants annually. These events represent potential targets for terrorism due to their large crowds and national visibility.

The consequences of an attack at such an event could include:

- Serious injuries and fatalities.
- Long-term psychological impacts, including post-traumatic stress disorder (PTSD) and heightened public anxiety about future events.
- Economic impacts due to decreased attendance at events and diminished tourism.

Agroterrorism presents another unique threat to public health. Contamination of agricultural products could introduce pathogens into the food supply, leading to widespread illness and potential fatalities. Such an event would not only harm individuals directly but could also undermine trust in food safety systems.

Property, facilities, and infrastructure are all at risk in a terrorist event. A physical attack involving explosives, arson, or a dirty bomb could result in:

- Extensive damage to buildings and critical infrastructure, including transportation networks, energy facilities, and communication systems.
- Severe financial losses for private businesses and public institutions.
- Long-term closures of impacted facilities, potentially disrupting essential services.

In agroterrorism scenarios, farms and processing facilities could suffer catastrophic losses if disease-causing agents spread among crops or livestock. The costs of containment, eradication, and recovery could be significant, particularly for Volusia County's $781 million agricultural industry.

The environment could suffer both immediate and long-term damage depending on the type of terrorist event:

- **Dirty Bombs and Explosions**: Contamination of air, soil, and water with hazardous materials could render areas uninhabitable for years, requiring costly cleanup efforts.
- **Arson and Large-Scale Fires**: Toxic smoke and fumes could impact air quality, while firefighting runoff could contaminate waterways.
- **Agroterrorism**: Introduction of pathogens or chemicals into agricultural systems could damage ecosystems and potentially spread beyond the initial target area.

Terrorism can severely impact the economy in several ways:

- **Tourism Declines**: Volusia County relies heavily on tourism revenue, particularly from its internationally recognized events. A major attack would likely deter visitors, leading to substantial financial losses for local businesses.
- **Agricultural Losses**: Agroterrorism could devastate the local economy by damaging crops and livestock, disrupting supply chains, and necessitating extensive containment measures.
- **Cyber Terrorism**: If key industries, such as banking, utilities, or retail, were targeted, there could be cascading economic effects due to loss of revenue and reduced consumer confidence.

Cyber terrorism involves the use of digital means to disrupt critical infrastructure, steal sensitive information, or sow chaos. Potential impacts on Volusia County include:

- **Public Impacts**: Extended power outages could lead to food spoilage, loss of refrigeration-dependent medication, and disruptions to life-saving medical devices like oxygen concentrators.
- **Economic Impacts**: Businesses relying on e-commerce or digital payment systems could face significant losses. Additionally, interruptions to public services, such as water or electricity, could result in substantial recovery costs.
- **Public Confidence**: Cyber terrorism targeting essential systems (e.g., water treatment, healthcare, or emergency communication networks) could erode trust in government, particularly if recovery efforts are perceived as slow or ineffective.

While cyber terrorism typically does not cause direct harm to the environment, indirect consequences—such as industrial accidents triggered by compromised control systems—remain a concern.

Public confidence in government could be significantly impacted by any form of terrorism. Perceptions of inadequate preparation, delayed response, or insufficient recovery efforts can erode trust in public institutions. This risk is particularly pronounced in:

- Large-scale attacks, such as those involving mass casualties or significant property damage.
- Agroterrorism incidents that highlight vulnerabilities in the food supply chain.
- Cyber terrorism events that disrupt daily life and expose weaknesses in critical infrastructure.

A proactive and transparent public affairs strategy is essential to maintaining confidence during and after a terrorist event. Efforts should focus on clear communication, visible leadership, and timely updates on response and recovery efforts.

Responders face heightened risks in terrorist events. Physical attacks may involve secondary explosive devices or hazardous conditions, while agroterrorism and cyber terrorism may expose responders to novel threats, such as contaminated materials or compromised communication systems. Ensuring responder safety requires:

- Access to specialized training and equipment.
- Clear protocols for identifying and mitigating risks in dynamic and dangerous environments.
- Coordination with mutual aid partners and state-level resources.

Continuity of operations for Volusia County is generally robust due to the secure design of the Volusia County Emergency Operations Center. However, certain scenarios could present challenges:

- **Direct Attack on VCEOC**: Although unlikely, a direct attack could necessitate a temporary relocation to the alternate EOC.
- **Cyber Terrorism**: Disruptions to digital systems could temporarily affect access to information or communication channels. However, redundancies and mutual aid agreements are in place to minimize these effects.

Terrorism represents a complex and multifaceted threat to Volusia County, with the potential to impact public safety, property, the environment, and the economy. While the likelihood of an event is difficult to predict, ongoing investments in preparedness, training, and public awareness are essential for mitigating risks and ensuring resilience. Whether facing agroterrorism, cyber terrorism, or a conventional attack, Volusia County is committed to protecting its residents, preserving its resources, and maintaining public trust.

6.19 COASTAL OIL SPILL

Vulnerability

A coastal oil spill could significantly impact public health, particularly for individuals with pre-existing respiratory conditions. Exposure to fumes and airborne contaminants near the coastline may exacerbate these issues, prompting the Volusia County Health Department and Environmental Management to closely monitor air, water, sediment, and waste generated during cleanup operations. Although these efforts would mitigate health risks to the public, some localized impacts are inevitable for those in proximity to the affected areas. The most vulnerable areas are along major waterways that support transport ships, such as Ormond Beach, Holly Hill, Daytona Beach Shoes, Ponce Inlet, and New Smyrna Beach.

Impacts

While property is not typically at direct risk from an oil spill, contamination of docks, boats, and other coastal facilities is possible if the spill enters waterways such as the Ponce de Leon Inlet. This could require extensive cleaning and decontamination efforts to restore usability and prevent further environmental harm.

The environment, however, faces the greatest risk in the event of a coastal oil spill. Sensitive ecosystems, including turtle nesting sites, estuaries, and nearshore marine habitats, could suffer long-lasting damage. Sand and sediment along the beaches would be heavily contaminated, requiring labor-intensive cleanup and rehabilitation to restore the natural environment. The ecological consequences of an oil spill could linger for years, disrupting the delicate balance of marine and coastal ecosystems.

Although program applications within the county are not likely to be adversely affected by a coastal oil spill, responders tasked with addressing the spill face considerable challenges. The use of personal protective equipment (PPE) is essential to prevent exposure to hazardous materials, and the physically demanding nature of cleanup operations adds an additional layer of complexity. Coordination between local, state, and federal agencies will be critical to ensure the safety and effectiveness of the response effort.

Continuity of operations within Volusia County would remain largely intact, as the spill's direct effects are unlikely to extend beyond the immediate coastal zone. However, economic and social disruptions could strain government resources and necessitate long-term recovery planning. The economic ramifications of a coastal oil spill would be severe. Tourism—a cornerstone of Volusia County's economy—would likely grind to a halt as visitors avoid beaches perceived to be contaminated. The charter fishing industry, another vital economic sector, would be devastated as fish stocks and marine habitats are impacted. Many businesses along the coastline may face permanent closure due to prolonged loss of revenue, and the county's tax base could shrink significantly, compounding the financial strain on recovery efforts.

Public confidence in government would also be tested during a coastal oil spill event. The protracted nature of cleanup and environmental restoration, which could take months or even years, would likely frustrate residents and stakeholders. Effective communication from the Volusia County Public Information Office (PIO) would be essential to maintaining public trust. By providing consistent updates and demonstrating transparent collaboration between government agencies and private industry, officials could reassure the public that every effort is being made to address the spill and restore the county's natural and economic resources.

In conclusion, while a coastal oil spill may have minimal immediate effects on most residents and infrastructure, the long-term environmental, economic, and public confidence impacts could be profound. Preparing for such an event through detailed planning, interagency coordination, and robust public communication strategies will be vital to mitigating its consequences.

6.20 CRITICAL INFRASTRUCTURE FAILURE

Vulnerability

Critical infrastructure failure refers to the disruption of essential services such as drinking water, stormwater and wastewater systems, electric power, transportation, supply chains for food and fuel, and communication networks. These systems are vital to maintaining public health, safety, and economic stability. Failures in these systems are often caused by cascading emergencies like natural disasters, such as hurricanes or floods, or man-made events, including terrorism and cyberattacks. In urbanized areas of Volusia County, where the population is highly dependent on these systems, disruptions have the potential to affect more than half of the population, with the most severe cases resulting in widespread county-wide impacts. Those most vulnerable are Deltona, Port Orange, Daytona Beach, and Ormond Beach. The risks are further exacerbated by climate change, which is increasing the frequency and intensity of extreme weather events.

The overall vulnerability of Volusia County and its jurisdictions to critical infrastructure disruption is medium. Because critical infrastructure failure can be caused by many different forces, it is one of the hazards with the highest vulnerability. Severe weather, tropical cyclones, tornadoes, and geomagnetic storms are just some examples of harmful incidents that may cause a disruption.

The power grid is among the most critical and vulnerable pieces of infrastructure in Volusia County. Utility substations and transmission lines near coastal and urban areas, such as Daytona Beach, Deltona, and Ormond Beach, are particularly at risk. High winds and storm surges associated with hurricanes can lead to widespread power outages, while aging infrastructure is susceptible to overheating during peak demand periods in the hot summer months. Water and wastewater systems are similarly vulnerable, particularly those located in flood-prone areas like the St. Johns River Basin. Flooding from severe storms can disrupt water treatment operations, resulting in water contamination or sewage overflows. Rising sea levels pose a long-term threat to coastal water facilities.

Impacts

Transportation systems in Volusia County are also at significant risk. Major highways like I-95 and I-4, along with bridges, railroads, and the Daytona Beach International Airport, could be disrupted by extreme weather events such as high winds and flooding. Proximity to water systems, including the Halifax River, Indian River Lagoon, Mosquito Lagoon, and the Intracoastal Waterway, increases the vulnerability of transportation infrastructure to storm surges. Similarly, communication networks, including cellular towers, fiber optic lines, and data centers in urban hubs, are susceptible to physical damage from hurricanes and flooding, as well as cyberattacks.

Environmental impacts from critical infrastructure failures can be severe. Disruptions to wastewater facilities may result in untreated sewage spills, contaminating rivers, lakes, and coastal waterways, which can harm aquatic ecosystems and degrade water quality. Stormwater management systems may also fail during prolonged power outages, leading to localized flooding and habitat destruction. Additionally, increased reliance on backup generators during power outages can contribute to air pollution.

The economic consequences of critical infrastructure failures are significant. Prolonged outages can result in the closure of businesses, disrupt tourism, and interrupt supply chains, with Daytona Beach's event-driven economy particularly susceptible. Repairing damaged infrastructure can cost millions, placing a

strain on local budgets. Furthermore, frequent failures may lead to increased insurance premiums for businesses and residents alike.

Social impacts are equally concerning. Interruptions in water treatment can lead to the spread of waterborne diseases, while power outages during extreme heat can exacerbate heat-related illnesses. Transportation failures may isolate communities, preventing access to essential services such as medical care. Vulnerable populations, including the elderly, disabled, and low-income residents, are disproportionately affected by such disruptions, further exacerbating existing social inequities.

Emergency managers and first responders face significant challenges during critical infrastructure failures. Damage to roadways and communication systems can delay response times and hinder coordination efforts. Prolonged failures often require an extended deployment of resources, potentially overloading emergency services. Responders are also at risk of exposure to hazardous environments, such as contaminated water and extreme heat, while working to restore infrastructure and assist affected residents. Community outreach efforts are essential to educate residents about emergency preparedness and available resources, thereby enhancing overall resilience to infrastructure failures.

6.21 HAZMAT / INDUSTRIAL INCIDENT

Vulnerability

The citizens of Volusia County face daily risks from hazardous materials (HAZMAT) due to the presence of both fixed and mobile sources. These include industrial facilities, railroads, highways, and even potential intentional uses such as terrorism. With two major interstate highways, two significant rivers, and two railroads running through the county, HAZMAT incidents are a constant possibility. While most of these involve minor petroleum spills or sewage discharges, the potential exists for far more severe events. Overall vulnerability of hazardous materials incidents is low in Volusia County and its jurisdictions. Citizens may encounter risks from hazardous materials at schools, in their homes, on roadways, through their food supply, or at public venues such as stadiums and other large gathering spaces. While the spatial extent of these incidents would likely be low, the impact on humans could be substantial. The consequences of a hazardous material incident could range from illness and injury to death, with the most severe incidents—such as radiological releases or large-scale explosions—possibly leading to the displacement of residents for extended periods until cleanup is complete. Having major bodies of water such as Tomoka River, Halifax River, Indian River Lagoon, Mosquito Lagoon, and the St. Johns River also leaves room for vulnerability because some hazardous materials may be spread through the waterways.

Property in Volusia County is highly vulnerable to hazardous materials incidents. Chemical spills, explosions, or acts of bioterrorism could devastate individual homes, businesses, and critical infrastructure. Structural damage from explosions or corrosive chemical exposure can leave properties uninhabitable or in need of significant repair. Hazardous materials may also erode or corrode infrastructure such as roads, bridges, and pipelines, further compounding recovery challenges. Even in less catastrophic cases, incidents such as traffic accidents involving hazardous materials can result in destruction of vehicles, roadways, and signage.

Impacts

The environment is particularly susceptible to the harmful effects of hazardous materials, whether the release is accidental, intentional, or natural. These materials can rapidly spread through air, water, and the food supply, contaminating ecosystems and threatening both human and wildlife populations. Sensitive habitats, such as wetlands and coastal areas, could be irreparably damaged. Cleanup efforts can take days, weeks, months, or even years, and in some cases, environmental recovery may never fully restore the original ecosystem balance.

While the Volusia County Emergency Operations Center itself is not located near major hazardous materials facilities, its operations could be impacted in extreme cases. For instance, in the event of significant structural damage or service disruptions, staff may need to relocate to its alternate site as outlined in the Volusia County Emergency Management Department COOP. Despite these risks, the county's environmental management teams, in coordination with Fire Services HAZMAT units, are prepared to respond to large-scale incidents.

Volusia County has a HazMat team available to respond. Responders are at the forefront of mitigating the impacts of HAZMAT incidents. Specialized teams, including HAZMAT, Radiological Material (RMAT), and Explosive Ordnance Disposal (EOD) units, are trained and equipped to manage these complex situations. Protective gear and specialized equipment are vital to ensure their safety as they identify hazardous materials, mitigate risks, and oversee cleanup efforts. Despite their training, responders remain at risk due

to the unpredictable nature of these incidents and the potential for secondary hazards such as fires or explosions.

The economic consequences of a HAZMAT incident in Volusia County could vary widely depending on the scale of the event. While smaller incidents may disrupt transportation or local industries temporarily, larger events—such as a chemical facility disaster or a radiological release—could result in long-term economic strain. The BP oil spill in 2011, which cost approximately $40 billion to address, serves as an extreme example of the potential financial toll of such events. Even less catastrophic incidents can lead to costly disruptions if key transportation routes or industries are forced to shut down.

Public confidence in the local government may also be tested by a HAZMAT incident. Smaller, localized events are unlikely to affect the public's trust, as these are relatively common and manageable occurrences. However, a large-scale chemical or radiological release, or an incident involving terrorism, could erode public confidence in the government's ability to protect its citizens. In such cases, the Volusia County leadership must prepare to launch a robust public information campaign through its website and social media channels, ensuring transparent communication and providing timely updates on the response and recovery efforts.

In conclusion, while Volusia County is prepared to handle the frequent minor HAZMAT incidents that occur, the potential for a large-scale event remains a significant concern. Proactive planning, coordinated response efforts, and clear communication are essential to mitigating the risks and consequences of hazardous materials incidents on the public, property, environment, and economy.

6.18 CONCLUSIONS ON HAZARD VULNERABILITY

Volusia County is vulnerable to a wide array of hazards spanning natural, manmade, and technological categories, each presenting unique risks and requiring tailored mitigation and preparedness strategies. Assessing vulnerabilities across these diverse hazards is essential to building a safer, more resilient community.

- **Improved Understanding for All Hazards:**
  Analyzing vulnerabilities provides a clearer picture of who and what is at risk for each hazard type. For example:
  - **Natural Hazards:** Understanding flood-prone areas and vulnerable coastal regions allows for targeted mitigation like enhanced stormwater management, improved floodplain regulations, and strengthened coastal infrastructure. Similarly, identifying populations at risk from extreme temperatures or public health emergencies helps tailor outreach and response efforts.
  - **Manmade Hazards:** Civil disturbances, mass migration, and terrorism require assessments of social dynamics, key facilities, and potential response bottlenecks. For example, mapping critical facilities and public spaces allows emergency managers to better plan for security, evacuation, and resource allocation.
  - **Technological Hazards:** Evaluating risks from coastal oil spills, hazardous materials incidents, and industrial accidents ensures that high-risk areas, particularly those near industrial zones or transportation corridors, are prioritized for safety inspections and emergency planning.

By improving understanding across these hazard categories, Volusia County can enhance risk awareness among stakeholders and better align resources to the most pressing needs.

- **Baseline for Policy Development and Strategic Planning:**
  A comprehensive vulnerability assessment serves as the foundation for creating effective policies and mitigation plans. For instance:
  - For **rising coastal waters and coastal erosion**, the assessment may inform zoning policies that restrict development in highly vulnerable areas or incentivize green infrastructure solutions to stabilize shorelines.
  - For **drought and agriculture**, policies that promote sustainable water use and crop diversification can be informed by understanding long-term climate trends and agricultural vulnerabilities.
  - For **technological hazards**, findings can influence regulations to enhance safety standards for industrial facilities or mandate periodic safety drills for oil transport and hazardous materials handling.

These informed policies can reduce risks, improve land-use decisions, and foster greater resilience in the face of evolving threats.

- **Risk Comparison for Balanced Mitigation Efforts:**
  Assessing vulnerabilities across all hazard types enables the county to compare risks and prioritize mitigation measures. For example:

- Coastal and flood-prone areas might see investments in seawalls or elevating infrastructure, while inland areas might benefit from improved wildfire prevention strategies and drought-resistant infrastructure.
- **Public health emergencies**, such as pandemics, might require investments in healthcare infrastructure, while terrorism or civil disturbance risks may necessitate enhanced security measures and community engagement initiatives.

This comparative approach ensures that resources are allocated equitably and effectively, allowing the county to address both high-impact, high-frequency hazards like severe weather and tropical cyclones, as well as lower-probability but potentially devastating events like terrorism or industrial incidents.

- **Enhancing Emergency Management Capabilities:**
  Vulnerability assessments also identify gaps in current capabilities, enabling targeted improvements. For example:
  - Understanding response times and challenges in rural areas supports enhancements in wildland fire management and tornado response strategies.
  - Identifying critical infrastructure at risk of failure ensures redundancy and continuity planning for essential services.
  - Highlighting social vulnerabilities, such as lower-income or elderly populations, support targeted outreach, evacuation planning, and sheltering options.

By strengthening emergency management capabilities, Volusia County can reduce disaster impacts, speed recovery, and build public confidence in its resilience strategies.

In summary, assessing vulnerabilities across Volusia County's full hazard profile is a cornerstone of effective disaster mitigation. It provides clarity on risks, informs strategic policy development, and supports equitable resource allocation. These efforts are critical to ensure the county's ability to withstand, adapt to, and recover from a wide range of threats, safeguarding the well-being of its residents and the environment.

SECTION 7 – CAPABILITY ASSESSMENT

This section of the Plan discusses the capability of Volusia County and the participating municipal jurisdictions to implement hazard mitigation activities. It consists of the following four subsections:

- **What is a Capability Assessment?**
- **Conducting the Capability Assessment**
- **Capability Assessment Findings**
- **Public Capability Assessment**
- **Existing County-Wide Efforts**
- **Conclusions of the Capability Assessment**

7.1 WHAT IS A CAPABILITY ASSESSMENT?

The purpose of conducting a capability assessment is to determine the ability of a local jurisdiction to implement a comprehensive mitigation strategy, and to identify potential opportunities for establishing or enhancing specific mitigation policies, programs or projects.[1] As in any planning process, it is important to try to establish which goals, objectives and/or actions are feasible, based on an understanding of the organizational capacity of those agencies or departments tasked with their implementation. A capability assessment helps to determine which mitigation actions are practical and likely to be implemented over time, given the local government's planning and regulatory framework. This capability assessment also highlights the positive mitigation measures already in place, or being implemented at the local government level, which should continue to be supported and enhanced through future mitigation efforts.

The capability assessment completed for Volusia County and its jurisdictions serves as a critical planning step and an integral part of the foundation for designing an effective multi-jurisdictional hazard mitigation strategy. The *Capability Assessment* helps identify and target meaningful mitigation actions for incorporation in the *Mitigation Strategy* portion of the Hazard Mitigation Plan. It helps establish the goals and objectives for the Volusia County Region to pursue under this Plan and ensures that those goals and objectives are realistically achievable under given local conditions.

7.2 CONDUCTING THE CAPABILITY ASSESSMENT

In order to facilitate the inventory and analysis of local government capabilities throughout Volusia County, a detailed *Capability Assessment Survey*[2] was distributed to Volusia County staff and to staff from participating local municipal jurisdictions. The survey questionnaire, which was completed by applicable local government officials, requested information on a variety of "capability indicators" such as existing

[1] While the Interim Final Rule for implementing the Disaster Mitigation Act of 2000 does not require a local capability assessment to be completed for local hazard mitigation plans, it is a critical step to develop a mitigation strategy that meets the needs of each jurisdiction while taking into account their own unique abilities. The Rule does state that a community's mitigation strategy should be "based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools" (44 CFR, Part 201.6(c)(3)).

[2] The *Capability Assessment Survey* instrument used to assess county and municipal capabilities is available through Volusia County upon request.

local plans, policies, programs or ordinances that contribute to and/or hinder the community's ability to implement hazard mitigation actions.

At a minimum these survey results provide an inventory of existing local plans, ordinances, programs and resources in place or under development in addition to their overall effect on hazard loss reduction. The survey instrument thereby not only helps accurately assess each jurisdiction's degree of local capability, but also serves as a good source of introspection for those jurisdictions wishing to improve their capability. The identification of opportunities and specific actions to be proposed as part of the community's mitigation strategy often develops as an outcome of completing a capability assessment.

7.3 CAPABILITY ASSESSMENT FINDINGS

The findings of the capability assessment are summarized in this Plan to provide insight into the capacity of Volusia County and the participating jurisdictions to implement hazard mitigation activities. All information is based upon the responses provided by local government officials to the *Capability Assessment Survey*.

7.3.1 Planning and Regulatory Capability

Planning and regulatory capability is based on the implementation of plans, ordinances and programs that demonstrate a local jurisdiction's commitment to guiding and managing growth, development and redevelopment in a responsible manner while maintaining the general welfare of the community. It includes emergency response and mitigation planning, comprehensive land use planning and transportation planning in addition to the enforcement of zoning or subdivision ordinances and building codes that regulate how land is developed, and structures are built, as well as protecting environmental, historic and cultural resources in the community. Although some conflicts can arise, these planning initiatives generally present significant opportunities to integrate hazard mitigation principles and practices into the local decision-making process.

This assessment is designed to provide a general overview of the key planning and regulatory tools or programs in place or under development for Volusia County and the participating jurisdictions, along with their potential effect on loss reduction. This information will help identify opportunities to address existing gaps, weaknesses or conflicts with other initiatives in addition to integrating the implementation of this Plan with existing planning mechanisms, where appropriate.

Section 7: Table 1 provides a summary of the relevant local plans, ordinances and programs already in place or under development for Volusia County and the participating jurisdictions. An (x) mark indicates that the given item is currently in place and being implemented by the local jurisdiction, or that it is currently being developed for future implementation. A more detailed discussion on each jurisdiction's planning and regulatory capability follows, along with the incorporation of additional information based on the narrative comments provided by local officials in response to the survey questionnaire.

Following the inventory of local plans, programs and policies is a description of each element upon which the local jurisdiction's capability score was based.

SECTION 7: CAPABILITY ASSESSMENT

Section 7: Table 1: Relevant Plans, Ordinances and Programs

Jurisdiction	Local Mitigation Strategy	Comprehensive Land Use Plan	Floodplain Management Plan*	Open Space Management Plan	Stormwater Management Plan	Natural Resource Protection Plan	Flood Response Plan	Emergency Operations Plan	Continuity of Operations Plan	Evacuation Plan	Disaster Recovery Plan	Economic Development Plan	Historic Preservation Plan	Floodplain Ordinance (or Flood Damage Prevention Ordinance)	Zoning Ordinance	Subdivision Ordinance	Unified Development Ordinance	Post-disaster Redevelopment /Reconstruction Ordinance	Building Code Effectiveness Grading Schedule (BCEGS)	Fire Code	National Flood Insurance Program	NFIP Community Rating System	Vulnerability Assessment
Daytona Beach	X	X	X		X		X	X		X	X	X	X	X	X	X	X	X		X	X	X	X
Daytona Beach Shores	X	X	X		X			X						X	X				X	X	X	X	X
DeBary	X	X	X	X	X	X	X	X	X		X	X		X	X	X				X	X		
DeLand	X	X	X		X		X	X	X	X	X		X	X	X	X	X	X	X	X	X		
Deltona	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X			X	X		
Edgewater	X	X	X		X		X	X		X		X		X	X					X	X	X	
Holly Hill	X	X	X		X	X		X	X	X	X	X		X	X	X	X			X	X	X	X
Lake Helen	X	X	X		X	X		X		X				X	X	X	X			X	X		
New Smyrna Beach	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	
Oak Hill	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Orange City	X	X	X	X	X	X		X	X				X	X	X	X				X	X		X
Ormond Beach	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Pierson	X	X	X					X		X				X	X	X				X	X		
Ponce Inlet	X	X	X	X	X	X	X	X	X	X	X		X	X	X				X	X	X	X	X
Port Orange	X	X	X		X			X	X	X		X		X	X	X	X		X	X	X	X	
South Daytona	X	X	X	X	X	X	X	X	X	X	X			X	X	X			X	X	X	X	X
Volusia County	X	X	X			X	X	X	X	X	X	X	X	X	X	X				X	X	X	X

SECTION 7: CAPABILITY ASSESSMENT

The project team at the East Central Florida Regional Planning Council developed the Local Mitigation Strategy with numerous resources, including existing plans, technical information and mapping software.

ESRI ArcGIS software and HAZUS was used to develop vulnerability profiles for the hazards covered throughout this report. Data collection by the project team included municipal critical facilities, stormwater facilities and lift/pump stations, as well as parcel data collected from the Volusia County Property Appraiser. Numerous GIS files were also downloaded from Volusia County I.T. for consideration, research, and use.

Technical plans were also reviewed for consistency with the Local Mitigation Strategy. This primarily included the county's Integrated Floodplain Management Plan, which was reviewed and updated alongside the 2025 LMS. The data collection, data analysis and risk profile methodologies used for the Local Mitigation Strategy and the Floodplain Management Plan are identical. The additional plans listed on the previous page **Section 7: Table 1: Relevant Plans, Ordinances and Programs**, including the Volusia County Continuation of Operations Plan and others, were also reviewed as made available.

Technical information was collected primarily from the Volusia County Emergency Management Department and the National Climatic Data Center, which compiles countywide reports on past hazard events, estimated losses, and other critical information for tracking the County's vulnerabilities.

7.3.2 Emergency Management

Hazard mitigation is widely recognized as one of the four primary phases of emergency management. Other phases include preparedness, response and recovery. Each phase is interconnected with hazard mitigation as **Section 7: Figure 1** suggests. Planning for each phase is a critical part of a comprehensive emergency management program and a key to the successful implementation of hazard mitigation actions. As a result, the *Capability Assessment Survey* asked several questions regarding emergency management plans in order to assess the jurisdiction's willingness to plan and their level of technical planning proficiency.

Section 7: Figure 1: The Phases of Emergency Management

Local Mitigation Strategy (LMS): Also called a hazard mitigation plan, the local mitigation strategy represents a community's blueprint for how it intends to reduce the impact of natural and human-caused hazards on people and the built environment. The essential elements of a local mitigation strategy include a risk assessment, capability assessment, mitigation strategy and the mitigation projects list.

- Volusia County and its jurisdictions developed the first version of their local mitigation strategy in 1999 (adopted 2000) and updated the plan in 2009, 2014, and 2019. The plan is currently undergoing a revision that will be completed in January 2025.

Disaster Recovery Plan: A disaster recovery plan serves to guide the physical, social, environmental and economic recovery and reconstruction process following a disaster. In many instances, hazard mitigation principles and practices are incorporated into local disaster recovery plans with the intent of capitalizing on opportunities to break the cycle of repetitive disaster losses.

- A potential mitigation action that should be considered is for all participating jurisdictions to develop their own disaster recovery plan that would incorporate mitigation opportunities into the disaster recovery process.

Emergency Operations Plan: An emergency operations plan outlines responsibility and the means by which resources are deployed to respond to an emergency or disaster. Many communities choose to update their emergency operations plan before events occur to better prepare for future disasters. This is an example of hazard mitigation.

- Volusia County Emergency Management maintains the emergency operations plan that also covers their respective jurisdictions. In general, emergency operations planning has been determined to have a moderate effect on loss reduction, as its emphasis focuses on preparedness and response operations rather than hazard mitigation activities.

Continuity of Operation Plan: A continuity of operations plan establishes a chain of command line of succession, and plans for backup or alternate emergency response resources in case of an extreme emergency. Developing a continuity of operation plan is an example of hazard mitigation.

- Each of the other jurisdictions is encouraged to consider preparing their own continuity of operations plans as a possible mitigation action for inclusion this Plan.

7.3.3 General Planning

The implementation of hazard mitigation activities should involve agencies and individuals beyond the emergency management profession. Other stakeholders may include local planners, public works officials, economic development specialists and others. Because in many instances, concurrent local planning efforts help achieve or complement hazard mitigation goals, even though they are not specifically designed as such, the *Capability Assessment Survey* asked questions regarding each jurisdiction's general planning capabilities and the degree to which hazard mitigation is integrated into other ongoing planning efforts.

Comprehensive Land Use Plan: A comprehensive land use plan establishes the overall vision for a community and serves as a guide for future governmental decision making. Typically, a comprehensive plan is comprised of a summary of current and expected demographic conditions, land use, transportation elements and community facilities. Given the broad nature of the plan and its regulatory standing in many communities, the integration of hazard mitigation measures into the comprehensive plan can greatly enhance the likelihood of achieving risk reduction goals, objectives and actions.

- All jurisdictions within the region have a comprehensive land use plan as required by state law.

Capital Improvements Plan: A capital improvements plan guides the scheduling of spending for public improvement projects. A capital improvements plan can serve as an important mechanism to guide future development away from identified hazard areas. Limiting public spending in hazardous areas is one of the most effective long-term mitigation actions available to local governments.

- Volusia County has a Capital Improvements Element (CIE) that is part of the Comprehensive Plan. The Capital Improvement Plan should be considered a local funding source for mitigation projects recommended as part of the Local Mitigation Strategy and the implementation of those actions will help to reduce disaster damages.

Historic Preservation Plan: A historic preservation plan is intended to preserve historic structures or districts within a community. An often overlooked aspect of the historic preservation plan is the assessment of buildings and sites located in areas subject to natural hazards to include the identification of the most effective way to reduce future damages.[3] This may involve retrofitting or relocation techniques that account for the need to protect buildings that do not meet current building standards or are within a historic district that cannot easily be relocated out of harms way.

Zoning Ordinances: Zoning dictates the means by which land use is controlled by a local government. As part of a community's police power, zoning is used to protect the public health, safety and welfare of those within a given jurisdiction. A zoning ordinance is the mechanism through which zoning is implemented. Since zoning regulations enable municipal governments to limit the type and density of development, it can serve as a powerful tool, especially when applied in identified hazard areas.

Subdivision Ordinances: A subdivision ordinance is generally intended to regulate the development of housing, commercial and industrial uses, including associated public infrastructure, as land is subdivided into buildable lots for sale or future development. Subdivision design that accounts for natural hazards can dramatically reduce the exposure of future development.[4]

Building Codes, Permitting and Inspections: Building Codes regulate construction standards. In many communities' permits must be issued and inspections of work must take place for new construction. Decisions regarding the adoption of building codes (that account for hazard risk), the type of permitting process required both before and after a disaster, and the enforcement of inspection protocols all affect the level of hazard risk faced by a community. All Volusia County jurisdictions have adopted and enforce the Florida Building Code.

The adoption and enforcement of building codes by local jurisdictions is routinely assessed through the Building Code Effectiveness Grading Schedule (BCEGS) program developed by the Insurance Services Office, Inc. (ISO).[5] Under the BCEGS program, ISO assesses the building codes and enforcement of these codes in a particular community, with special emphasis on mitigation of losses from natural hazards. The results of BCEGS assessments are routinely provided to ISO's member private insurance companies, which in turn may offer ratings credits for new buildings constructed in communities with strong BCEGS classifications. The concept behind this is that communities with well-enforced, up-to-date codes should have fewer losses, and insurance rates can reflect that in these communities.

In conducting the assessment ISO collects information related to personnel qualifications and continuing education, as well as the number of inspections performed per day. This type of information, combined with local building codes, is used to determine a grade for that jurisdiction. The grades range from 1 to 10, with the lower grade being more ideal. A BCEGS grade of 1 represents exemplary commitment to building code enforcement, and a grade of 10 indicates less than minimum recognized protection. **Section**

[3] See Protecting the Past from Natural Disasters. 1989. Nelson, Carl. National Trust for Historic Preservation: Washington D.C.
[4] For additional information regarding the use of subdivision regulations in reducing flood hazard risk, see Subdivision Design in Flood Hazard Areas. 1997. Morris, Marya. Planning Advisory Service Report Number 473. American Planning Association: Washington D.C.
[5] Participation in BCEGS is voluntary and may be declined by local governments if they do not wish to have their local building codes evaluated.

7: Table 3 lists the BCEGS ratings for the jurisdictions within Volusia County that identified their rating to the planning team.

Section 7: Table 2: BCEGS Ratings in the Region

JURISDICTION	BCEGS RESIDENTIAL RATING	BCEGS COMMERCIAL RATING	YEAR LAST RATED
Daytona Beach	NA	3	NA
Daytona Beach Shores	3	3	NA
Lake Helen	4	4	2000
New Smyrna Beach	4	3	2023
Ormond Beach	3	3	2004
Ponce Inlet	4	3	NA
Port Orange	4	3	2020
South Daytona	3	2	2021

Source: Jurisdictions

7.3.4 Floodplain Management and National Flood Insurance Program (NFIP)

Flooding represents the greatest natural hazard facing the nation. At the same time the tools available to reduce the impacts associated with flooding are among the most developed when compared to other hazard-specific mitigation techniques. In addition to approaches that cut across hazards such as education, outreach, and the training of local officials, the *National Flood Insurance Program* (NFIP) contains specific regulatory measures that enable government officials to determine where and how growth occurs relative to flood hazards. Participation in the NFIP is voluntary for local governments; however, program participation is strongly encouraged by FEMA as a first step for implementing and sustaining an effective hazard mitigation program. It is therefore used as part of this assessment as a key indicator for measuring local capability.

In order for a county or municipality to participate in the NFIP they must adopt a local flood damage prevention ordinance which requires jurisdictions to follow established minimum building standards in the floodplain. These standards require that all new buildings and substantial improvements to existing buildings will be protected from damage by a 100-year flood event, and that new development in the floodplain will not exacerbate existing flood problems or increase damage to other properties.

A key service provided by the NFIP is the mapping of identified flood hazard areas. Once completed, the Flood Insurance Rate Maps (FIRMs) are used to assess flood risk, regulate construction practices and set flood insurance rates.[6] FIRMs are an important source of information to educate residents, government officials and the private sector about the likelihood of flooding in their community. The most recent adopted map is shown in **Section 7: Figure 2**.

[6] https://www.volusia.org/services/public-protection/emergency-management/types-of-disasters/floods/flood-maps.stml

The adoption of the NFIP and local flood damage prevention ordinance for each jurisdiction can be found in each land development municipal Code of Ordinances and/or Land Development Code. The following list identifies each participating jurisdiction adoption of NFIP standards:

- Daytona Beach
  - Daytona Beach, FL, Code of Ordinances § 7-4 (2014).
- Daytona Beach Shores
  - Daytona Beach Shores, FL, Code of Ordinances Appendix G, Chapter 10, Article I, Section 10-1 (2013).
- DeBary
  - DeBary, FL, Code of Ordinances Chapter 14, Article II, Division 1, Section 14-33 (2014).
- DeLand
  - DeLand, FL, Code of Ordinances Chapter 11, Article VI, Section 33-61 (2013).
- Deltona
  - Deltona, FL, Code of Ordinances Chapter 90, Article I (2014).
- Edgewater
  - Edgewater, FL, Code of Ordinances Chapter 7, Article I, Section 7 (2014).
- Holly Hill
  - Holly Hill, FL, Code of Ordinances Chapter 94, Article II (2013).
- Lake Helen
  - Lake Helen, FL Code of Ordinances Part I, Article 10 (2021).
- New Smyrna Beach
  - New Smyrna Beach, FL, Part II Code of Ordinances Chapter 26, Article VIII (2014).
- Oak Hill
  - Oak Hill, FL, Code of Ordinances Chapter 24, Article VII (2013).
- Orange City
  - Orange City, FL, Code of Ordinances Chapter 5, Article I, Section 5.2 (2009).
- Ormond Beach
  - Ormond Beach, FL, Land Development Code Chapter 3, Article II, Section 3-20 (2013).
- Pierson
  - Pierson, FL, Code of Ordinances Chapter 9, Article IV, Division 2, Section 9-162 (2014).
- Ponce Inlet
  - Ponce Inlet, FL, Code of Ordinances Part IV, Chapter VI (2017).
- Port Orange
  - Port Orange, FL. Land Development Code Chapter 8, Article I, Section 1 (2014).
- South Daytona
  - South Daytona, FL, Land Development Code Section VII, Section 7.2 (2017).
- Volusia County
  - Volusia County, FL Code of Ordinances Chapter 72, Article III, Division 7 (2013).

Volusia County Government has several mutual aid agreements with public works departments throughout the county, as well as a Memorandum of Understanding (MOU) between Volusia County and all jurisdictions within the county (adopted in 2014). Local municipalities and the county can also apply for assistance on the federal level. The county refers to the Emergency

Management Assistance Compact. The county and many municipalities participate in the CRS (Community Rating System) to lower mitigation costs for residents.

Volusia Prepares is a multi-jurisdictional, public-private partnership that maintains a comprehensive, county-wide local mitigation strategy and acts as the Hazard Mitigation Representative. Other county and municipal agencies perform routine mitigation-related functions, including but not limited to the following:

- Considering hazard mitigation issues in the county's comprehensive plan and land development code.
- Enforcement of the county's flood plain ordinance.
- Issuance of building permits and enforcing building codes.
- Conducting fire inspections.
- Conducting public information and education programs related to hazard mitigation.

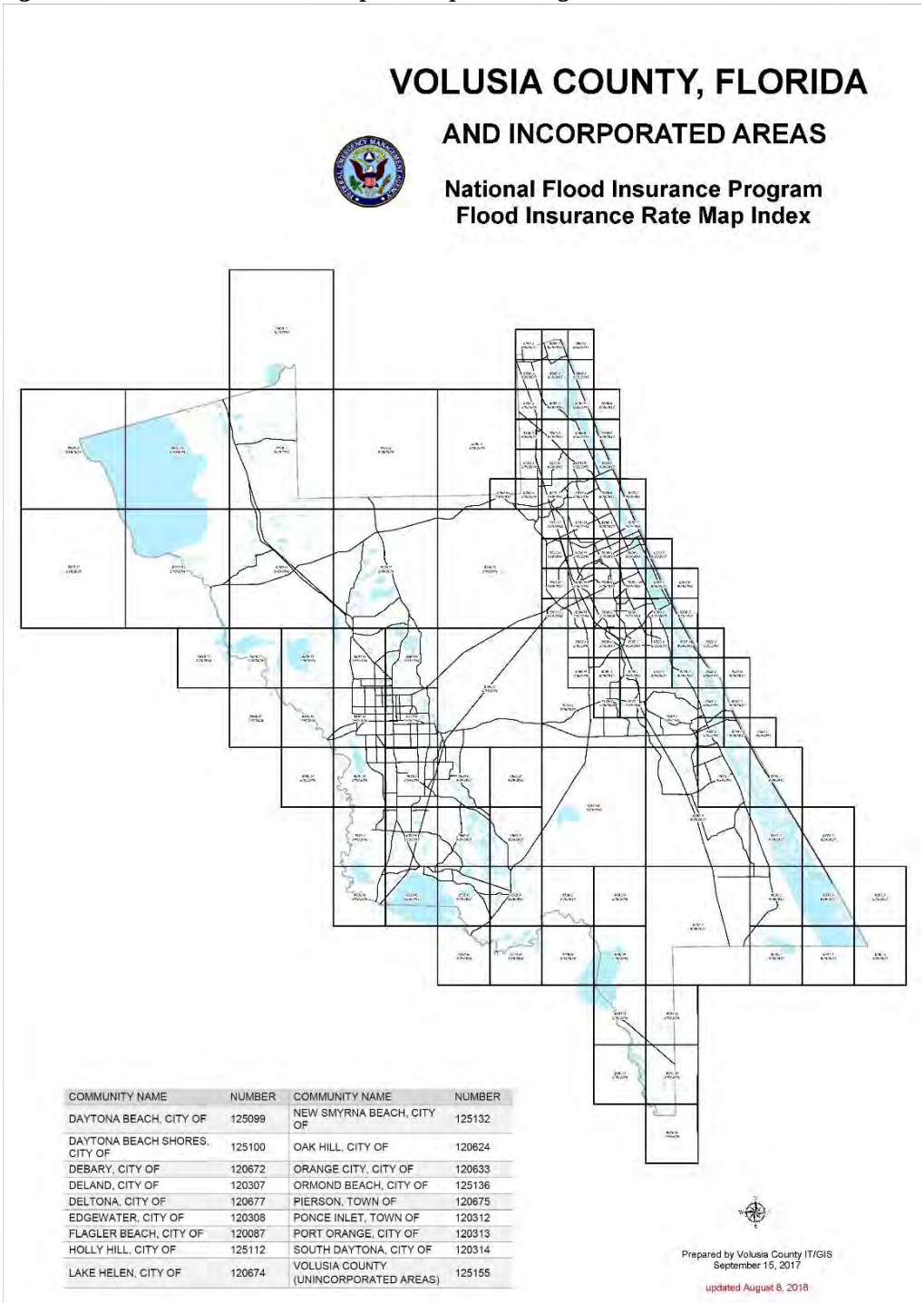
In the post-disaster time frame, the Planning Committee may be requested by the Chair of the Steering Committee to form one or more teams to identify the mitigation opportunities and needs highlighted by the experience with the event. The Chair will request the assistance of the County Emergency Management Division in identifying such individuals and notifying them of the upcoming assessment process. This post-event assessment process will also be utilized, when applicable, to evaluate the effectiveness in mitigation initiatives in place. At a minimum, representatives from the impacted local jurisdictions will be represented on such teams, as will personnel from the County Emergency Management Division serving as Volusia Prepares support staff.

The Emergency Management Division coordinates with the CRS Coordinator, the Growth and Resource Management Department and the Property Appraisers Office to identify substantially damaged structures in SFHAs throughout the entire county and its jurisdictions. Once an incident occurs the Property Appraisers Office will send out teams to conduct the initial assessment of damaged areas and structures. The Property Appraisers Office will work with the municipalities and generate a list of the damaged structures, destroyed, major, minor, and affected, and provide to the Emergency Management Division to disseminate to the state and Emergency Management Partners. The Growth and Resource Management Department will then send out teams to take pictures, leave door hangers, identify if structures are substantially damaged, and mail out letters to the owners of the substantially damaged structures in the SFHAs, to come in for permits. A database will be created after each incident of the substantially damaged structures. The substantially damaged structures in a SFHA database will be shared with the Emergency Management Division. Within 45 days of the incident, the CRS Coordinator will facilitate a meeting with all participating community CRS coordinators and/or floodplain managers from the municipalities to discuss the substantially damaged structures in SFHAs within their jurisdictions. To maintain awareness for mitigation projects, the Emergency Management Division compares mitigation projects to the substantially damaged in a SFHA database.

Support Agencies responsible for implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs:

- Sheriff's Office
- Property Appraiser
- Growth & Resource Management
- Public Works
- Accounting Services
- Budget and Administration Services
- Purchasing Department
- Community Services
- Emergency Services Department
- Municipalities

Section 7: Figure 2: FEMA DFIRM Panel Map. Last updated August 8, 2018[7]



[7] https://volusiacountyfl.maps.arcgis.com/apps/instant/basic/index.html?appid=a12bb2c92372450ca1712a0651815b5f

An additional indicator of floodplain management capability is the active participation of local jurisdictions in the *Community Rating System* (CRS). The CRS is an incentive-based program that encourages counties and municipalities to undertake defined flood mitigation activities that go beyond the minimum requirements of the NFIP, adding extra local measures to provide protection from flooding. All of the 18 creditable CRS mitigation activities are assigned a range of point values. As points are accumulated and reach identified thresholds, communities can apply for an improved CRS class. Class ratings, which run from 10 to 1, are tied to flood insurance premium reductions. As class ratings improve (the lower the number the better), the percent reduction in flood insurance premiums for NFIP policyholders in that community increases.

Community participation in the CRS is voluntary. Any community that is in full compliance with the rules and regulations of the NFIP may apply to FEMA for a CRS classification better than class 10. The CRS application process has been greatly simplified over the past several years, based on community comments intended to make the CRS more user friendly, and extensive technical assistance available for communities who request it.

Volusia County and its 16 jurisdictions are all participants in the National Flood Insurance Program (NFIP) and many jurisdictions participate in the Community Rating System (CRS). Compliance with the NFIP is maintained through:

- Jurisdiction participation in the Volusia Prepares Working Group (quarterly)
- Quarterly submittal of Mitigation Initiatives by jurisdiction
- Complying with NFIP through County/Municipal Floodplain Ordinances (exceed CFR-44)
- Compliance with Florida Building Code

Section 7: Table 3: CRS Premium Discounts, By Class

CRS CLASS	PREMIUM REDUCTION
1	45%
2	40%
3	35%
4	30%
5	25%
6	20%
7	15%
8	10%
9	5%
10	None

Section 7: Table 4: CRS Participation in Volusia County (as of 11/15/2024)

JURISDICTION	CRS CLASSIFICATION	DISCOUNT FOR SFHA
Daytona Beach	5	25%
Daytona Beach Shores	5	25%
DeBary	NA	NA
DeLand	NA	NA
Deltona	9	5%
Edgewater	7	15%
Holly Hill	8	10%
Lake Helen	NA	NA
New Smyrna Beach	5	15%
Oak Hill	NA	NA
Orange City	NA	NA
Ormond Beach	5	25%
Pierson	NA	NA
Ponce Inlet	5	25%
Port Orange	5	25%
South Daytona	7	15%
Volusia County	5	25%

Floodplain Management Plan: A floodplain management plan (or a flood mitigation plan) provides a framework for action regarding the corrective and preventative measures put in place to reduce flood-related impacts. Floodplain management plans are similar to hazard mitigation plans except for the fact that they focus solely on flood hazards and identify specific actions to address flooding problems within a jurisdiction.

- All jurisdictions have a floodplain management plan, located within the County Floodplain Management Plan.

Stormwater Management Plan: A stormwater management plan is designed to address flooding associated with stormwater runoff. The stormwater management plan is typically focused on design and construction measures intended to reduce the impact of minor urban flooding. Stormwater management plans are an excellent way for local governments to regulate stormwater flow within the jurisdiction and to prevent future stormwater problems.

7.3.5 Gaps and Capability Improvements

Small jurisdictions within Volusia County do not have the necessary resources to expand operations beyond what is needed for day-to-day operations. These municipalities rely on support from the County to develop plans and execute necessary safety measures, particularly in times of disaster. Municipalities such as DeBary, Oak Hill, and Pierson fall into this category. These communities often resort to the County's policies to guide their own.

Municipalities such as Daytona Beach, Deltona, New Smyrna Beach, and Ormond Beach have numerous policies in place to support hazard mitigation efforts as described throughout this report. Cities such as DeLand, Edgewater, and Port Orange have more than half of policies listed that support mitigation, but still face serious, ongoing damage from hazards, particularly flooding. Policy gaps and continued development increase the vulnerability to hazards within these jurisdictions.

It is recommended within the next five years that each jurisdiction reviews the existing policies for relevance, adopts additional policies mentioned in this document, and reassess developed or developing areas that are considered high risk as identified in Vulnerability Assessments. If a jurisdiction has not completed a Vulnerability Assessment, this can be accomplished through the Resilient Florida Grant Program.[8] Additionally, within the next five years, all municipalities are encouraged to participate in all LMS quarterly meetings and engage in county-wide resilience working groups to improve their capabilities to respond, mitigate, and recover from disasters.

[8] https://floridadep.gov/rcp/resilient-florida-program/content/resilient-florida-grants

7.4 PUBLIC CAPABILITY ASSESSMENT

As described in Section 2 of the plan, the public engagement sessions and surveys provided insight into residents' capabilities to respond and recover from disasters. The feedback received provides an opportunity for stakeholders to be involved in the planning process.

Residents from the community were invited to the LMS Working Group quarterly meetings, and two public engagement sessions. All residents were encouraged to speak on hazard concerns witnessed in the past five years to provide insight into Volusia County Emergency Management on individual and community level capabilities. The main concern of the public was about hurricane and flooding damage. Key takeaways from the public engagement sessions were:

- Flood mitigation efforts are ad hoc and there is no sole department or person overseeing mitigation efforts.
- There is no true definition of success or metrics on how to measure mitigation efforts to ensure they are working as intended.
- Maintenance and pre-storm preparations do not meet the public's needs for safety and security.
- Local building codes, zoning, and construction practices should be reevaluated to safeguard public confidence.

Additionally, the homeowner surveys collected information on the public's capabilities to respond and recover from disasters. There were 136 responses to this survey. Key takeaways were:

- 82% responded yes to noticing an increase in flood events.
- 49% responded yes to having flood insurance on their property.
- 56% responded no to implementing individual mitigation measures on their property.
- Of the 29% of those who have implemented individual mitigation measures on their property, 29% were landscaping/drainage improvements and 10% installed flood barriers.
- 51% have not implemented individual mitigation measures on their property due to financial setbacks and 20% claimed perceived difficulty.

7.5 EXISTING COUNTY-WIDE EFFORTS

Volusia County has invested resources into various plans and studies prior to this plan's update that contribute towards hazard mitigation and resilience. These plans and studies were reviewed during the update of this plan and discussed during LMS Working Group quarterly meetings by the various stakeholders and departments that completed them. Examples include:

- 2012 Volusia County Sustainability Action Plan
- 2017 Resilient Volusia County Phase 1
- 2018 East Central Florida Regional Resilience Collaborative
- 2019 East Central Florida Regional Resiliency Action Plan (RRAP)
- 2020 Planning for the Financial, Socio-Economic and Infrastructure-Related Effects of Sea Level Rise on Future Hurricane Storm Surge Intensity Report
- 2021 Resilient Volusia County Phase 2- Adaptation Action Areas Report
- 2023 Enhanced State Hazard Mitigation Plan
- 2024 East Central Florida Regional Risk Assessment
- Florida Statewide Regional Evacuation Study Program Regional Hazard Analysis
- Numerous vulnerability assessments throughout cities and county
- Numerous basin studies throughout cities and county

7.6 CONCLUSIONS OF THE CAPABILITY ASSESSMENT

The capability of Volusia County and the participating jurisdictions varies greatly from jurisdiction to jurisdiction. **Table 7.6** lists the total number of jurisdictions that have plans, ordinances and programs in place or under development.

Section 7: Table 5: Relevant Plans, Ordinances and Programs

Plan, Ordinance or Program	Total Number of Jurisdictions
Local Mitigation Strategy	17
Comprehensive Land Use Plan	17
Floodplain Management Plan	17
Open Space Management Plan	8
Stormwater Management Plan	15
Natural Resource Protection Plan	10
Flood Response Plan	11
Emergency Operations Plan	17
Continuity of Operations Plan	11
Evacuation Plan	14
Disaster Recovery Plan	11
Capital Improvements Plan	17
Economic Development Plan	11
Historic Preservation Plan	8
Floodplain Ordinance (or Flood Damage Prevention Ordinance)	17
Zoning Ordinance	17
Subdivision Ordinance	13
Unified Development Ordinance	9
Post-disaster Redevelopment / Reconstruction Ordinance	4
Building Code	17
Fire Code	17
National Flood Insurance Program	17
NFIP Community Rating System	11

Capability *Assessment* and *Risk Assessment* serve as the foundation for a meaningful hazard mitigation strategy. During the process of identifying the goals and mitigation actions each jurisdiction must consider not only their level of hazard risk but also their existing capability to minimize or eliminate that risk.

In jurisdictions where the overall risk of hazard is high, specific mitigation actions that account for these conditions should be considered. This may include less costly actions such as minor ordinance revisions or public awareness activities. If necessary, specific capabilities may need to be improved to better address recurring threats. Similarly, in cases where the hazard vulnerability is low, more emphasis can be placed on actions that may impact future vulnerability, such as guiding development away from known hazard areas using various regulatory measures.

Use of Social Media and Other Media for Warning and Loss Prevention

Volusia County Emergency Management uses its X, formally known as Twitter, and Facebook account to provide warning to residents about incoming storms and other natural hazards. In unison with social media, the County Public Information Officer and Emergency Manager stay in communication with local television stations as well as national television stations such as The Weather Channel before, during and after storm and natural hazard events). Coordination with media sources often includes tips for residents for property mitigation (such as sandbagging) and tips for residents to stay safe after a storm (including staying away from downed power lines and standing water).

As of 2024, Volusia County Emergency Management launched an app focused on public outreach on emergency preparedness. This app sends out push notifications and public safety messages in real-time. The app provides information on topics such as state of emergencies, current events, weather conditions, sheltering, and disaster assistance.

SECTION 8 – MITIGATION STRATEGY

This section of the Plan provides the blueprint for Volusia County and the participating jurisdictions to become less vulnerable to its identified hazards. It is based on general consensus of the Volusia Prepares LMS Working Group (LMS Working Group) and the findings and conclusions of the *Capability Assessment* and *Risk Assessment*. It consists of the following five subsections:

- **Introduction**
- **Mitigation Goals**
- **Identification and Analysis of Mitigation Techniques**
- **Selection of Mitigation Techniques for Volusia County**
- **Mitigation Success Stories**
- **Plan Update Requirement**

8.1 INTRODUCTION

The intent of the Local Mitigation Strategy is to provide Volusia County and the participating jurisdictions with the goals that will serve as guiding principles for future mitigation policy and project administration, along with an analysis of mitigation techniques deemed available to meet those goals and reduce the impact of identified hazards. It is designed to be comprehensive, strategic and functional in nature:

- In being comprehensive, the development of the strategy includes a thorough review of all hazards and identifies extensive mitigation measures intended to not only reduce the future impacts of high-risk hazards, but also to assist the County and participating jurisdictions achieve compatible economic, environmental and social goals.

- In being strategic, the development of the strategy ensures that all policies and projects proposed for implementation are consistent with pre-identified, long-term planning goals.

- In being functional, each proposed mitigation action is linked to established priorities and assigned to specific departments or individuals responsible for their implementation with target completion deadlines. When necessary, funding sources are identified that can be used to assist in project implementation.

The first step in designing the LMS includes the identification of countywide mitigation goals. Mitigation goals represent broad statements that are achieved through the implementation of more specific, action-oriented objectives. These actions include both hazard mitigation policies (such as the regulation of land in known hazard areas through a local ordinance), and hazard mitigation projects that seek to address specifically targeted hazard risks (such as the acquisition and relocation of a repetitive loss structure).

The second step involves the identification, consideration and analysis of available mitigation measures to help achieve the identified mitigation goals. This is a long-term, continuous process, sustained through the development and maintenance of this Plan. Alternative mitigation measures will continue to be

considered as future mitigation opportunities become identified, as data and technology improve, as mitigation funding becomes available, and as this Plan is maintained over time.

The third and last step in designing the LMS is the selection and prioritization of specific mitigation actions, referred to as Hazard Mitigation Initiatives, for Volusia County and participating jurisdictions. The Mitigation Action Plan (MAP) represents an unambiguous and functional plan for action and is considered to be the most essential outcome of the mitigation planning process.

The MAP includes a prioritized listing of proposed hazard mitigation actions (policies and projects) for Volusia County and its participating jurisdictions and partners to carry out with accompanying information such as those departments or individuals assigned responsibility for their implementation, potential funding sources and an estimated target date for completion, serving as an important tool for monitoring success or progress over time. The cohesive collection of actions listed in the MAP can also serve as an easily understood menu of mitigation policies and projects for those local decision makers who want to quickly review the recommendations and proposed actions.

In preparing the Mitigation Action Plan for Volusia County, the LMS Working Group considered the overall hazard risk and capability to mitigate the effects of hazards as determined through the risk and capability assessment process, in addition to meeting the adopted countywide mitigation goals and unique needs of the community. Prioritizing the proposed mitigation actions was based on the following 11 factors:

- Population Benefited
- Health and Safety Considerations
- Environmental Impact
- Consistency with Other Plans and Programs
- Reduces Risk of Future Property Damage
- Supports Essential or Critical Services
- Probability of Receiving Funding for Implementation
- Feasibility of Implementation
- Community Rating System
- Repetitive Loss Mitigation
- Benefit Cost Ratio (to be conducted prior to submitting a project for grant consideration)

The mitigation initiative scoring system is provided in **Section 8: Table 1**.

Section 8: Table 1: Mitigation Initiative Scoring System

Prioritization Criteria	Scoring				
Population Benefited	**4** - Project will benefit a multi-jurisdictional area.	**3** - Project will benefit a jurisdictional area.	**2** - Project will benefit less than 100% of a jurisdiction (i.e., neighborhood).		
Health and Safety Considerations *Add 1 point for projects that benefit a multi-jurisdictional area.	**4** - Project would benefit 75% or more of the population.	**3** - Project would benefit 50-74% of the population.	**2** - Project would benefit 25-49%of the population.	**1** - Project would benefit less than 25% of the population.	
Environmental Impact	**1** - Project improves the environment.	**0** - Risk to the environment is undetermined.	**(-1)** - Project poses risk to the environment.		
Consistence with other Plans and Programs	**4** - Project is incorporated into the LMS, CEMP and Comprehensive Plan, and supports the National Flood Insurance Program (i.e., for flood related projects).	**3** - Project is incorporated into at least two of these plans.	**2 -** Project is incorporated into at least one of these plans.	**1** - Project is consistent with other local standards, aside from LMS, CEMP and Comprehensive Plan.	
Reduces Risk of Future Property Damage	**4 -** Mitigates a hazard of high frequency or risk.	**3 -** Mitigates a hazard of moderate frequency or risk.	**2 -**Mitigates a hazard of low frequency or risk.	**1 -** Mitigates a hazard of very low frequency or risk.	
Supports Essential or Critical Services	**5** - Project will ensure continuity of operations for essential infrastructure or services.	**3** - Project will support infrastructure or services with loss/damage history.	**1** - Project will support infrastructure or services without loss/damage history.	**0** - Project's operation will have no impact on community infrastructure or services if disrupted.	
Probability of Receiving Funding for Implementation	**4** - Limited funding potential exists.	**3** -Potential funding sources are other state or federal grants or similar funding sources.	**2** - Potential funding is readily available through emergency preparedness or mitigation funding sources.	**0** - Potential funding is readily available through local funding sources (e.g., budgeting, capital improvements).	
Feasibility of Implementation	**4** - Project would be relatively easy to implement in one year.	**3** - Project would be easy to implement in three years.	**2** - Project would be easy to implement in five years.	**0** - Project would be difficult to implement.	
Community Rating System	**4** - Project supports all four elements of CRS flood-related activities (public information, mapping and regulations, damage reduction and flood preparedness).	**3** - Project supports three CRS elements.	**2** - Project supports two CRS elements.	**1** - Project supports one CRS element.	**0** - Project does not support any CRS element.
Repetitive Loss Mitigation	**4** - Project protects 50% or more of Repetitive Loss (RL) structures.	**2** - Project protects less than 50% of RL structures.	**0** - Project does not protect a RL structure.		
Benefit Cost Ratio	**5** - Project has a Benefit Cost Ratio (BCR) of "1" or higher, using FEMA approved software.	**3** - Project has a BCR of less than "1" using FEMA approved software.	**0** - The BCR cannot be determined.		

8.2 MITIGATION GOALS

44 CFR Requirement

44 CFR Part 201.6(c)(3)(i):
The mitigation strategy shall include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

For the 2025 plan update, the LMS Working Group used the goal listing updated and developed as part of the 2020 plan update. Each of the following goal statements represent a broad target for Volusia County and its participating jurisdictions and partners to achieve through the implementation of its more detailed Mitigation Action Plan provided in Section 9: *Mitigation Action Plan*. They are intended to reflect the unique needs and wishes of the communities of Volusia County to have a more "disaster resilient" future.

Section 8: Table 2: LMS Working Group Mitigation Goals

GOAL 1: Strengthen effective hazard mitigation programming through policies, regulations, and technology through local government collaborations.
***Objective 1*:** Develop a mechanism to track mitigation projects for active reporting among jurisdictions.
***Objective 2*:** Support the efforts of each jurisdictions' Community Rating Systems program.
***Objective 3*:** Review, develop and enforce policies, plans and regulations to discourage or prohibit inappropriate location of structures or infrastructure components in high-risk areas.
***Objective 4*:** Leverage available information and data from sources, such as individual vulnerability assessments, the Regional Resilience Action Plan, and Adaption Action Areas to further mitigation efforts.
***Objective 5*:** Seek funding to implement and further existing forecasting technology.
***Objective 6*:** Strengthen surveying strategies before and after a disaster for more comprehensive damage assessments.
GOAL 2: Local government will endeavor to have resilient critical infrastructure that supports operations before, during, and after disasters.
Objective 1: Educate local partners on the need for financial planning to reduce risk and recover critical infrastructure quickly after a disaster.
Objective 2: Implement adaptation strategies and encourage routine maintenance of critical infrastructure through physical and geological enhancements using available technology.
***Objective 3*:** Evaluate utility, telecommunications, and information technology systems with external agency partners to determine potential mitigation opportunities.
***Objective 4*:** Assess transportation routes, systems, and infrastructure to identify potential relocation, retrofit, or modification opportunities to ensure safe passage before, during and after disaster events.
***Objective 5*:** Prioritize the functions of emergency service operations and their facilities.
Objective 6: Annually seek opportunities and apply for funding to expand future shelter capacity and for existing shelter retrofits.

GOAL 3: Encourage economic sustainability within the community.
Objective 1: Local government will encourage businesses and industries to make employment facilities and operations more disaster resilient.
Objective 2: Develop partnerships to enhance communication between private sector businesses and local governments.
Objective 3: Offer training to local businesses and professional organizations on all hazard preparedness.
Objective 4: Review the needs of key supply chain demands in the community by establishing programs, facilities or resources to support business continuity.
GOAL 4: Enhance the whole community's understanding of the hazards and the techniques used to minimize vulnerability.
Objective 1: Provide information through outreach activities to further the public's understanding of local hazards and residential vulnerabilities.
Objective 2: Inform tourists on the hazard risks and preparedness.
Objective 3: Collaborate with private sector associations and businesses to further disaster preparedness and business continuity.
Objective 4: Encourage each jurisdiction to participate in trainings and exercises and share resources with one another.

8.3 IDENTIFICATION AND ANALYSIS OF MITIGATION TECHNIQUES

44 CFR Requirement

44 CFR Part 201.6(c)(3)(ii):
The mitigation strategy shall include a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effect of each hazard, with particular emphasis on new and existing buildings and infrastructure.

In formulating the LMS for Volusia County, a wide range of activities were considered to help achieve the established mitigation goals in addition to addressing any specific and targeted hazard concerns. These activities were discussed by the LMS Working Group at meetings held over the course of plan development. In general, all activities considered by the LMS Working Group can be classified under one of the following six (6) broad categories of mitigation techniques.

1. Prevention
Preventative measures are intended to keep hazard problems from getting worse and are typically administered through government programs or regulatory actions that influence the way land is developed and buildings are built. They are particularly effective in reducing a community's future vulnerability, especially in areas where development has not occurred or capital improvements have not been substantial. Examples of preventative activities include:

- Planning and zoning
- Building codes
- Open space preservation
- Floodplain regulations
- Stormwater management regulations
- Drainage system maintenance
- Capital improvements programming
- Riverine / fault zone setbacks

2. Property Protection
Property protection measures involve the modification of existing buildings and structures to help them better withstand the forces of a hazard, or removal of the structures from hazardous locations. Examples include:

- Acquisition
- Relocation
- Building elevation
- Critical facilities protection
- Retrofitting (e.g., wind proofing, floodproofing, seismic design techniques, etc.)
- Safe rooms, shutters, shatter-resistant glass
- Insurance

3. Natural Resource Protection

Natural resource protection activities reduce the impact of natural hazards by preserving or restoring natural areas and their protective functions. Such areas include floodplains, wetlands, steep slopes and sand dunes. Parks, recreation or conservation agencies and organizations often implement these protective measures. Examples include:

- Floodplain protection
- Watershed management
- Riparian buffers
- Forest and vegetation management (e.g., fire resistant landscaping, fuel breaks, etc.)
- Erosion and sediment control
- Wetland preservation and restoration
- Habitat preservation
- Slope stabilization

4. Structural Projects

Structural mitigation projects are intended to lessen the impact of a hazard by modifying the environmental natural progression of the hazard event through construction. They are usually designed by engineers and managed or maintained by public works staff. Examples include:

- Reservoirs
- Dams / levees / dikes / floodwalls
- Diversions / detention / retention
- Channel modification
- Storm sewers

5. Emergency Services

Although not typically considered a “mitigation” technique, emergency service measures do minimize the impact of a hazard event on people and property. These commonly are actions taken immediately prior to, during, or in response to a hazard event. Examples include:

- Warning systems
- Evacuation planning and management
- Emergency response training and exercises
- Sandbagging for flood protection
- Installing temporary shutters for wind protection

6. Public Education and Awareness

Public education and awareness activities are used to advise residents, elected officials, business owners, potential property buyers, and visitors about hazards, hazardous areas, and mitigation techniques they can use to protect themselves and their property. Examples of measures to educate and inform the public include:

- Outreach projects
- Speaker series / demonstration events

- Hazard map information
- Real estate disclosure
- Library materials
- School children educational programs
- Hazard expositions

8.4 SELECTION OF MITIGATION TECHNIQUES FOR VOLUSIA COUNTY

In order to determine the most appropriate mitigation techniques for Volusia County, the LMS Working Group thoroughly reviewed and considered collective findings of various community assessments. Other considerations included each individual mitigation action's effect on overall risk to life and property, health and safety, the environment, plan consistency, its ease of implementation and general cost-effectiveness, and funding availability (if necessary).

FEMA guidance for meeting the planning requirements of the Disaster Mitigation Act of 2000 specifies that local governments should prioritize their mitigation actions based on the level of risk a hazard poses to life and property. In response to this requirement, the LMS Working Group used and completed a Mitigation Techniques Matrix (**Section 8: Table 3**) to make certain they addressed, at a minimum, those hazards posing the greatest threat.

Section 8: Table 3: Mitigation Techniques Matrix for Volusia County

MITIGATION TECHNIQUE	HIGH RISK HAZARDS			
	FLOOD	TROPICAL CYCLONES	RISING COASTAL WATERS	TORNADO
Prevention	✓	✓	✓	✓
Property Protection	✓	✓	✓	✓
Natural Resource Protection	✓	✓	✓	
Structural Projects	✓	✓	✓	✓
Emergency Services	✓	✓	✓	✓
Public Education & Awareness	✓	✓	✓	✓

The Mitigation Techniques Matrix provides the LMS Working Group with the opportunity to cross-reference each of the priority high risk hazards, the aforementioned comprehensive range available mitigation techniques, including prevention; property protection; natural resource protection; structural projects; emergency services; and public education and awareness. However, it is important to note that Volusia County's Mitigation Action Plan includes an array of actions targeting multiple hazards and is not necessarily limited to only those classified as high risk.

Additional mitigation strategies range from:

- Seawalls
- Breakwaters
- Habitat restoration
- Beach renourishment
- Living Shorelines
- Elevating major roadways
- Raising vulnerable structures
- Water pump systems
- Underground utilities
- Permeable pavement
- Low impact development
- Floodproofing structures
- Rain gardens
- Increase density standards
- Land acquisition
- Public Outreach and Education

8.5 PLAN REVISIONS

Because of FEMA requirements for plan updates, the Mitigation Action Plan was reviewed by each agency responsible identified for implementing the action. For each action, an update on the implementation status (completed, deleted, or deferred) was provided and milestones achieved or impediments to implementation of the actions were identified to adjust the project list as necessary.

The current goals and objectives were updated and refined through a series of virtual and in-person meetings in 2024. All members of the Volusia Prepares Working Group were invited to participate in the meetings outside the quarterly meetings. All feedback was evaluated and incorporated into the outlined goals and objectives.

Flooding, rising coastal waters, and tropical cyclones were the top concerns for the LMS Volusia Prepares Working Group and residents throughout Volusia County. These hazards are complex issues with multiple contributing factors, often specific to a given site. Effective mitigation requires accurate data collection and analysis to identify areas that have experienced repeated damage. Prioritization should be given to these locations, followed by those that have been damaged most recently, ensuring that resources are allocated efficiently to address the most impacted areas first. Given the constraints of available resources, it is essential to focus on areas where mitigation efforts will have the greatest impact.

Public concerns regarding such hazards have frequently attributed the issue to new development. While development can be a contributing factor in certain locations—such as Venetian Bay in New Smyrna Beach, Old Dixie Highway in Ormond Beach, the west side of Daytona Beach, and new miscellaneous subdivisions throughout the county—these hazards are typically the result of a combination of factors. Addressing existing challenges requires a site-specific approach that considers a broad range of contributing causes and solutions.

SECTION 9 – MITIGATION ACTION PLAN

44 CFR Requirement

44 CFR Part 201.6(c)(3)(iii): The mitigation strategy shall include an action plan describing how the actions identified in paragraph (c)(2)(ii) of this section will be prioritized, implemented, and administered by the local jurisdiction.

This section includes the listing of the mitigation actions proposed by Volusia County and its participating jurisdictions and partners. It has been designed to achieve the mitigation goals and objectives established in Section 8: Mitigation Strategy and will be maintained on a regular basis according to the plan maintenance procedures established in Section 10: Plan Maintenance Procedures.

As described in the previous section, the Mitigation Action Plan, or MAP, represents an unambiguous and functional plan for action. Each proposed mitigation action has been identified as an effective measure (policy or project) to reduce hazard vulnerability for Volusia County.

Most importantly, implementation mechanisms are provided for each action, including the designation of a lead agency or department responsible for implementing the action. Specific information regarding project cost and timeframe for its completion is on file with Volusia County Emergency Management. These implementation mechanisms ensure that Volusia County Local Mitigation Strategy remains a functional document that can be monitored for progress over time.

Section 9: Table 1: Key Elements of the Mitigation Action Plan

Priority	Indicates whether the action is a "low" priority, "moderate" priority or "high" priority based on the established prioritization criteria: Low = <10; Moderate = 11-24; High = 25+
Jurisdiction	Identifies the geographic location where the initiative is located.
Responsible Organization	Identifies the local agency, department or organization that is best suited to implement the proposed action, project or initiative.
Hazard(s)	Lists the hazard(s) the proposed action is designed to mitigate against.
Mitigation Technique Category	It indicates the mitigation technique that the proposed action is designed to help achieve. Categories include E = Emergency Services; P = Prevention; PE = Public Education; PP = Property Protection; S = Structural
Initiative	Identifies a specific action that, if accomplished, will reduce vulnerability and risk in the impact area. Actions may be in the form of local policies (i.e., regulatory or incentive-based measures), programs or structural mitigation projects and should be consistent with any pre-identified mitigation goals and objectives. An identification number is provided. The county has additional information on files for each initiative (e.g., location, damage history, specific mitigation measure, estimated cost, etc.)
Funding	If applicable, it indicates how the cost to complete the action will be funded. For example, funds may be provided from existing operating budgets or general funds, a previously established contingency fund, a cost-sharing federal or state grant program, etc. The default funding source for initiatives within this listing is the Hazard Mitigation Grant Program (HMGP). Outside of the HMGP, funding sources for these projects are typically determined on the local level for "proactive" projects that do not need a disaster declaration to be funded. However, most of the projects on this listing do not have a set funding source, which defaults the project to HMGP. If identified, specific funding sources will be attributed to initiatives.
Approved by LMS Working Group	Identifies the date when the initiative was approved by the LMS Working Group
Completion Date	Indicates when the action was completed. Remember that some actions will require only a minimal amount of time, while others may require a long-term or continuous effort. Projects are "deferred" or "terminated" from list listing at the discretion of the jurisdiction that is implementing those changes. When initiatives are deferred or deleted on the jurisdictional level, countywide representatives are notified via the LMS Working Group (or Volusia Prepares), and the countywide initiative listing is updated at that time.
Status	The status indicators for each initiative is as follows: • C = Current • D = Deferred ****See notes under "Completion Date" above**** • N = New • T = Terminated ****See notes under "Completion Date" above**** • U = Updated • CF = Completed with other funding • W = Withdrew • L = Looking for other funding

Each mitigation initiative has been scored by the responsible jurisdiction. The scoring system is included in Section 8: Mitigation Strategy.

Prioritizing the proposed mitigation actions was based on the following 11 factors:

- Population Benefited
- Health and Safety Considerations
- Environmental Impact
- Consistency with Other Plans and Programs
- Reduces Risk of Future Property Damage
- Supports Essential or Critical Services
- Probability of Receiving Funding for Implementation
- Feasibility of Implementation
- Community Rating System
- Repetitive Loss Mitigation
- Benefit Cost Ratio (to be conducted prior to submitting a project for grant consideration)

Each mitigation initiative was scored on 10 of these 11 factors. The jurisdictions have not run an official benefit cost analysis (BCA) for the initiatives at this time. The jurisdictions did include a general BCA in the mitigation initiative application that was submitted to Volusia County Emergency Management. However, the BCA will be run for the initiatives following a disaster to factor in all known damage costs.

The mitigation initiatives are not listed in exact priority order, though each has been assigned a priority level of “low”, “moderate”, or “high”.

All mitigation initiatives included in the Action Plan that propose to reduce flood hazard vulnerability advance the intent of the National Flood Insurance Program (NFIP), as they will meet the current local floodplain regulations adopted by the jurisdictions as required by the NFIP. Two of the scoring factors used to determine the priority of the actions specifically address the intent of the NFIP and the Community Rating System (CRS). These two factors consider whether the initiative supports elements of the CRS and reduces repetitive flood losses.

Volusia County is highly committed to reducing flood losses in support of the NFIP and has predominantly used local funding to implement these projects. Examples of these initiatives include acquiring and relocating repetitive loss structures, relocating critical facilities from the 100-year floodplain, floodproofing equipment at water treatment plants, performing drainage improvement projects and creating new topographic maps based on newly collected Light Detection and Ranging (LiDAR) data. Approximately half of open disaster mitigation initiatives support flood hazard vulnerability reduction.

The open mitigation initiatives are listed in the Action Plan in **Section 9: Table 2** If a mitigation initiative does not have a status indicator, it is considered “open.

In 2019, the East Central Florida Regional Planning Council and Volusia County Emergency Management mapped the locations of all mitigation projects, by type, as part of a project with the Florida Department of Environmental Protection. These maps are available upon request.

Section 9: Table 2: Mitigation Action Plan: Open Mitigation Initiatives by Jurisdiction (as of 1/28/2025)

Project #	Priority	Jurisdiction	Responsible Organization	Hazard(s)	Mitigation Technique Category	Initiative	Funding	Est. Cost	Approved by LMS Working Group	Anticipated Completion Date	Status
VOL-0546	Ian (2)	Ormond Beach	Public Works	Flood	P PP S	VOL -0546 Fleming Avenue Pump Station Central Park Flood Mitigation	HMGP	$12,561,200.00	10/3/2019	12/31/2028	C
VOL-0555	Ian (10)	Holly Hill	Public Works	Flood	P PP	VOL- 0555 Lift Station #21 Refurbishment	HMGP	$516,000.00	10/3/2019	12/31/2028	C
VOL-0560		Volusia County	VCEM	Riverine Surge	P PP S	VOL-0560 Elevate and retrofit flood prone home	FMA		10/3/2019	1/1/2024	T
VOL-0561		Volusia County	VCEM	Riverine Surge	P PP S	VOL-0561 Elevate and retrofit flood prone home	FMA		10/3/2019	1/1/2024	T
VOL-0562		FL Hospital DeLand	EM Coordinator	All Hazard	P PP S	VOL-0562 Upgrade Windows	HMGP		9/12/2018	1/1/2023	T
VOL-0563	63	Holly Hill	Public Works	Flood	P PP S	VOL-563 Elevation fo home at 318 Riverside Dr.	HMGP	$379,500.00	9/12/2018	1/1/2023	C
VOL-0564		DeLand	Risk Management	All Hazard	P PP S	VOL- 564 Generator Power for sheltering	HMGP		3/20/2019	1/1/2024	CF
VOL-0565		Volusia County	VCEM	Flood	P PP S	VOL- 0565 Elevate and Retrofit home at 1036 Shockney Dr Ormond Beach	FMA		10/3/2019	1/1/2024	T
VOL-0566		Volusia County	VCEM	Flood	P PP S	VOL- 0566 Elevate and Retrofit home at 6411 River Road New Smyrna Beach	FMA		10/3/2019	1/1/2024	T
VOL-0567		Volusia County	VCEM	Flood	P PP S	VOL- 0567 Elevate and Retrofit home at 364 Seminole Dr Ormond Beach	FMA		10/3/2019	1/1/2024	T

Project #	Priority	Jurisdiction	Responsible Organization	Hazard(s)	Mitigation Technique Category	Initiative	Funding	Est. Cost	Approved by LMS Working Group	Anticipated Completion Date	Status
VOL-0568		Volusia County	Coastal Division	Flood Surge	P PP	VOL- 0568 ISB Public Restroom demolition and rebuild at higher elevation	HMGP		3/31/2020	4/1/2025	T
VOL-0569		Volusia County	Coastal Division	Flood Surge	P PP	VOL- 0569 Bethune Beach Public Restroom demolition and rebuild at higher elevation	HMGP		3/31/2020	4/1/2025	T
VOL-0570		Volusia County	Coastal Division	Flood Surge	P PP	VOL-0570 Silver Beach public Restroom demolition and rebuild at higher elevation	HMGP		3/31/2020	4/1/2025	T
VOL-0571	64	Volusia County	Fire Services	All Hazard	P PP ES	VOL-0571 Replacement Generator for Volusia County Fire Station 21	HMGP	$70,377.00	3/31/2020	4/1/2025	C
VOL-0572		Volusia County	Fire Services	All Hazard	P PP S ES	VOL-0572 Relocation and new construction of Station 44 (132 N. Fountain Dr. Pierson)	HMGP	$4,092,105.00	3/31/2020	4/1/2025	T
VOL-0573		Volusia County	Fire Services	All Hazard	P PP S ES	VOL-0573 Increased Hurricane Rating of Bay Doors at DBIA Fire Station 17	HMGP	$630,000.00	9/30/2020	10/1/2025	T
VOL-0574		Volusia County	Fire Services	All Hazard	P PP S ES	VOL-0574 Replacement generator for Volusia County Fire Rescue Fire Station 11 located at: 1580 Derbyshire Road, Holly Hill, FL 32117	HMGP	$42,551.00	9/30/2020	10/1/2025	T
VOL-0575		Volusia County	Beach Safety	Flood Surge	P PP S	VOL-0575 Ponce de Leon Inlet North Jetty Deck Extension	HMGP		12/9/2020	12/10/2025	T

Project #	Priority	Jurisdiction	Responsible Organization	Hazard(s)	Mitigation Technique Category	Initiative	Funding	Est. Cost	Approved by LMS Working Group	Anticipated Completion Date	Status
VOL-0576	65	DeLand	Risk Management	Flood	P	VOL-0576 City Hall Basin Area Improvements, The City of DeLand is seeking funding to construct a dedicated drainage infrastructure system to remedy the localized flooding	HMGP	$4,279,952.00	3/31/2021	12/31/2026	C
VOL-0577	66	DeLand	Risk Management	Flood Wind	PP	VOL-0577 Sanborn Center Hurricane Shutters	HMGP	$78,061.14	3/31/2021	12/31/2026	C
VOL-0578		Deltona	Fire	Flood Wind	P S ES	VOL-0578 Safe Rooms / Emergency Operations Center (EOC) / Fire Department Training Facility.	HMGP		3/31/2021	12/31/2026	T
VOL- 0579	67	Ormond Beach	Public Works	Flood	PP P	VOL-0579 John Anderson Drive Drainage Improvements	HMGP	$230,000.00	3/31/2021	12/31/2026	C
VOL-0580	68	South Daytona	Public Works	All Hazard	P PP S	VOL-0580 City Hall Complex Generator	HMGP	$420,000.00	3/31/2021	12/31/2026	C
VOL-0581	COVID (1)	Volusia County	EM	All Hazard	P PP S	VOL-0581 Residential elevation project of 356 Seminole Drive	HMGP	$221,280.00	3/31/2021	12/31/2026	C
VOL-0583	COVID (2)	Volusia County	Fire	All Hazard	P PP S ES	VOL-0583 Infrastructure Retrofit & Safe Room of Station 42	HMGP	$3,800,000.00	3/31/2021	12/31/2026	C
VOL-0584	COVID (3)	Volusia County	Fire	All Hazard	P PP S ES	VOL-0584 Infrastructure Retrofit & Safe Room of Station 34	HMGP	$ -	3/31/2021	12/31/2026	T
VOL-0585		Volusia County	Public Works	Flood	P PP S	VOL-0585 North Beach Street - Grade Raise & Culvert additions	HMGP		3/31/2021	12/31/2026	T

Project #	Priority	Jurisdiction	Responsible Organization	Hazard(s)	Mitigation Technique Category	Initiative	Funding	Est. Cost	Approved by LMS Working Group	Anticipated Completion Date	Status
VOL-0586		Volusia County	Fire Rescue	All Hazard	P S ES	VOL - 0586 Indian Lake Emergency Services Project	BRIC	$ -	9/6/2022	12/31/2027	T
VOL-0587	Ian (5)	Deltona	City Manager's Office	Flood	P PP S ES	VOL-0587 Elkcam Blvd	HMGP	$8,000,000.00	3/10/2023	12/31/2028	C
VOL-0588		Deltona	City Manager's Office	Flood	P PP S ES	VOL-0588 Tulsa Drive	HMGP		3/10/2023	12/31/2028	T
VOL-0589	Ian (17)	Deltona	City Manager's Office	Flood	P PP S ES	VOL-0589 Catalina	HMGP	$2,250,000.00	3/10/2023	12/31/2028	C
VOL-0590		Deltona	City Manager's Office	Flood	P PP S ES	VOL-0590 East Brook	HMGP		3/10/2023	12/31/2028	T
VOL-0591		Deltona	City Manager's Office	Flood	P PP S ES	VOL-0591 Windsor Lake	HMGP		3/10/2023	12/31/2028	T
VOL-0592		Deltona	City Manager's Office	Flood	P PP S ES	VOL-0592 Lake Dupont	HMGP		3/10/2023	12/31/2028	T
VOL-0593		Deltona	City Manager's Office	Flood	P PP S ES	VOL-0593 Lake Angela	HMGP		3/10/2023	12/31/2028	T
VOL-0594	Ian (7), Nicole (1)	Orange City	City Manager's Office	Flood	P PP S ES	VOL- 0594 Graves Ave	HMGP	$3,541,800.00	3/10/2023	12/31/2028	C
VOL-0595		Orange City	City Manager's Office	Flood	P PP S ES	VOL-0595 Mill Lake	HMGP	$800,000.00	3/10/2023	12/31/2028	L
VOL-0596	Ian (19)	Holly Hill	Public Works	Flood	PP P	VOL-0596 Lift Station #7	HMGP	$100,000.00	3/10/2023	12/31/2028	C
VOL-0597		Holly Hill	Public Works	Flood	PP P	VOL-0597 Lift Station #11	HMGP		3/10/2023	12/31/2028	T
VOL-0598		Holly Hill	Public Works	Flood	PP P	VOL-0598 Lift Station # 14	HMGP		3/10/2023	12/31/2028	T
VOL-0599		Holly Hill	Public Works	Flood	PP P	VOL-0599 Lift Station # 16	HMGP		3/10/2023	12/31/2028	T
VOL-0600	69	New Smyrna Beach	Engineering	Flood	PP P	VOL-0600 4 Residential Demolitions	HMGP	$1,400,000.00	3/10/2023	12/31/2028	C
VOL-0601	Ian (6)	New Smyrna Beach	Engineering	Flood	PP P	VOL-0601 16 Residential Elevations	HMGP	$4,800,000.00	3/10/2023	12/31/2028	C

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VOL-0602	Ian (16)	New Smyrna Beach	Engineering	Flood	PP P	VOL-0602 9 Residential Elevations	HMGP	$2,900,000.00	3/10/2023	12/31/2028	C
VOL-0603	70	South Daytona	Public Works	Flood	PP P	VOL-0603 Facility retrofit	HMGP		3/10/2023	12/31/2028	T
VOL-0604	Ian (9)	South Daytona	Public Works	Flood	PP P	VOL-0604 Lift Stations	HMGP	$1,350,000.00	3/10/2023	12/31/2028	C
VOL-0605	71	South Daytona	Public Works	Flood	PP P	VOL-0605 Lift stations upgrades	HMGP	$225,000.00	3/10/2023	12/31/2028	C
VOL-0606	Ian (18), Nicole (26)	South Daytona	Public Works	Flood	PP P	VOL-0606 Storm water stations	HMGP	$385,000.00	3/10/2023	12/31/2028	C
VOL-0607		South Daytona	Public Works	Flood	PP P	VOL-0607 Safe Room	HMGP		3/10/2023	12/31/2028	T
VOL-0608	Ian (22)	Volusia County	Emergency Management	Flood	PP P	VOL-0608 Coleman Residential Elevation	HMGP	$135,000.00	3/10/2023	12/31/2028	C
VOL-0609	Ian (24), Nicole (3)	Volusia County	Emergency Management	Flood	PP P	VOL-0609 Blackburn Residential Elevation	HMGP	$278,520.00	3/10/2023	12/31/2028	C
VOL-0610	Ian (3)	Port Orange	Public Works	Flood	PP P	VOL-0610 20 houses/10 Mobile Homes elevation	HMGP	$9,000,000.00	3/10/2023	12/31/2028	C
VOL-0611	Ian (14)	Volusia County	Fire Services	All Hazard	PP P	VOL-0611 Station 15 Generator	HMGP	$130,000.00	3/10/2023	12/31/2028	C
VOL-0612	Nicole (2)	Volusia County	Fire Services	All Hazard	PP P	VOL-0612 Station 35 Generator	HMGP	$70,000.00	3/10/2023	12/31/2028	C
VOL-0613	Ian (1)	Edgewater	Environmental Services	Flood Surge	P PP S ES	VOL-0613 Wastewater Treatment Plant Expansion and Flood-proofing	HMGP	$15,000,000.00	3/10/2023	12/31/2028	C
VOL-0614	72	Ormond Beach	City Engineer	Flood	P PP S ES	VOL-0614 Flood Control Pump Station on Fleming Avenue	HMGP	$12,561,200.00	3/10/2023	12/31/2028	C
VOL-0615	73	Ormond Beach	City Manager's Office	All Hazard	PP P	VOL-0615 Acquisition 293 Melrose Ave	FMA	$384,516.00	3/10/2023	12/31/2028	C

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VOL-0616	74	Ormond Beach	City Manager's Office	All Hazard	PP P	VOL-0616 Elevation and Retrofit 320 Sanchez Ave	FMA	$380,628.00	3/10/2023	12/31/2028	C
VOL-0617	75	Ormond Beach	City Manager's Office	All Hazard	PP P	VOL-0617 Elevation and Retrofit 363 Putnam Ave	FMA	$301,494.00	3/10/2023	12/31/2028	C
VOL-0618	76	Ormond Beach	City Manager's Office	All Hazard	PP P	VOL-0618 Elevation and Retrofit 364 Putnam Ave	FMA	$204,480.00	3/10/2023	12/31/2028	C
VOL-0619	77	Ormond Beach	City Manager's Office	All Hazard	PP P	VOL-0619 Elevation and Retrofit 520 West Street	FMA	$280,000.00	3/10/2023	12/31/2028	C
VOL-0620	78	Ponce Inlet	City Manager's Office	All Hazard	P PP S ES	VOL-0620 Generator Public Works Facility	HMGP	$40,000.00	3/11/2023	12/31/2028	C
VOL-0621	Ian (15)	Ponce Inlet	City Manager's Office	All Hazard	P PP S ES	VOL-0621 Generator Standby Power for Community Center	HMGP	$70,000.00	3/11/2023	12/31/2028	C
VOL-0622	79	Ponce Inlet	City Manager's Office	All Hazard	P PP S ES	VOL-0622 Generator Replacement Standby Power for Fire Station	HMGP	$70,000.00	3/11/2023	12/31/2028	C
VOL-0623	80	Volusia County	Emergency Management	All Hazard	P PP S ES	VOL-0623 Multiroom Expansion/Saferoom for the EOC	HMGP	$4,032,630.00	3/11/2023	12/31/2028	C
VOL-0624		Volusia County	Emergency Management	Flood	PP P	VOL-0624 Elevation 1092 Peninsula Drive	HMGP		3/15/2023	12/31/2028	T
VOL-0625	Ian (12)	Volusia County	Emergency Management	Flood	PP P	VOL-0625 Acquisition 241 Cherokee Drive	HMGP	$300,000.00	3/15/2023	12/31/2028	C
VOL-0626	Ian (21)	Ormond Beach	Fire Rescue	All Hazard	PP P	VOL-0626 Generator Fire Stations 92 and 93	HMGP	$250,000.00	3/15/2023	12/31/2028	C
VOL-0627		Volusia County	Emergency Management	Flood	PP P	VOL-0627 225 Brandy Court Elevation	HMGP		3/16/2023	12/31/2028	T

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VOL-0628	Ian (11)	Daytona Beach	City Manager's Office	All Hazard	PP P	VOL-0628 Generators for Lift Stations at 1808 Mason Ave, 647 Shady Place, 507 N. Clyde Morris Blvd, 510 Ora Street, 433 Auburn Drive, 1317 Avenue, 310 Yorktown Drive	HMGP	$1,550,000.00	3/16/2023	12/31/2028	C
VOL-0629		Daytona Beach	City Manager's Office	All Hazard	PP P	VOL-0629 Generator for Lift Station at 647 Shady Place	HMGP		3/16/2023	12/31/2028	T
VOL-0630		Daytona Beach	City Manager's Office	All Hazard	PP P	VOL-0630 Generator for Lift Station at 507 N. Clyde Morris Blvd.	HMGP		3/16/2023	12/31/2028	T
VOL-0631		Daytona Beach	City Manager's Office	All Hazard	PP P	VOL-0631 Generator for Lift Station at 510 Ora Street	HMGP		3/16/2023	12/31/2028	T
VOL-0632		Daytona Beach	City Manager's Office	All Hazard	PP P	VOL-0632 Generator for Lift Station at 433 Auburn Drive	HMGP		3/16/2023	12/31/2028	T
VOL-0633		Daytona Beach	City Manager's Office	All Hazard	PP P	VOL-0633 Generator for Lift Station at 1317 Avenue D	HMGP		3/16/2023	12/31/2028	T
VOL-0634		Daytona Beach	City Manager's Office	All Hazard	PP P	VOL-0634 Generator for Lift Station at310 Yorktown Drive	HMGP		3/16/2023	12/31/2028	T
VOL-0635	Ian (8)	DAB Shores	Finance Department	All Hazard	P PP S ES	VOL-0634 Multipurpose Saferoom	HMGP	$3,997,770.00	3/17/2023	12/31/2028	C
VOL-0636	Ian (23)	DAB Shores	Finance Department	All Hazard	P PP S ES	VOL-0636 Generator for Community Center	HMGP	$120,000.00	3/17/2023	12/31/2028	C
VOL- 0637											

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VOL- 0638											
VOL- 0639		Volusia County	Public Works/Utilities Priority 1	Flood	P PP S	Two (2) By-Pass Pumps and Slipline 5,225 linear feet of Sanitary Sewer Pipes for Stone Island	HMGP	$426,950.00	3/17/2023	12/31/2028	W
VOL- 0640	Ian (25)	Volusia County	Public Works/Utilities	Flood	P PP S	Slipline 20,800 linear feet of Sanitary Sewer Pipes within the Southwest Service Area (DeBary)	HMGP	$891,240.00	3/17/2023	12/31/2028	C
VOL- 0641	Ian (20)	Volusia County	Public Works/Utilities	Flood	P PP S	Six (6) Permanent Sanitary Sewer Emergency Bypass Pumping Systems	HMGP	$495,000.00	3/17/2023	12/31/2028	C
VOL- 0642											
VOL- 0643											
VOL- 0644	Ian (13)	Town of Pierson	Town Clerk	All hazards	P PP S	Two (2) Generators for New EOC Command Center (Administrative Offices & Cafeteria Building)	HMGP	$160,000.00	3/17/2023	12/31/2028	C
VOL- 0645	Ian (4)	Port Orange	Public Works	Flood	P PP	Demolition and Reconstruction of 4 Flood-Prone Homes	HMGP	$1,048,204.00	3/17/2023	12/31/2028	C
VOL- 0646	Ian (26)	Deltona	City Manager's Office	All Hazards	P PP	Centro Internacional De La Familia Generator	HMGP	$450,000.00	3/17/2023	12/31/2028	C
VOL- 0647	Nicole (5)	Port Orange	Public Works	Flood	P PP	Elevation of 9 Flood-Prone Homes	HMGP	$2,890,736.00	3/17/2023	12/31/2028	C
VOL- 0648	Nicole (6)	Port Orange	Public Works	Flood	P PP	Acquisition of 7 Flood-Prone Homes	HMGP	$2,883,705.00	3/17/2023	12/31/2028	C

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VOL- 0649	Nicole (34)	Port Orange	Public Works	Flood	P PP	Demolition and Reconstruction of 1 Flood-Prone Home	HMGP	$198,795.00	3/17/2023	12/31/2028	C
VOL- 0650	Nicole (7)	Port Orange	Public Works	Flood	P PP	Elevation of 5 Flood-Prone Homes	HMGP	$2,352,111.00	3/17/2023	12/31/2028	C
VOL- 0651	Nicole (10)	New Smyrna Beach	Engineering Department	Flood	P PP	Elevation of 5 Flood-Prone Homes	HMGP	$1,463,589.00	3/17/2023	12/31/2028	C
VOL- 0652	Nicole (33)	New Smyrna Beach	Engineering Department	Flood	P PP	Demolition and Reconstruction of 1 Flood-Prone Home	HMGP	$455,891.00	3/17/2023	12/31/2028	C
VOL- 0653	Nicole (15)	Deltona	City Manager's Office	Flood	P PP	Elevation of 2560 West Tulsa Drive	HMGP	$378,530.00	3/17/2023	12/31/2028	C
VOL- 0654	Nicole (9)	Deltona	City Manager's Office	All Hazards	P PP ES	City Hall Permanent Generator	HMGP	$1,500,000.00	3/17/2023	12/31/2028	C
VOL- 0655	Nicole (8)	Deltona	City Manager's Office	Flood	P PP	Elevation of 6 Flood-Prone Homes	HMGP	$2,252,066.00	3/17/2023	12/31/2028	C
VOL- 0656	Nicole (32)	Deltona	City Manager's Office	Flood	P PP	Demolition and Reconstruction of 2890 Blackburn Avenue	HMGP	$536,008.00	3/17/2023	12/31/2028	C
VOL- 0657	Nicole (25)	Orange City	Public Works	Flood	P PP	Mill Lake Stormwater Pump Station Improvements	HMGP	$800,000.00	3/17/2023	12/31/2028	C
VOL- 0658	Nicole (11)	Daytona Beach Shores	Public Works	Flood	P PP	Generators of Lift Stations #7, #9, and #10	HMGP	$532,380.00	3/17/2023	12/31/2028	C
VOL- 0659	Nicole (22)	Daytona Beach Shores	Executive Department	All Hazards	P PP	Hurricane Shutters for City Hall	HMGP	$100,000.00	3/17/2023	12/31/2028	C
VOL- 0660	Nicole (4)	Daytona Beach	Public Works	All Hazards	P PP	Permanent Generators for 14 Sanitary Lift Stations	HMGP	$2,987,250.00	3/17/2023	12/31/2028	C
VOL- 0661	Nicole (31)	Edgewater	Environmental Services	Flood	P PP	Rehabilitation of Lift Station #4	HMGP	$400,000.00	3/17/2023	12/31/2028	C

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VOL- 0662	Nicole (12)	Edgewater	Environmental Services	Flood	P PP	Elevation of 103 Carlson Cove	HMGP	$ 688,500.00	3/17/2023	12/31/2028	C
VOL- 0663											
VOL- 0664	Nicole (20)	Holly Hill	Public Works	Flood	P PP	Bypass Pump for Lift Station #11	HMGP	$125,000.00	3/17/2023	12/31/2028	C
VOL-0665	Nicole (21)	Holly Hill	Public Works	Flood	P PP	Bypass Pump for Lift Station #14	HMGP	$125,000.00	3/17/2023	12/31/2028	C
VOL- 0666	Nicole (23)	Holly Hill	Public Works	Flood	P PP	Bypass Pump for Lift Station #16	HMGP	$100,000.00	3/17/2023	12/31/2028	C
VOL- 0667	Nicole (35)	Ormond Beach	Public Works	Flood	P PP	Elevate 40 Sandalwood Lane 1 Flood-Prone Home	HMGP	$551,224.00	3/17/2023	12/31/2028	C
VOL- 0668	Nicole (11)	South Daytona	Public Works	Flood	P PP	Sanitary Sewer Lining in Flood Prone Areas	HMGP	$750,000.00	3/17/2023	12/31/2028	C
VOL- 0669	Nicole (27)	South Daytona	Public Works	Flood	P PP	Stormwater Lining in Flood Prone Areas	HMGP	$750,000.00	3/17/2023	12/31/2028	C
VOL-0670	Nicole (19)	Volusia County	Emergency Management	Flood	P PP	Elevation of 465 Palm Avenue	HMGP	$157,000.00	3/17/2023	12/31/2028	C
VOL-0671	Nicole (14)	Volusia County	Emergency Management	Flood	P PP	Elevation of 1048 Shockney Drive	HMGP	$418,060.00	3/17/2023	12/31/2028	C
VOL-0672	Nicole (30)	Volusia County	Emergency Management	Flood	P PP S	Demolition and Reconstruction of 1052 Shockney Drive	HMGP	$400,532.00	3/17/2023	12/31/2028	C
VOL-0673	Nicole (18)	Volusia County	Emergency Management	Flood	P PP	Elevation of 1092 Peninsula Drove	HMGP	$250,000.00	3/17/2023	12/31/2028	C
VOL-0674	Nicole (24)	Volusia County	Emergency Management	Flood	P PP	Elevation of 1100 Mary Avenue	HMGP	$245,980.00	3/17/2023	12/31/2028	C
VOL-0675	Nicole (16)	Volusia County	Emergency Management	Flood	P PP	Elevation of 225 Brandy Court	HMGP	$318,000.00	3/17/2023	12/31/2028	C
VOL-0676	Nicole (17)	Volusia County	Emergency Management	Flood	P PP	Elevation of 1013 Shockney Drive	HMGP	$272,403.00	3/17/2023	12/31/2028	C

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VOL-0677	Nicole (29)	Edgewater	Environmental Services	Flood	P PP	Rehabilitation of 5 Lift Station with Emergency Bypass Pumps	HMGP	$525,000.00	3/17/2023	12/31/2028	C
VOL-0678	Nicole (28)	Volusia County	Emergency Management	Flood	P PP	Demolition and Reconstruction of 457 Palm Avenue	HMGP	$552,500.00	3/17/2023	12/31/2028	C
VOL-0679	Idalia (12)	South Daytona	Public Works	Flood	P PP	Reed Canal Stormwater Control Facility Expansion, Flood Risk Reduction	HMGP	$4,000,000.00	3/1/2024	3/1/2029	C
VOL-0680	Idalia (10)	South Daytona	Public Works	Flood	P PP	Lantern Park Stormwater Ponds, Flood Risk Reduction	HMGP	$3,500,000.00	3/1/2024	3/1/2029	C
VOL-0681	Idalia (11)	South Daytona	Public Works	Flood	P PP	Melodie Park Stormwater Pond, Flood Risk Reduction	HMGP	$3,500,000.00	3/1/2024	3/1/2029	C
VOL-0682	Idalia (6)	South Daytona	Public Works	Flood	P PP	Park of Honor Stormwater Pond, Flood Risk Reduction	HMGP	$1,000,000.00	3/1/2024	3/1/2029	C
VOL-0683	Idalia (13)	South Daytona	Public Works	Flood	P PP	Pike and Bishop Court Stormwater Improvements, Flood Risk Reduction	HMGP	$4,250,000.00	31/2024	3/1/2029	C
VOL-0684	Idalia (9)	South Daytona	Public Works	Flood	P PP	Reed Canal Park Pond Expansion, Flood Risk Reduction	HMGP	$2,000,000.00	3/1/2024	3/1/2029	C
VOL-0685	Idalia (14)	South Daytona	Public Works	Flood	P PP	Stevens Canal Bank Stabilization, Flood Risk Reduction	HMGP	$6,500,000.00	3/1/2024	3/1/2029	C
VOL-0686	Idalia (5)	South Daytona	Public Works	Flood	P PP	Stormwater pipelining project within the Golfview Subdivision	HMGP	$750,000.00	3/1/2024	3/1/2029	C

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VOL -0687	Idalia (2)	Deltona	City Manager's Office	Flood	P PP	Acquisition and Demolition of 3101 Riverhead Drive	HMGP	$405,143.00	3/1/2024	3/1/2029	C
VOL -0688	Idalia	Deltona	City Manager's Office Flood			East Brook Drainage Improvements	HMGP	$917,804.00	3/1/2024	3/1/2029	T
VOL-0689	Idalia (4)	Edgewater	Environmental Services	Flood	P PP	City of Edgewater, Rehabilitation of Lift Stations #12, #23, #24, #46, #59 with Emergency Bypass Pumps	HMGP	$650,000.00	3/1/2024	3/1/2029	C
VOL-0690	Idalia (3)	New Smyrna Beach	Engineering	Flood	P PP	Elevation of 2 Flood Prone Homes	HMGP	$515,661.00	3/1/2024	3/1/2029	C
VOL-0691	Idalia (7)	New Smyrna Beach	Engineering	Flood	P PP	Elevate 1 Flood-Prone Home	HMGP	$683,958.00	3/1/2024	3/1/2029	C
VOL-0692	Idalia	New Smyrna Beach	Engineering	Flood		New Smyrna Beach Fire Station #53 Generator	HMGP	$ 682,000.00	3/1/2024	3/1/2029	T
VOL-0693	Idalia (8)	Port Orange	Public Works	Flood	P PP	Acquire and Demolish 3 Single Family Residence Homes	HMGP	$1,348,360.00	3/1/2024	3/1/2029	C
VOL-0694	Idalia (1)	Volusia County	Fire Services	All Hazards	P PP	Generator for Fire Station #41	HMGP	$130,000.00	3/1/2024	3/1/2029	C
VOL-0695	Idalia (15)	Daytona Beach Shores	Public Works	Flood	P PP	Sewer Improvements and Retrofit North of Dunlawton Ave.	HMGP	$4,628,000.00	3/1/2024	3/1/2029	C
VOL -0696	Idalia (16)	City of Oak Hill	Public Works	Flood	P PP	175 N US Hwy 1 improvements	HMGP	$2,903,765.00	3/1/2024	3/1/2029	C
VOL-0697	Idalia (17)	City of Oak Hill	Public Works	Flood	P PP	Ariel Canal improvements	HMGP	$3,560,819.00	3/1/2024	3/1/2029	C
VOL-0698	Idalia (18)	City of Oak Hill	Public Works	Flood	P PP	Bills Hills Canal Improvements	HMGP	$10,198,906.00	3/1/2024	3/1/2029	C

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VOL-0699	Idalia (19)	City of Oak Hill	Public Works	Flood	P PP	Turnbull Hammock Improvements	HMGP	$2,039,374.00	3/1/2024	3/1/2029	C
VOL-0700	Idalia (20)	City of Oak Hill	Public Works	Flood	P PP	Cummings Street Improvements	HMGP	$1,328,299.00	3/1/2024	3/1/2029	C
VOL-0701	Idalia	Volusia County	Coastal Division	Flood	P PP	Dunlawton Restroom and Vehicular Beach Access Ramp Resiliency	HMGP	$ 2,500,000.00	3/1/2024	3/1/2029	T
VOL-0702	Idalia (21)	Volusia County	Emergency Management	Flood	P PP	Retreat and Relocation of Silver Beach Restroom Building	HMGP	$450,000.00	3/1/2024	3/1/2029	C
VOL-0703	Idalia (22)	Volusia County	Emergency Management	Flood	P PP	Elevation - 449 Palm Ave, Ormond Beach	HMGP	$438,000.00	3/1/2024	3/1/2029	C
VOL-0704	Idalia (23)	Volusia County	Emergency Management	Flood	P PP	Acquisition – 1035 S. Glencoe Rd., New Smyrna Beach	HMGP	$700,000.00	3/1/2024	3/1/2029	C
VOL-0705		Edgewater	Environmental Services	Flood	P PP	Rehabilitation of Lift Station #13, #14, #15, #16 with Emergency Bypass Pumps		$850,000.00	12/13/2024	12/13/2029	C
VOL-0706		Edgewater	Environmental Services	Flood	P PP	Rehabilitation of Lift Station #19, #26, #30, #38 with Emergency Bypass Pumps		$850,000.00	12/13/2024	12/13/2029	C
VOL-0707		Edgewater	Environmental Services	Flood	P PP	Rehabilitation of Lift Station #40, #42, #51 with Emergency Bypass Pumps		$635,000.00	12/13/2024	12/13/2029	C
VOL-0708		South Daytona	Public Works	Flood	P PP	South Daytona Oriole Lane/Kenilworth Avenue Pond		$ 2,500,000.00	12/13/2024	12/13/2029	C

Project #	Priority	Jurisdiction	Responsible Organization	Hazard(s)	Mitigation Technique Category	Initiative	Funding	Est. Cost	Approved by LMS Working Group	Anticipated Completion Date	Status
VOL-0709		South Daytona	Public Works	Flood	P PP	South Daytona Green Street/Brian Avenue Pond		$ 2,500,000.00	12/13/2024	12/13/2029	C

Source: Volusia County Emergency Management

SECTION 10 – PLAN MAINTENANCE PROCEDURES

44 CFR Requirement

44 CFR Part201.6(c)(4)(i):
The plan shall include a plan maintenance process that includes a section describing the method and schedule of monitoring, evaluating and updating the mitigation plan within a five-year cycle.

44 CFR Part 201.6(c)(4)(ii):
The plan maintenance process shall include a process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.

This section of the Plan discusses how the Mitigation Strategy and Mitigation Action Plan will be implemented and how the LMS will be evaluated and enhanced over time. This section also discusses how the public will continue to be involved in a sustained hazard mitigation planning process. It consists of the following three subsections:

- **Implementation**
- **Monitoring, Evaluation and Enhancement**
- **Continued Public Involvement**

10.1 IMPLEMENTATION

Each agency, department or other partners participating under the Volusia County Multi-Jurisdictional LMS is responsible for implementing specific mitigation actions as prescribed in the Mitigation Action Plan. Every proposed action listed in the Mitigation Action Plan is assigned to a specific "lead" agency or department in order to assign responsibility and accountability and increase the likelihood of subsequent implementation.

In addition to the assignment of a local lead department or agency, an implementation time period or a specific implementation date has been assigned in order to assess whether actions are being implemented in a timely fashion. Volusia County and its participating jurisdictions and partners will seek outside funding sources to implement mitigation projects in both the pre-disaster and post-disaster environments. When applicable, potential funding sources have been identified for proposed actions listed in the Mitigation Action Plan.

Volusia County will integrate this Mitigation Plan into relevant County government decision making processes or mechanisms. This includes integrating the Mitigation Plan requirements into other local planning documents, processes or mechanisms, such as comprehensive or capital improvement plans, when appropriate. Members of the LMS Working Group will ensure that the goals and strategies of new and updated local planning documents for their agencies or departments are consistent and do not conflict with the goals and actions of the LMS and will not contribute to increased hazard vulnerability in the County.

Opportunities to integrate the requirements of this Plan into other local planning mechanisms shall continue to be identified through future meetings of the LMS Working Group and through the five-year review process described herein. Although it is recognized that there are many possible benefits to integrating components of this Plan into other local planning mechanisms, the development and maintenance of this stand-alone Mitigation Plan is deemed by the Volusia County LMS Working Group to be the most effective and appropriate method to implement local hazard mitigation actions at this time.

10.2 MONITORING, EVALUATION AND ENHANCEMENT

Periodic revisions and updates of the LMS are required to ensure that the goals of the Plan are kept current and account for potential changes in hazard vulnerability and mitigation priorities. In addition, revisions may be necessary to ensure that the Plan is in full compliance with applicable federal and state regulations. Periodic evaluation of the Plan will also ensure that specific mitigation actions are being reviewed and carried out according to the Mitigation Action Plan.

The Volusia County LMS Working Group and public participants will continue to meet at least annually and following any disaster events warranting a reexamination of the mitigation actions being implemented or proposed for future implementation. This will ensure that the Plan is continuously updated to reflect changing conditions and needs within Volusia County. If determined appropriate or as requested, an annual report on the Plan will be developed and presented to the Volusia County Council in order to report progress on the actions identified in the Plan and to provide information on the latest legislative requirements and/or changes to those requirements.

The LMS Coordinator, Volusia County Emergency Management Planner II, will be responsible for tracking and monitoring any changes or evaluations the LMS Working Group review and vote on as a committee.

10.2.1 Five (5) Year Plan Review

The Plan will be thoroughly reviewed by the LMS Working Group every five years to determine whether there have been any significant changes in Volusia County that may, in turn, necessitate changes in the types of mitigation actions proposed. New development in identified hazard areas, increased exposure to hazards, the increase or decrease in capability to address hazards, and changes to federal or state legislation are examples of factors that may affect the necessary content of the Plan.

The plan review provides Volusia County officials with an opportunity to evaluate those actions that have been successful and to explore the possibility of documenting potential losses avoided due to the implementation of specific mitigation measures. The plan review also provides the opportunity to address mitigation actions that may not have been successfully implemented as assigned. Volusia County Emergency Management Services department will be responsible for reconvening the LMS Working Group and conducting the five-year review.

During the five-year plan review process, the following questions will be considered as criteria for assessing the effectiveness and appropriateness of the Plan:

- Do the goals address current and expected conditions?
- Has the nature or magnitude of risks changed?
- Are the current resources appropriate for implementing the Plan?

- Are there implementation problems, such as technical, political, legal or coordination issues with other agencies?

- Have the outcomes occurred as expected?
- Did the County and participating agencies and other partners participate in the plan implementation process as assigned?

Following the five-year review, any revisions deemed necessary will be summarized and implemented according to the reporting procedures and plan amendment process outlined herein. Upon completion of the review and update/amendment process, the Volusia County LMS will be submitted to the State Hazard Mitigation Officer at the Florida Division of Emergency Management (FDEM) for final review and approval in coordination with the Federal Emergency Management Agency (FEMA).

5-Year Update Summary
Review Group Lead as of 2024: Aubrie Austin, Volusia County Emergency Management
Review Group Name: Volusia Prepares Working Group (see members in Section 2).
Interim LMS Review: LMS can be reviewed or commented on at any quarterly Volusia Prepares Meeting
2030 Review Date: The Volusia Prepares group will begin review no less than 365 days before the 2030-35 plan submittal date. This will ensure ample time to hire a contractor to complete the plan with all necessary community and municipal outreach completed.
Review Forum: Volusia Prepares Working Group Meetings (Quarterly)

10.2.2 Disaster Declaration

Following a disaster declaration, the Volusia County LMS will be revised as necessary to reflect lessons learned, or to address specific issues and circumstances arising from the event. It will be the responsibility of the Volusia County Emergency Management Services Division to reconvene the LMS Working Group and ensure the appropriate stakeholders are invited to participate in the plan revision and update process following declared disaster events.

10.2.3 Reporting Procedures

The results of the five-year review will be summarized by the LMS Working Group in a report that will include an evaluation of the effectiveness of the Plan and any required or recommended changes or amendments. The report will also include an evaluation of implementation progress for each of the proposed mitigation actions, identifying reasons for delays or obstacles to their completion along with recommended strategies to overcome them.

10.2.4 Plan Amendment Process

Upon the initiation of the amendment process, Volusia County and its participating jurisdictions and partners will forward information on the proposed change(s) to all interested parties including, but not limited to, all directly affected County departments, residents, and businesses. Information will also be forwarded to the Florida Division of Emergency Management. This information will be disseminated in order to seek input on the proposed amendment(s) for not less than a 45-day review and comment period.

At the end of the 45-day review and comment period, the proposed amendment(s) and all comments will be forwarded to the LMS Working Group for final consideration. The committee will review the proposed

amendments along with the comments received from other parties, and, if acceptable, the committee will submit a recommendation for the approval and adoption of changes to the Plan to the Volusia County Council within 60 days.

In determining whether to recommend approval or denial of a Plan amendment request, the following factors will be considered by the LMS Working Group:

- There are errors, inaccuracies or omissions made in the identification of issues or needs in the Plan;
- New issues or needs have been identified which are not adequately addressed in the Plan;
- There has been a change in information, data, or assumptions from those on which the Plan is based.

Upon receiving the recommendation from the LMS Working Group and prior to adoption of the Plan, the County will hold a public hearing if deemed necessary. The Volusia County Council will review the recommendation from the LMS Working Group (including the factors listed above) and any oral or written comments received at the public hearing. Following that review, the County Council will take one of the following actions:

- Adopt the proposed amendments as presented
- Adopt the proposed amendments with modifications
- Refer to the amendments request back to the LMS Working Group for further revision, or
- Defer the amendment request back to the LMS Working Group for further consideration and/or additional hearings

10.2.5 Plan Integration

It is recommended that the findings from the LMS be integrated into individual jurisdictional plans to demonstrate the commitment to reducing hazard risk. Individual jurisdictions have been utilizing these findings in a variety of ways, such as identifying high risk areas through vulnerability assessments and incorporating the LMS project list into jurisdictional capital improvement plans.

There are opportunities for Volusia County and its jurisdictions to integrate the LMS into more specific plans. There are various reasons why hazards have profound impacts on the community. Potential causes of hazards that have been identified by members of the community include, but are not limited to:

- Inadequate maintenance of storm drains, lift stations, and canals
- Insufficient maintenance of stormwater retention and detention systems
- Encroachment upon or reduction of conservation areas
- Loss of vegetation and tree cover
- Increased impervious surface coverage, such as new residential dwellings and parking lots
- Severe rain events occurring on already saturated ground (e.g., Hurricanes Milton and Ian)
- Severe coastal erosion due to stronger and more frequent storm events
- Inadequate or antiquated stormwater retention and detention infrastructure in development
- Outdated or poorly designed stormwater conveyance systems
- Impacts from climate change, such as sea level rise

These concerns are multifaceted and require that findings of the LMS be integrated into existing plans in each participating jurisdiction. To provide the most effective hazard mitigation for Volusia County and its jurisdictions, local plans should address these concerns and dedicate resources to solving them.

Several measures are currently under consideration to reduce hazard risk in Volusia County and its jurisdictions. In June 2023, Volusia County's Environment and Natural Resources Advisory Committee (ENRAC) recommended a hybrid approach to Low Impact Development. County Council directed staff and ENRAC to create a voluntary LID program with incentives that October. The subsequent LID program was created, and final decision is anticipated in Spring/Summer 2025. Updates to individual jurisdictions' stormwater ordinances are also forthcoming for review and potential approval. Additional mitigation strategies include infrastructure retrofits to improve stormwater management and strategic land-use planning to assess the suitability of future development.

Addressing hazard mitigation requires collaboration among policymakers, engineers, planners, and resilience experts. Local governments, alongside regional partners such as the East Central Florida Regional Planning Council, have access to technical expertise and data-driven recommendations to guide decision-making. It is critical to assess and implement these expert recommendations to enhance community resilience and reduce future hazard impacts. See Section 8 for further details on mitigation strategies.

Moving forward, it will be the responsibility of the LMSWG representatives from each participating jurisdiction to continue to determine and pursue opportunities for integrating the findings, requirements, and strategies of this plan with other local planning documents. The LMSWG is also responsible for ensuring that the goals and strategies of new and updated local planning documents for their jurisdictions or agencies are consistent with the goals and actions of the Local Mitigation Strategy and will not contribute to increased hazard vulnerability in the planning area. Methods for integration may include: Monitoring other planning/program agendas; Attending other planning/program meetings; Participating in other planning processes; and Monitoring community budget meetings for other community program opportunities.

Many identified mitigation initiatives are capital projects, the implementation of which is usually dependent upon the availability of funding. When such initiatives are prioritized, and funding is sought, each jurisdiction will comply with its existing rules regarding inclusion of projects in its Capital Improvement Plan or other budget and planning processes and documents.

Opportunities to integrate the requirements of this plan into other local planning mechanisms shall continue to be identified through future meetings of the LMSWG and through the five-year review process described herein. Although it is recognized that there are many possible benefits to integrating components of this plan into other local planning mechanisms, the development and maintenance of this stand-alone Local Mitigation Strategy is deemed by the LMSWG to be the most effective and appropriate method to implement local hazard mitigation actions at this time.

10.3 CONTINUED PUBLIC INVOLVEMENT

44 CFR Requirement

44 CFR Part 201.6(c)(4)(iii):
The plan maintenance process shall include a discussion on how the community will continue public participation in the plan maintenance process

Public participation is an integral component to the mitigation planning process and will continue to be essential as this Plan evolves over time. As described above, significant changes or amendments to the Plan shall require a public hearing prior to any adoption procedures.

Other efforts to involve the public in the maintenance, evaluation and revision process will be made as necessary. These efforts may include:

- Advertising meetings of the LMS Working Group in local newspapers, social media public bulletin boards and/or County office buildings
- Designating willing and voluntary citizens and private sector representatives as official members of the LMS Working Group
- Utilizing local media to update the public of any maintenance and/or periodic review activities taking place
- Utilize social media for education on mitigation efforts and funding opportunities
- Utilizing the Volusia County website to advertise any maintenance and/or periodic review activities taking place, and
- Keeping copies of the Plan in public libraries
- Provide mitigation education and information on the LMS committee at public presentations and events
- Continue to engage with Transform 386, the Volusia County Recovery and Resiliency Division on helping the low socio-economic community members
- Continuing to engage the Community Rating System Program for Public Information activities

APPENDIX A: BYLAWS OF "VOLUSIA PREPARES"

Bylaws of "Volusia Prepares"
The Volusia County Local Mitigation Strategy Steering Committee

ARTICLE I: PURPOSES OF THE TASK FORCE

The purpose of the Volusia County Local Mitigation Strategy Task Force, otherwise known as "Volusia Prepares", is to decrease the vulnerability of the citizens, governments, businesses and institutions of Volusia County to the future human, economic and environmental costs of natural, technological, and societal disasters. The Task Force will develop, monitor, implement, and maintain a comprehensive plan for hazard mitigation which will be intended to accomplish this purpose.

ARTICLE II: MEMBERSHIP

Participation in Volusia Prepares is voluntary by all entities. Membership in Volusia Prepares is open to all jurisdictions, organizations and individuals supporting its purposes

ARTICLE III: ORGANIZATIONAL STRUCTURE

The organizational structure of Volusia Prepares shall consist of a Steering Committee and subcommittees as deemed necessary by the Steering Committee.

A. The Steering Committee

Volusia Prepares shall be guided by a Steering Committee consisting of designated representatives of the following:

- One representative from the government of Volusia County and each participating incorporated municipality,
- One representative from organizations and associations representing key business, industry, and community interest groups of Volusia County, and
- Other such individuals appointed by a majority vote of the Steering Committee.

Members of the Steering Committee will be designated by formal appointment or other action to serve as the official representative and spokesperson for the jurisdiction or organization regarding the activities and decisions of Volusia Prepares. To maintain good standing, members of the Steering Committee must not have more than two unexcused absences from meetings during the course of a year. Three or more unexcused absences during the course of one calendar year may result in HMGP grant funding ineligibility for those jurisdiction(s) during the next Presidentially declared disaster.

B. Subcommittees

Volusia Prepares may have permanent and/or temporary subcommittees as deemed necessary by the Steering Committee. Membership in the subcommittees is not restricted. There are no requirements for individuals to maintain good standing as members of a permanent or temporary subcommittee.

C. Program Staff

The Volusia County Emergency Management Division, or other agency as so designated by the Steering Committee, will serve as the program staff for Volusia Prepares, and assist in the coordination and support of Volusia Prepares activities.

ARTICLE IV: OFFICERS

Any member in good standing of the Steering Committee is eligible for election as an officer. The Steering Committee will have a chair elected by a majority vote of a quorum of the members. The Steering Committee will also elect by majority vote a vice chair. Representatives of both local government and any participating private sector organizations will be eligible for election as an officer. Each will serve a term of one year, and be eligible for re-election for an unlimited number of terms. The chair and vice chair of the Steering Committee are also considered to be chair and vice chair of Volusia Prepares.

The chair of the Steering Committee will preside at each meeting of the Steering Committee, as well as establish temporary subcommittees and assign personnel to them. The vice chair will fulfill the duties and responsibilities of the chair in his or her absence.

The chair of each permanent or temporary subcommittee will be designated from the members in good standing of the Steering Committee by its chair, and will serve at the pleasure of the chair of the Steering Committee.

ARTICLE V: RESPONSIBILITIES

A. Steering Committee

The Steering Committee will be responsible for oversight and coordination of all actions and decisions by the Task Force, and is solely responsible for formal actions in the name of Volusia Prepares, including the release of reports, development of resolutions, issuance of position papers, and similar activities. The Steering Committee makes assignments to the subcommittees, coordinates their work, and takes action on their recommendations. Their goal is to make Volusia County disaster resistant by preventing or reducing the personal and economic loss from natural or man-made hazards through a partnership between government, businesses, organizations, associations, and citizens.

Objectives:

1. Keep the Volusia County Local Mitigation Strategy (LMS) document current (incorporating new projects, objectives, and goals).
2. Develop and maintain overall policies and procedures and integrate priorities of mitigation efforts.
3. Facilitate comprehensive effectiveness by coordinating with subcommittees.
4. Vote on proposed action plans and initiatives.
5. Develop a strategy to constantly identify and recruit new partners.
6. Develop a systematic method to share knowledge and market the need for being disaster resistant.
7. Promote accomplishments to elected officials and community.

B. Subcommittees

If established by the Steering Committee, subcommittees will have responsibilities as assigned by the Steering Committee members.

C. Program Staff

Technical, clerical and other types of support activities to the Steering Committee and subcommittees will be provided through the Volusia County Emergency Management Division or other agency or organizational staff as designated by the Steering Committee. The Steering Committee will also designate an agency of Volusia County to serve as the legal representative and agent of Volusia Prepares, and to be empowered under County statutes to accept and disburse funds, enter into contracts, hire staff, and take such other actions as necessary in support of, or for the benefit of, the Task Force. Other jurisdictions and organizations may also provide such services on a voluntary basis upon request of the chair of the Steering Committee.

ARTICLE VI: ACTIONS BY THE TASK FORCE

A. Authority for Actions

Only the Steering Committee has the authority to take final actions in the name of Volusia Prepares. Actions by subcommittees or program staff are not considered as final until affirmed by action of the Steering Committee.

B. Meetings, Voting and Quorum

Meetings of the Steering Committee and its subcommittees will be conducted in accord with Robert's Rules of Order, if and when deemed necessary by chair of the meeting. Regular meetings of the Steering Committee will be scheduled at least quarterly with a minimum of 10 working days' notice. Subcommittees will meet at least quarterly prior to Steering Committee meetings, or more frequently as deemed necessary, at the discretion of their chairperson.

All final actions and decisions made in the name of Volusia Prepares will be by affirmative vote of a quorum of the Steering Committee. A quorum shall be 50 percent of the members of the Steering Committee in good standing at the time of the vote. Each member of the Steering Committee will have one vote. Voting by proxy, written or otherwise, is permitted.

C. Special Votes

Special votes may be taken under emergency situations or when there are other extenuating circumstances as determined by the chair and/or vice chair of the Steering Committee. Special votes may be made by telephone, email, webinar, or any electronic means, or first class mail, and shall be in accord with all applicable quorum rules for such actions.

D. Public Hearings

When required by statute or the policies of Volusia County, or when deemed necessary by the Steering Committee, a public hearing regarding actions under consideration for implementation by Volusia Prepares will be held.

E. Documentation of Actions

All meetings and other forms of action by the Steering Committee and permanent subcommittees (if established) will be documented and made available for inspection by the public.

ARTICLE VII: ADOPTION OF AMENDMENTS AND CHANGES TO THE BYLAWS AND *"VOLUSIA PREPARES"* LOCAL MITIGATION STRATEGY DOCUMENT

The Bylaws of Volusia Prepares and the *"Volusia Prepares"* Local Mitigation Strategy document may be adopted and/or amended by a two-thirds majority vote of the members in good standing of the Steering Committee at any time. All proposed changes to the bylaws and *"Volusia Prepares"* Local Mitigation Strategy document will be provided to each member of the Steering Committee prior to voting on the proposed changes. Routine changes, additions, deletions, and deferment of mitigation initiatives and any other changes to the document may be made at any time by majority vote. Voting may be by telephone, email, webinar, or any electronic means, or first class mail. A 45-day public review and comment period shall apply to the five-year FEMA required update of the *"Volusia Prepares"* LMS Document.

ARTICLE VIII: DISSOLUTION OF THE TASK FORCE

The Task Force may be dissolved by affirmative vote of 100% of the members in good standing of the Steering Committee at the time of the vote, by order of a court of competent jurisdiction, and/or by instruction of the Volusia County governing body. At the time of dissolution, all remaining documents, records, equipment and supplies belonging to the Task Force will be transferred to Volusia County for disposition.

APPENDIX B: LOCAL MITIGATION STRATEGY CROSSWALK

2023 Florida Local Mitigation Strategy (LMS) Crosswalk

DESCRIPTION:
The Florida Local Mitigation Strategy (LMS) Crosswalk is informed by the FEMA Local Mitigation Planning Policy Guide (effective April 19, 2023). Each requirement listed below is a required Element of the FEMA Policy Guide. There is a difference in formatting when comparing the FL Crosswalk with FEMA's Policy Guide Elements. This is to prevent the possibility of skipping various components of each FEMA requirement. You will notice the specific FEMA requirement is listed in parenthesis next to each FL Crosswalk Element (e.g., P1 in the FL Crosswalk is equivalent to FEMA Element A1-a). As such, multiple FL Crosswalk Elements may correspond to the same FEMA Element.

INSTRUCTIONS:
Enter the requested information in each field below: 1) In the FL Crosswalk Tab, please identify the "Location in Plan" using the corresponding page numbers for each requirement. 2) In the Jurisdiction Checklist Tab, please add each of the "participating" jurisdictions. *Please do not edit the following sections: *Met, Not Met, Reviewer Comments* . If revisions are required, the State reviewer will put revisions in the Required Revisions section. As revisions are made, please feel free to add comments about the revisions in the same section. **Do not remove any State comments.** *Additionally, a Project List Template can be found in a separate tab below.

Jurisdiction:	Volusia County	**Title of Plan:**	Volusia County Multi-Jurisdictional Local Mitigation Strategy
Local Point of Contact:	Yolanda Buckles	**Address:**	3825 Tiger Bay Rd., Suite 102, Daytona Beach, FL 32124
Title:	Volusia Prepares Coordinator	**Email:**	ybuckles@volusia.org
Agency:	Volusia County Emergency Management	**Phone Number:**	386-254-1500

mailto:ybuckles@volusia.org - Click once to follow. Click and hold to select this cell.

State Reviewers:	
Date Received by FDEM:	
Date Plan Not Approved:	
Date Plan APA:	
Date Plan Approved:	

Planning Process (FEMA Element A)		Location in Plan	Met	Not Met	Reviewer Comments	Required Revisions
P1 (A1-a)	The plan must document the current planning process.	Section 2.3-2.6				
P2 (A1-b)	The plan must list the jurisdiction(s) in the current plan that will seek approval.	Section 1.3, Section 2.4 (Table 2.1)				
P3 (A1-b)	The plan must list the representative from **each jurisdiction** that will seek approval and how they participated in the planning process. (At a minimum, it must identify the jurisdiction represented and the person's agency and title within the jurisdiction.)	Section 2.4 (Table 2.1)				

P4 (A2)	The plan must provide documentation of an opportunity for stakeholders to be involved in the current planning process. Documentation of this opportunity must identify how **each of the stakeholders** (see below) were presented with this opportunity, as applicable.	Sections 2.4; 2.5; Appendix D				
P5 (A3)	The plan must document how the public had an opportunity to be involved in the current planning process and what that participation entailed, including how underserved communities and vulnerable populations within the planning area were provided an opportunity to be involved.	Section 2.6; Section 7.4				
P6 (A4)	The plan must document what existing plans, studies, reports and technical information were reviewed and how they were incorporated, if appropriate, into the development/update of the plan.	Section 3; Section 6; Section 7.3.; Table 7.1; Section 7.5				
P7 (A4)	For jurisdictions with structures for which National Flood Insurance Program (NFIP) coverage is available, regulatory flood mapping products are required to be incorporated, if applicable. Participants may use other jurisdiction-specific materials, including non-regulatory flood mapping products, that improve upon NFIP regulatory flood mapping products.	Section 5.6; Section 6.8				

FEMA Guidance Notes:

Document means to provide factual evidence for how the participants developed/updated the plan. Documentation may include narrative descriptions, copies of meeting minutes, sign-in sheets, or newspaper articles. Examples of documentation of public involvement/feedback may include, but are not limited to, narratives, materials from open meetings, screenshots of social media postings and/or interactive websites with drafts for public review and comment, questionnaires or surveys through utility bills, etc.

Involvement means being engaged and actively participating in the development of the plan; providing input and directly providing, affecting or editing plan content as the representative of the participating jurisdiction(s) or organization.

Stakeholders include local and regional agencies involved in hazard mitigation activities; agencies that have the authority to regulate development; neighboring communities; representatives of business, academia, and other private organizations; representatives of nonprofit organizations.

An opportunity to be involved in the planning process means that these stakeholders are invited to be engaged or are asked to provide information or input to inform the plan's content.

Public Participation: The opportunity must occur during the plan's development, meaning prior to the plan's submission for formal review. In addition, the plan must document how public feedback was included throughout the planning process.

Examples for P6: state hazard mitigation plan; local plans (such as comprehensive/master/general land use, economic development, capital improvement, affordable housing, resource management, resilience, climate, etc.); and hazard-specific reports and plans (such as Community Wildfire Protection Plans).

APPENDIX B: LOCAL MITIGATION STRATEGY CROSSWALK

Risk Assessment (FEMA Element B)		Location in Plan	Met	Not Met	Reviewer Comments	Required Revisions
R1 (B1-a)	The plan must include a **description** of all natural hazards that can affect the jurisdiction(s) in the planning area and their assets, such as dams, located outside of the planning area.	Section 4				
R2 (B1-a)	The plan must provide rationale for the omission of any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area.	Section 4 Page 4:5				
R3 (B1-b)	The plan must include information on **location** for each identified hazard.	Section 5				
R4 (B1-c)	The plan must provide the **extent** of the hazards that can affect the planning area.	Section 5				
R5 (B1-d)	The plan must include information on **previous occurrences** for each hazard that affects the planning area. At a minimum, this includes any state and federal major disaster declarations for the planning area since the last update.	Section 5				
R6 (B1-e)	The plan must include the **probability** of future events for the identified hazards that can affect the planning area.	Section 5				
R7 (B1-f)	For multi-jurisdictional plans, when hazard risks differ across the planning area and between participating jurisdictions, the plan must specify the unique and varied risk information for each applicable jurisdiction and their assets outside the planning area.	Section 6; Appendix E; Appendix F				
R8 (B2-b)	The plan must describe the potential **impacts** on each participating jurisdiction and its identified assets.	Section 6				
R9 (B2-a)	The plan must describe the **overall vulnerability** of each participant to the identified hazards.	Section 6; Appendix E; Appendix F				
R10 (B2-a)	For plan updates, the risk assessment must meet Element E1-a (Changes in Development).	Section 3.5; Section 5.19; Section 7				
R11 (B2-c)	The plan must address repetitively flooded NFIP-insured structures by including the estimated numbers and types (residential, commercial, institutional, etc.) of repetitive/severe repetitive loss properties for **each jurisdiction**.	Section 5.6				

FEMA Guidance Notes:

Description means to provide a narrative description or definition.

Location is defined as the unique geographic boundaries within the planning area, or assets that may be affected by the identified hazard. If maps are used, provide sufficient detail and scale to clearly identify the hazard locations within and/or affecting assets owned by the participating jurisdiction(s). If narrative descriptions are used, the must contain enough detail to clearly identify the area(s) that will be affected by the hazard.

Extent is defined as the range of anticipated intensities of the identified hazards. Extent is most commonly expressed using various scientific scales. When using scales, the plan must document how the scale applies to each jurisdiction.

APPENDIX B: LOCAL MITIGATION STRATEGY CROSSWALK

Mitigation Strategy (FEMA Element C)		Location in Plan	Met	Not Met	Reviewer Comments	Required Revisions
S1 (C1-a)	The plan must describe how the existing authorities, policies, programs, funding, and resources of **each participant** are available to support the mitigation strategy. This must include a discussion of the existing building codes and land use and development ordinances or regulations. Capabilities may be described in a table or narrative.	Section 7; Table 7.1				
S2 (C1-b)	The plan must describe the ability of **each participant** to expand on and improve the capabilities described in the plan (see S1).	Section 7; Table 7.1				
S3 (C2-a)	The plan must describe participation in the NFIP for **each participant**, as applicable, in accordance with NFIP regulatory requirements (see reviewer notes).	Section 5.6; Section 7				
S4 (C3-a)	The plan must include **goals** to reduce the risk of the identified hazards.	Section 8				
S5 (C4-a)	The mitigation strategy must include an analysis of a comprehensive range of actions or projects that the participants considered to specifically address vulnerabilities identified in the risk assessment.	Section 8.3; Section 8.4				
S6 (C4-b)	**Each plan participant** must identify one or more mitigation actions the participant(s) intends to implement for each hazard addressed in the risk assessment.	Section 9				
S7 (C5-a)	The plan must describe the criteria used for prioritizing the implementation of the actions. The criteria must include an emphasis on the extent to which benefits are maximized, in relation to the associated costs of the action.	Table 8.1; Section 9				
S8 (C5-b)	The action plan must identify who is responsible for administering each action, along with the action's potential funding sources and expected time frames for completion.	Section 9; Table 9.2				

FEMA Guidance Notes:

Discussion means a narrative or other materials that provide context on a section of the plan. Describing current capabilities provides a rationale for which mitigation projects can be undertaken to address the vulnerabilities identified in the Risk Assessment.

For C1-b: If participants do not have the ability or authority to expand and/or improve their capabilities, the plan must describe the lack of ability or authority.

For C2-a: The following information must be provided for each participant: adoption of NFIP minimum floodplain management criteria via local regulation; adoption of the latest effective Flood Insurance Rate Map (if applicable); Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs; appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP; and description of how participants implement the substantial improvement/substantial damage provisions of their floodplain management regulations after an event. Simply stating "The community will continue to comply with the NFIP" is not sufficient to meet the requirement.

Goals are broad, long-term policy and vision statements that explain what is to be achieved by implementing the mitigation strategy. The goals must be consistent with the hazards identified in the plan. Goals may be presented as general statements applying to more than one hazard, or they may be itemized to each of the identified hazards.

A mitigation action is a measure, project, plan, or activity proposed to reduce current and future vulnerabilities described in the risk assessment. These actions must be achievable and demonstrate how the mitigation activities reduce the risks identified in the risk assessment.

APPENDIX B: LOCAL MITIGATION STRATEGY CROSSWALK

Plan Maintenance (FEMA Element D)		Location in Plan	Met	Not Met	Reviewer Comments	Required Revisions
M1 (D1-a)	The plan must describe how the participant(s) will continue to seek public participation after the plan has been approved and during the plan's implementation, monitoring, and evaluation.	Section 10.1				
M2 (D2-a)	The plan must identify how, when and by whom the plan will be tracked for implementation over its five-year cycle (**monitoring**).	Section 10.2				
M3 (D2-b)	The plan must identify how, when and by whom the plan will be assessed for effectiveness at achieving its stated purpose and goals (**evaluating**).	Section 10.2				
M4 (D2-c)	The plan must identify how, when and by whom the plan will be reviewed and revised at least once every five years (**updating**).	Section 10.2				
M5 (D3-a)	The plan must describe the community's process to **integrate** the plan's data, information, and hazard mitigation goals and actions into other **planning mechanisms**.	Section 10.2				
M6 (D3-c)	A multi-jurisdictional plan must describe **each participant's** individual process for integrating information from the mitigation strategy into their identified planning mechanisms.	Section 10.2				
M7 (D3-b)	The plan must identify the local planning mechanisms where hazard mitigation information/actions may be integrated. The identified list of planning mechanisms must be applicable to the plan participant(s) and not contradict the identified capabilities.					

FEMA Guidance Notes:

For D1-a: The plan may contain a narrative description or an itemized list of steps, demonstrating the prescribed method that will be followed to obtain future public participation.

Monitoring means tracking the implementation of the plan over time. For example, monitoring may include a system for tracking the status of the identified hazard mitigation actions.

Evaluating means assessing the effectiveness of the plan at achieving its stated purpose and goals.

Updating means reviewing and revising the plan at least once every five years.

Integrate means to include hazard mitigation principles, vulnerability information and mitigation actions into other existing community planning to leverage activities that have co-benefits, reduce risk and increase resilience.

Planning mechanisms refer to the governance structures used to manage local land use development and community decision-making.

For a multi-jurisdictional integration plan, this element may be met with a general narrative description if the process is applicable to each of the plan participants; however, any participant who cannot apply the same process as other plan participants must include their unique process for integration.

APPENDIX B: LOCAL MITIGATION STRATEGY CROSSWALK

Plan Update (FEMA Element E)		Location in Plan	Met	Not Met	Reviewer Comments	Required Revisions
U1 (E1-a)	The plan must describe changes in development that have occurred in hazard-prone areas and how they have increased or decreased the vulnerability of **each jurisdiction** since the previous plan was approved.	Section 5.19				
U2 (E2-a)	The plan must describe how it was revised due to a change in priorities for **each jurisdiction**.	Section 8.5				
U3 (E2-b)	The plan must describe the status of all hazard mitigation actions in the previous plan by identifying whether they have been completed or not, for each jurisdiction.	Initiative List				
U4 (E2-c)	The updated plan must explain how the jurisdiction(s) integrated information from the mitigation plan into other planning mechanisms, as a demonstration of progress in local hazard mitigation efforts. If information from the previous plan was not integrated into other planning mechanisms, this must be stated.	VA? CIP?				

FEMA Guidance Notes:

Changes in development means recent development, potential development, or conditions that may affect the risks and vulnerabilities of the jurisdictions or shifts in the needs of underserved communities or gaps in social equity. This can also include changes in local policies, standards, codes, regulations, land use regulations and other conditions. If no development changes affected the jurisdiction's overall vulnerability, this must be stated with the plan.

Description of Priorities: A description of priorities is defined by the participant(s). If the participant(s) has no change in priorities since the last approval of the mitigation plan, this must be stated. This can be a narrative or with detailed statements in appropriate sections of the plan.

Actions: For actions that are not complete, the plan must state whether the action is no longer relevant or will be included in the updated action plan.

Plan Adoption (FEMA Element F)		Location in Plan	Met	Not Met	Reviewer Comments	
A1 (F1-a)	The jurisdiction must provide documentation of plan adoption, usually a resolution by the governing body or other authority, to receive approval.	Appendix A				
A2 (F2-a)	To receive approval, the participants must adopt the plan and provide documentation that the adoption has occurred.	Appendix A				

FEMA Guidance Notes:

Jurisdiction Adoption: **At least one** adoption resolution should be transmitted through the State to FEMA for the LMS Plan to be officially approved. The remaining resolutions may be transmitted as they are completed.

Documentation may be provided in the form of meeting minutes, resolutions, signed letter or any other method to demonstrate that official adoption by the participant has occurred.

Participants that submit their adoption documentation separately from the other multi-jurisdictional plan participants will not receive a new expiration date.

Participating jurisdictions that adopt the plan **more than one year** after Approvable Pending Adoption (APA) status has been issued must either: Validate that their information in the plan remains current with respect to both the risk assessment and their mitigation strategy OR Make the necessary updates before submitting the adoption resolution to FEMA.

MULTI-JURISDICTION SUMMARY SHEET

INSTRUCTIONS: For multi-jurisdictional plans, this Summary Spreadsheet lists each participating jurisdiction, and outlines whether they met each required Element. As jurisdictions adopt the approved plan, Column H will be filled out. This Summary Sheet does not imply that a jurisdiction-specific mitigation plan be developed for each jurisdiction, instead **simply fill in the names and type of each jurisdiction (columns B and C)** participating in the Plan.

MULTI-JURISDICTIONAL SUMMARY SHEET							
#	Jurisdiction Name	Type of Jurisdiction (school board, non-profit, special district, city, town, etc.)	Requirements Met (Y/N)				
			A. Planning Process	B. Hazard Identification & Risk Assessment	C. Mitigation Strategy	D. Plan Review, Evaluation & Implementation	E. Plan Adoption
1	County		X	Y	Y	Y	
2	Daytona Beach		Y	Y	Y	Y	
3	Daytona Beach Shores		Y	Y	Y	Y	
4	DeBary		Y	Y	Y	Y	
5	DeLand		Y	Y	Y	Y	
6	Deltona		Y	Y	Y	Y	
7	Edgewater		Y	Y	Y	Y	
8	Holly Hill		Y	Y	Y	Y	
9	Lake Helen		Y	Y	Y	Y	
10	New Smyrna Beach		Y	Y	Y	Y	
11	Oak Hill		Y	Y	Y	Y	
12	Orange City		Y	Y	Y	Y	
13	Ormond Beach		Y	Y	Y	Y	
14	Pierson		Y	Y	Y	Y	
15	Ponce Inlet		Y	Y	Y	Y	
16	Port Orange		Y	Y	Y	Y	
17	South Daytona		Y	Y	Y	Y	
18	School District		Y	Y			
19	Advent Health		Y	Y			
20	Daytona Beach Airport		Y	Y			

APPENDIX B: LOCAL MITIGATION STRATEGY CROSSWALK

This Hazard Review Checklist will be filled out by the FDEM State Reviewers during their review.

HAZARD REVIEW CHECKLIST

Hazard Name	Description of Hazard	Location	Extent	Previous Occurrences (Updated)	Probability	Impacts	Effects of Climate Change	Overall Vulnerability	Jurisdictional Risk Assessment *(Y/N)*
Coastal Erosion	39	39 - names specific areas of the beach	43 - defined by the erosion rate	40-41 - description of historical	43 - Probability defined when you are talking about Loss rates	164 - 166	164 - 166	164 - 166	Y
Drought	44	44	45 - Drought monitor intensities	46-47	47 - high	167 - 168	167 - 168	167 - 168	Y
Cold	49	49 - What areas in Volusia would be impacted by the hazard?	49 - surface air for 3 or more days	50	49-50 - low	169 - 171	169 - 171	169 - 171	Y
Heat	49	49 171 High temp risk map	50 - 3-10 days 99+	None - What was the previous occurrence within the last 5 years?	50 - low	169 - 171	169 - 171	169 - 171	Y
Flood	52	p 54 - FIRM map 176 - FEMA Hazard Zones	53 - defines floodplains 173 - Advisories	55-58	60 - high	172 - 176	172 - 176	172 - 176	Y

Storm Surge	65	67 - storm surge map	65	68	69 - high Double sentence about sea level rise increase	179 - 184	179 - 184	179 - 184	Y
Sea Level Rise	65	65	66 - no extent	68 - nothing since 2016, state so	69 - low	179 - 184	179 - 184	179 - 184	Y
Tsnuamis	65	66	66 - no extent	68 - nothing since 2008 - state so	69 - low	179 - 184	179 - 184	179 - 184	Y
Hail	72	74 - entirety of county - Could this be Volusia County and its Jurisdictions?	what are the advisories?	76 - 83	100 - high	185 - 187	74 185 - 187	185 - 187	Y
Lightning	72	75	what are the advisories?	84 - 87	100 - high	186 - 187	74 185 - 188	186 - 187	Y
Thunderstorms	72	75	what are the advisories?	88 - 99	100 - high	187 - 187	74 185 - 189	187 - 187	Y
Tornado	101	103 - uniformly exposed	101	103 - 114	116 - high	188 - 190	116 188 - 190	188 - 190	Y
Tropical Cyclones	117	119 - emphasis on coastal areas	117	120 - 121	126 - high	191 - 199	191 - 199	191 - 199	Y
Wildland Fire	127	128 - uniformly exposed, WUI map	what constitutes as a wildfire?	130 - nothing after 2018, state so	131 - high	127 in the background has good impacts 200 - 203	200 - 203	201 - 203	Y

Meeting Information

This section of the Volusia Local Mitigation Strategy includes documentation (agendas, sign-in sheets, other items) for the meetings held as part of the planning process. The planning team held four meetings, which are summarized below:

- **Public Kickoff Meeting**
  - September 20, 2024
  - The Working Group's Quarter 3 Meeting was open to the public. This meeting was held at the Volusia County Emergency Operations Center, 3825 Tiger Bay Road. The goal was to begin the public engagement process. The objective was to inform the Working Group and the public on the progress made up to that point and to discuss any updates needed to the priority project list.

- **Public Engagement Meetings**
  - November 25 and 26, 2024
  - Two public meetings were held to inform the public of the planning process and the overall scope of the 2025 Volusia County Local Mitigation Strategy. Maps and a draft plan were provided and general items within the plan were discussed. Special attention was given to community members' needs and recommendations for the plan.

- **Volusia Prepares Meeting and Conclusion Meeting for Public**
  - December 13, 2024
  - The next Local Mitigation Strategy Meeting was held at the Volusia County Emergency Operations Center, 3825 Tiger Bay Road. The purpose of this meeting was to show the jurisdictions and the public the draft plan and obtain comments and feedback.

Documentation for these meetings is found on the following pages of this appendix, including:

- Sign-In Sheets
- Agendas
- Press Releases
- Presentation Slides

From: Yolanda Buckles <YBuckles@volusia.org>
Sent: Tuesday, September 17, 2024 3:58 PM
To: Adam Thornton; Angie Sehenuka; Arden Fontaine; Aubrie Austin; Austin Beeghly; Barton, Justin (BartonJustin@CODB.US); Becky Witte; Benjamin Bartlett; Bobbie King; Boyer, Chris (cjboyer@volusia.k12.fl.us); Cammie Dewey; Michelle Cechowski; Constance Bentley; Corry Brown; Cruz, Stewart (scruz@cityofdbs.org); Dan Lugo; Elizabeth Caison; Fegley, Kyle (KFegley@cityofnsb.com); Grebosz, Mike (Greboszm@deland.org); Hamstra, David (david@pegasusengineering.net); Hank Baker; Hilton, Tyna Lynn (thilton@CITYOFEDGEWATER.ORG); Houle, Sue (shoule@deltonafl.gov); Irwin, Lory (lirwin@cityofdbs.org); J Gleason; Jeff Alberts; Jerome Adams; Jessica Fentress; Jill Hemmerlein; Jim Cannon; Jim Peterson; John Widick; Jonathan McKinney; Juengst, Steven (sjuengst@hollyhillfl.org); Karen Feaster; Long, Ronnie (OC); Margaret Tomlinson; Mark Bell; Michael Ulrich; Mike McMunigle; Miller, Jeff (jmiller@hollyhillfl.org); Moisio, Loretta (moisio@ormondbeach.org); Moses, Kieu (mosesk@deland.org); Nancy Church; Randy Coslow; Robert Falk; Robin Gawel - City of Ormond Beach (Robin.Gawel@ormondbeach.org); Saavedra, Leylah (leylah@pegasusengineering.net); Sandy Camp; Smith, Hardy (SmithHardy@CODB.US); Tiffany Islam; Tim MacHardy; Vandemark, Shawn (svandemark@cityofnsb.com); Waller, David (WallerDavid@CODB.US); White, Pat (pmwhite404@gmail.com); Yolanda Buckles; Young, Ronald E. (reyoung@volusia.k12.fl.us)
Cc: McKenna Korzeniewski
Subject: Volusia Prepares (LMS) Quarterly Meeting
Attachments: 09.20.2024 LMS Meeting Agenda.pdf; 06.21.2024 LMS Meeting Minutes.pdf

Good Afternoon Everyone,

This is a friendly reminder about the upcoming Volusia Prepares (LMS) quarterly meeting, scheduled for this Friday, September 20th, at 9:00 AM at the Emergency Operations Center.

Please find the meeting agenda and minutes from our last quarterly meeting attached.

If you have any questions or need further information, feel free to reach out

Best Wishes,
Yolanda

Yolanda Buckles, FPEM
Planner II
Volusia County Emergency Management
3825 Tiger Bay Rd., Suite 102
Daytona Beach, FL 32124
386.254.1500 ext 11027

From: McKenna Korzeniewski <MKorzeniewski@ecfrpc.org>
Sent: Tuesday, January 28, 2025 3:30 PM
To: Brenda Defoe-Surprenant
Subject: Fw: LMS Quarterly Meeting
Attachments: 10.13.2024 LMS Meeting Agenda.pdf; 09.20.2024 LMS Meeting Minutes.pdf

McKenna Korzeniewski
Resilience Planner II
East Central Florida Regional Planning Council
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From: Yolanda Buckles <YBuckles@volusia.org>
Sent: Monday, December 9, 2024 1:19 PM
To: Adam Thornton <athornton@southdaytona.org>; Angie Sehenuka <sehenuka@codb.us>; Arden Fontaine <AFontaine@volusia.org>; Aubrie Austin <ALAustin@volusia.org>; Austin Beeghly <Austin.Beeghly@em.myflorida.com>; Barton, Justin (BartonJustin@CODB.US) <BartonJustin@CODB.US>; SD - Becky Witte <bwitte@southdaytona.org>; Benjamin Bartlett <BBartlett@volusia.org>; Bobbie King <BGKing@volusia.org>; Boyer, Chris (cjboyer@volusia.k12.fl.us) <cjboyer@volusia.k12.fl.us>; Cammie Dewey <cdewey@sjrwmd.com>; Michelle Cechowski <mcechowski@ecfrpc.org>; Corry Brown <CABrown@volusia.org>; Cruz, Stewart (scruz@cityofdbs.org) <scruz@cityofdbs.org>; Dan Lugo <dlugo@orangecityfl.gov>; Elizabeth Caison <Elizabeth.Caison@em.myflorida.com>; Fegley, Kyle (KFegley@cityofnsb.com) <KFegley@cityofnsb.com>; DL Asst CM - Grebosz, Mike <greboszm@deland.org>; Hamstra, David (david@pegasusengineering.net) <david@pegasusengineering.net>; Hank Baker <hbaker@ponce-inlet.org>; Hilton, Tyna Lynn (thilton@CITYOFEDGEWATER.ORG) <thilton@CITYOFEDGEWATER.ORG>; Houle, Sue (shoule@deltonafl.gov) <shoule@deltonafl.gov>; Irwin, Lory (lirwin@cityofdbs.org) <lirwin@cityofdbs.org>; LH - Administrator Jim Gleason <jgleason@lakehelen.org>; Jeff Alberts <JAlberts@volusia.org>; OH Manager - Jerome Adams <AdamsJ@oakhillfl.gov>; Jessica Fentress <jfentress@volusia.org>; Jill Hemmerlein <JHemmerlein@volusia.org>; SJRWMD - James Cannon <jcannon@sjrwmd.com>; Jim Peterson <JPeterson@sjrwmd.com>; John Widick <jawidick@volusia.k12.fl.us>; Juengst, Steven (sjuengst@hollyhillfl.org) <sjuengst@hollyhillfl.org>; Karen Feaster <KFeaster@flydab.com>; Kelly Steffens <KSteffens@flaglercounty.gov>; Kim Flaherty <flahertykimberly@codb.us>; OC FD - Ronnie Long <rlong@orangecityfl.gov>; Margaret Tomlinson <mtomlinson@port-orange.org>; Mark Bell <publicworks@oakhillfl.gov>; Michael Ulrich <MUlrich@volusia.org>; Mike McMunigle <MJMcMuni@sjrwmd.com>; Miller, Jeff (jmiller@hollyhillfl.org) <jmiller@hollyhillfl.org>; Moisio, Loretta (moisio@ormondbeach.org) <moisio@ormondbeach.org>; Moses, Kieu (mosesk@deland.org) <mosesk@deland.org>; Nancy Church

<NChurch@volusia.org>; Olivia Thomas <OThomas@volusia.org>; Robert Falk <RFalk@volusia.org>; Robin Gawel - City of Ormond Beach (Robin.Gawel@ormondbeach.org) <Robin.Gawel@ormondbeach.org>; Saavedra, Leylah (leylah@pegasusengineering.net) <leylah@pegasusengineering.net>; Sandy Camp <scamp@CITYOFEDGEWATER.ORG>; Smith, Hardy (SmithHardy@CODB.US) <SmithHardy@CODB.US>; Stephen Cousins <scousins@deltonafl.gov>; Tim MacHardy <TMacHardy@volusia.org>; NSB - Shawn VanDeMark <svandemark@cityofnsb.com>; Waller, David (WallerDavid@CODB.US) <WallerDavid@CODB.US>; White, Pat (pmwhite404@gmail.com) <pmwhite404@gmail.com>; Yolanda Buckles <YBuckles@volusia.org>; Young, Ronald E. (reyoung@volusia.k12.fl.us) <reyoung@volusia.k12.fl.us>
Subject: LMS Quarterly Meeting

Good Afternoon All:

This is a friendly reminder that our quarterly LMS meeting is scheduled for this Friday, December 13th, at 9:00 AM at the EOC.

Attached, you will find the agenda for the meeting, as well as the minutes from the September 20th meeting for your review.

If you have any questions, please don't hesitate to reach out.

Best Wishes,
Yolanda

Yolanda Buckles, FPEM
Planner II
Volusia County Emergency Management
3825 Tiger Bay Rd., Suite 102
Daytona Beach, FL 32124
386.254.1500 ext 11027

AGENDA
Local Mitigation Working Group Meeting
September 20, 2024, 9:00 AM
Program Coordinator: Yolanda Buckles
EOC – Ops Room
3825 Tiger Bay Rd. Ste. 102, Daytona Beach, FL 32124

- Welcome/Introductions
- Approval of meeting minutes from June 21, 2024
- Update of Hurricane Ian, Hurricane Nicole and Hurricane Idalia HMGP initiatives
- Update on any 2023 FMA initiatives
- Present any new initiatives to be added to the LMS Initiative List
- 2025-2030 Local Mitigation Strategy (LMS) Public Kickoff
- Training Plan
- Open Discussion

Next Quarterly Meeting will be December 13

AGENDA
Local Mitigation Working Group Meeting
December 13, 2024, 9:00 AM
Program Coordinator: Yolanda Buckles
EOC – Ops Room
3825 Tiger Bay Rd. Ste. 102, Daytona Beach, FL 32124

- Welcome/Introductions
- Approval of meeting minutes of September 20, 2024
- Update of Hurricane Ian, Hurricane Nicole and Hurricane Idalia HMGP initiatives
- Update on any 2023 FMA initiatives
- Present any new initiatives to be added to the LMS Initiative List
- 2025-2030 Local Mitigation Strategy (LMS) Update
- Open Discussion

Next Quarterly Meeting to be determined

2025-2030 LOCAL MITIGATION STRATEGY PUBLIC KICKOFF

Volusia County Emergency Management and the East Central Florida Regional Planning Council

September 20, 2024

Images: Volusia County Emergency Management Logo and East Central Florida Regional Planning Council Logo

Overview of LMS & FMP

- Local Mitigation Strategy (LMS) is a 5-year plan that anticipates damage and disruption that could result from a disaster and then determines how best to eliminate or at least reduce this damage.
  - Focuses on most relevant hazards
- The Floodplain Management Plan (FMP) is a plan that supports the National Flood Insurance Program to: identify known flood problem areas, establish goals, objectives, and implementation programs, and support the reduction in flood insurance costs.

LMS & FMP- Goals & Objectives

- LMS Working Group
  - Updated LMS goals and objectives have been updated through Working Group meetings
  - FMP goals and objectives have been updated based on conversations in these meetings
  - Awaiting feedback from Working Group: requested no later than **Sept. 30**

LMS Updated Goals

Strengthen	GOAL 1: Strengthen effective hazard mitigation programming through policies, regulations, and technology through local government collaborations.
Endeavor	GOAL 2: Local government will endeavor to have resilient critical infrastructure that supports operations before, during, and after disasters.
Encourage	GOAL 3: Encourage economic sustainability within the community.
Enhance	GOAL 4: Enhance the whole community's understanding of the hazards and the techniques used to minimize vulnerability.

Individual Jurisdictional Goals & Objectives within the FMP

Each municipality has a section within the FMP stating goals and objectives to be worked towards in the next five years

Working Group: feedback and updates to those goals **Sept 30**

Additional Plan Updates

- Broad overview of the section updates:
  - Community profile has been updated to include most recent census data
  - Hazards have been refined to include additional risks and broaden the scope of disasters
  - Hazard profiles have been updated to include recent occurrences within the past 5 years
  - Vulnerability assessment is being conducted in partnership with Volusia County's Environmental Management
  - Capability assessment will be using information collected from surveys

- Mitigation plan and strategies will mainly consist of the Quarter 3 priority list
- AI data and maps are being updated currently
- Public meetings are October 7 & 8
  - Daytona Beach Library and Deland Library

THANK YOU!

Please join us for a deeper dive into the draft in October!

LOCAL MITIGATION STRATEGY QUARTER 4 MEETING

Prepared by the East Central Florida Regional Planning Council with Volusia County Emergency Management

Friday, December 13, 2024

Images: Volusia County Emergency Management Logo and East Central Florida Regional Planning Council Logo

Overview of LMS & FMP

- Local Mitigation Strategy (LMS) is a 5-year plan that anticipates damage from a disaster to determine how to eliminate or reduce damage.
  - All hazards
  - Whole community
- The Floodplain Management Plan (FMP) is a plan that supports the National Flood Insurance Program to: identify known flood problem areas, establish goals, implement programs, and reduce flood insurance costs.

Identified Natural Hazards in LMS

- Agriculture
- Coastal Erosion
- Drought
- Extreme Temperature (heat & cold)
- Flood
- Tropical Cyclones
- Public Health Emergencies
- Rising Coastal Waters (storm surge, sea level rise, & tsunamis)
- Severe Weather (hail, lightning, & thunderstorms)
- Tornado
- Wildland Fire

Identified Manmade/Technological Hazards in LMS

- Civil Disturbance
- Mass Migration
- Terrorism
- Coastal Oil Spill
- Critical Infrastructure Failure
- HazMat/Industrial Incident

LMS Example Projects

- Generators
- Home elevations
- Basin Improvements
- Hardening lift stations
- Sewer improvements

Survey Results Overview

- Public Survey for residents: 136
- HOA: 4
- Local businesses: 6

Public Survey

- 50% have lived in home for 10+ years
- 61% are very concerned about flooding in their home (83 people)
- 39% had flooding in 2022; 25% had flooding in 2024
- 82% of residents have noticed an increase in duration and frequency

HOA Survey

- 75% believe property owners are very concerned about flooding
- All have noticed an increase in flooding
- Communities represented: DeBary, Deland, Port Orange, Unincorporated Volusia

Business Survey

- 50% are NOT concerned about flooding
- 33% of participants have flooded
- Financial impacts of concern: loss of business, days, employees unable to work, profit loss, property damage

Additional Public Feedback

- Public comments brought up in two outreach sessions will be consolidated and incorporated into the LMS
  - November 25 and 26, 2024
- Additional comments taken today

THANK YOU!

Volusia Prepares - Working Group Quarterly Meeting

Jurisdiction	Representative	Phone Number	Email Address	LMS
Daytona Beach	Justin Barton	386-671-8807	BartonJustin@CODB.us	
	Michael Smith	386-671-8871	smithmike@CODB.us	
	Aaron Spencer	386-671-4021	SpencerAaron@dbfd.us	
Daytona Beach Shores	Lori Irwin	386-763-5328	lirwin@cityofdbs.org	
DeBary	Amy Long	386-601-0207	along@debary.org	
DeLand	Kieu Moses	386-626-7112	mossesk@deland.org	
	Jonathan Jacob	386-626-7097	jacobj@deland.org	
	Mike Gresbosz	386-626-7110	Greboszm@deland.org	
Deltona	Sue Houle	386-878-8163	shoule@deltonafl.gov	
	Bill Snyder	386-575-6902	bsnyder@deltonafl.gov	
	David Hamstra	407-992-9160	david@PegasusEngineering.net	
Edgewater	Sandy Camp	386-424-2400	Scamp@cityofedgewater.org	
	Tyna Lynn Hilton	386-424-2400	thilton@cityofedgewater.org	
Holly Hill	Steve Juengst	386-248-9463	sjuengst@hollyhillfl.org	SJ
	Jeff Miller	386-248-9488	jmiller@hollyhillfl.org	

Volusia Prepares - Working Group Quarterly Meeting

Jurisdiction	Representative	Phone Number	Email Address	LMS
Lake Helen	Jim Gleason		jgleason@lakehelen.org	
New Smyrna Beach	Kyle Fegley	386-410-2811	kfegley@cityofnsb.com	
	David Hamstra	407-992-9160	david@PegasusEngineering.net	
	Jesse Meyers	386-410-2812	Jmeyers@cityofnsb.com	
Oak Hill				
Orange City	Ronnie Long	386-775-5460	rlong@orangecityfl.gov	
	Joe Ruiz	386-775-5415	jruiz@orangecityfl.gov	
	John Peters	386-775-7525	jpeters@orangecityfl.gov	
Ormond Beach	Loretta Moisio	386-676-3315	moisio@ormonbeach.org	
	Robin Gawel	386-676-3343	Robin.Gawel@ormondbeach.org	
Pierson				
Ponce Inlet	Ami Pierce	386-236-2186	apierce@ponce-inlet.org	
	Hank Baker		hbaker@ponce-inlet.org	
Port Orange	Marget Tomlinson	386-506-5563	mtomlinson@port-orange.org	
	Valerie Duhl	386-506-5664	vduhl@port-orange.org	

Volusia Prepares - Working Group Quarterly Meeting

Fire Services	Jeff Alberts	386-736-5940	jalberts@volusia.org	
GIS	Nancy Church	386-736-5922	nchurch@volusia.org	
Growth and Resource Management CRS Coord.	Jill Hemmerlein	386-736-5959	Jhemmerlein@volusia.org	
Mosquito Control	Tim MacHardy	386-424-2920	Tmachardy@volusia.org	
Public Works	Arden Fontaine	386-736-5965	afontaine@volusia.org	
Recovery & Resiliency	David Linkinhoker	386-882-7773	DLinkinhoker@volusia.org	
	Chris Williams	386-747-9221	CRWilliams@volusia.org	
	Melissa DeWall	386-852-7709		Melissa DeWall
Water Resources and Utilities	Michael Ulrich	386-943-7027	Mulrich@volusia.org	
	Emergency Management Community Partners			
Advent Health	Mike Poinatowski	386-316-1120	michael.poinatowski@adventhealth.com	
Aptim	Pat White	386-299-7774	Patricia.white@aptim.com	

Volusia Prepares - Working Group Quarterly Meeting

Jurisdiction	Representative	Phone Number	Email Address	LMS
	Debra Weher	386-506-5560	dweher@port-orange.org	
South Daytona	Josh McEnany	386-322-3000	jmcenany@southdaytona.org	
	James Gillis Jr	386-322-3000	lgillis@southdaytona.org	
	Becky Witte	386-322-3000	bwitte@southdaytona.org	
Volusia County Departments				
Emergency Mgmt	Aubrie Austin	386-254-1500	alaustin@volusia.org	
	Yolanda Buckles	386-254-1500	ybuckles@volusia.org	
	CLINT MECHAM	386-254-1500	cmecham@volusia.org	
Coastal Division	Jessica Fentress	386-248-8072	jfentress@volusia.org	
	Niles Cyzycki	386-248-8072	NCyzycki@volusia.org	
	Olivia Thomas		othomas@volusia.org	
Community Assistance	Corry Brown	386-736-5955	cabrown@voluisa.org	
DB Airport	Karen Feaster	386-248-8030	kfeaster@volusia.org	
Emergency Services	Suzie Darby	386-822-5037	sdarby@volusia.org	
Environmental Management	Samantha West	386-736-5927	swest@volusia.org	

Volusia Prepares - Working Group Quarterly Meeting

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GIS	Nancy Church	386-736-5922	nchurch@volusia.org	
Growth and Resource Management CRS Coord.	Jill Hemmerlein	386-736-5959	Jhemmerlein@volusia.org	
Mosquito Control	Tim MacHardy	386-424-2920	Tmachardy@volusia.org	
Public Works	Arden Fontaine	386-736-5965	afontaine@volusia.org	
Recovery & Resiliency	David Linkinhoker	386-882-7773	DLinkinhoker@volusia.org	
	Chris Williams	386-747-9221	CRWilliams@volusia.org	Chris Williams
	Melissa DeWall	386-882-7709		Melisse DeWall
Water Resources and Utilities	Michael Ulrich	386-943-7027	Mulrich@volusia.org	
	Emergency Management Community Partners			
Advent Health	Mike Poinatowski	386-316-1120	michael.poinatowski@adventhealth.com	
Aptim	Pat White	386-299-7774	Patricia.white@aptim.com	

Volusia Prepares - Working Group Quarterly Meeting

ECFRPC	Michelle Ceckowski	407-402-3761	mcechowski@ecfrpc.org	
	McKenna Korzeniewski		MKorzeniewski@ecfrpc.org	
FDEM	Elizabeth Caison	850-524-0225	Elizabeth.Caison@em.myflorida.com	
Halifax Health				
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	Cammie Dewey		cdewey@sjrwmd.com	
	Mike McMunigle		MJMcMuni@sjrwmd.com	
	Jim Peterson		JPeterson@sjrwmd.com	
VC Health Department	Stephen Civitelli	386-274-0799	Stephen.Civitelli@flhealth.gov	
VC School Board	Ron Young	386-822-6630	Reyoung@volusia.k12.fl.us	
Transform 386	Drue Lukinbeal	386-882-7777	dlukinbeal@volusia.org	
Ashleigh Elliott				

Volusia Prepares - Working Group Quarterly Meeting

Jurisdiction	Representative	Phone Number	Email Address	LMS
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[redacted]				
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Paramedics	Pat White	386 299 7774	pmwhite404@gmail.com	
VCEM	[illegible] Ervin	386 822 5013	cervin@volusia.org	
n	Tim Smith	386-423-8945		
1	Deb Ulmer	386-747-6094	ilc.dulmer@gmail.com	
	[illegible]	386-690-5485		
South Daytona	Les Gillis	386-	bwitte@	
S. Daytona	Becky Witte	322-3014	Southdaytona.org	

25-2030 LOCAL MITIGATION STRATEGY AND FLOODPLAIN MANAGEMENT PLAN PUBLIC MEETINGS

Prepared by the East Central Florida Regional Planning Council with Volusia County Emergency Management

November 25 & 26, 2024

Images: Volusia County Emergency Management Logo and East Central Florida Regional Planning Council Logo

History

- Volusia County's hazard mitigation planning efforts began in 1997 with the formation of the Volusia Prepares Committee
- First LMS in 1999 (adopted 2000), as part of the Florida Department of Community Affairs LMS Initiative
- The previous version of the LMS, prior to this 2025 version, was updated and adopted in 2020

Overview of LMS & FMP

- Local Mitigation Strategy (LMS) is a 5-year plan that anticipates damage from a disaster to determine how to eliminate or reduce damage.
  - All hazards
  - Whole community
- The Floodplain Management Plan (FMP) is a plan that supports the National Flood Insurance Program to: identify known flood problem areas, establish goals, implement programs, and reduce flood insurance costs.

LMS Updated Goals

Strengthen	GOAL 1: Strengthen effective hazard mitigation programming through policies, regulations, and technology through local government collaborations.
Endeavor	GOAL 2: Local government will endeavor to have resilient critical infrastructure that supports operations before, during, and after disasters.
Encourage	GOAL 3: Encourage economic sustainability within the community.
Enhance	GOAL 4: Enhance the whole community's understanding of the hazards and the techniques used to minimize vulnerability.

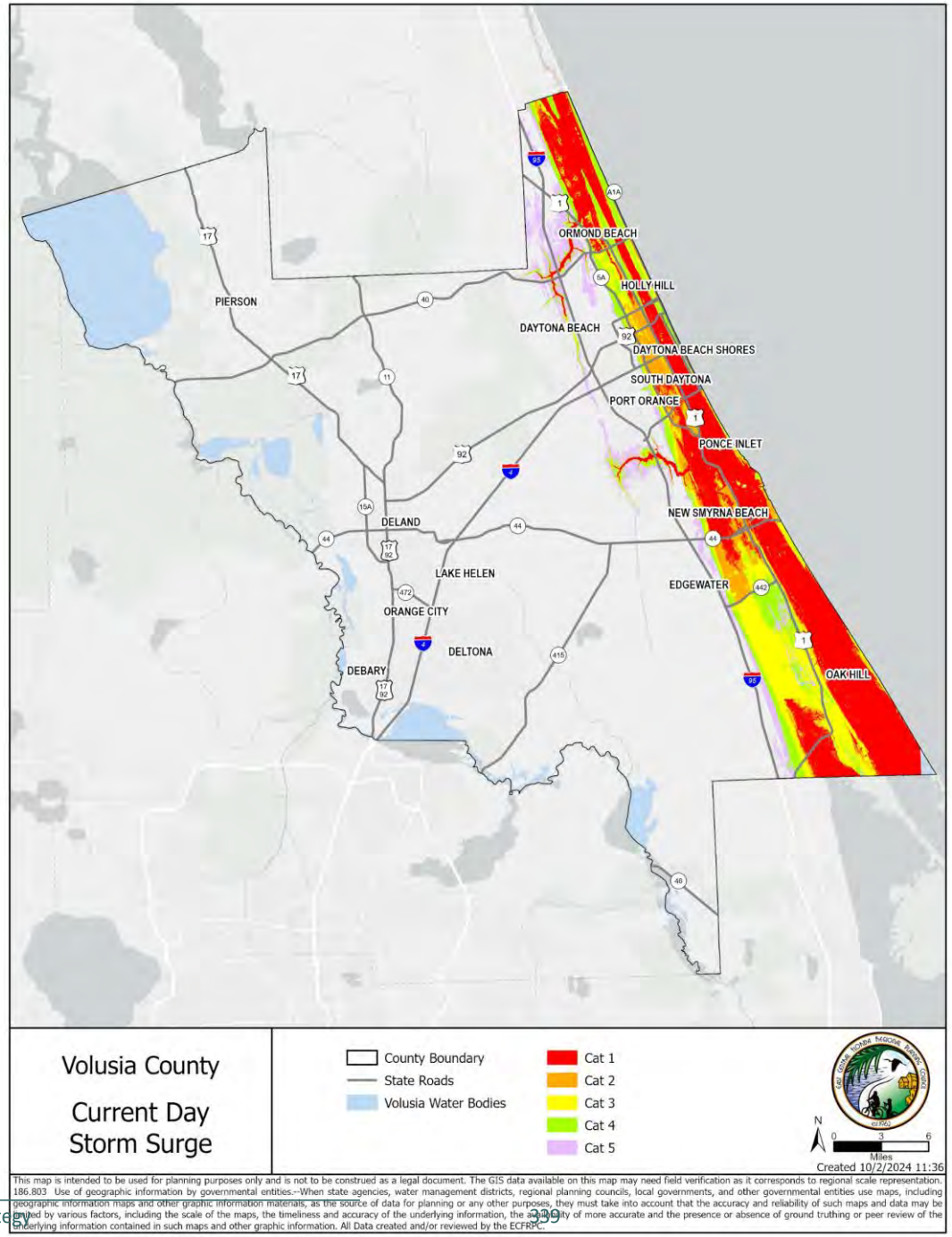
LMS & FMP- Project Lists

- Create a Master Initiatives List
- Makes county eligible for the Hazard Mitigation Grant Program (HMGP) funding through Florida's Division of Emergency Management (FDEM) and FEMA
- Grant funds are intended to bring mitigation projects to fruition that would end up on a wish list otherwise.

Community Profile

- Age (2022):
  - Median age for the County was **46.6 years**
  - State median age of **42.7 years** of age
  - Roughly 25% of residents in Volusia are over 65
- Housing (2022):
  - Median value of owner-occupied housing units was **$251,400**
  - **$178,700** average in Florida
  - **$193,500** national average

Image of current day storm surge impacting Volusia County. This map is organized by hurricane category using the SLOSH model (Sea, Lake, and Overland Surges from Hurricanes model is a computer program that estimates storm surge heights caused by tropical cyclones). This map has been approved by FDEM.



Overview of Required Updates

- Community profile has been updated to include most recent census data
- Hazards have been refined to include additional risks and broaden the scope of disasters
- Hazard profiles have been updated to include recent occurrences within the past 5 years
- Vulnerability assessment is being conducted in partnership with Volusia County's Environmental Management and information from the County's Property Appraiser

Overview of Required Updates (Continued)

- Capability assessment will use information collected from surveys
- Mitigation plan and strategies will consist of the Quarter 3 & 4 priority list
- All data and maps are being updated currently

We Need You!

- Public participation is vital to the success of the LMS/FMP
- Understanding individual homeowners' capabilities to withstand and respond to disasters is crucial for county to understand the **NEEDS** of the whole community

Survey QR Codes

Neighborhood Association Survey for Volusia Residents

Local Business Survey for Volusia County Business Owners

Floodplain Management Public Survey for Volusia County

Images: Three Photos of Survey QR Codes to Scan with Cell Phone

THANK YOU!

Questions?

LMS/FMP Public Meeting
Tuesday, November26,2024
Daytona Public Library

NAME	AFFILIATION	EMAIL	PHONE
Diane Todd			386-795-2563
MARY E HAZZARD			267-250-1600
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George Carter			
Marcella Carter			
Hank Becker			236-2188
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Mike McDaniel			
Beverly HAMM	West Winds condo 1250 #/800 S Palmetto	BHAMM8880@gmail.com 386-846-5804	386-846-5864
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Javier Benavente	resident CODB	javibene@msn.com	
LORI BECKER	Port OR Resident	Lorbecker	386 2994425
Monica PARIS	Comm Zone 1 CODB	parismonica@codb.us	386-214-3822
Sonya Bell Bell	homeowner	Rbellzeus@gmail	386-589 3422
Daniel & Sherri Tippin	Home owner	SZLegal@AOL.com	386-290-4054
JEFF CAHILL	Home Owner	jefcahill@Hotmail.com	3864519822
Catherine PANTE	Homeowner		386-566-3699
Jenny Nazak	Daytona Beach Permaculture Guild	jnazak@yahoo.com	512-619-5363
NIC MOSTERT	CUSB	MOSTERTN@hotmail.com	386-212-
TOM PEACOCK	ME	TOMMAINLAND55@AOL	1260
Peter Signann	Sierra Club	peter@signmann.net	3862815627
SUSANNE O'DELL	MANY	suedell@hotmail.com	4077602304
Jill Hemmerich	GRM	jhemmerich@gmail.m	
McKenna Korzeniewski	ECFRPC	MKorzeniewski@ecfrpc.org	

- LMS/FMP Public Meeting

Monday, November 25, 2024

Deland Public Library

darrington @orangecity fl.gov

NAME	AFFILIATION	EMAIL	PHONE
Mckenney Korczewski	ECFRPC	MKorczewski@ecfrpc.org	
JOHN BONDUR	John Knox Mag	JKBONDUR@COMCAST.NET	
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Terri Ellis		TLJOHO AOL.com	330 252-7323
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Glenn Whitcomb	City of Deltona	gwhitcomb@deltonafl.gov	
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Wendy Anderson	EMRAC	Wanders1@stetson.edu	417-353-00 8
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David Linkinhoker	Recovery & Resil.	d.linkinhoker@volusia	386-882777?
Melissa DeWall	Recovery + Resiliency	mdewall@volusia.org	386-882-7709
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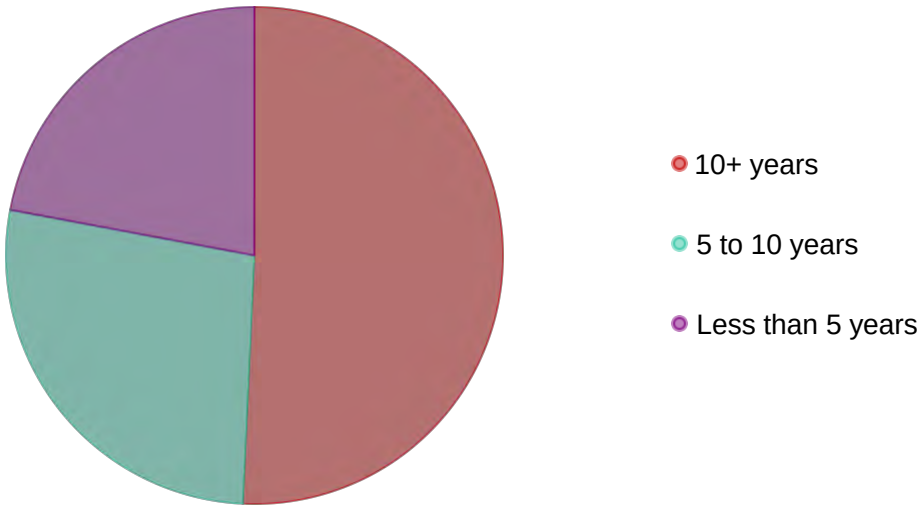
Jon Cheney	HOA	jcheney61@icloud.com	386 848 6650
Yolanda Buckles	VCEM	ybucklese volusia.org	386 254 1500
Kurja Wilkes		Kurjawilkes@gmail.	847-420-2973

Floodplain Management Public Survey for Volusia County

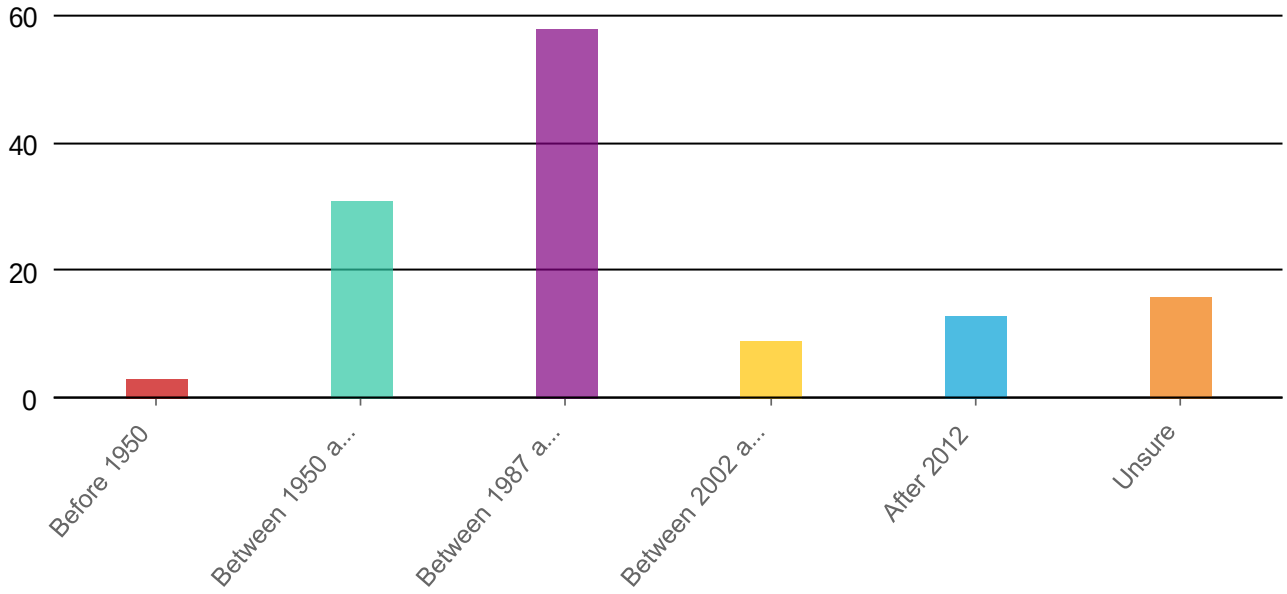
How long have you lived in your current residence?



Answers	Count	Percentage
10+ years	69	50.74%
5 to 10 years	37	27.21%
Less than 5 years	30	22.06%

Answered: 136 Skipped: 0

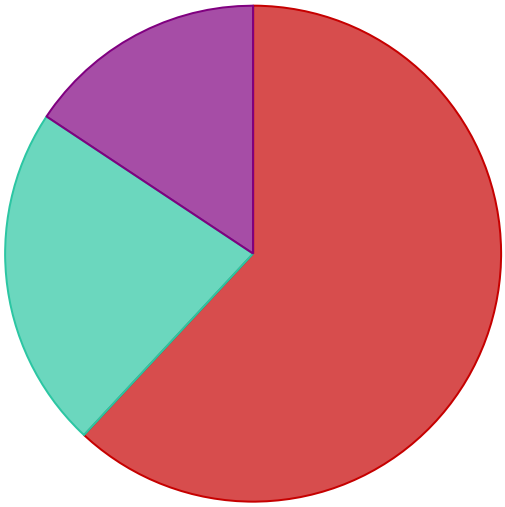
What year was your home built?



Answers	Count	Percentage
Before 1950	3	2.21%
Between 1950 and 1968	31	22.79%
Between 1987 and 2001	58	42.65%
Between 2002 and 2012	9	6.62%
After 2012	13	9.56%
Unsure	16	11.76%

Answered: 130 Skipped: 6

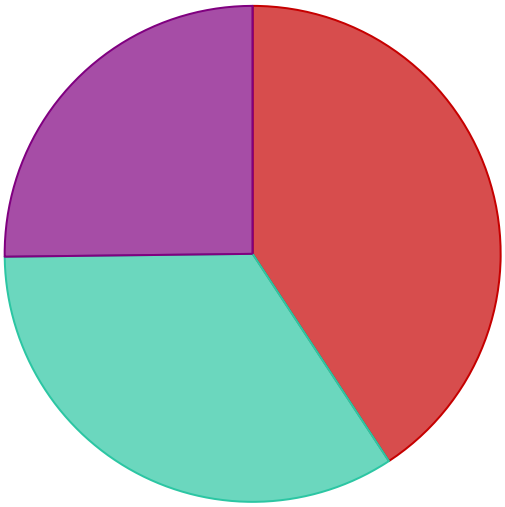
How concerned are you about the possibility of your home flooding?



Answers	Count	Percentage
Very concerned	83	61.03%
Somewhat concerned	30	22.06%
Not concerned about the possibility of home flooding	21	15.44%

Answered: 134 Skipped: 2

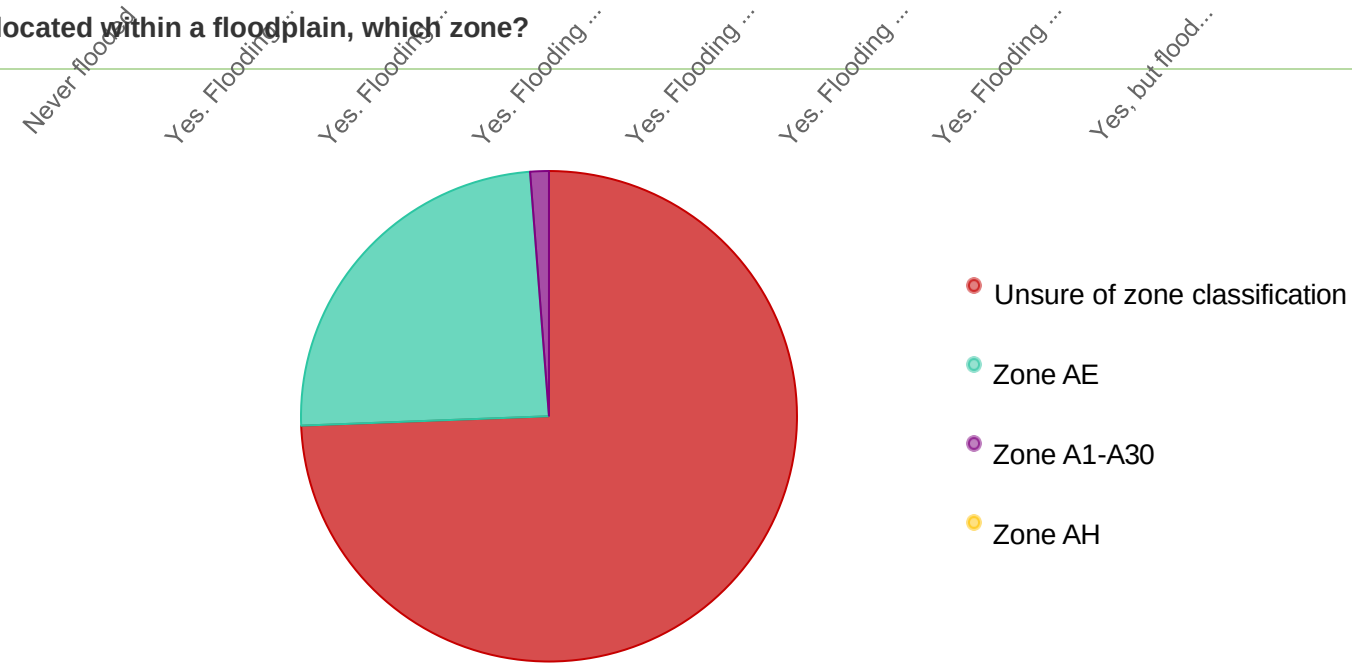
Is your home located within a Flood hazard zone (floodplain)?



Answers	Count	Percentage
Not located in floodplain	55	40.44%
Yes, located in floodplain	46	33.82%
Unsure if home is located in a floodplain	34	25%

Answered: 135 Skipped: 1

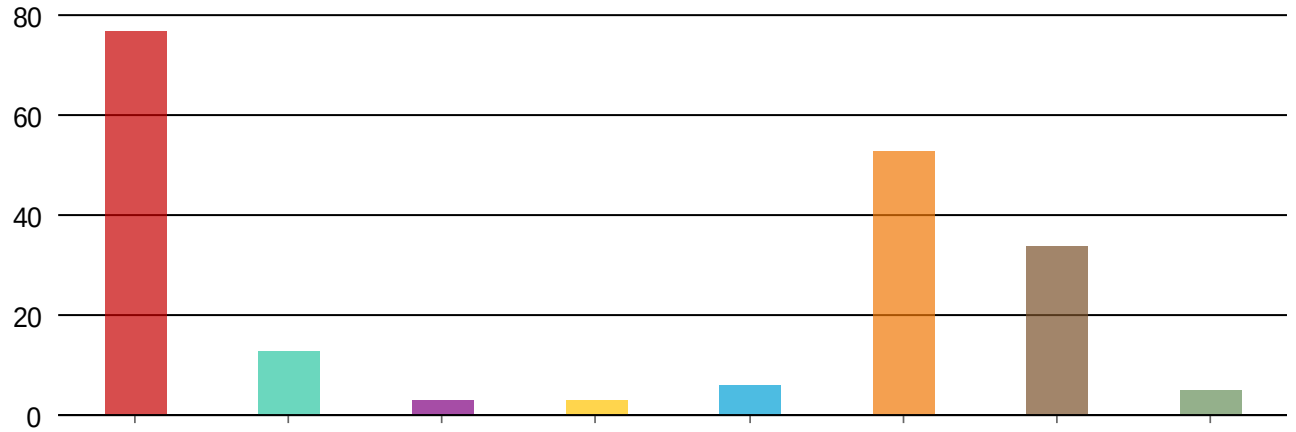
If located within a floodplain, which zone?



Answers	Count	Percentage
Unsure of zone classification	61	44.85%
Zone AE	20	14.71%
Zone A1-A30	1	0.74%
Zone AH	0	0%

Answered: 82 Skipped: 54

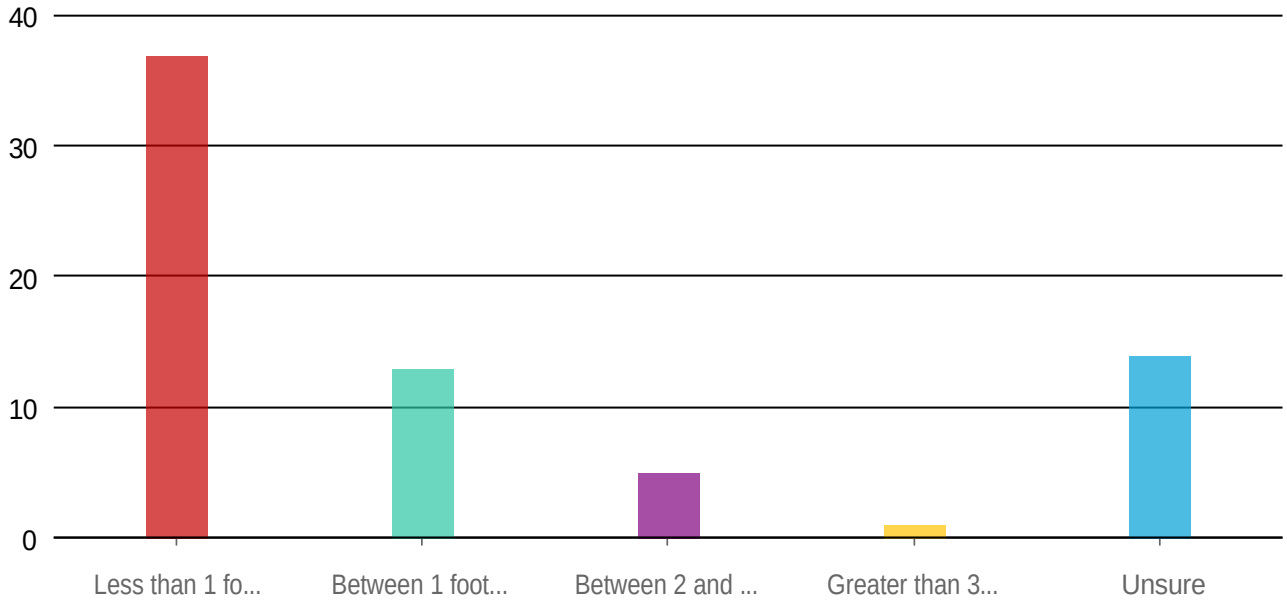
Has your home (to your knowledge) ever flooded due to natural causes?



Answers	Count	Percentage
Never flooded	77	56.62%
Yes. Flooding occurred between 2000-2009.	13	9.56%
Yes. Flooding occurred between 2010 and 2012.	3	2.21%
Yes. Flooding occurred between 2013 and 2016.	3	2.21%
Yes. Flooding occurred in 2017.	6	4.41%
Yes. Flooding occurred in 2022.	53	38.97%
Yes. Flooding occurred in 2024.	34	25%
Yes, but flooding has occurred in years not listed.	5	3.68%

Answered: 133 Skipped: 3

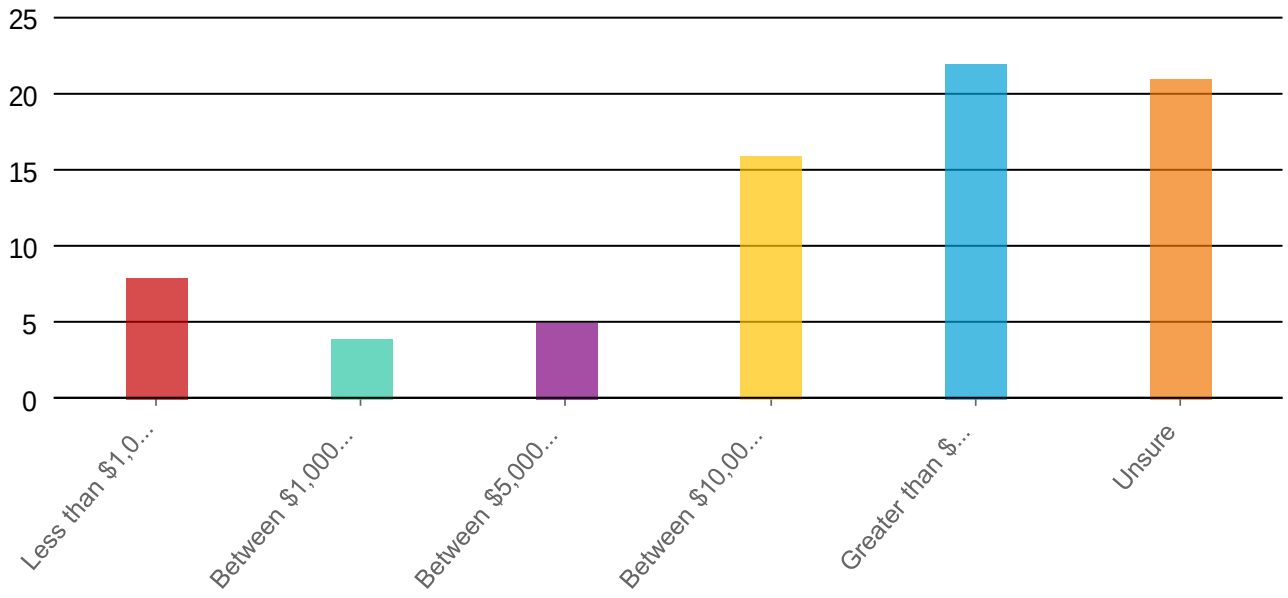
What depth was the water in your home during the last flooding event noted i…



Answers	Count	Percentage
Less than 1 foot	37	27.21%
Between 1 foot and 2 feet	13	9.56%
Between 2 and 3 feet	5	3.68%
Greater than 3 feet	1	0.74%
Unsure	14	10.29%

Answered: 70 Skipped: 66

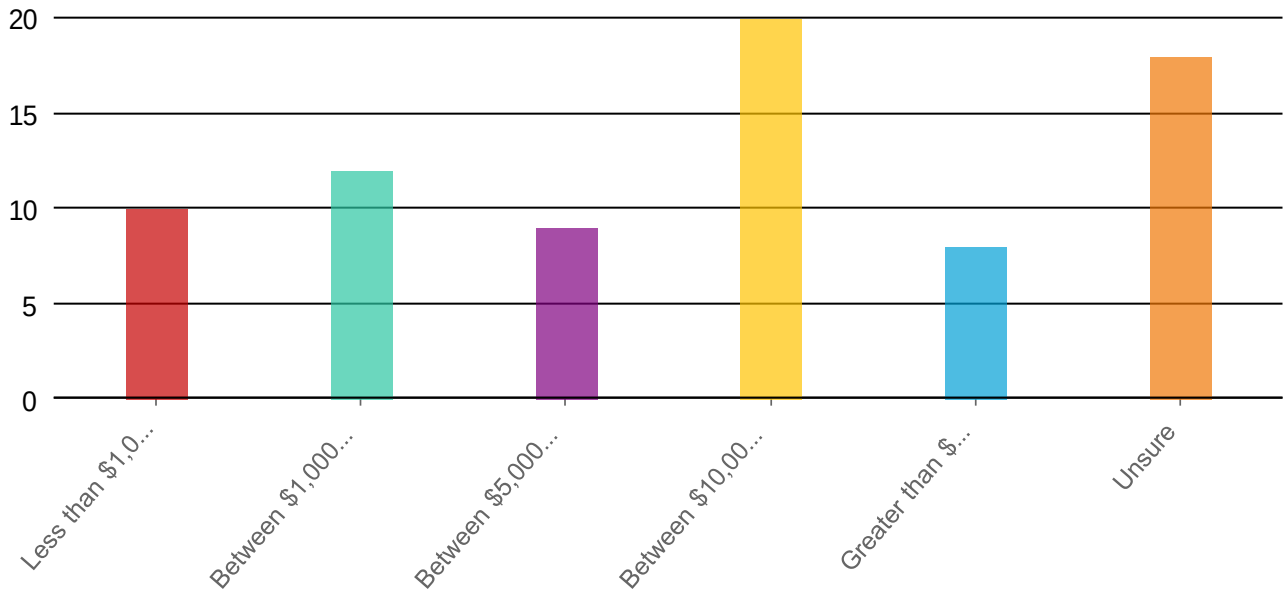
What was the approximate dollar value of structural damages to your home…



Answers	Count	Percentage
Less than $1,000	8	5.88%
Between $1,000 and $4,999	4	2.94%
Between $5,000 and $9,999	5	3.68%
Between $10,000 and $49,999	16	11.76%
Greater than $50,000	22	16.18%
Unsure	21	15.44%

Answered: 76 Skipped: 60

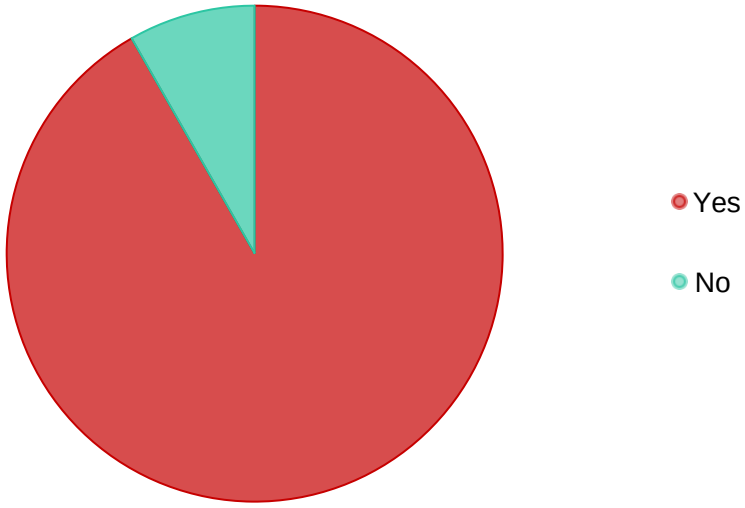
What was the approximate dollar value of all personal items lost during the la…



Answers	Count	Percentage
Less than $1,000	10	7.35%
Between $1,000 and $4,999	12	8.82%
Between $5,000 and $9,999	9	6.62%
Between $10,000 and $49,999	20	14.71%
Greater than $50,000	8	5.88%
Unsure	18	13.24%

Answered: 77 Skipped: 59

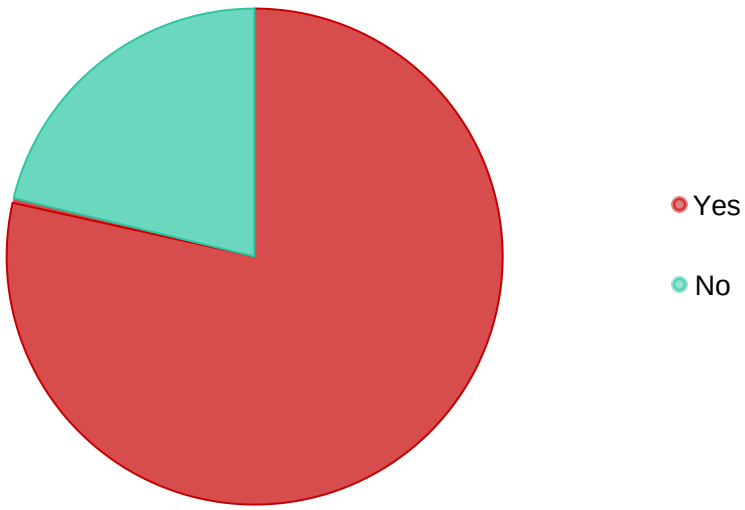
Have you noticed an increase in the duration and frequency of these flood…



Answers	Count	Percentage
Yes	111	81.62%
No	10	7.35%

Answered: 121 Skipped: 15

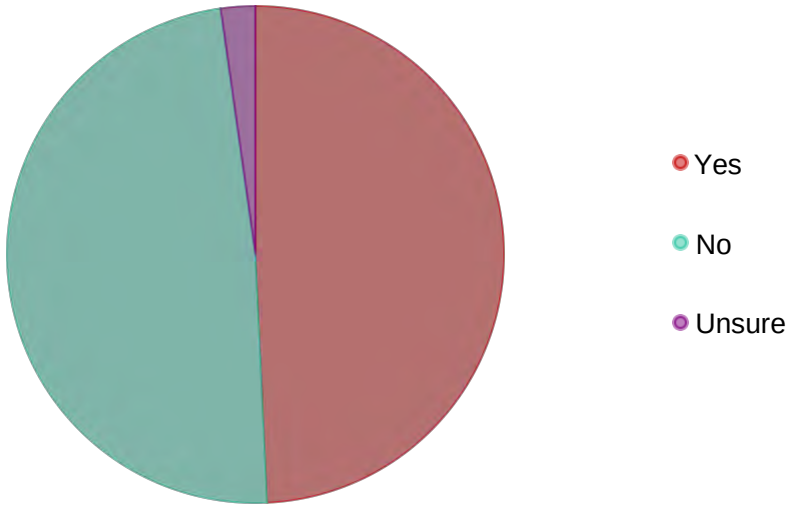
Has local roadway flooding (in your neighborhood) directly impacted access …



Answers	Count	Percentage
Yes	104	76.47%
No	28	20.59%

Answered: 132 Skipped: 4

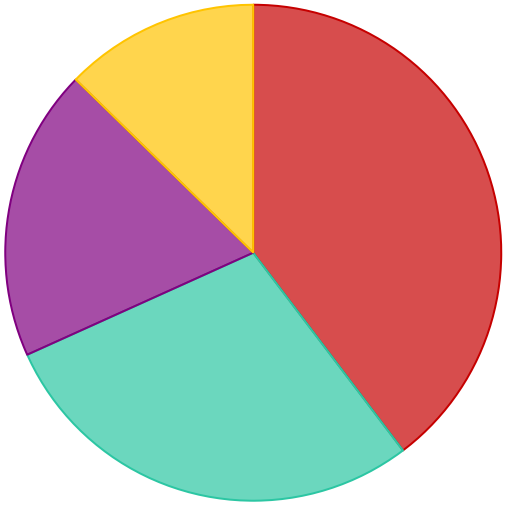
Do you currently have flood insurance for your property?



Answers	Count	Percentage
Yes	66	48.53%
No	65	47.79%
Unsure	3	2.21%

Answered: 134 Skipped: 2

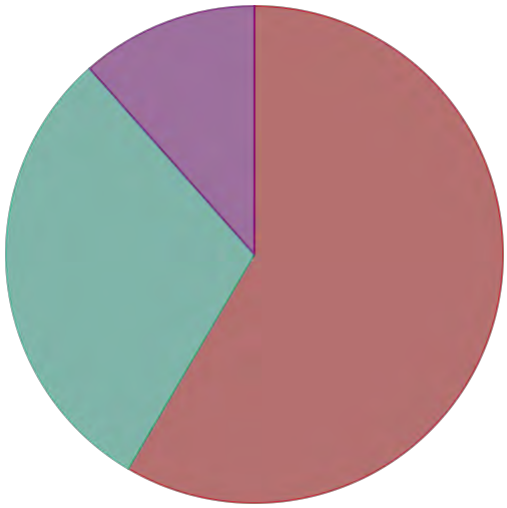
If you do not have flood insurance, which of the following best describes you…



Answers	Count	Percentage
My property is outside the floodplain.	25	18.38%
Flood insurance is too expensive.	18	13.24%
I feel there is no real threat to my property.	12	8.82%
I rent my home.	8	5.88%

Answered: 63 Skipped: 73

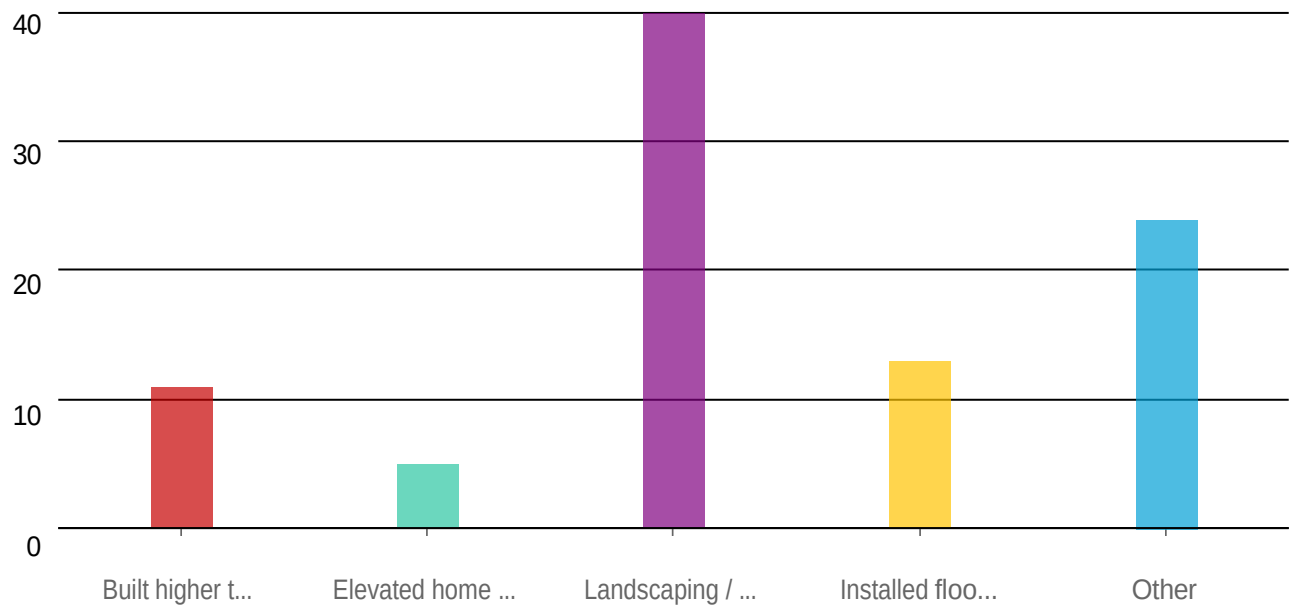
Have any flood mitigation efforts been implemented to your property?



Answers	Count	Percentage
No, flood mitigation efforts have not been implemented on my property.	76	55.88%
Yes, flood mitigation efforts have been implemented on my property.	39	28.68%
Unsure	15	11.03%

Answered: 130 Skipped: 6

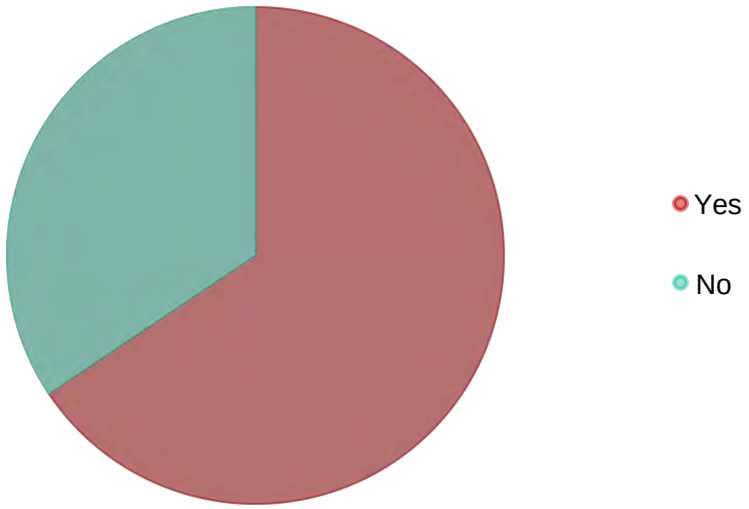
Which type of mitigation efforts have been conducted on your property?



Answers	Count	Percentage
Built higher than 100 year floodplain	11	8.09%
Elevated home / first floor is parking or access only	5	3.68%
Landscaping / drainage improvements	40	29.41%
Installed flood barriers	13	9.56%
Other	24	17.65%

Answered: 62 Skipped: 74

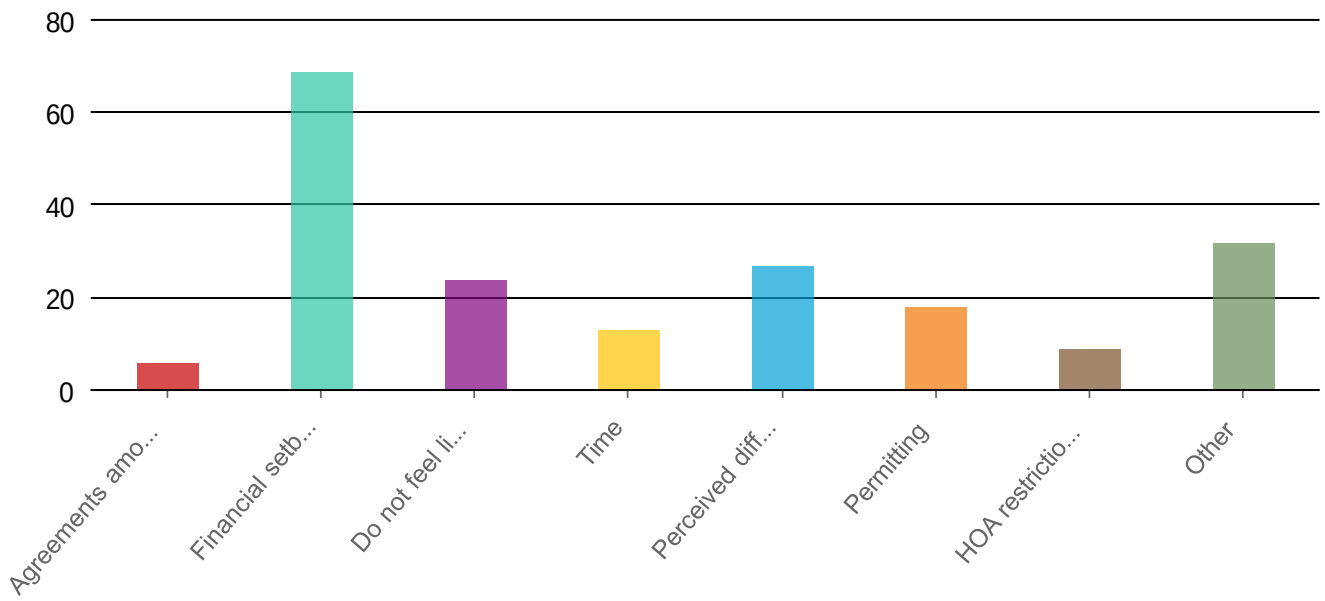
Have you considered implementing flood management strategies on your…



Answers	Count	Percentage
Yes	82	60.29%
No	43	31.62%

Answered: 125 Skipped: 11

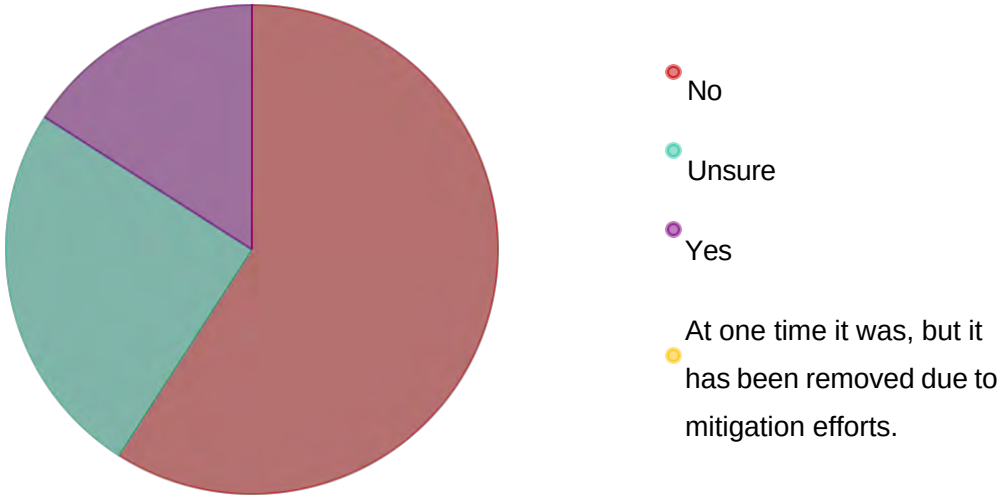
What is your biggest hold-back to implementing mitigation strategies?



Answers	Count	Percentage
Agreements among others in multi-family dwelling	6	4.41%
Financial setback	69	50.74%
Do not feel like it would make an impact	24	17.65%
Time	13	9.56%
Perceived difficulty	27	19.85%
Permitting	18	13.24%
HOA restrictions	9	6.62%
Other	32	23.53%

Answered: 116 Skipped: 20

Is your home currently classified as a repetitive loss property?

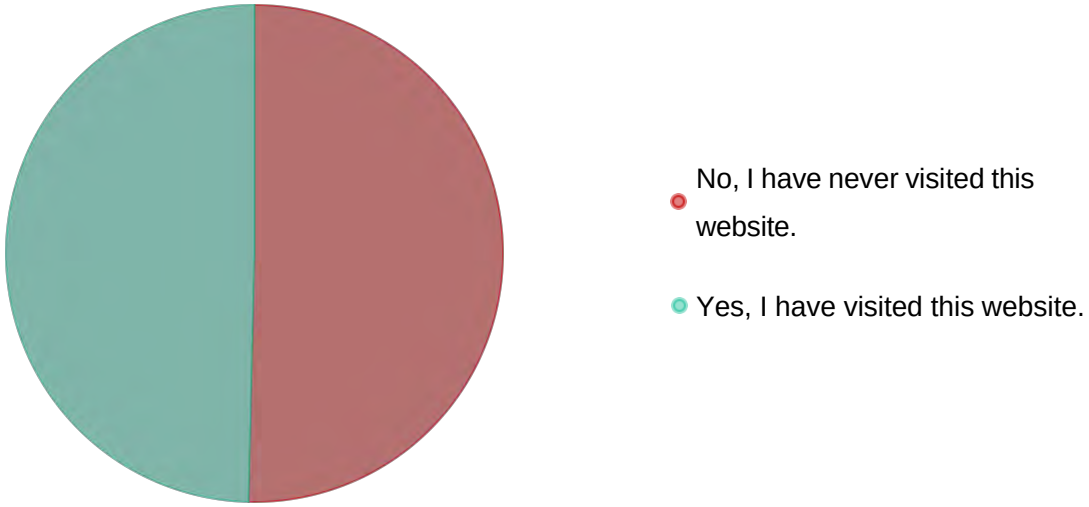


Answers	Count	Percentage
No	78	57.35%
Unsure	33	24.26%

Yes	21	15.44%
At one time it was, but it has been removed due to mitigation efforts.	0	0%

Answered: 132 Skipped: 4

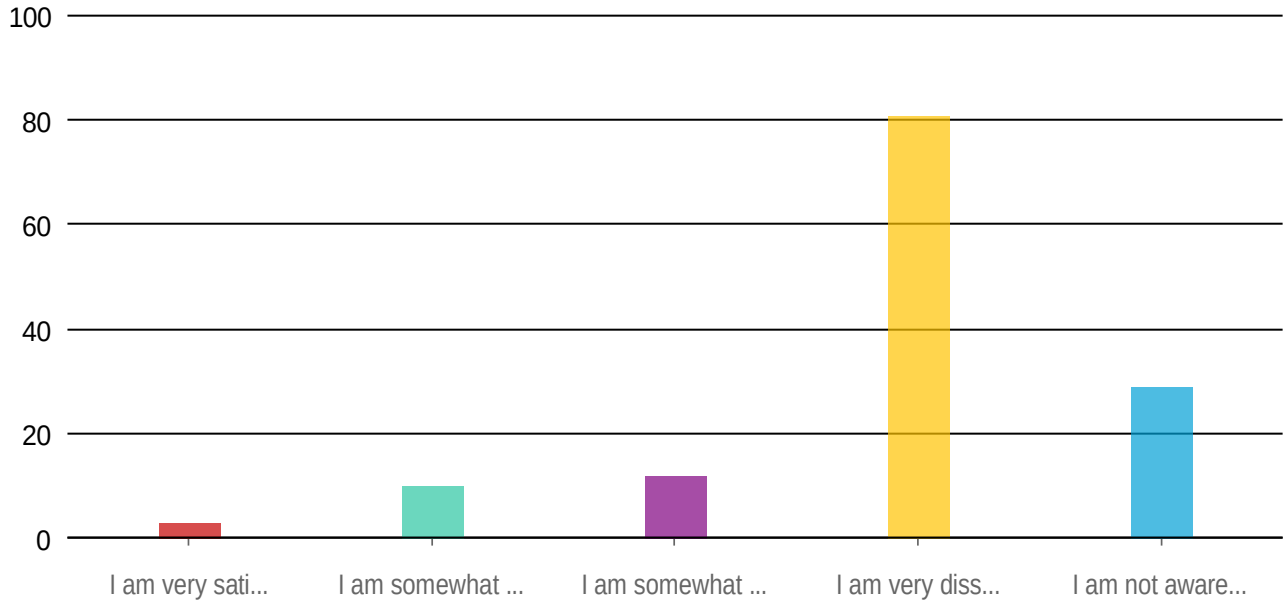
Did you know that you can view the current floodplain and other county wide…



Answers	Count	Percentage
No, I have never visited this website.	67	49.26%
Yes, I have visited this website.	66	48.53%

Answered: 133 Skipped: 3

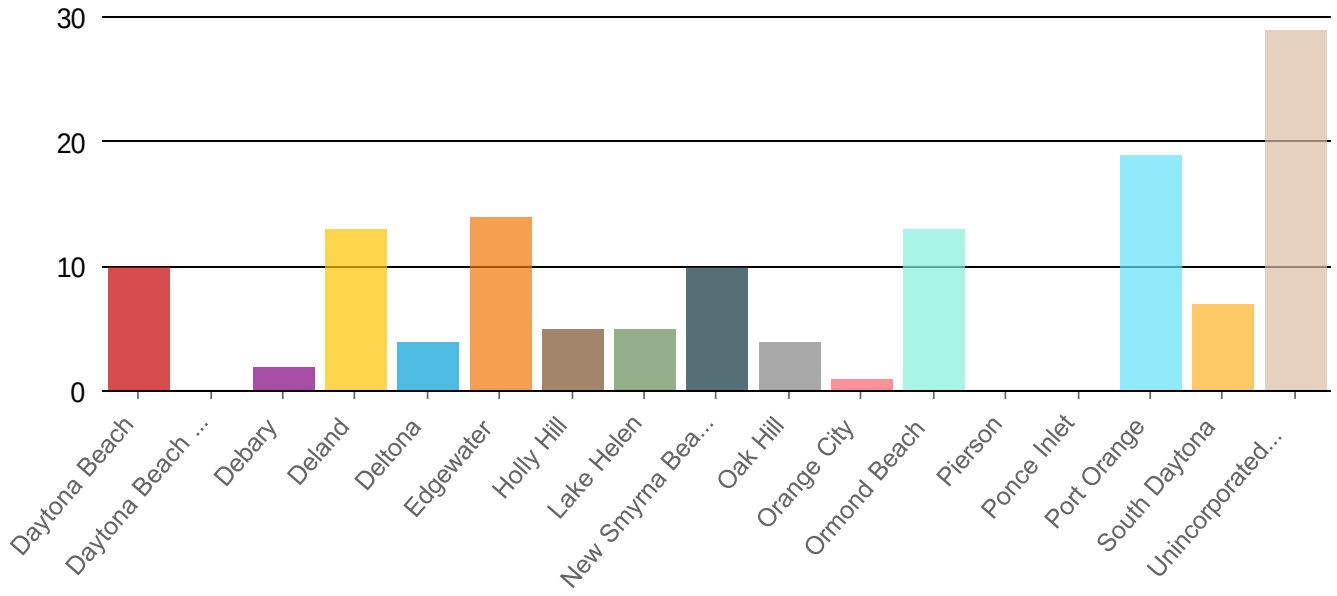
How satisfied are you with how your jurisdiction handles public involvement…



Answers	Count	Percentage
I am very satisfied	3	2.21%
I am somewhat satisfied	10	7.35%
I am somewhat dissatisfied	12	8.82%
I am very dissatisfied	81	59.56%
I am not aware of any public involvement/outreach efforts concerning flood hazards conducted by my jurisdiction	29	21.32%

Answered: 135 Skipped: 1

Your property is located in which jurisdiction?



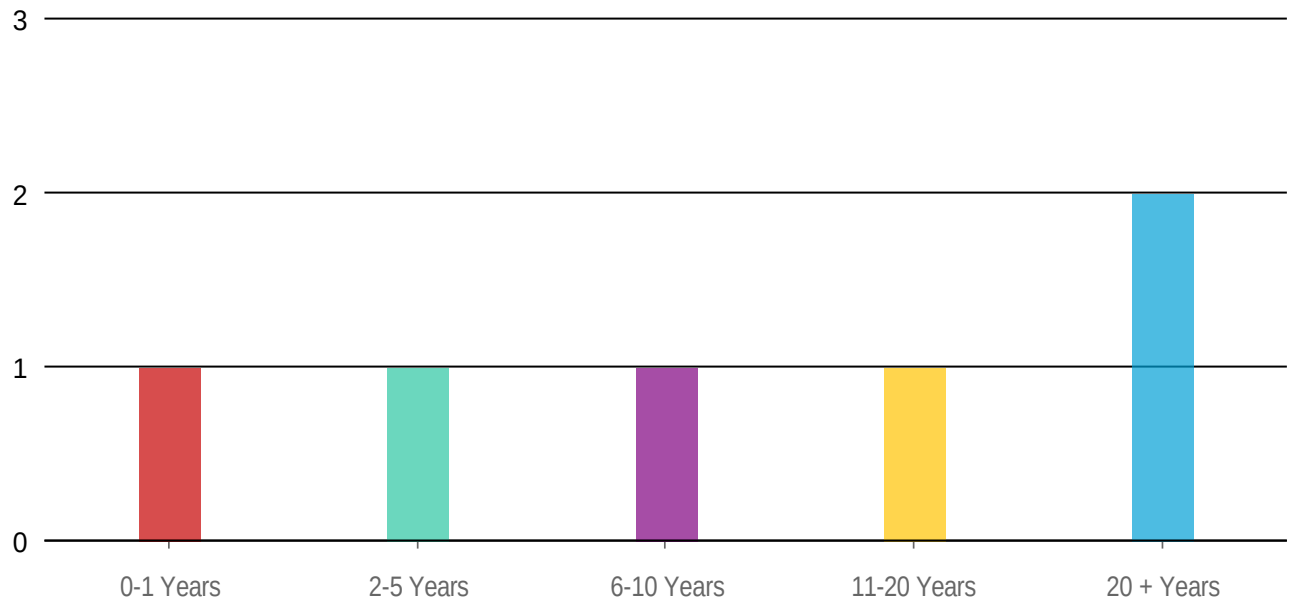
Answers	Count	Percentage
Daytona Beach	10	7.35%
Daytona Beach Shores	0	0%
Debary	2	1.47%
Deland	13	9.56%
Deltona	4	2.94%
Edgewater	14	10.29%
Holly Hill	5	3.68%
Lake Helen	5	3.68%
New Smyrna Beach	10	7.35%
Oak Hill	4	2.94%
Orange City	1	0.74%
Ormond Beach	13	9.56%
Pierson	0	0%
Ponce Inlet	0	0%

Port Orange	19	13.97%
South Daytona	7	5.15%
Unincorporated Volusia County	29	21.32%

Answered: 136 Skipped: 0

Local Business Survey for Volusia County Business Owners

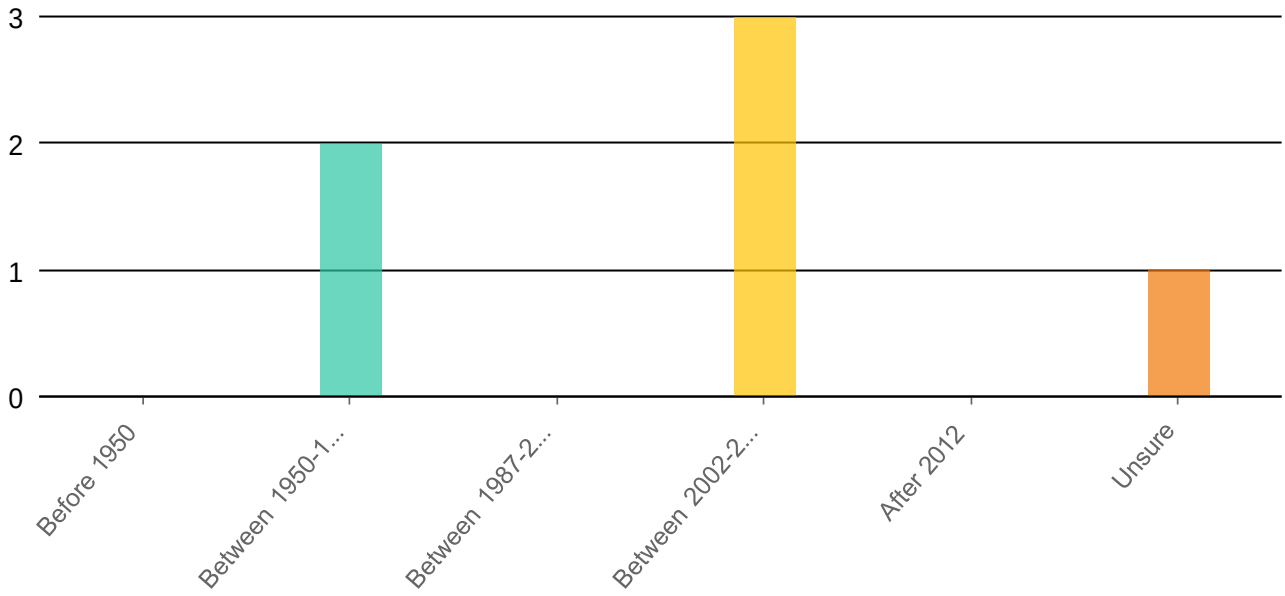
How long have you been in business at your current location?



Answers	Count	Percentage
0-1 Years	1	16.67%
2-5 Years	1	16.67%
6-10 Years	1	16.67%
11-20 Years	1	16.67%
20 + Years	2	33.33%

Answered: 6 Skipped: 0

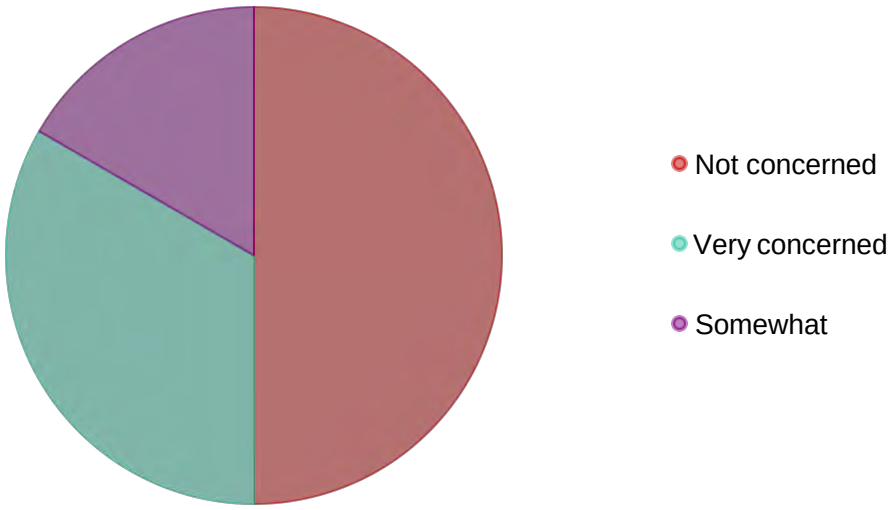
In what year was your building constructed?



Answers	Count	Percentage
Before 1950	0	0%
Between 1950-1986	2	33.33%
Between 1987-2001	0	0%
Between 2002-2012	3	50%
After 2012	0	0%
Unsure	1	16.67%

Answered: 6 Skipped: 0

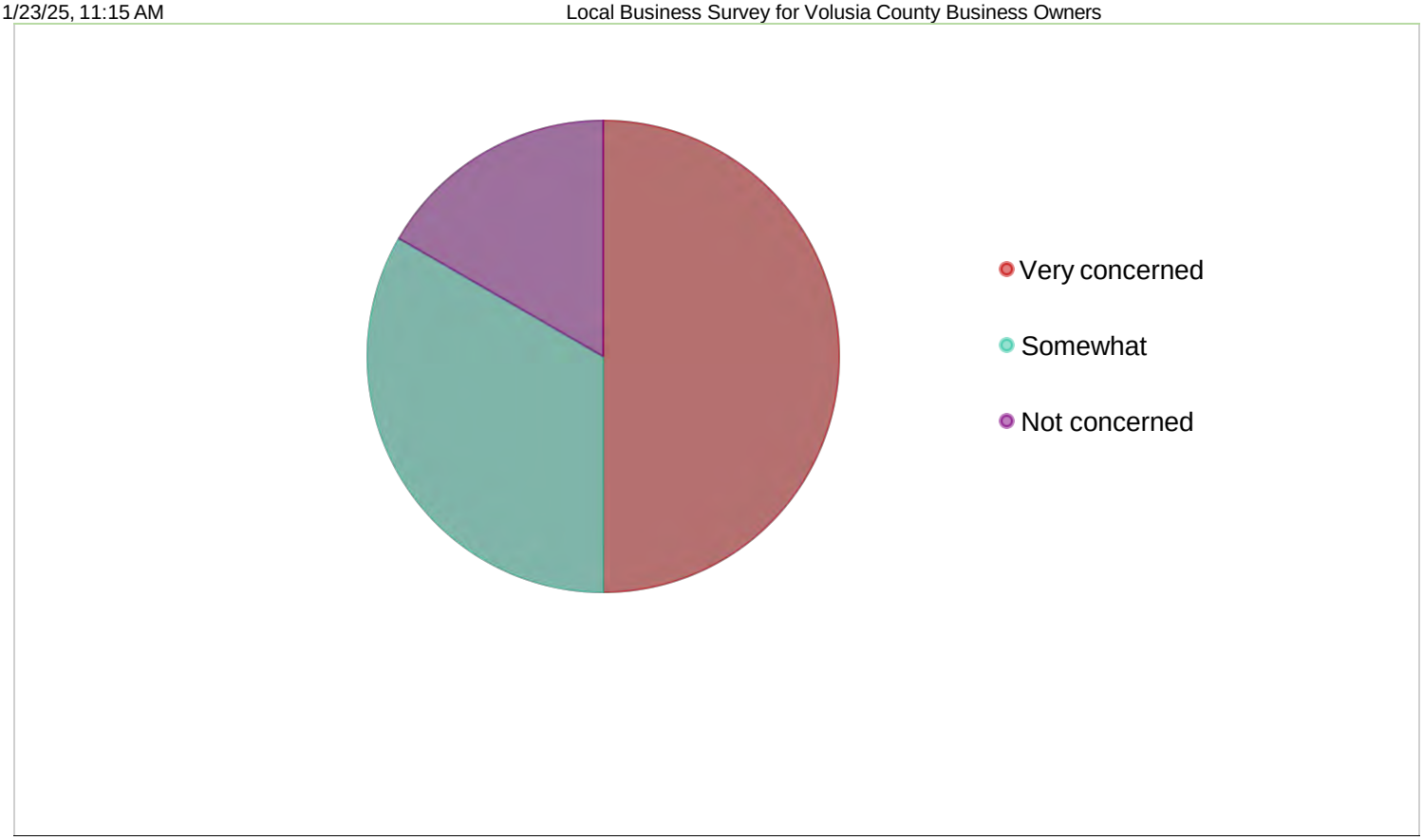
How concerned are you about the possibility of your business being flooded?



Answers	Count	Percentage
Not concerned	3	50%
Very concerned	2	33.33%
Somewhat	1	16.67%

Answered: 6 Skipped: 0

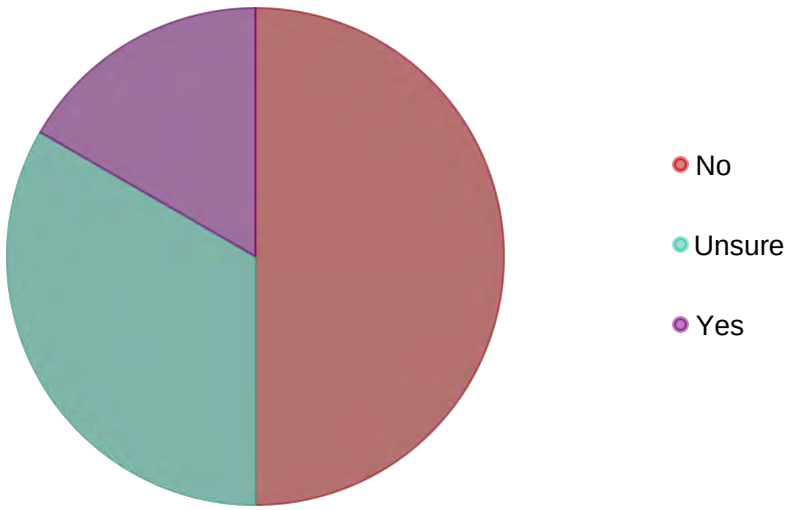
How concerned are you about the possibility of the streets accessing your…


Very concerned
Somewhat
Not concerned

Answers	Count	Percentage
Very concerned	3	50%
Somewhat	2	33.33%
Not concerned	1	16.67%

Answered: 6 Skipped: 0

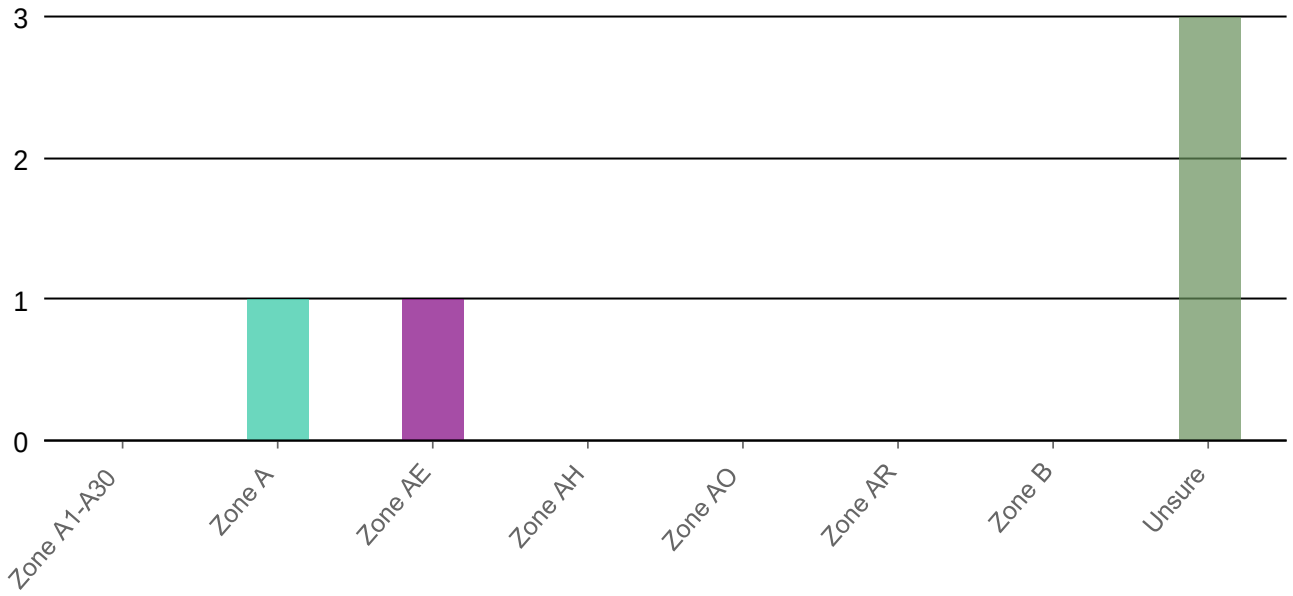
Is your business located within a designated flood hazard zone (floodplain)?



Answers	Count	Percentage
No	3	50%
Unsure	2	33.33%
Yes	1	16.67%

Answered: 6 Skipped: 0

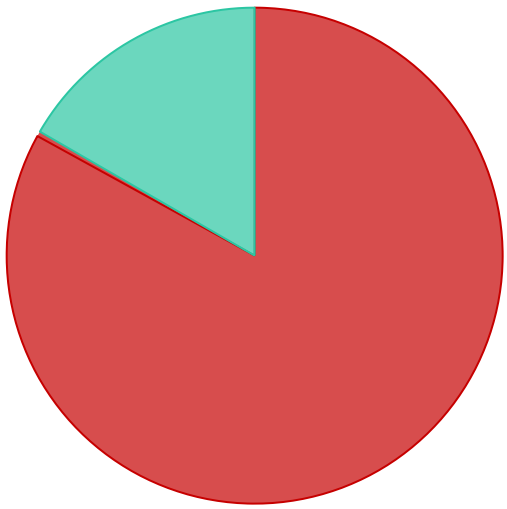
Which zone is your property located in?



Answers	Count	Percentage
Zone A1-A30	0	0%
Zone A	1	16.67%
Zone AE	1	16.67%
Zone AH	0	0%
Zone AO	0	0%
Zone AR	0	0%
Zone B	0	0%
Unsure	3	50%

Answered: 5 Skipped: 1

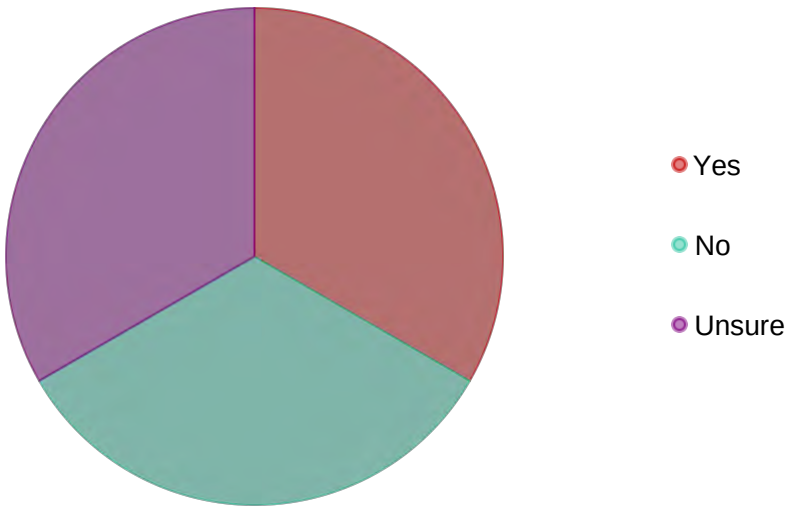
Was being located in a flood zone a concern in locating your business at its…



Answers	Count	Percentage
No	5	83.33%
Yes	1	16.67%

Answered: 6 Skipped: 0

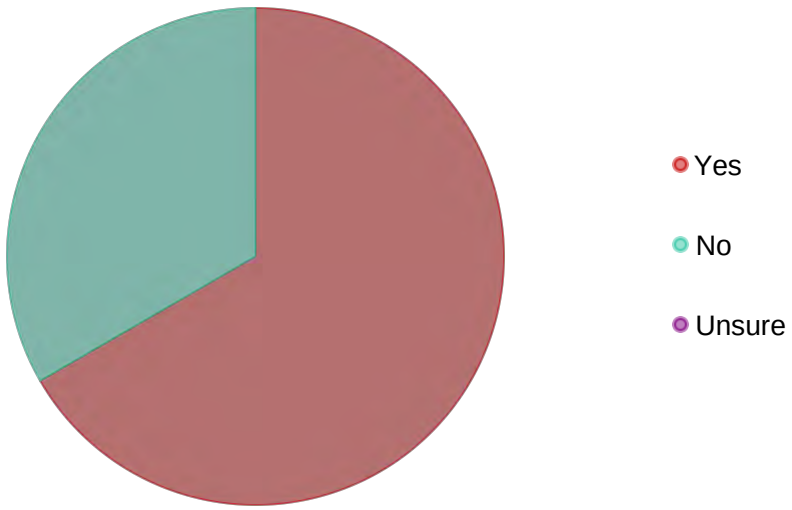
Has your place of business ever flooded due to natural/environmental causes?



Answers	Count	Percentage
Yes	2	33.33%
No	2	33.33%
Unsure	2	33.33%

Answered: 6 Skipped: 0

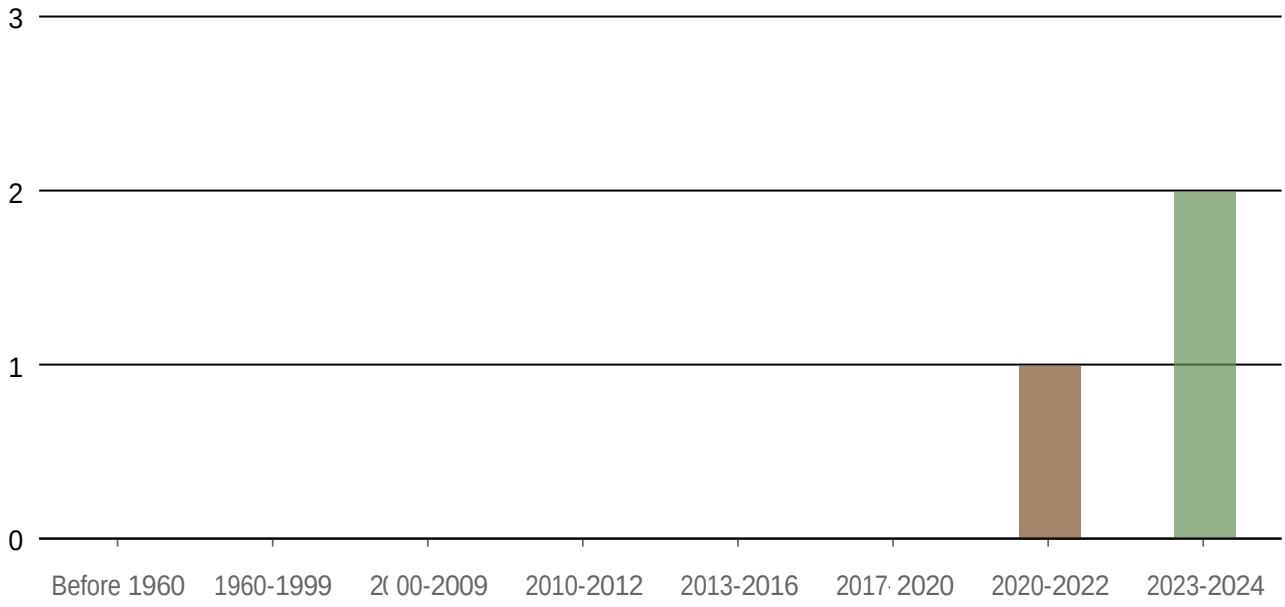
Have you seen an increase in the frequency or duration of flood events?



Answers	Count	Percentage
Yes	4	66.67%
No	2	33.33%
Unsure	0	0%

Answered: 6 Skipped: 0

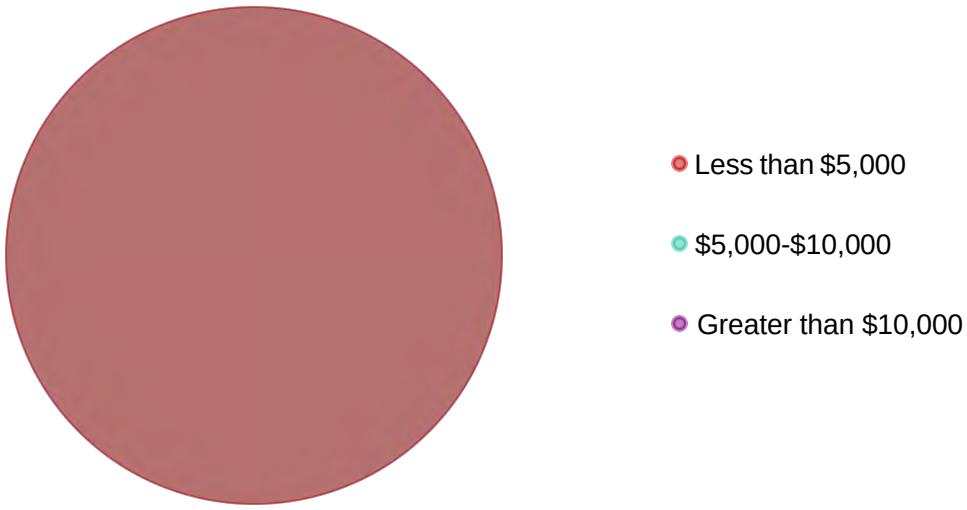
To the best of your knowledge, during which period has your place of business flood?



Answers	Count	Percentage
Before 1960	0	0%
1960-1999	0	0%
2000-2009	0	0%
2010-2012	0	0%
2013-2016	0	0%
2017-2020	0	0%
2020-2022	1	16.67%
2023-2024	2	33.33%

Answered: 2 Skipped: 4

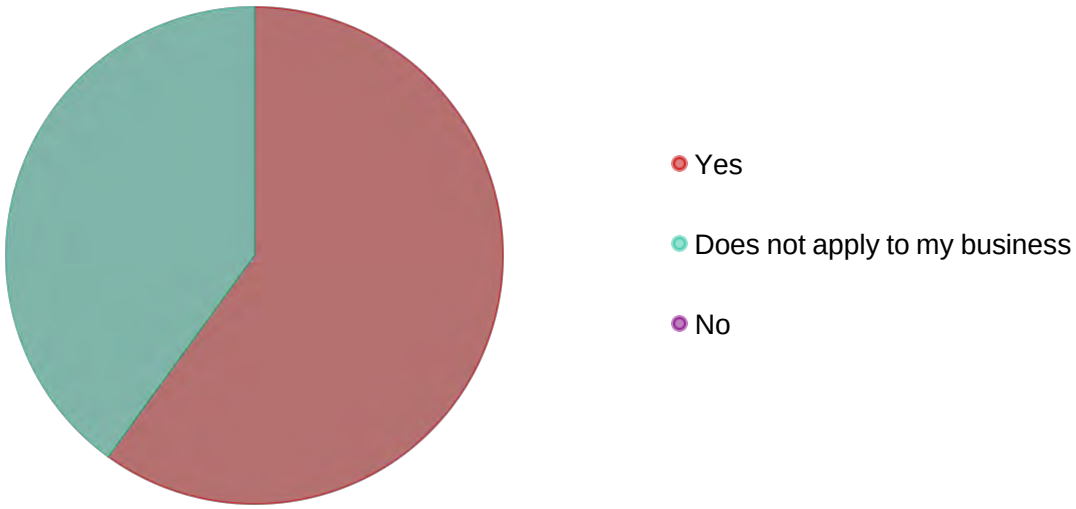
What was the approximate dollar value of all damages and losses to your…



Answers	Count	Percentage
Less than $5,000	4	66.67%
$5,000-$10,000	0	0%
Greater than $10,000	0	0%

Answered: 4 Skipped: 2

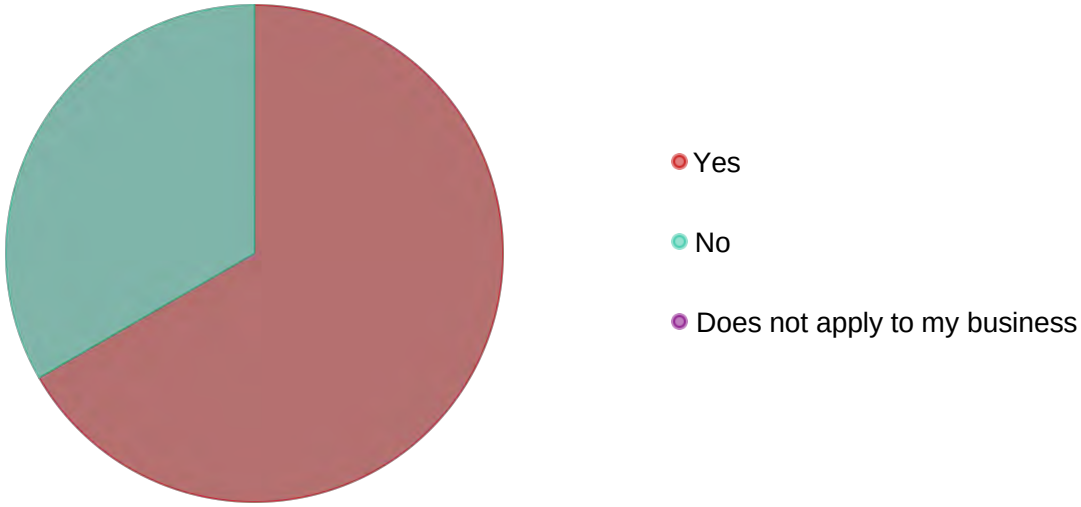
Did your business have flood insurance during time of flood events?



Answers	Count	Percentage
Yes	3	50%
Does not apply to my business	2	33.33%
No	0	0%

Answered: 5 Skipped: 1

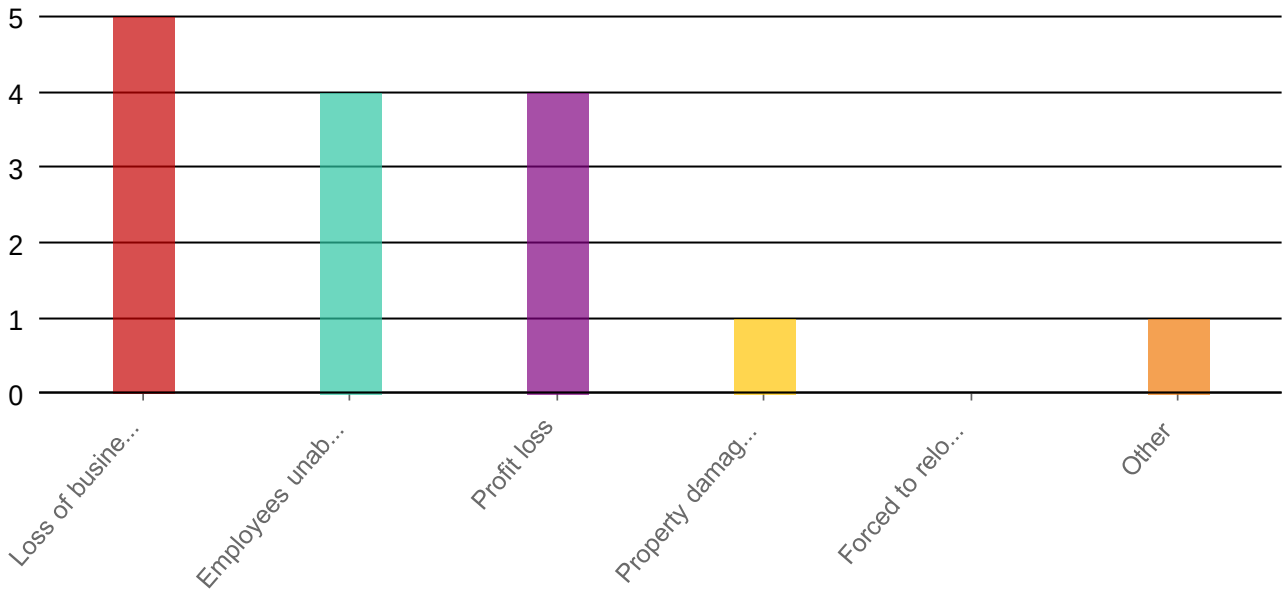
Has roadway flooding ever impacted access to your business?



Answers	Count	Percentage
Yes	4	66.67%
No	2	33.33%
Does not apply to my business	0	0%

Answered: 6 Skipped: 0

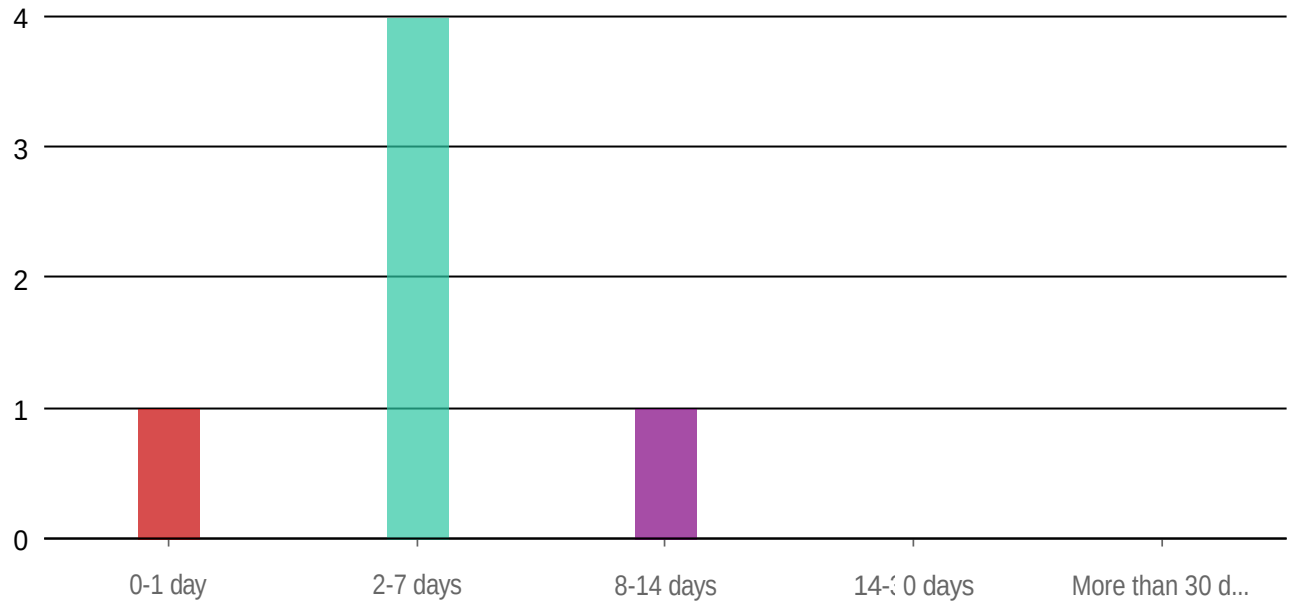
Describe, if any, the economic effect local flooding has on your business?



Answers	Count	Percentage
Loss of business days	5	83.33%
Employees unable to work	4	66.67%
Profit loss	4	66.67%
Property damage	1	16.67%
Forced to relocate	0	0%
Other	1	16.67%

Answered: 6 Skipped: 0

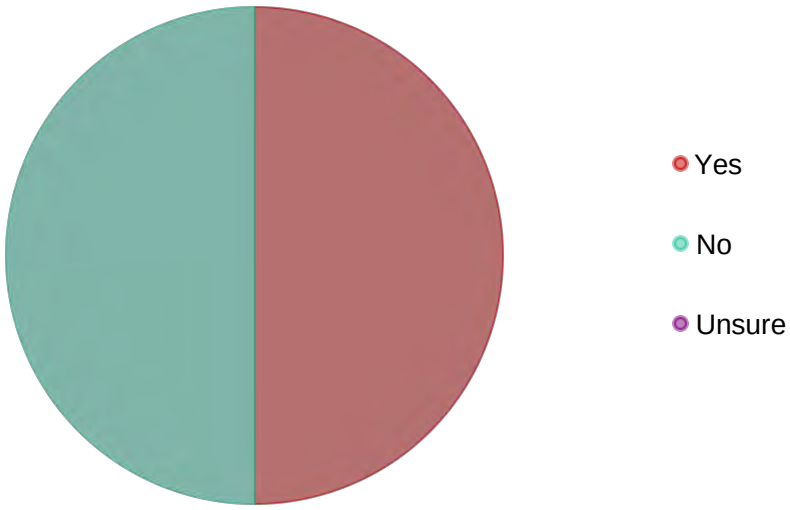
Approximately how many days in the past five years (2019-2024) has your…



Answers	Count	Percentage
0-1 day	1	16.67%
2-7 days	4	66.67%
8-14 days	1	16.67%
14-30 days	0	0%
More than 30 days in the past five years	0	0%

Answered: 6 Skipped: 0

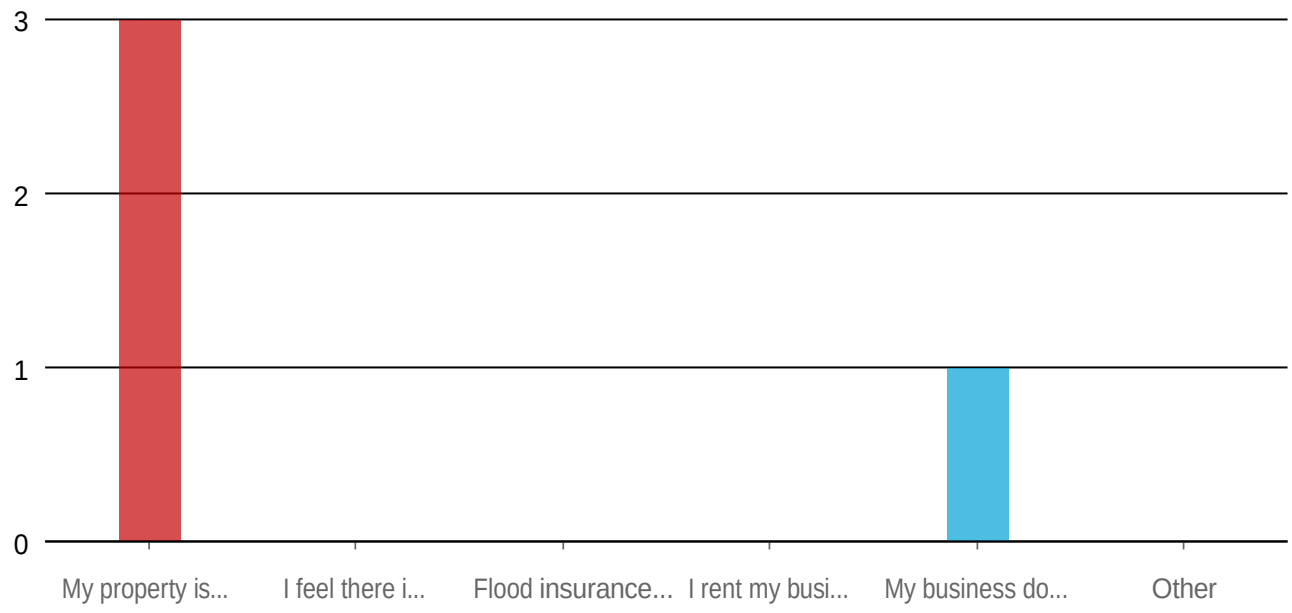
Does your business currently have flood insurance?



Answers	Count	Percentage
Yes	3	50%
No	3	50%
Unsure	0	0%

Answered: 6 Skipped: 0

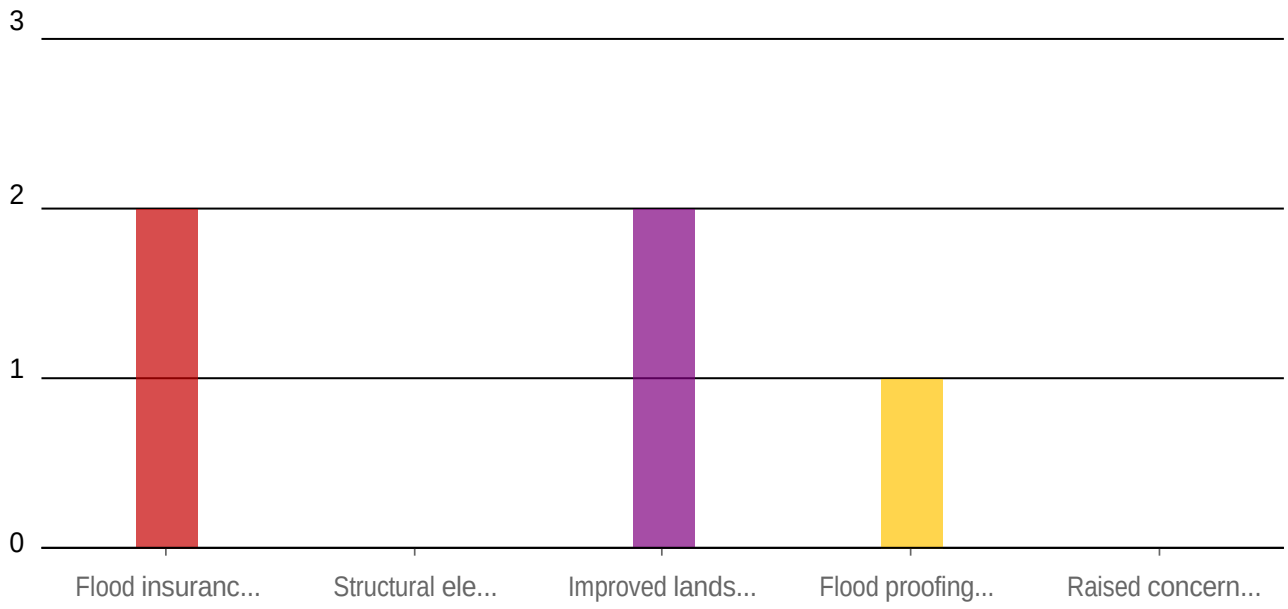
Which statement best describes why you do not have flood insurance?



Answers	Count	Percentage
My property is outside a flood zone	3	50%
I feel there is no real threat	0	0%
Flood insurance is not cost effective	0	0%
I rent my business	0	0%
My business does need flood insurance to operate	1	16.67%
Other	0	0%

Answered: 4 Skipped: 2

If flood mitigation efforts have been implemented on your property, please check all that…

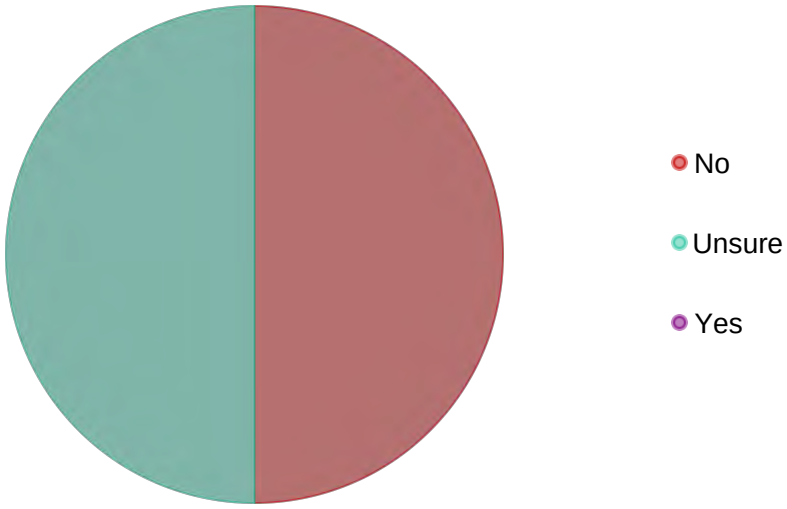


Answers	Count	Percentage
Flood insurance	2	33.33%
Structural elevation	0	0%
Improved landscaping to filter / capture water	2	33.33%
Flood proofing building prior to predicated flood events (sealin sand bagging, etc.)	1	16.67% g,

Raised concerns to local business organizations or elected officials	0	0%

Answered: 3 Skipped: 3

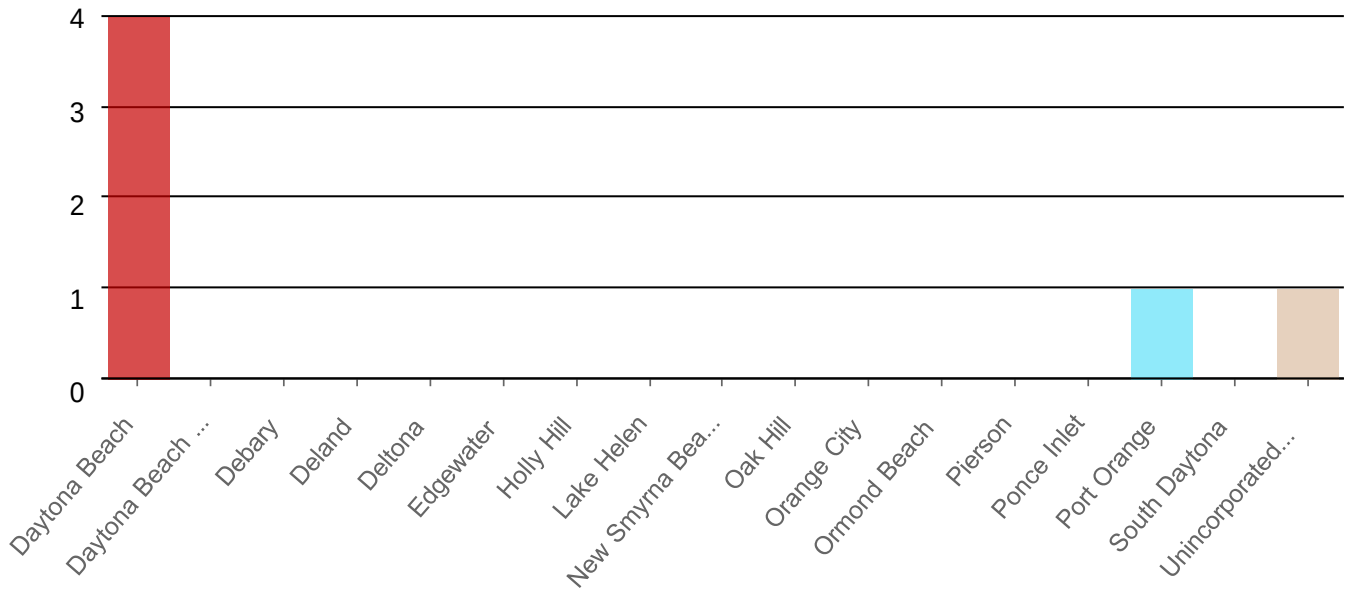
Is your property classified as a repetitive flood loss property?



Answers	Count	Percentage
No	3	50%
Unsure	3	50%
Yes	0	0%

Answered: 6 Skipped: 0

Your property is located in which jurisdiction?

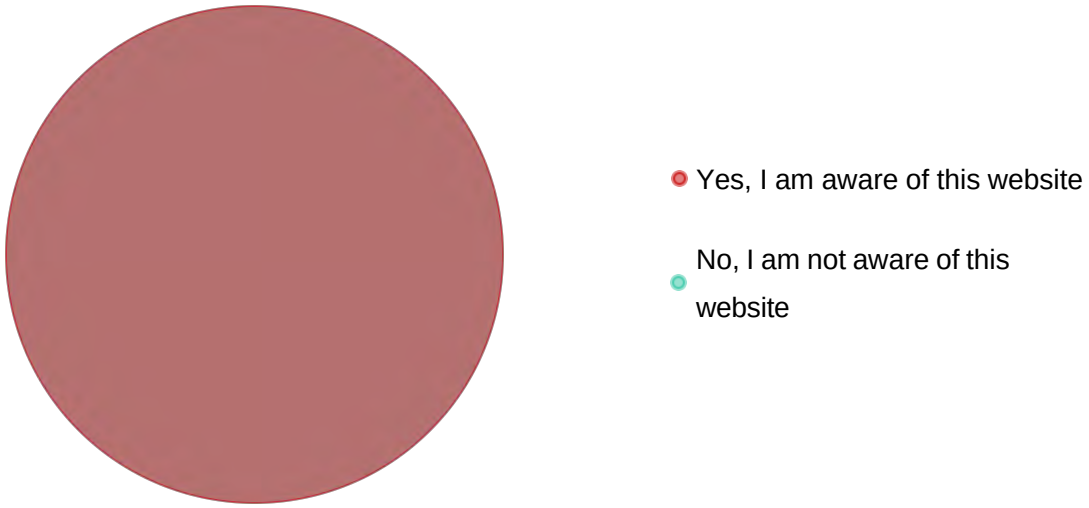


Answers	Count	Percentage
Daytona Beach	4	66.67%
Daytona Beach Shores	0	0%
Debary	0	0%
Deland	0	0%
Deltona	0	0%
Edgewater	0	0%
Holly Hill	0	0%
Lake Helen	0	0%
New Smyrna Beach	0	0%
Oak Hill	0	0%
Orange City	0	0%
Ormond Beach	0	0%
Pierson	0	0%
Ponce Inlet	0	

Port Orange	1	16.67%
South Daytona	0	0%
Unincorporated	1	16.67%

Answered: 6 Skipped: 0

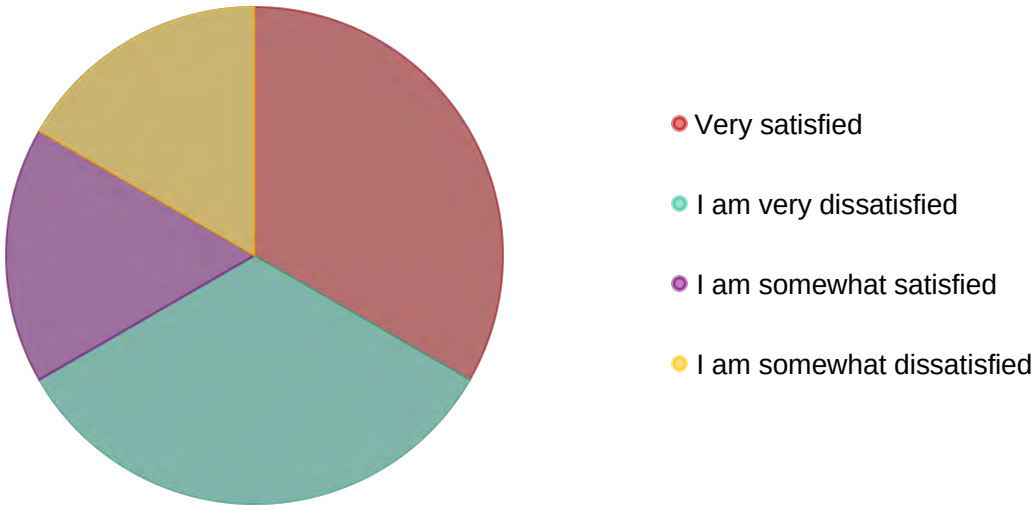
Did you know that you can view the current flood plain and other County-wid…



Answers	Count	Percentage
Yes, I am aware of this website	6	100%
No, I am not aware of this website	0	0%

Answered: 6 Skipped: 0

How satisfied are you with how your jurisdiction handles outreach concernin…

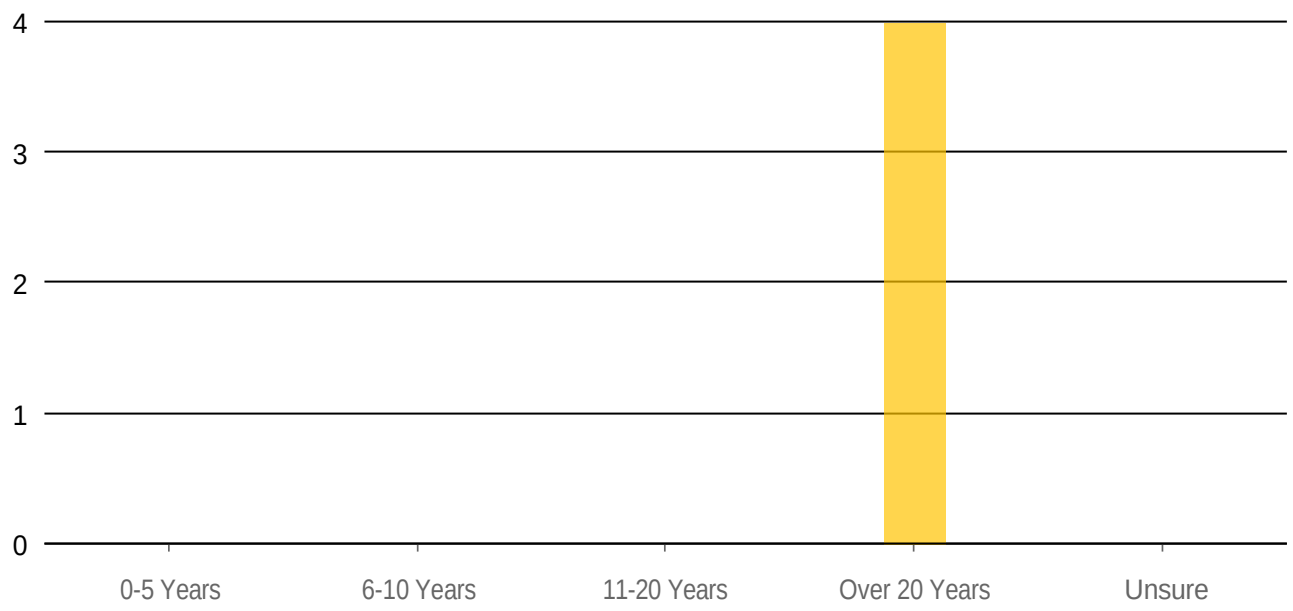


Answers	Count	Percentage
Very satisfied	2	33.33%
I am very dissatisfied	2	33.33%
I am somewhat satisfied	1	16.67%
I am somewhat dissatisfied	1	16.67%

Answered: 6 Skipped: 0

Neighborhood Association Survey for Volusia Residents

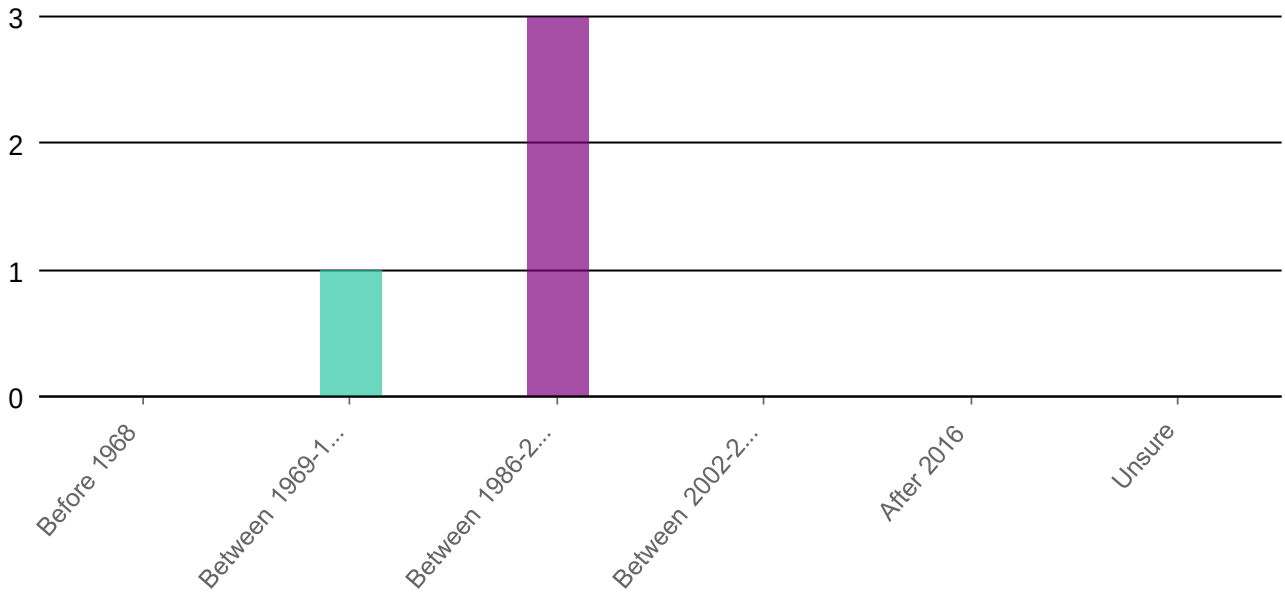
How long has your neighborhood association been active?



Answers	Count	Percentage
0-5 Years	0	0%
6-10 Years	0	0%
11-20 Years	0	0%
Over 20 Years	4	100%
Unsure	0	0%

Answered: 4 Skipped: 0

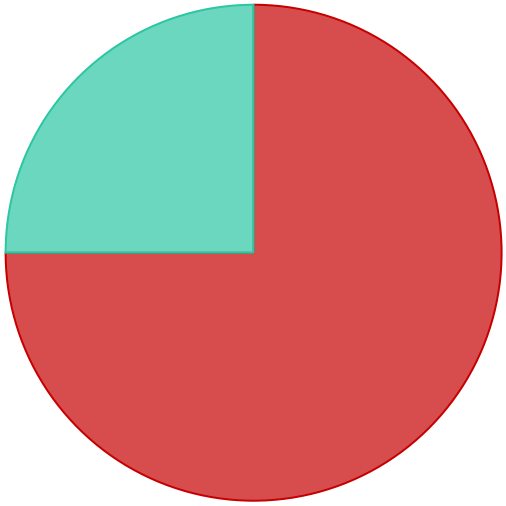
In what year were most of the homes in your coverage area built?



Answers	Count	Percentage
Before 1968	0	0%
Between 1969-1987	1	25%
Between 1986-2001	3	75%
Between 2002-2015	0	0%
After 2016	0	0%
Unsure	0	0%

Answered: 4 Skipped: 0

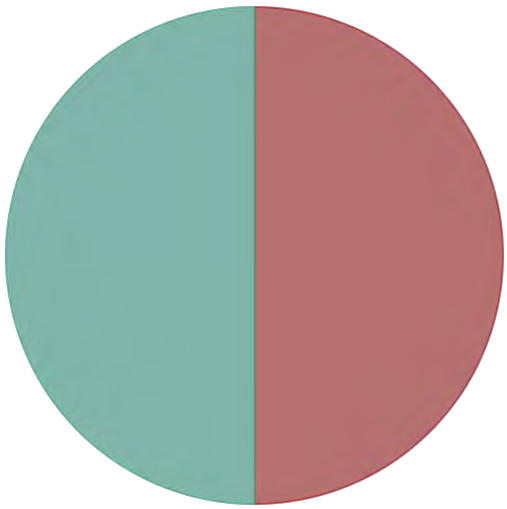
Is flooding a concern for property owners in your association?



Answers	Count	Percentage
Yes, property owners are very concerned about flooding	3	75%
Yes, property owners are somewhat concerned about flooding	1	25%
No, property owners are not concerned about flooding	0	0%
Not applicable	0	0%

Answered: 4 Skipped: 0

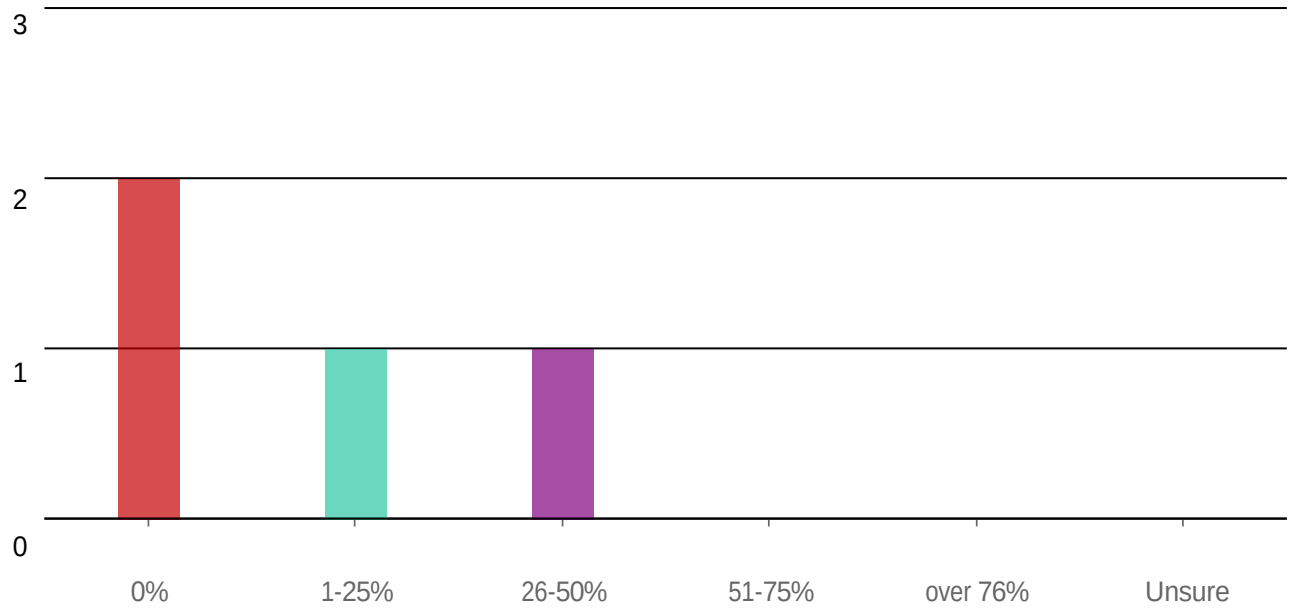
Is your HOA neighborhood located in the floodplain?



Answers	Count	Percentage
Yes, portions of our neighborhood are located in the floodplain	2	50%
No portion of our neighborhood is located in the floodplain	2	50%
Yes, our entire neighborhood is located in the floodplain	0	0%
Unknown	0	0%

Answered: 4 Skipped: 0

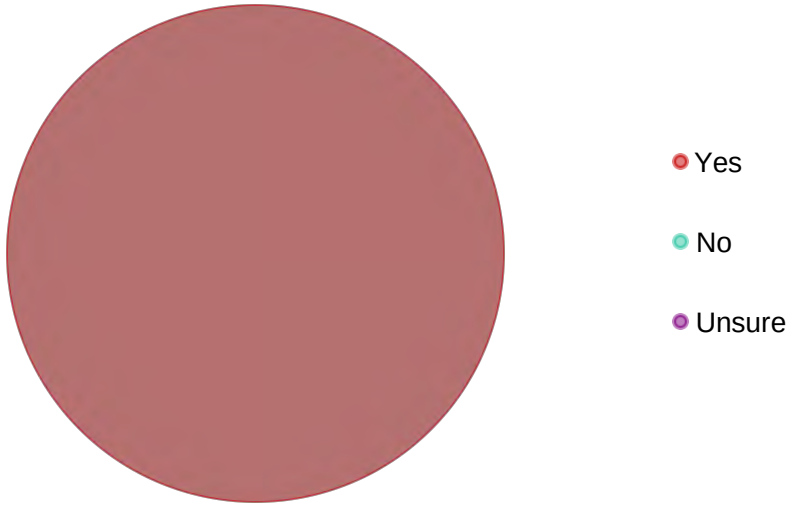
Approximately what percentage of the homes within your association are…



Answers	Count	Percentage
0%	2	50%
1-25%	1	25%
26-50%	1	25%
51-75%	0	0%
over 76%	0	0%
Unsure	0	0%

Answered: 4 Skipped: 0

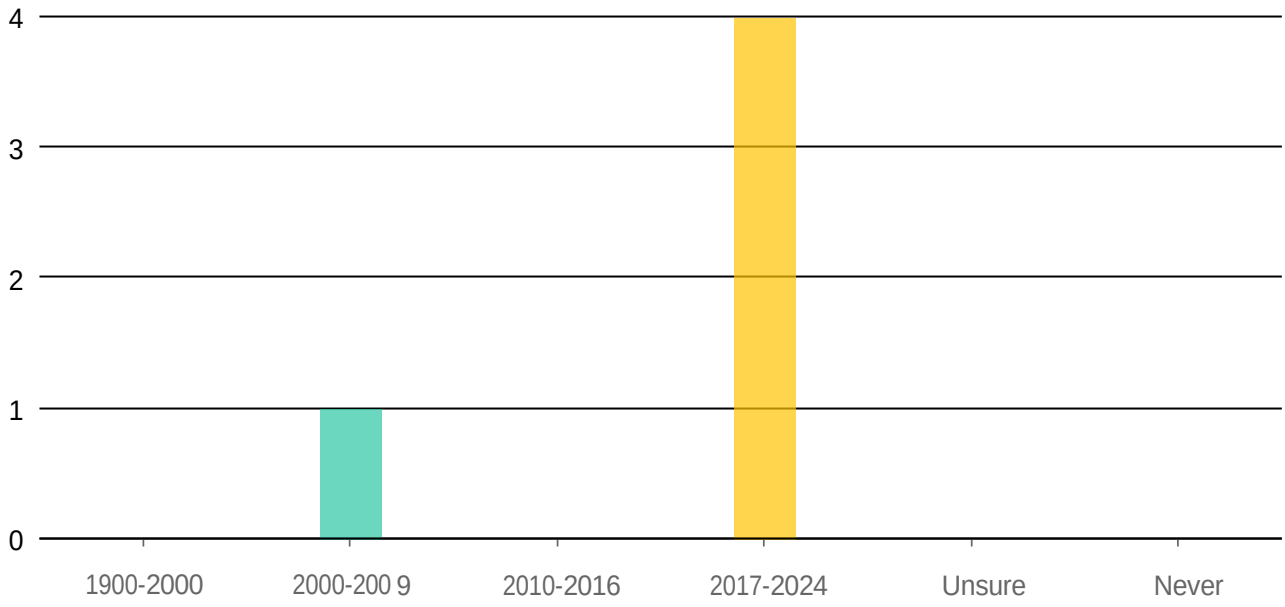
Have homes in your association ever flooded due to natural environmental…



Answers	Count	Percentage
Yes	4	100%
No	0	0%
Unsure	0	0%

Answered: 4 Skipped: 0

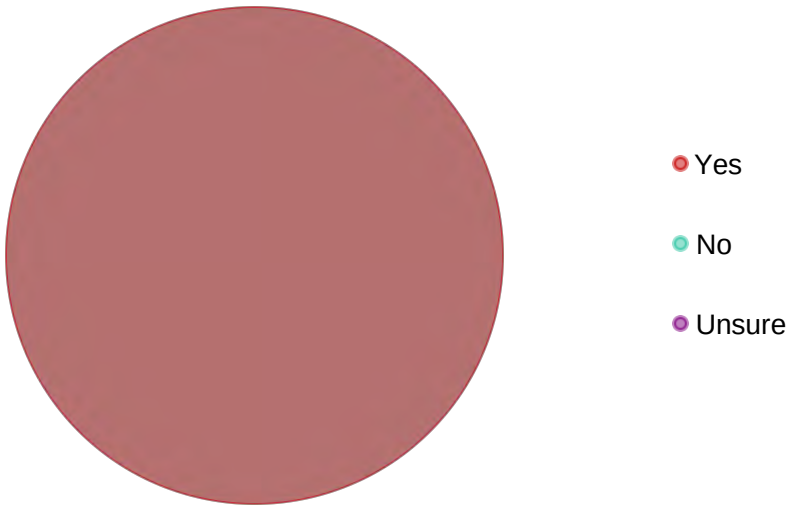
To the best of your knowledge, during which time period did flood occur in your…



Answers	Count	Percentage
1900-2000	0	0%
2000-2009	1	25%
2010-2016	0	0%
2017-2024	4	100%
Unsure	0	0%
Never	0	0%

Answered: 4 Skipped: 0

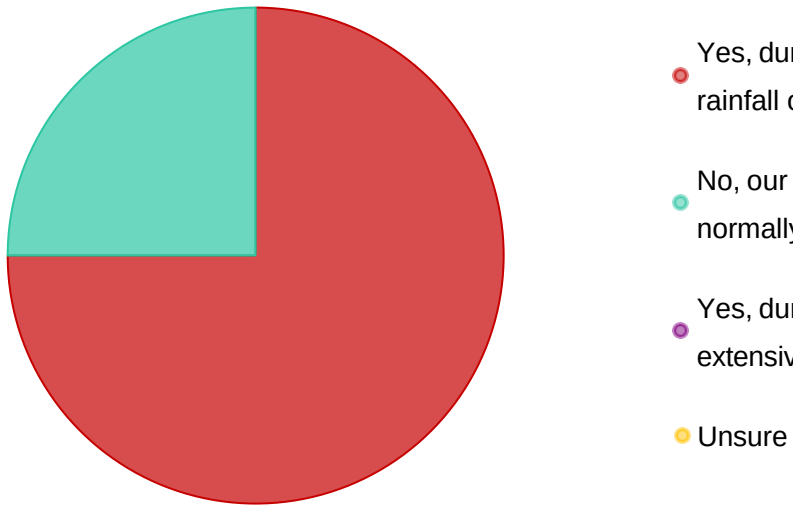
Have you noticed an increase in frequency and duration of home flood events?



Answers	Count	Percentage
Yes	4	100%
No	0	0%
Unsure	0	0%

Answered: 4 Skipped: 0

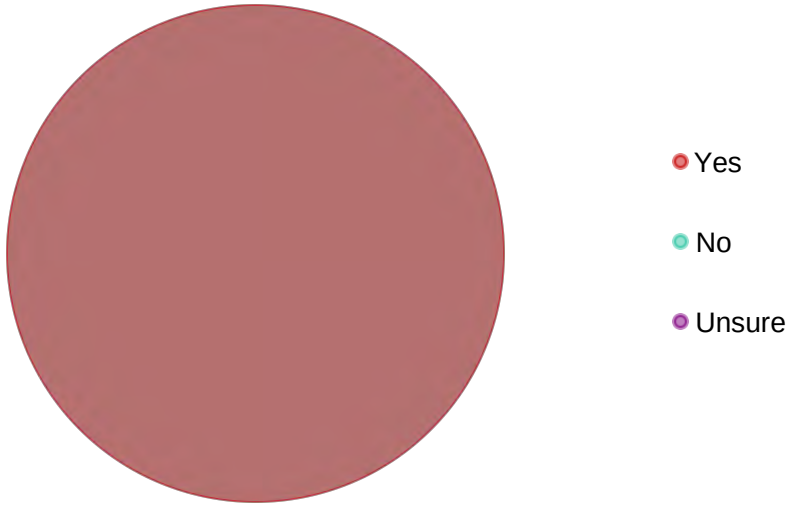
Do the roadways in your neighborhood experience major flooding during…



Answers	Count	Percentage
Yes, during extensive rainfall only	3	75%
No, our streets do not normally flood	1	25%
Yes, during both normal and extensive	0	0%
Unsure	0	0%

Answered: 4 Skipped: 0

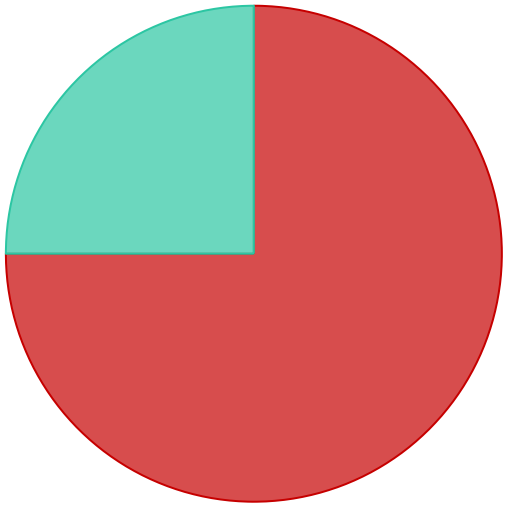
Have you noticed an increase in frequency and duration of roadway flood…



Answers	Count	Percentage
Yes	4	100%
No	0	0%
Unsure	0	0%

Answered: 4 Skipped: 0

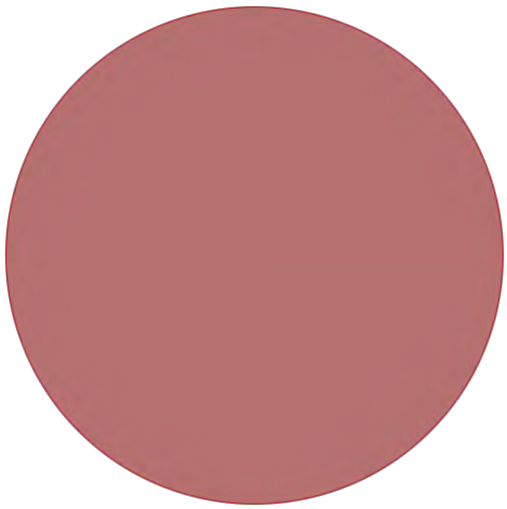
Do retention ponds in your neighborhood flood during normal or extensive…



Answers	Count	Percentage
Yes, during extensive rainfall only	3	75%
No, our ponds do not normally flood	1	25%
Yes, during both normal and extensive	0	0%
Unsure	0	0%

Answered: 4 Skipped: 0

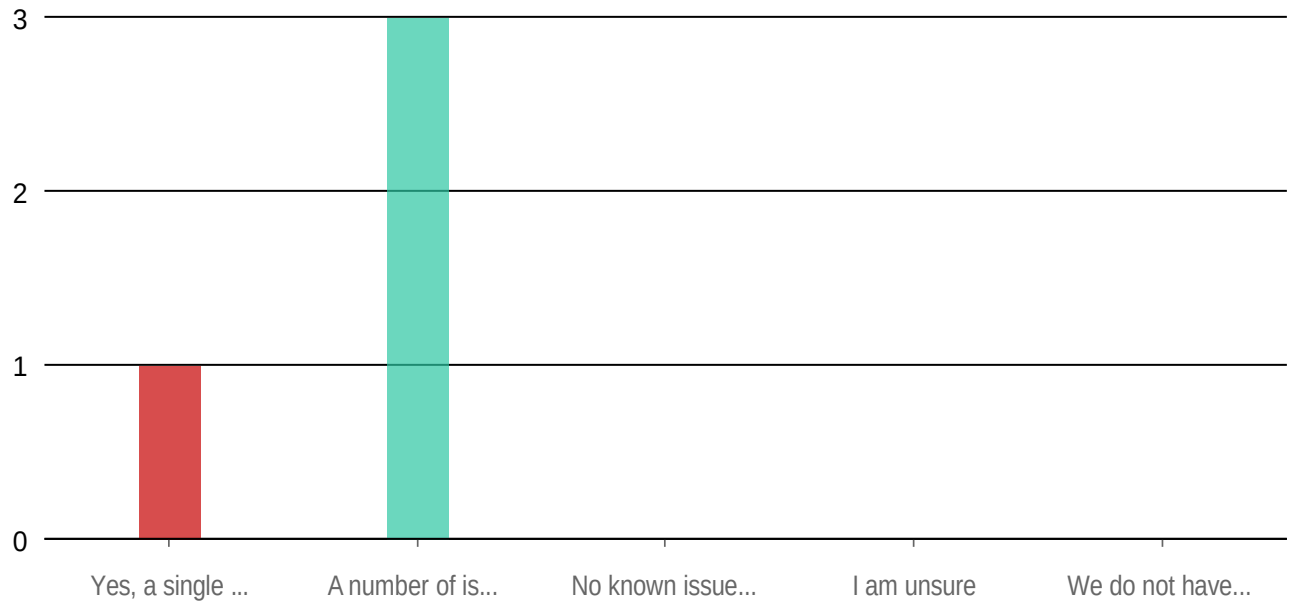
Have you noticed an increase in frequency and duration of pond flood events?



Answers	Count	Percentage
Yes	4	100%
No	0	0%
Unsure	0	0%

Answered: 4 Skipped: 0

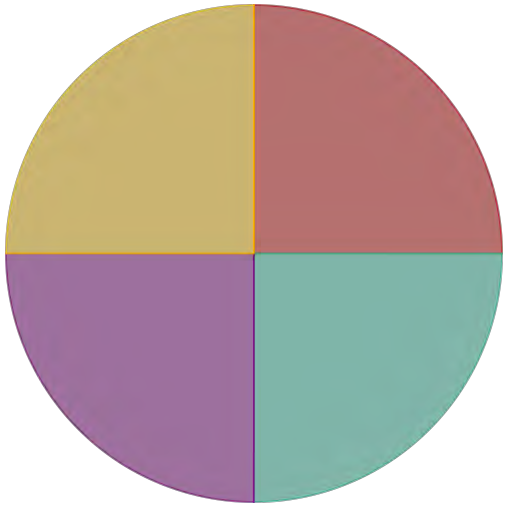
Has a known problem area been identified as the source of most flooding…



Answers	Count	Percentage
Yes, a single issue has been identified as the main contributor to the flooding	1	25%
A number of issues have been identified which contribute to the flooding	3	75%
No known issues or sources have been identified which contribute to the flooding	0	0%
I am unsure	0	0%
We do not have flooding issues	0	0%

Answered: 4 Skipped: 0

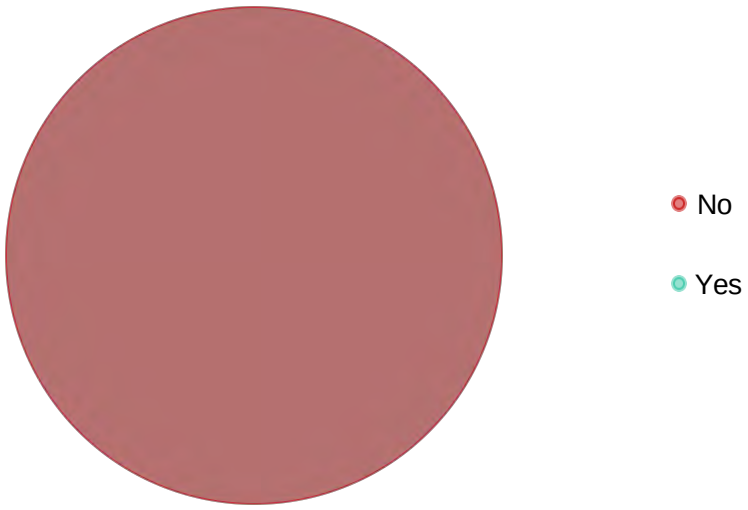
Have homes in your association undergone flood mitigation efforts?



Answers	Count	Percentage
Yes, a majority of homes have undergone flood mitigation efforts	1	25%
Yes, some homes have undergone flood mitigation efforts	1	25%
No homes have undergone flood mitigation efforts	1	25%
Unsure	1	25%

Answered: 4 Skipped: 0

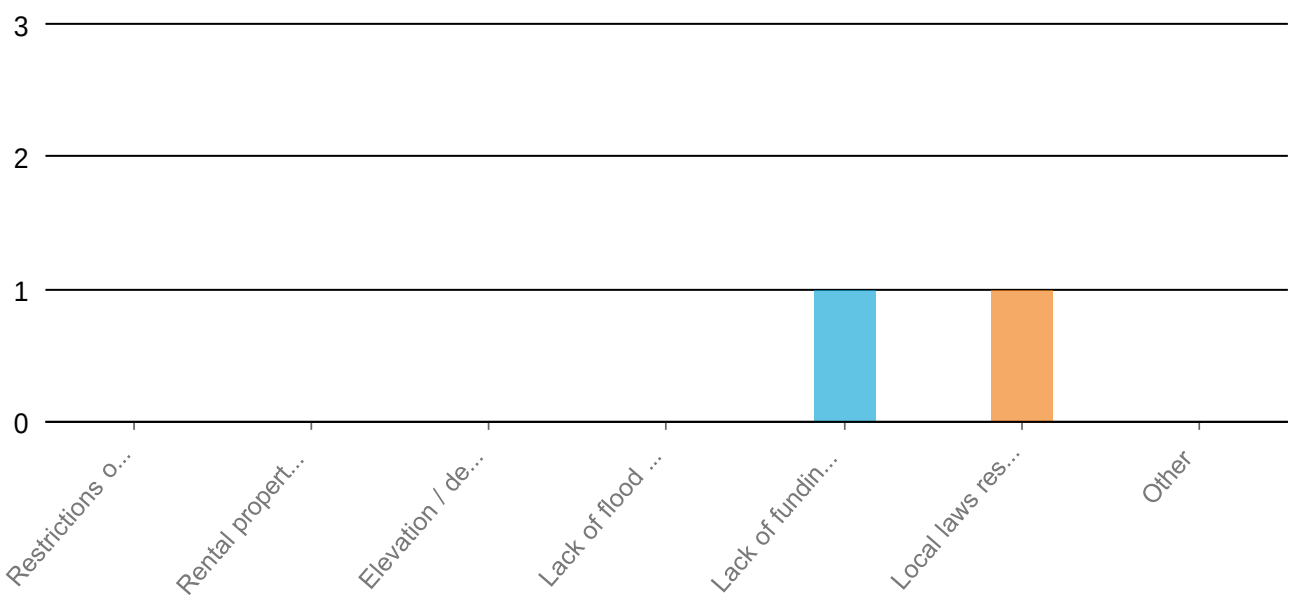
Are there any HOA restrictions to structural improvements that, if removed,…



Answers	Count	Percentage
No	4	100%
Yes	0	0%

Answered: 4 Skipped: 0

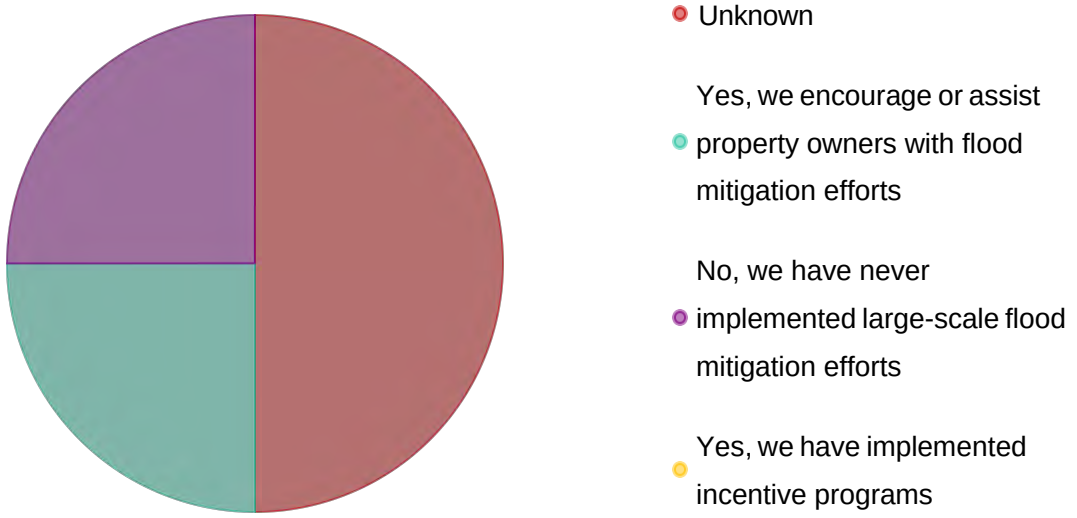
Select the types of restrictions in your HOA that prevent flood mitigation efforts.



Answers	Count	Percentage
Restrictions on landscaping in governing documents	0	0%
Rental properties not properly maintained	0	0%
Elevation / design restrictions	0	0%
Lack of flood insurance coverage	0	0%
Lack of funding for proper infrastructure maintenance	1	25%
Local laws restricting mitigation	1	25%
Other	0	0%

Answered: 1 Skipped: 3

Has your association ever implemented large-scale flood mitigation efforts?

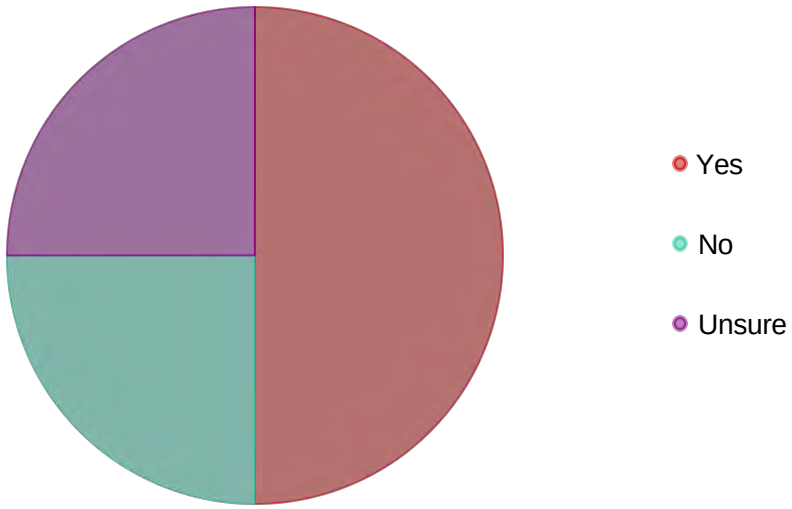


Answers	Count	Percentage
Unknown	2	50%
Yes, we encourage or assist property owners with flood mitigation efforts	1	25%

No, we have never implemented large-scale flood mitigation efforts	1	25%
Yes, we have implemented incentive programs	0	0%

Answered: 4 Skipped: 0

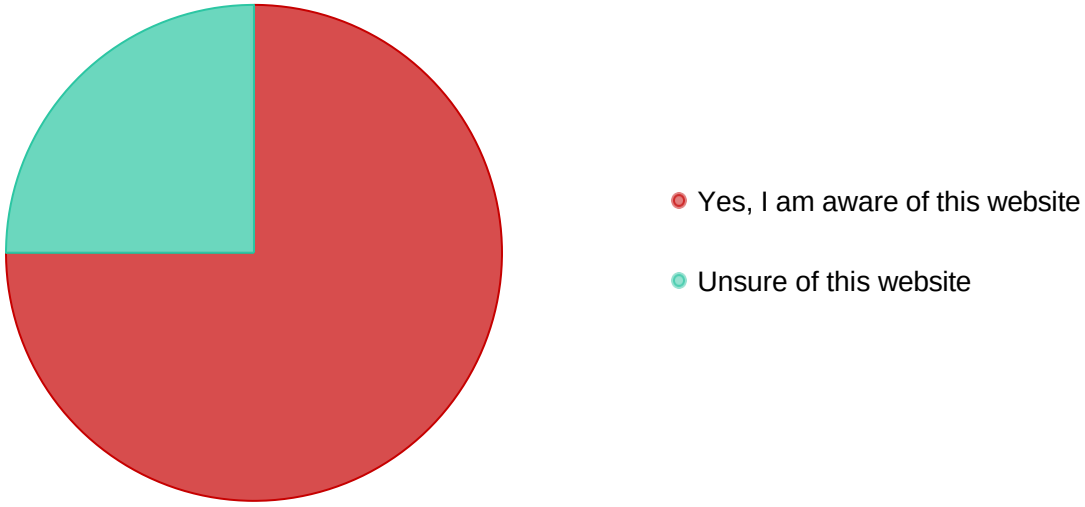
Are there homes in your association area that are classified as Repetitive…



Answers	Count	Percentage
Yes	2	50%
No	1	25%
Unsure	1	25%

Answered: 4 Skipped: 0

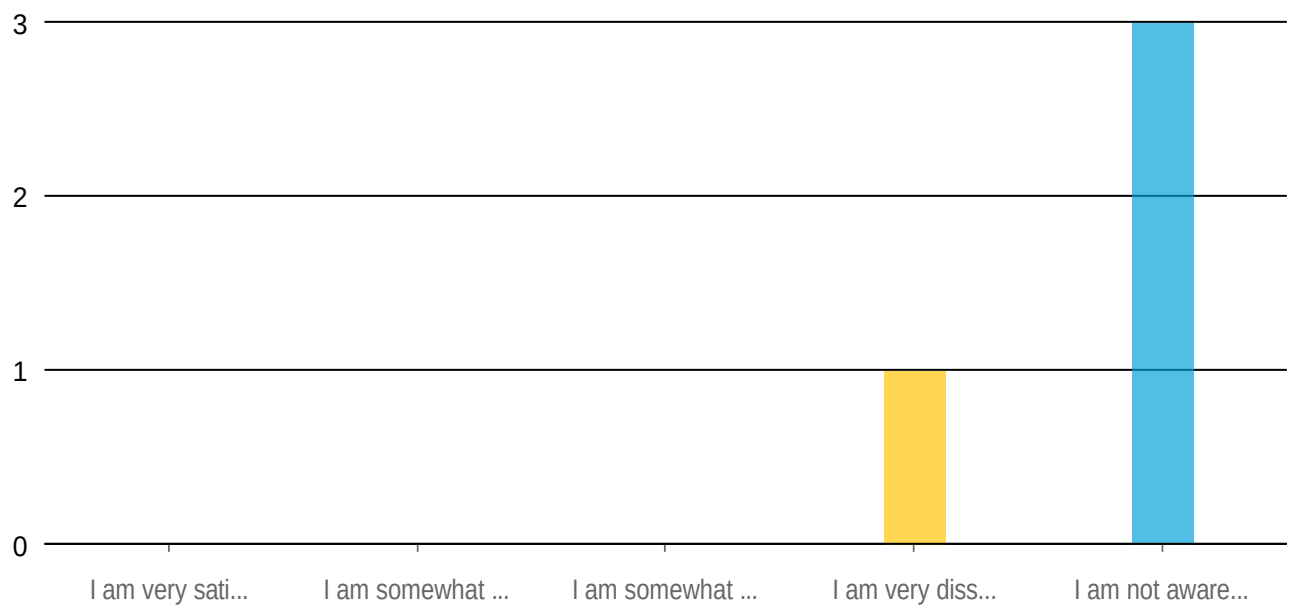
Did you know that you can view the current floodplain and other County-wid…



Answers	Count	Percentage
Yes, I am aware of this website	3	75%
Unsure of this website	1	25%

Answered: 4 Skipped: 0

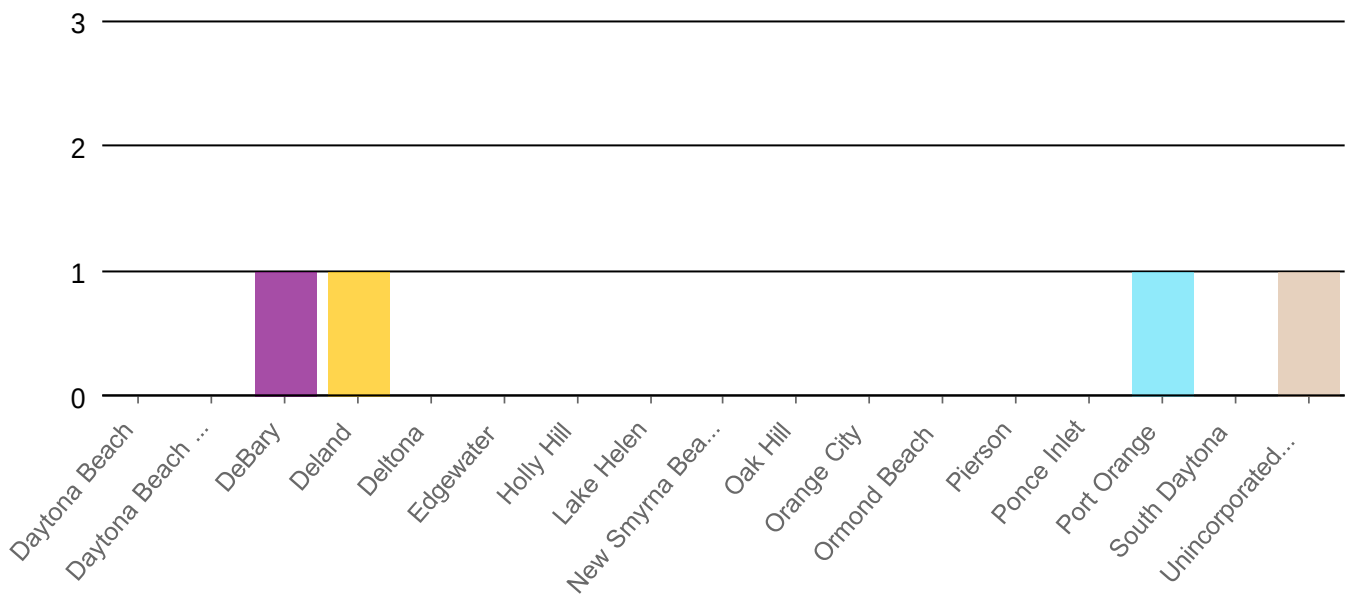
How satisfied are you with how your jurisdiction handles public involvement…



Answers	Count	Percentage
I am very satisfied	0	0%
I am somewhat satisfied	0	0%
I am somewhat dissatisfied	0	0%
I am very dissatisfied	1	25%
I am not aware of any public involvement/outreach efforts concerning flood hazards	3	75%

Answered: 4 Skipped: 0

Which jurisdiction is your HOA community?



Answers	Count	Percentage
Daytona Beach	0	0%
Daytona Beach Shores	0	0%
DeBary	1	25%
Deland	1	25%
Deltona	0	0%

Edgewater	0	0%
Holly Hill	0	0%
Lake Helen	0	0%
New Smyrna Beach	0	0%
Oak Hill	0	0%
Orange City	0	0%
Ormond Beach	0	0%
Pierson	0	0%
Ponce Inlet	0	0%
Port Orange	1	25%
South Daytona	0	0%
Unincorporated Volusia	1	25%

Answered: 4 Skipped: 0

Please provide a range of the number of homes within your community.

The word cloud requires at least 20 answers to show.

Word	Count
69	1
332	1
1568	1
Homesites	1

Answered: 3 Skipped: 1

APPENDIX D: CRITICAL FACILITY VULNERABILITY ASSESSMENT

This section of the Local Mitigation Strategy cross-references the locations of all critical facilities within Volusia County and its jurisdictions with environmental layers pertaining to the following hazard layers:

- Storm Surge Threat
- Fire Risk Zone
- Wind Risk
- FEMA Flood Zone

There are over 500 critical facilities identified within Volusia County and its jurisdictions. The critical facilities covered in this report cover the following types of facilities.

- Transportation
- Public Buildings
- Waste Water Systems
- Medical Facilities
- Schools
- Educational Facilities

Also covered in this section are **Water and Sewage Treatment Facilities**.

The tables on the following pages depict the critical facilities, by jurisdiction and facility type, that are located within Volusia County, Florida. Each critical facility is cross-referenced with the hazard zones to depict risk for the hazards listed above. This analysis involves numerous sources, such as:

- HAZUS
- National Hurricane Center
- U.S. Forest Service
- FEMA
- American Society of Civil Engineers
- ECFRPC
- Volusia County and Jurisdictions
- FDEP

APPENDIX D: CRITICAL FACILITY VULNERABILITY ASSESSMENT

Table 1: Jurisdictional Summary of Critical Assets

Jurisdiction	Jurisdiction Type	# of Assets	Total Financial Exposure (Assets)	Mean Year Built (Assets)
Volusia County	County	578	$10,940,822,969	1984
Daytona Beach	City	74	$3,407,757,509	1975
Daytona Beach Shores	City	2	$8,741,800	1984
Debary	City	7	$1,481,752,946	1993
DeLand	City	47	$1,077,176,288	1976
DeLeon Springs	Census Designated Place	3	$137,054,550	1984
Deltona	City	27	$431,515,600	1986
Edgewater	City	14	$421,779,479	1979
Holly Hill	City	10	$170,752,230	1978
Lake Helen	City	6	$35,579,280	1987
New Smyrna Beach	City	28	$571,274,878	1975
Oak Hill	City	4	$ 21,068,949	1983
Orange City	City	9	$277,059,730	1985
Ormond Beach	City	31	$314,347,059	1982
Pierson	City	4	$52,222,180	1982
Ponce Inlet	City	2	$ 8,741,800	1993
Port Orange	City	22	$789,670,500	1985
South Daytona	City	6	$33,242,490	1977
Enterprise	Unincorporated Community	2	$10,662,390	1983
Mims	Census Designated Place	1	$1,022,440	1997
Osteen	Unincorporated Community	3	$11,006,700	1989
Multi-Jurisdictional		276	$1,678,394,171	1991

Table 2: Total Asset Type for Entire County

Asset Type	Count
Medical Care Facilities	11
Emergency Operation Centers	2
Fire Stations	56
Police Stations	30
Schools	151
Communication Facilities	24
Electric Power Facilities	3
Waste Water Facilities	11
Potable Water Facilities	1
Natural Gas Pipelines	5
Airport Facilities	6
Airport Runways	14
Bus Facilities	2
Ferry Facilities	2
Railway Bridges	17
Port Facilities	10
Highway Bridges	238
TOTAL	583

Table 3: Critical Asset Hazard Analysis

Asset Name	Latitude	Longitude	Asset Type	Cat1 Surge	Cat3 Surge	Cat5 Surge	Wildfire Risk	Wind Zone	FEMA Flood Zone
Tomoka River	29.262661	-81.117817	Highway Bridges				Low	160 MPH	AE
FECRR - Tymber Crk Rd	29.332914	-81.131025	Highway Bridges				Moderate	160 MPH	
US-1	29.335833	-81.130972	Highway Bridges				Moderate	160 MPH	
Tomoka River	29.305056	-81.094197	Highway Bridges				Moderate	160 MPH	AE
Tomoka River	29.305189	-81.093964	Highway Bridges				Moderate	160 MPH	AE
Tomoka River	29.342186	-81.086317	Highway Bridges				Moderate	160 MPH	AE
I-95	29.403769	-81.155186	Highway Bridges				Moderate	160 MPH	
Canal to Bulow Creek	29.414089	-81.148136	Highway Bridges			X	Moderate	160 MPH	
Drainage Canal	29.353408	-81.102561	Highway Bridges		X	X	High	160 MPH	AE
Canal	29.351153	-81.099392	Highway Bridges				High	160 MPH	AE
Bulow Creek	29.407631	-81.121847	Highway Bridges	X	X	X	High	160 MPH	AE
Intracoastal Waterway	29.408639	-81.100889	Highway Bridges				High	160 MPH	AE
Canal	29.292617	-81.073381	Highway Bridges		X	X	Moderate	160 MPH	
Halifax River IWW	29.287278	-81.051706	Highway Bridges				Moderate	160 MPH	AE
Creek	29.296075	-81.079586	Highway Bridges			X	Moderate	160 MPH	
Misner Creek	29.278219	-81.088442	Highway Bridges			X	Moderate	160 MPH	AE
Misner Branch	29.28155	-81.094747	Highway Bridges			X	Moderate	160 MPH	AE
Canal	29.224494	-81.049611	Highway Bridges			X	Moderate	160 MPH	
Canal	29.234239	-81.054861	Highway Bridges				Moderate	160 MPH	
Canal	29.236108	-81.055147	Highway Bridges		X	X	Moderate	160 MPH	AE

Nova Canal	29.232511	-81.054139	Highway Bridges			X	Moderate	160 MPH	
11th Street Canal	29.243192	-81.047667	Highway Bridges		X	X	Moderate	160 MPH	
LPGA CANAL	29.24215	-81.050194	Highway Bridges			X	Moderate	160 MPH	
11th St. Canal	29.245656	-81.041586	Highway Bridges		X	X	Moderate	160 MPH	X
Halifax Canal	29.245989	-81.036514	Highway Bridges				Moderate	160 MPH	AE
Halifax Canal	29.245978	-81.039303	Highway Bridges				Moderate	160 MPH	
IWW Halifax River	29.230319	-81.021817	Highway Bridges				Moderate	160 MPH	AE
IWW Halifax River	29.231194	-81.022419	Highway Bridges				Moderate	160 MPH	AE
Halifax River	29.223103	-81.017761	Highway Bridges				Moderate	160 MPH	AE
Daytona Canal	29.225331	-81.023261	Highway Bridges	X	X	X	Moderate	160 MPH	AE
Nova Road Canal	29.229269	-81.052314	Highway Bridges			X	Moderate	160 MPH	
Halifax River IWW	29.2158	-81.015967	Highway Bridges				Moderate	160 MPH	AE
Halifax River IWW	29.215739	-81.015789	Highway Bridges				Moderate	160 MPH	AE
Halifax River	29.210689	-81.017531	Highway Bridges				Moderate	160 MPH	AE
Halifax River	29.208672	-81.016683	Highway Bridges				Moderate	160 MPH	AE
Halifax River	29.211125	-81.011131	Highway Bridges				Moderate	160 MPH	AE
Navy Canal	29.192686	-81.033736	Highway Bridges		X	X	Moderate	160 MPH	
Canal	29.189561	-81.031728	Highway Bridges		X	X	Moderate	160 MPH	AE
Nova Canal	29.175464	-81.028194	Highway Bridges		X	X	Moderate	160 MPH	
Canal	29.177661	-81.028544	Highway Bridges		X	X	Moderate	160 MPH	
Canal	29.178703	-81.028653	Highway Bridges		X	X	Moderate	160 MPH	
Canal	29.179275	-81.028781	Highway Bridges		X	X	Moderate	160 MPH	

Nova Canal	29.183861	-81.029692	Highway Bridges		X	X	Moderate	160 MPH	AE
11th Street Canal	29.214928	-81.090986	Highway Bridges				Moderate	160 MPH	
Reed Canal	29.158514	-80.995217	Highway Bridges	X	X	X	Moderate	160 MPH	
Nova Canal	29.170467	-81.025867	Highway Bridges		X	X	Moderate	160 MPH	
Nova Canal	29.173392	-81.027442	Highway Bridges		X	X	Moderate	160 MPH	
Nova Canal	29.166206	-81.023567	Highway Bridges		X	X	Moderate	160 MPH	
Nova Canal	29.160958	-81.022981	Highway Bridges		X	X	Moderate	160 MPH	
Nova Canal	29.154472	-81.019694	Highway Bridges		X	X	Moderate	160 MPH	
Reed Canal	29.1557	-81.016347	Highway Bridges				Moderate	160 MPH	
Reed Canal	29.158181	-81.010253	Highway Bridges	X	X	X	Moderate	160 MPH	
Reed Canal	29.158378	-81.003128	Highway Bridges				Moderate	160 MPH	X
Reed Canal	29.158389	-81.006806	Highway Bridges	X	X	X	Moderate	160 MPH	X
Sweetwater Creek	29.113558	-81.024989	Highway Bridges				Moderate	160 MPH	
SR-421	29.106056	-81.028889	Highway Bridges				Low	160 MPH	
Timothys Ditch	29.120831	-81.045	Highway Bridges				Moderate	160 MPH	
B-19 Canal	29.125742	-81.029497	Highway Bridges				Moderate	160 MPH	AE
B-19 Canal / Trib 1	29.119942	-81.032392	Highway Bridges				Moderate	160 MPH	AE
B19 Canal	29.141583	-81.045	Highway Bridges				Moderate	160 MPH	AE
Halifax Canal Lateral	29.137103	-81.007917	Highway Bridges		X	X	Moderate	160 MPH	
SR-421	29.106111	-81.028333	Highway Bridges				Low	160 MPH	
Sweetwater Branch	29.106889	-81.023111	Highway Bridges			X	Moderate	160 MPH	AE
Spruce Creek N Relief	29.088619	-80.970008	Highway Bridges				High	160 MPH	AE

Spruce Creek N. Relief	29.088697	-80.969739	Highway Bridges				High	160 MPH	AE
Rose Bay	29.103619	-80.972031	Highway Bridges				High	160 MPH	AE
Rose Bay	29.103683	-80.971764	Highway Bridges				High	160 MPH	AE
Cambridge Canal	29.1003	-80.987708	Highway Bridges	X	X	X	Moderate	160 MPH	AE
Rose Bay Canal	29.109186	-80.971406	Highway Bridges				High	160 MPH	X
Halifax River	29.144344	-80.983981	Highway Bridges				Moderate	160 MPH	AE
IWW Halifax River	29.148261	-80.975478	Highway Bridges				Low	160 MPH	AE
Canal	29.115658	-80.987658	Highway Bridges				Moderate	160 MPH	
IWW Indian River	29.038689	-80.906289	Highway Bridges				Moderate	160 MPH	AE
Callalisa Creek	29.029011	-80.903928	Highway Bridges				Moderate	160 MPH	AE
Spruce Creek	29.086339	-80.9687	Highway Bridges				High	160 MPH	AE
Spruce Creek	29.086417	-80.968475	Highway Bridges				High	160 MPH	AE
Spruce Creek S. Relief	29.083894	-80.967119	Highway Bridges				High	160 MPH	AE
Spruce Creek S. Relief	29.084028	-80.967139	Highway Bridges				High	160 MPH	AE
Murray Creek	29.079489	-80.955797	Highway Bridges				Moderate	160 MPH	X
Turnbull Creek	29.051139	-80.959833	Highway Bridges				High	160 MPH	AE
Canal	29.004689	-80.914456	Highway Bridges		X	X	Moderate	160 MPH	
US-1 & FECRR	29.020972	-80.925086	Highway Bridges				Low	160 MPH	X
Berrys Canal	29.028189	-80.921792	Highway Bridges				Moderate	160 MPH	VE
Conners Canal	29.032603	-80.916583	Highway Bridges				Moderate	160 MPH	AE
IWW Indian River	29.023789	-80.917589	Highway Bridges				Moderate	160 MPH	AE
Brando Canal	29.035153	-80.916456	Highway Bridges	X	X	X	Moderate	160 MPH	AE

Yacht Club Cut	29.013222	-80.915181	Highway Bridges				Moderate	160 MPH	AE
Gabordys Canal	29.004806	-80.913889	Highway Bridges		X	X	Moderate	160 MPH	
SR-442	28.950742	-80.95095	Highway Bridges				High	160 MPH	
SR-442	28.950733	-80.950347	Highway Bridges				High	160 MPH	
SR-44	29.012783	-80.988214	Highway Bridges				High	160 MPH	
SR-44	29.012803	-80.987567	Highway Bridges				High	160 MPH	
I-95	29.047581	-81.007042	Highway Bridges				Moderate	160 MPH	
Turnbull Creek	29.016858	-80.953633	Highway Bridges	X	X	X	Low	160 MPH	AE
Turnbull Creek	29.026269	-80.957814	Highway Bridges				Moderate	160 MPH	AE
Spruce Creek	29.090844	-81.021111	Highway Bridges	X	X	X	High	160 MPH	AE
Spruce Creek	29.090833	-81.020278	Highway Bridges	X	X	X	High	160 MPH	AE
Cnl.Trib. to Turnbull Ck	29.038608	-80.963558	Highway Bridges	X	X	X	Low	160 MPH	AE
Trib To Turnbull Creek	29.046825	-80.965906	Highway Bridges	X	X	X	Moderate	160 MPH	AE
FECRR	28.827078	-80.853639	Highway Bridges		X	X	Moderate	160 MPH	
Turnbull Creek	28.820669	-80.859919	Highway Bridges				High	160 MPH	AE
FECRR	28.826839	-80.853689	Highway Bridges				Moderate	160 MPH	
Creek	28.808694	-80.870922	Highway Bridges		X	X	Moderate	160 MPH	
Turnbull Creek	28.820828	-80.860036	Highway Bridges				High	160 MPH	AE
Turnbull Creek (West)	28.909544	-80.913219	Highway Bridges		X	X	Low	160 MPH	
Turnbull Creek (East)	28.911744	-80.908375	Highway Bridges		X	X	Low	160 MPH	X
Cow Creek	28.9281	-80.940461	Highway Bridges				Moderate	160 MPH	
Cow Creek	28.928689	-80.940139	Highway Bridges				Moderate	160 MPH	

Little Cow Creek	28.941747	-80.941694	Highway Bridges			X	Moderate	160 MPH	
Gabordys Canal	29.005364	-80.911592	Highway Bridges	X	X	X	Moderate	160 MPH	AE
Little Tomoka River	29.256597	-81.164317	Highway Bridges				Moderate	150 MPH	AE
Tomoka River	29.254944	-81.123561	Highway Bridges				Moderate	160 MPH	AE
Tomoka River	29.262722	-81.118111	Highway Bridges				Low	160 MPH	AE
I-95	29.273983	-81.121908	Highway Bridges				Moderate	160 MPH	
FECRR - Tymber Crk Rd	29.333122	-81.131311	Highway Bridges				Moderate	160 MPH	
US-1	29.336011	-81.131222	Highway Bridges				Moderate	160 MPH	
SR-40	29.256983	-81.115944	Highway Bridges				Moderate	160 MPH	
Habitat Connectivity	29.258933	-81.185492	Highway Bridges				High	150 MPH	
Groover Creek	29.273889	-81.127936	Highway Bridges			X	Moderate	160 MPH	AE
Groover Creek	29.277219	-81.129528	Highway Bridges			X	High	160 MPH	AE
Trib to Groover Creek	29.295578	-81.130019	Highway Bridges				Moderate	160 MPH	
Little Tomoka River	29.256806	-81.129	Highway Bridges		X	X	Moderate	160 MPH	AE
Tomoka River	29.164197	-81.090756	Highway Bridges				Moderate	160 MPH	AE
Tomoka River	29.164067	-81.090597	Highway Bridges				Moderate	160 MPH	AE
Tyson Creek	29.210111	-81.099703	Highway Bridges				High	160 MPH	
Canal	29.166417	-81.087744	Highway Bridges				Moderate	160 MPH	
Tomoka River	29.254717	-81.123592	Highway Bridges				Moderate	160 MPH	AE
I-95	29.219964	-81.103117	Highway Bridges				Moderate	160 MPH	
Beamers Canal	29.168167	-81.082944	Highway Bridges				Moderate	160 MPH	
US-92	29.171825	-81.084514	Highway Bridges				Moderate	160 MPH	

US-92	29.171997	-81.084339	Highway Bridges				Moderate	160 MPH	
US-92	29.171653	-81.084611	Highway Bridges				Moderate	160 MPH	
US-92	29.172225	-81.084269	Highway Bridges				Moderate	160 MPH	
I-95 & US-92	29.171389	-81.084761	Highway Bridges				Moderate	160 MPH	
Ramp J2	29.173644	-81.085181	Highway Bridges				Moderate	160 MPH	
Ramp J2	29.173194	-81.085569	Highway Bridges				Moderate	160 MPH	
Ramp J2	29.173342	-81.0855	Highway Bridges				Moderate	160 MPH	
Ramp J2	29.173528	-81.085333	Highway Bridges				Moderate	160 MPH	
Tomoka River	29.217208	-81.109453	Highway Bridges			X	Moderate	160 MPH	AE
I-95	29.197983	-81.095794	Highway Bridges				High	160 MPH	
Middle Haw Creek	29.241131	-81.230083	Highway Bridges				High	150 MPH	
Creek	29.129056	-81.1598	Highway Bridges				Moderate	150 MPH	A
Deep Creek	29.100294	-81.216667	Highway Bridges				High	150 MPH	
Habitat Connectivity	29.258772	-81.185397	Highway Bridges				High	150 MPH	
Creek	29.16635	-81.154717	Highway Bridges				High	150 MPH	A
Middle Haw Creek	29.244322	-81.225936	Highway Bridges				High	150 MPH	
I-95	29.155736	-81.075828	Highway Bridges				Moderate	160 MPH	
Tomoka River	29.150333	-81.08725	Highway Bridges				High	160 MPH	A
Tomoka River	29.150778	-81.090194	Highway Bridges				High	160 MPH	AE
Bear Wildlife Crossing	29.077222	-81.175556	Highway Bridges				High	150 MPH	
Cougar Wildlife Crossing	29.100556	-81.153889	Highway Bridges				High	160 MPH	A
Cougar Wildlife Crossing	29.10005	-81.153892	Highway Bridges				High	160 MPH	

Deer WIldlife Crossing	29.111944	-81.142222	Highway Bridges				High	160 MPH	
Deer Wildlife Crossing	29.111944	-81.1425	Highway Bridges				High	160 MPH	
I-4	29.136944	-81.118611	Highway Bridges				Moderate	160 MPH	
I-95	29.155083	-81.075472	Highway Bridges				Moderate	160 MPH	
I-95	29.157258	-81.076758	Highway Bridges				Moderate	160 MPH	
I-4 WB	29.154778	-81.078528	Highway Bridges				Moderate	160 MPH	
Ramp F2 & Ramp H1	29.154056	-81.077583	Highway Bridges				Moderate	160 MPH	
I-4	29.152222	-81.082778	Highway Bridges				High	160 MPH	
I-95	29.167778	-81.082778	Highway Bridges				Moderate	160 MPH	
Timothys Ditch	29.120683	-81.045675	Highway Bridges				Moderate	160 MPH	
Bear Wildlife Crossing	29.0775	-81.175278	Highway Bridges				High	150 MPH	
US 92	29.144431	-81.118278	Highway Bridges				Moderate	160 MPH	
Tributary to Spruce Crk	29.097689	-81.068653	Highway Bridges			X	Moderate	160 MPH	
Miller Creek	29.0729	-81.068144	Highway Bridges				Moderate	160 MPH	
Sweetwater Creek	29.087689	-81.068508	Highway Bridges			X	Moderate	160 MPH	AE
Turkey Creek	29.086411	-81.074531	Highway Bridges			X	Moderate	160 MPH	AE
Trib to Spruce Creek	29.056964	-81.068611	Highway Bridges				Moderate	160 MPH	
I-95	29.122347	-81.047847	Highway Bridges				Moderate	160 MPH	
Cabbage Slough	28.697764	-81.006031	Highway Bridges				Very High	160 MPH	AE
St Johns River Relief	28.7107	-81.022994	Highway Bridges				High	160 MPH	AE
St. Johns River	28.71405	-81.034128	Highway Bridges				Very High	160 MPH	AE

Alamana Canal	28.932317	-81.109975	Highway Bridges				High	160 MPH	A
Lake Ashby Canal	28.942825	-81.102681	Highway Bridges				High	160 MPH	A
Samsula Canal	29.011656	-81.041578	Highway Bridges				High	160 MPH	
Maytown Road	28.832997	-80.912097	Highway Bridges				High	160 MPH	
Maytown Rd.	28.833178	-80.91185	Highway Bridges				High	160 MPH	
Deep Creek	29.026139	-81.192306	Highway Bridges				High	150 MPH	
Deep Creek	29.0265	-81.190167	Highway Bridges				High	150 MPH	
Deep Creek	29.02675	-81.188694	Highway Bridges				High	150 MPH	
Cow Creek	28.839667	-81.024658	Highway Bridges				High	160 MPH	A
Underhill Slough	28.784903	-81.0252	Highway Bridges				High	160 MPH	AE
Lake Ashby Canal	28.846333	-81.079256	Highway Bridges				High	160 MPH	A
Lake Ashby Canal	28.941908	-81.102642	Highway Bridges				Moderate	160 MPH	A
Samsula Canal	28.996711	-81.049592	Highway Bridges				High	160 MPH	
Samsula Canal	28.991608	-81.040933	Highway Bridges				Moderate	160 MPH	A
Spruce Creek	29.090722	-81.026917	Highway Bridges				Moderate	160 MPH	AE
Spruce Creek	29.083944	-81.064972	Highway Bridges			X	Moderate	160 MPH	AE
Spruce Creek	29.050522	-81.046544	Highway Bridges			X	Moderate	160 MPH	
Deep Creek	29.163322	-81.390447	Highway Bridges				Moderate	150 MPH	
Deep Creek	29.20495	-81.367744	Highway Bridges				High	150 MPH	
Canal	29.221953	-81.330042	Highway Bridges				Moderate	150 MPH	
Little Haw Creek	29.226672	-81.311033	Highway Bridges				Moderate	150 MPH	
Lake Dias Creek	29.166775	-81.298972	Highway Bridges				Moderate	150 MPH	
Creek	29.254347	-81.32715	Highway Bridges				Moderate	150 MPH	

Little Haw Swamp	29.260928	-81.355314	Highway Bridges				Moderate	150 MPH	A
Creek	29.170933	-81.468992	Highway Bridges				High	150 MPH	
Creek	29.178719	-81.436931	Highway Bridges				High	150 MPH	
Deep Creek	29.161722	-81.390178	Highway Bridges				Moderate	150 MPH	
Lake Gertie	29.054728	-81.311314	Highway Bridges				Moderate	150 MPH	A
Lake Gertie	29.054539	-81.311325	Highway Bridges				Moderate	150 MPH	A
Little Haw Creek	29.060703	-81.268472	Highway Bridges				Moderate	150 MPH	
Little Haw Creek	29.065597	-81.272511	Highway Bridges				Moderate	150 MPH	
Little Haw Creek	29.075642	-81.273264	Highway Bridges				Moderate	150 MPH	
Blue Lake Equalizer	29.035967	-81.26755	Highway Bridges				High	150 MPH	AE
I-4	29.017717	-81.2317	Highway Bridges				High	150 MPH	A
I-4 EB	29.017419	-81.231947	Highway Bridges				High	150 MPH	
I-4	28.955358	-81.257686	Highway Bridges				High	150 MPH	
I-4	28.966272	-81.254183	Highway Bridges				High	150 MPH	
I-4	28.984611	-81.248364	Highway Bridges				Moderate	150 MPH	
I-4	29.004022	-81.242186	Highway Bridges				Moderate	150 MPH	
St. Johns River	29.008728	-81.382069	Highway Bridges				Moderate	150 MPH	AE
CSX-RR	29.024306	-81.354914	Highway Bridges				High	150 MPH	
US-17/92	28.974142	-81.298989	Highway Bridges				High	150 MPH	
Seaboard Coastline RR	28.952339	-81.332231	Highway Bridges				High	150 MPH	
I-4	28.955133	-81.257722	Highway Bridges				High	150 MPH	
I-4	28.948678	-81.259817	Highway Bridges				High	150 MPH	

FPL Cooling Disch. Canal	28.845317	-81.325806	Highway Bridges				Moderate	150 MPH	
FPL Cooling Intake Canal	28.845314	-81.325397	Highway Bridges				Moderate	150 MPH	
FPL Cooling Disch. Canal	28.856278	-81.325433	Highway Bridges				Moderate	150 MPH	A
FPL Cooling Intake Canal	28.856281	-81.325031	Highway Bridges				Moderate	150 MPH	A
Konomac Canal	28.8651	-81.348075	Highway Bridges				Moderate	150 MPH	
US-17-92 -St Johns River	28.835578	-81.319619	Highway Bridges				High	150 MPH	AE
Deep Creek	28.899928	-81.134083	Highway Bridges				Moderate	160 MPH	A
St. Johns River	28.802664	-81.210281	Highway Bridges				High	150 MPH	AE
St Johns River Relief	28.815553	-81.190525	Highway Bridges				High	150 MPH	AE
Deep Ck. Diversion Cnl	28.846075	-81.101772	Highway Bridges				Moderate	160 MPH	A
Dirksen Drive	28.871614	-81.284528	Highway Bridges				High	150 MPH	
Padgett Creek	28.868778	-81.28595	Highway Bridges				High	150 MPH	
Dirksen Dr	28.871669	-81.284233	Highway Bridges				High	150 MPH	
I-4	28.911256	-81.271783	Highway Bridges				Moderate	150 MPH	
I-4	28.911064	-81.271886	Highway Bridges				Moderate	150 MPH	
I-4	28.887019	-81.279375	Highway Bridges				Moderate	150 MPH	
Padgett Creek	28.8689	-81.286183	Highway Bridges				High	150 MPH	
US-17-92-St Johns River	28.835211	-81.319106	Highway Bridges				High	150 MPH	AE

St. Johns River	28.802764	-81.21045	Highway Bridges				High	150 MPH	AE
St. Johns River Relief	28.815631	-81.190639	Highway Bridges				High	150 MPH	AE
FLORIDA HOSPITAL OCEANSIDE	29.284637	-81.036867	Medical Care Facilities		X	X	Moderate	160 MPH	
SELECT SPECIALTY HOSPITAL - DAYTONA B...	29.242562	-81.107419	Medical Care Facilities				High	160 MPH	
ADVENT HEALTH DAYTONA BEACH	29.24311	-81.107657	Medical Care Facilities				High	160 MPH	
HALIFAX PSYCHIATRIC CENTER-NORTH	29.21402	-81.068593	Medical Care Facilities				Moderate	160 MPH	
HALIFAX HEALTH MEDICAL CENTER	29.202385	-81.054828	Medical Care Facilities				Moderate	160 MPH	
DAYTONA BEACH VETERANS AFFAIRS OUTPAT...	29.206409	-81.061756	Medical Care Facilities				Moderate	160 MPH	
HALIFAX HEALTH MEDICAL CENTER-PORT O...	29.126212	-81.008574	Medical Care Facilities		X	X	Moderate	160 MPH	
ADVENT HEALTH NEW SMYRNA BEACH	29.020291	-80.92186	Medical Care Facilities		X	X	Low	160 MPH	
ADVENT HEALTH DELAND	29.043653	-81.317344	Medical Care Facilities				Moderate	150 MPH	

ADVENT HEALTH FISH MEMORIAL	28.914371	-81.285162	Medical Care Facilities				Low	150 MPH	
HALIFAX HEALTH UF HEALTH MEDICAL CENT...	28.957659	-81.255725	Medical Care Facilities				High	150 MPH	
FLORIDA EAST COAST; ARTIFICIAL PATH	29.304347	-81.095737	Railway Bridges				Low	160 MPH	AE
FLORIDA EAST COAST; CANAL/DITCH	29.313402	-81.10535	Railway Bridges			X	Low	160 MPH	
FLORIDA EAST COAST; CANAL/DITCH	29.293181	-81.079918	Railway Bridges		X	X	Moderate	160 MPH	
FLORIDA EAST COAST; STREAM/RIVER	29.288747	-81.071167	Railway Bridges		X	X	Moderate	160 MPH	AE
FLORIDA EAST COAST; CANAL/DITCH	29.244638	-81.044155	Railway Bridges				Moderate	160 MPH	AE
FLORIDA EAST COAST; REED CANAL	29.158451	-81.000073	Railway Bridges	X	X	X	Moderate	160 MPH	AE
FLORIDA EAST COAST; STREAM/RIVER	29.102114	-80.985322	Railway Bridges	X	X	X	High	160 MPH	
FLORIDA EAST COAST; STREAM/RIVER	29.106569	-80.985671	Railway Bridges				Moderate	160 MPH	AE

FLORIDA EAST COAST; ARTIFICIAL PATH	29.080103	-80.98349	Railway Bridges				Moderate	160 MPH	AE
FLORIDA EAST COAST; ARTIFICIAL PATH	29.050713	-80.959727	Railway Bridges				High	160 MPH	AE
FLORIDA EAST COAST; STREAM/RIVER	29.039559	-80.939592	Railway Bridges		X	X	Moderate	160 MPH	X
FLORIDA EAST COAST; TURNBULL CREEK	28.806058	-80.85946	Railway Bridges				High	160 MPH	X
FLORIDA EAST COAST; STREAM/RIVER	28.999701	-80.916262	Railway Bridges		X	X	Moderate	160 MPH	
FLORIDA EAST COAST; CANAL/DITCH	29.003614	-80.918066	Railway Bridges		X	X	Moderate	160 MPH	AE
FLORIDA EAST COAST; CANAL/DITCH	29.340113	-81.140654	Railway Bridges				Moderate	160 MPH	
CSX TRANSPORTATION; STREAM/RIVER	29.162683	-81.390328	Railway Bridges				Moderate	150 MPH	
CSX TRANSPORTATION; SAINT JOHNS RIVER	28.837797	-81.324658	Railway Bridges				High	150 MPH	
DRMOND BEACH FLA	29.30745	-81.05813	Port Facilities				Moderate	160 MPH	AE

DAYTONA BCH MUN YACHT BASIN	29.21716	-81.01551	Port Facilities				Moderate	160 MPH	AE
NEW SMYRNA BCH MUNICIPAL WHFS	29.03892	-80.90636	Port Facilities				Moderate	160 MPH	AE
SHRIMP DOCKS NEW SMYRNA BCH	29.039188	-80.906138	Port Facilities				Moderate	160 MPH	AE
USCG STATION, PONCE DE LEON INLET, FL	29.063462	-80.914598	Port Facilities				High	160 MPH	AE
OAKHILL FISH DOCK	28.88228	-80.842463	Port Facilities				High	160 MPH	AE
EDGEWATER FLA	29.0016	-80.90653	Port Facilities				Moderate	160 MPH	AE
FLA POWER & LIGHT LAKE MONROE	28.839615	-81.32605	Port Facilities				Moderate	150 MPH	AE
ENTERPRISE FLA	28.86845	-81.272146	Port Facilities				Moderate	150 MPH	
De Land	28.976848	-81.35932	Ferry Facilities				Moderate	150 MPH	AE
Hontoon Island State Park	28.975272	-81.360608	Ferry Facilities				Moderate	150 MPH	AE
DOTS Terminal	29.226	-81.0511	Bus Facilities			X	Moderate	160 MPH	
Greyhound Bus Station	29.2101	-81.023	Bus Facilities		X	X	Moderate	160 MPH	
03147.*A	29.178601	-81.062852	Airport Runways				Moderate	160 MPH	
03147.*A	29.177879	-81.052299	Airport Runways				Low	160 MPH	
03147.*A	29.183276	-81.052683	Airport Runways				Low	160 MPH	

03147.2*A	29.080188	-81.046629	Airport Runways				Low	160 MPH	
03156.*A	29.064757	-81.283058	Airport Runways				Moderate	150 MPH	
03156.*A	29.068662	-81.284259	Airport Runways				Moderate	150 MPH	
03156.2*A	29.104115	-81.314193	Airport Runways				Moderate	150 MPH	
03387.*A	29.054239	-80.947938	Airport Runways		X	X	Moderate	160 MPH	
03387.*A	29.058146	-80.951115	Airport Runways	X	X	X	Moderate	160 MPH	
03387.*A	29.054206	-80.947262	Airport Runways		X	X	Moderate	160 MPH	X
03387.2*A	28.978909	-80.924775	Airport Runways		X	X	Low	160 MPH	
03411.*A	29.301904	-81.114064	Airport Runways			X	Moderate	160 MPH	
03411.*A	29.300314	-81.113512	Airport Runways			X	Moderate	160 MPH	
03443.1*A	29.250036	-81.45934	Airport Runways				High	150 MPH	
ORMOND BEACH MUNI	29.301139	-81.113806	Airport Facilities			X	Moderate	160 MPH	
NEW SMYRNA BEACH MUNI	29.055694	-80.948917	Airport Facilities	X	X	X	Moderate	160 MPH	X
PIERSON MUNI	29.250028	-81.459333	Airport Facilities				High	150 MPH	
ADVENT HEALTH DELAND	29.044631	-81.317839	Airport Facilities				Moderate	150 MPH	
DELAND MUNI-SIDNEY H TAYLOR FIELD	29.067028	-81.28375	Airport Facilities				Moderate	150 MPH	
DAYTONA BEACH INTL	29.179917	-81.058056	Airport Facilities				Low	160 MPH	
HIGHBRIDE PARK	29.40856	-81.09953	Potable Water Facilities	X	X	X	High	160 MPH	AE
PORT ORANGE (DW)	29.136101	-80.994698	Waste Water Systems	X	X	X	Moderate	160 MPH	AE

ORMOND BEACH, CITY OF - ORMOND BEACH ...	29.2936	-81.083099	Waste Water Systems				Moderate	160 MPH	AE
DELAND, CITY OF - WILEY M NASH WRF	29.009001	-81.298103	Waste Water Systems				Low	150 MPH	
VEHICLE MAINTENANCE FACILITY	29.217501	-81.0289	Waste Water Systems		X	X	Moderate	160 MPH	A
KENNEDY PARK IMPROVEMENTS	28.9933	-80.904701	Waste Water Systems	X	X	X	Moderate	160 MPH	AE
EDGEWATER, CITY OF	28.9898	-80.899902	Waste Water Systems				Moderate	160 MPH	AE
LAKE WOODRUFF NATIONAL WILDLIFE REFUGE	29.1061	-81.366097	Waste Water Systems				High	150 MPH	
SMYRNA BEACH, CITY OF - NEW SMYRNA BE...	29.030399	-80.917198	Waste Water Systems				Moderate	160 MPH	VE
KENNEDY SPACE CNTR FEDERAL CRE	28.950501	-80.885597	Waste Water Systems			X	Moderate	160 MPH	
HOLLY HILL, CITY OF (DW)	29.2447	-81.034103	Waste Water Systems				Moderate	160 MPH	AE
DAYTONA BEACH/BETHUNE POINT (D	29.196199	-81.008301	Waste Water Systems	X	X	X	Moderate	160 MPH	X

SANFORD	28.843155	-81.325464	Electric Power Facilities				Moderate	150 MPH	
DEBARY	28.90386	-81.33233	Electric Power Facilities				High	150 MPH	
FIELD STREET	29.017319	-80.932856	Electric Power Facilities		X	X	Moderate	160 MPH	
WYND 1310	28.99943	-81.29812	Communication Facilities				Moderate	150 MPH	
WNDB 1150	29.23526	-81.07172	Communication Facilities				Moderate	160 MPH	
WROD 1340	29.18887	-81.00756	Communication Facilities	X	X	X	Moderate	160 MPH	AE
WNDA 1490	29.01637	-81.2859	Communication Facilities				High	150 MPH	
WNDA 1490	29.01832	-81.29951	Communication Facilities				Moderate	150 MPH	
WSBB 1230	29.03276	-80.91728	Communication Facilities				Moderate	160 MPH	AE
WMFJ 1450	29.22526	-81.02478	Communication Facilities	X	X	X	Moderate	160 MPH	AE
WPUL 1590	29.1547	-81.022	Communication Facilities		X	X	Moderate	160 MPH	
WELE 1380	29.26942	-81.08145	Communication Facilities				Low	160 MPH	
WKRO-FM CH 226	28.89471	-80.88533	Communication Facilities		X	X	Moderate	160 MPH	
WOCL CH 290	28.92138	-81.31895	Communication Facilities				High	150 MPH	
WHOG-FM CH 239	29.23637	-81.07284	Communication Facilities				Moderate	160 MPH	
WJLU CH 209	29.00915	-80.97394	Communication Facilities			X	Moderate	160 MPH	A

WVYB CH 277	29.23637	-81.07284	Communication Facilities				Moderate	160 MPH	
WKTO CH 204	29.04165	-81.05617	Communication Facilities				Moderate	160 MPH	
WAPN CH 218	29.25192	-81.04783	Communication Facilities		X	X	Moderate	160 MPH	AE
WJHM CH 270	28.92138	-81.31895	Communication Facilities				High	150 MPH	
WESH CH 2	28.93832	-81.3159	Communication Facilities				High	150 MPH	
WVEN-TV CH 26	29.28637	-81.4934	Communication Facilities				High	150 MPH	
WCEU CH 15	29.17359	-81.15645	Communication Facilities				High	150 MPH	
WDYB-LP CH 53	29.23165	-81.04172	Communication Facilities		X	X	Moderate	160 MPH	
PINE TRAIL ELEMENTARY SCHOOL	29.275252	-81.114165	Schools				Moderate	160 MPH	
OSCEOLA ELEMENTARY SCHOOL	29.286605	-81.039883	Schools		X	X	Moderate	160 MPH	
ST BRENDAN CATHOLIC SCHOOL	29.315548	-81.053512	Schools			X	Low	160 MPH	
PACE CENTER FOR GIRLS	29.279335	-81.059199	Schools			X	Moderate	160 MPH	
ORMOND BEACH ELEMENTARY SCHOOL	29.283762	-81.057727	Schools			X	Moderate	160 MPH	
ORMOND BEACH	29.308101	-81.070235	Schools			X	Moderate	160 MPH	

MIDDLE SCHOOL									
THE LITTLE ENGINE ACADEMY	29.268103	-81.078258	Schools				Moderate	160 MPH	
DAYTONA COLLEGE	29.27008	-81.080138	Schools				Low	160 MPH	
CHABAD ESFORMES HEBREW ACADEMY	29.273506	-81.095471	Schools				Moderate	160 MPH	
TEMPLE BETH-EL SCHOOL	29.292892	-81.086449	Schools			X	Moderate	160 MPH	
ACS EDUCATIONAL RESOURCES AND CONSULT...	29.279675	-81.080201	Schools			X	Low	160 MPH	
TOMOKA ELEMENTARY SCHOOL	29.274802	-81.09084	Schools			X	Moderate	160 MPH	
DAVID C. HINSON SR. MIDDLE SCHOOL	29.239699	-81.094684	Schools				High	160 MPH	
REIGN HOMESCHOOLING ACADEMY	29.273596	-81.094289	Schools				Moderate	160 MPH	
DAYTONA STATE COLLEGE - ADVANCED TECH...	29.232026	-81.098931	Schools				High	160 MPH	

HOLLY HILL SCHOOL	29.249336	-81.055414	Schools			X	Moderate	160 MPH	
UBIC ACADEMY	29.252831	-81.055429	Schools			X	Moderate	160 MPH	
INSTALLER INSTITUTE	29.254596	-81.046818	Schools			X	Moderate	160 MPH	
SEABREEZE HIGH SCHOOL	29.266532	-81.02991	Schools		X	X	Moderate	160 MPH	
ORTONA ELEMENTARY SCHOOL	29.24729	-81.02356	Schools			X	Low	160 MPH	
LOURDES ACADEMY	29.2418	-81.02111	Schools			X	Moderate	160 MPH	
RIVERVIEW LEARNING CENTER	29.238417	-81.016584	Schools		X	X	Low	160 MPH	
IMAGINATION STATION TOO MONTESSORI	29.233445	-81.016323	Schools			X	Moderate	160 MPH	
BASILICA SCHOOL OF ST PAUL	29.216946	-81.027161	Schools		X	X	Moderate	160 MPH	
FATHER LOPEZ CATHOLIC HIGH SCHOOL	29.218548	-81.045937	Schools		X	X	Moderate	160 MPH	AE
LIVING FAITH ACADEMY	29.229362	-81.064155	Schools				Moderate	160 MPH	
AMIKIDS VOLUSIA	29.213356	-81.063596	Schools				Moderate	160 MPH	
HALIFAX BEHAVIORAL SERVICES	29.214037	-81.06858	Schools				Moderate	160 MPH	

RICHARD MILBURN ACADEMY	29.217315	-81.049547	Schools			X	Moderate	160 MPH	
EASTER SEALS CHILD DEVELOPMENT CENTER...	29.206916	-81.054454	Schools				Moderate	160 MPH	
UNIVERSITY OF CENTRAL FLORIDA - DAYTO...	29.201995	-81.048576	Schools				Moderate	160 MPH	
DAYTONA STATE COLLEGE	29.202259	-81.051285	Schools				Moderate	160 MPH	
THE CHILES ACADEMY	29.213284	-81.039736	Schools		X	X	Moderate	160 MPH	
PURE IN HEART CHRISTIAN ACAD& PERFORM...	29.210732	-81.020541	Schools	X	X	X	Moderate	160 MPH	AE
DAYTONA STATE COLLEGE - NEWS-JOURNAL ...	29.21517	-81.019609	Schools		X	X	Moderate	160 MPH	
BETHUNE-COOKMAN UNIVERSITY	29.210556	-81.031595	Schools		X	X	Moderate	160 MPH	A
TURIE T. SMALL ELEMENTARY SCHOOL	29.195917	-81.027159	Schools		X	X	Moderate	160 MPH	X
CAMPBELL	29.195004	-81.030466	Schools		X	X	Moderate	160 MPH	

MIDDLE SCHOOL									
MOUNT CALVARY ACADEMY	29.194227	-81.024035	Schools		X	X	Moderate	160 MPH	X
THE CHASE ACADEMY, INC.	29.177731	-81.024847	Schools		X	X	Moderate	160 MPH	AE
PALM TERRACE ELEMENTARY SCHOOL	29.198401	-81.074249	Schools				Moderate	160 MPH	
WESTSIDE ELEMENTARY SCHOOL	29.224138	-81.071315	Schools				Moderate	160 MPH	
HALIFAX ACADEMY	29.189019	-81.081327	Schools				Moderate	160 MPH	
WARNER CHRISTIAN ACADEMY	29.179476	-81.007256	Schools		X	X	Moderate	160 MPH	
INTERNATIONAL ACADEMY	29.162176	-80.997791	Schools		X	X	Moderate	160 MPH	
BLUE JAY ACADEMY	29.17319	-81.025156	Schools		X	X	Moderate	160 MPH	X
SOUTH DAYTONA ELEMENTARY SCHOOL	29.168283	-81.008205	Schools		X	X	Moderate	160 MPH	X
HORIZON ELEMENTARY SCHOOL	29.119404	-81.038035	Schools				Moderate	160 MPH	
HOSPITAL HOMEBOUND	29.14862	-81.026749	Schools				Moderate	160 MPH	

ATLANTIC HIGH SCHOOL	29.148642	-81.026679	Schools				Moderate	160 MPH	
DAYTONA BEACH CHRISTIAN ACADEMY	29.170829	-81.038026	Schools				Moderate	160 MPH	
SUGAR MILL ELEMENTARY SCHOOL	29.147327	-81.001034	Schools		X	X	Moderate	160 MPH	
SILVER SANDS MIDDLE SCHOOL	29.131416	-81.017155	Schools			X	Moderate	160 MPH	
SPRUCE CREEK ELEMENTARY SCHOOL	29.105717	-81.004796	Schools			X	Moderate	160 MPH	
WISE INDEPENDENT PRIVATE SCHOOL SYSTEM	29.110693	-80.977931	Schools		X	X	Moderate	160 MPH	
PORT ORANGE ELEMENTARY SCHOOL	29.142252	-80.991424	Schools		X	X	Moderate	160 MPH	
SWEETWATER ELEMENTARY SCHOOL	29.116328	-81.017421	Schools				Moderate	160 MPH	
SPRUCE CREEK HIGH SCHOOL	29.108707	-81.016027	Schools				Moderate	160 MPH	
R. J. LONGSTREET ELEMENTARY SCHOOL	29.176687	-80.986041	Schools		X	X	Moderate	160 MPH	

CORONADO BEACH ELEMENTARY SCHOOL	29.002761	-80.878685	Schools		X	X	High	160 MPH	
READ-PATTILLO ELEMENTARY SCHOOL	29.010897	-80.919753	Schools		X	X	Moderate	160 MPH	X
SACRED HEART CATHOLIC SCHOOL	29.038981	-80.934583	Schools		X	X	Moderate	160 MPH	
KNIGHT'S CHRISTIAN ACADEMY	29.022958	-80.923193	Schools	X	X	X	Low	160 MPH	X
NEW SMYRNA BEACH HIGH SCHOOL	29.003172	-80.930417	Schools		X	X	Moderate	160 MPH	
NEW SMYRNA BEACH MIDDLE SCHOOL	29.00452	-80.923569	Schools		X	X	Moderate	160 MPH	
CHISHOLM ELEMENTARY SCHOOL	29.030038	-80.932675	Schools		X	X	Low	160 MPH	X
BETHEL CHRISTIAN ACADEMY	29.024306	-80.933056	Schools		X	X	Low	160 MPH	AE
BURNS SCIENCE AND TECHNOLOGY CHARTER	28.862161	-80.848962	Schools				Low	160 MPH	
INDIAN RIVER ELEMEN	28.945576	-80.891184	Schools			X	Moderate	160 MPH	

TARY SCHOOL									
EDGEHOP CHRISTIAN ACADEMY	28.94675	-80.88452	Schools			X	Moderate	160 MPH	
EDGEWATER PUBLIC SCHOOL	28.984204	-80.907127	Schools		X	X	Moderate	160 MPH	
DISCOVERY DAYS INSTITUTE OF LEARNING	28.994507	-80.908779	Schools		X	X	Moderate	160 MPH	
LITTLE EXPLORERS MONTESSORI	29.000404	-80.912488	Schools		X	X	Moderate	160 MPH	
DAYTONA STATE COLLEGE - NEW SMYRNA BE...	28.999955	-80.926968	Schools		X	X	Moderate	160 MPH	
PATHWAYS ELEMENTARY SCHOOL	29.272286	-81.135136	Schools				Moderate	160 MPH	
CALVARY CHRISTIAN ACADEMY	29.257414	-81.118765	Schools			X	High	160 MPH	
CHAMPION ELEMENTARY SCHOOL	29.207816	-81.137	Schools				High	160 MPH	A
THE CHILDRENS HOUSE	29.252387	-81.129993	Schools				Moderate	160 MPH	
RIVERBEND	29.249844	-81.134899	Schools				Moderate	160 MPH	

ACADEMY									
VOLUSIA REGIONAL JUVENILE DETENTION C...	29.136766	-81.142734	Schools				Moderate	160 MPH	
DAYTONA JUVENILE RESIDENTIAL FACILITY	29.136718	-81.142758	Schools				Moderate	160 MPH	
STEWART TREATMENT CENTER	29.144914	-81.152038	Schools				Moderate	150 MPH	
DEPT. OF CORRECTIONS EDUCATIONAL PROGRAM	29.140435	-81.149447	Schools				Moderate	160 MPH	
ROCK CHURCH ACADEMY	29.091007	-81.050648	Schools				High	160 MPH	
SAMSULA ACADEMY	29.022283	-81.050897	Schools				High	160 MPH	
SPACE COAST CHRISTIAN ACADEMY	29.02075	-81.050837	Schools				High	160 MPH	
CYPRESS CREEK ELEMENTARY SCHOOL	29.083122	-81.027195	Schools			X	Moderate	160 MPH	
TLC KIDS CARE	29.089508	-81.048664	Schools			X	High	160 MPH	
CREEKSIDE	29.06639	-81.04165	Schools				Moderate	160 MPH	

MIDDLE SCHOOL									
T. DEWITT TAYLOR MIDDLE-HIGH SCHOOL	29.246292	-81.457942	Schools				High	150 MPH	
PIERSON ELEMENTARY SCHOOL	29.24407	-81.463728	Schools				Moderate	150 MPH	
STETSON BAPTIST CHRISTIAN SCHOOL	29.035795	-81.323928	Schools				Moderate	150 MPH	
LOUISE S. MCINNIS ELEMENTARY SCHOOL	29.123646	-81.350978	Schools				Moderate	150 MPH	
CITRUS GROVE ELEMENTARY SCHOOL	29.03934	-81.33579	Schools				Moderate	150 MPH	
GEORGE W. MARKS ELEMENTARY SCHOOL	29.046084	-81.297041	Schools				High	150 MPH	
BLUE LAKE ELEMENTARY SCHOOL	29.030888	-81.276335	Schools				High	150 MPH	
FREEDOM ELEMENTARY SCHOOL	28.994105	-81.271431	Schools				High	150 MPH	
DAYTONA STATE COLLEGE - DELAND	29.012027	-81.243074	Schools				High	150 MPH	

DELAND MIDDLE SCHOOL	29.00428	-81.297508	Schools				Moderate	150 MPH	
FLORIDA TECHNICAL COLLEGE - DELAND CA...	29.009117	-81.300638	Schools				Low	150 MPH	
ESE RELATED SERVICES	29.030191	-81.308641	Schools				Low	150 MPH	
PK CHILD CARE PROGRAM	29.03016	-81.308493	Schools				Low	150 MPH	
ST BARNABAS EPISCOPAL SCHOOL	29.033073	-81.308361	Schools				Moderate	150 MPH	
CASA MONTESSORI	29.030416	-81.315724	Schools				Moderate	150 MPH	
DELAND HIGH SCHOOL	29.04167	-81.283963	Schools				Moderate	150 MPH	
CHILDREN'S HOUSE MONTESSORI SCHOOL	29.03961	-81.294212	Schools				Moderate	150 MPH	
STETSON UNIVERSITY	29.03532	-81.300598	Schools				Moderate	150 MPH	
ST PETER CATHOLIC SCHOOL	29.028684	-81.309871	Schools				Low	150 MPH	
EDITH I. STARKE ELEMENTARY SCHOOL	29.015022	-81.308979	Schools				Moderate	150 MPH	
T.O.P ACADEMY	29.023427	-81.31071	Schools				Moderate	150 MPH	

WOODWARD AVENUE ELEMENTARY SCHOOL	29.010773	-81.33093	Schools				Moderate	150 MPH	
LIGHTHOUSE CHRISTIAN PREPARATORY ACADEMY	29.023706	-81.340996	Schools				Moderate	150 MPH	
SOUTHWESTERN MIDDLE SCHOOL	29.007525	-81.314277	Schools				Moderate	150 MPH	
RIVER SPRINGS MIDDLE SCHOOL	28.938783	-81.309237	Schools				High	150 MPH	
UNIVERSITY HIGH SCHOOL	28.931841	-81.313005	Schools				Moderate	150 MPH	
MANATEE COVE ELEMENTARY SCHOOL	28.939135	-81.300055	Schools				Moderate	150 MPH	
ORANGE CITY ELEMENTARY SCHOOL	28.951383	-81.291599	Schools				Moderate	150 MPH	
DEBARY ELEMENTARY SCHOOL	28.891186	-81.320685	Schools				Moderate	150 MPH	
HIGHBANKS LEARNING CENTER	28.890781	-81.28507	Schools				Moderate	150 MPH	
THE READING EDGE ACADEMY	28.895049	-81.28271	Schools				Moderate	150 MPH	

SUNRISE ACADEMY	28.908694	-81.291039	Schools				Moderate	150 MPH	
IVY HAWN CHARTER SCHOOL OF THE ARTS	28.977978	-81.230821	Schools				Moderate	150 MPH	
VOLUSIA PINES ELEMENTARY SCHOOL	28.972109	-81.226144	Schools				Moderate	150 MPH	
BLAKE MEMORIAL DAY SCHOOL	28.985447	-81.23439	Schools				Moderate	150 MPH	
SPIRIT ELEMENTARY SCHOOL	28.90587	-81.242265	Schools				Moderate	150 MPH	
DISCOVERY ELEMENTARY SCHOOL	28.89193	-81.250276	Schools				Low	150 MPH	
DELTONA CHRISTIAN SCHOOL	28.881367	-81.242761	Schools				High	150 MPH	
LEGACY SCHOLARS ACADEMY	28.868067	-81.264032	Schools				Moderate	150 MPH	
ENTERPRISE ELEMENTARY SCHOOL	28.871599	-81.265077	Schools				Moderate	150 MPH	
DELTONA MIDDLE SCHOOL	28.877966	-81.272431	Schools				High	150 MPH	
ALDERSGATE ACADEMY	28.868036	-81.266585	Schools				High	150 MPH	

ACADEMY OF CAREER TRAINING - DELTONA ...	28.897291	-81.26743	Schools				Moderate	150 MPH	A
DELTONA LAKES ELEMENTARY SCHOOL	28.921411	-81.217434	Schools				High	150 MPH	
FRIENDSHIP ELEMENTARY SCHOOL	28.93433	-81.188547	Schools				High	150 MPH	
DAYTONA STATE COLLEGE - DELTONA CAMPUS	28.929134	-81.221587	Schools				High	150 MPH	
CENTRAL FELLOWSHIP CHRISTIAN ACADEMY	28.970383	-81.214722	Schools				Moderate	150 MPH	
HERITAGE MIDDLE SCHOOL	28.891873	-81.172056	Schools				High	150 MPH	
SUNRISE ELEMENTARY SCHOOL	28.881496	-81.175491	Schools				High	150 MPH	
GOOD SHEPHERD ACADEMY	28.883624	-81.166778	Schools				High	160 MPH	
FOREST LAKE ELEMENTARY SCHOOL	28.873479	-81.228619	Schools				High	150 MPH	
GATEWAY	28.870378	-81.250386	Schools				Moderate	150 MPH	

CHRISTIAN ACADEMY									
OSTEEN ELEMENTARY SCHOOL	28.854856	-81.175553	Schools				Moderate	150 MPH	
DELTONA HIGH SCHOOL	28.946599	-81.246415	Schools				Moderate	150 MPH	
GALAXY MIDDLE SCHOOL	28.929963	-81.230095	Schools				High	150 MPH	
TIMBERCREST ELEMENTARY SCHOOL	28.932539	-81.231045	Schools				High	150 MPH	
TRINITY CHRISTIAN ACADEMY	28.924473	-81.254251	Schools				Moderate	150 MPH	
PRIDE ELEMENTARY SCHOOL	28.89545	-81.162071	Schools				High	160 MPH	
PINE RIDGE HIGH SCHOOL	28.886829	-81.162	Schools				High	160 MPH	
MAINLAND HIGH SCHOOL	29.197773	-81.050885	Schools				Moderate	160 MPH	
EMBRY-RIDDLE AERONAUTICAL UNIVERSITY-...	29.189219	-81.049481	Schools				Low	160 MPH	
EMBRY-RIDDLE AERONAUTICAL UNIVERSITY-...	29.189241	-81.04955	Schools				Low	160 MPH	
VOLUSIA COUNTY SHERIFFS	29.330169	-81.121731	Police Stations				Moderate	160 MPH	

, DEPARTMENT									
ORMOND BEACH POLICE DEPARTMENT	29.282882	-81.060763	Police Stations			X	Moderate	160 MPH	
HOLLY HILL POLICE DEPARTMENT	29.245118	-81.040025	Police Stations			X	Moderate	160 MPH	
DAYTONA BEACH POLICE DEPARTMENT - SUB...	29.223916	-81.00984	Police Stations			X	Moderate	160 MPH	
VOLUSIA COUNTY SHERIFF'S OFFICE - BEA...	29.218758	-81.003544	Police Stations			X	Moderate	160 MPH	
VOLUSIA COUNTY SHERIFFS, DEPARTMENT	29.215296	-81.023479	Police Stations		X	X	Moderate	160 MPH	
VOLUSIA COUNTY SHERIFFS, DEPARTMENT	29.215451	-81.021655	Police Stations	X	X	X	Moderate	160 MPH	X
VOLUSIA COUNTY SHERIFFS, DEPARTMENT	29.210803	-81.013856	Police Stations		X	X	Moderate	160 MPH	
DAYTONA BEACH POLICE DEPARTMENT - HEA...	29.200853	-81.037924	Police Stations		X	X	Moderate	160 MPH	
SOUTH DAYTONA CITY	29.181315	-81.007999	Police Stations		X	X	Moderate	160 MPH	

POLICE DEPARTMENT									
PORT ORANGE POLICE DEPARTMENT	29.120974	-81.017651	Police Stations				Moderate	160 MPH	
DAYTONA BEACH SHORES DEPARTMENT OF PU...	29.165794	-80.977512	Police Stations			X	Moderate	160 MPH	
PONCE INLET POLICE DEPARTMENT	29.120525	-80.95343	Police Stations	X	X	X	High	160 MPH	
NEW SMYRNA BEACH POLICE DEPARTMENT	29.047528	-80.940733	Police Stations		X	X	Moderate	160 MPH	X
VOLUSIA COUNTY SHERIFF - CIVIL DIVISION	29.025763	-80.921305	Police Stations	X	X	X	Moderate	160 MPH	X
OAK HILL POLICE DEPARTMENT	28.858865	-80.851223	Police Stations			X	Low	160 MPH	
EDGEWATER POLICE DEPARTMENT	28.9929	-80.905274	Police Stations	X	X	X	Moderate	160 MPH	
VOLUSIA COUNTY SHERIFFS' DEPARTMENT	29.14645	-81.148881	Police Stations				High	160 MPH	
VOLUSIA SHERIFFS DEPARTMENT - OPERATI...	29.143009	-81.145737	Police Stations				Moderate	160 MPH	

FLORIDA HIGHWAY PATROL TROOP D - DELAND	29.058843	-81.274394	Police Stations				Moderate	150 MPH	
VOLUSIA COUNTY SHERIFFS' DEPARTMENT - ...	29.060195	-81.286195	Police Stations				Moderate	150 MPH	
VOLUSIA COUNTY SHERIFF'S OFFICE	29.029516	-81.305028	Police Stations				Low	150 MPH	
DE LAND POLICE DEPARTMENT	29.026709	-81.306963	Police Stations				Moderate	150 MPH	
VOLUSIA COUNTY SHERIFFS' DEPARTMENT	29.029247	-81.29975	Police Stations				Low	150 MPH	
VOLUSIA COUNTY SHERIFFS' DEPARTMENT LA...	28.998411	-81.304743	Police Stations				Moderate	150 MPH	
ORANGE CITY POLICE DEPARTMENT	28.949593	-81.298117	Police Stations				Moderate	150 MPH	
VOLUSIA COUNTY SHERIFFS' DEPARTMENT - ...	28.884067	-81.308005	Police Stations				Moderate	150 MPH	
LAKE HELEN POLICE	28.977731	-81.231476	Police Stations				Moderate	150 MPH	

DEPARTMENT									
VOLUSIA COUNTY SHERIFFS' DEPARTMENT - …	28.906735	-81.225344	Police Stations				Moderate	150 MPH	
VOLUSIA COUNTY SHERIFFS' DEPARTMENT - …	29.184706	-81.060813	Police Stations				Low	160 MPH	
Volusia County Fire Services Station …	29.328796	-81.112381	Fire Stations			X	Low	160 MPH	
Volusia County Fire Services Station …	29.404343	-81.144829	Fire Stations				Moderate	160 MPH	
Volusia County Fire Services Station …	29.335375	-81.061142	Fire Stations			X	Low	160 MPH	
Ormond Beach Fire Department Station 91	29.282549	-81.036049	Fire Stations		X	X	Moderate	160 MPH	
Ormond Beach Fire Department Station 93	29.290686	-81.068626	Fire Stations		X	X	Moderate	160 MPH	X
Ormond Beach Fire	29.275469	-81.082367	Fire Stations				Low	160 MPH	

Department Station 92									
Volusia County Fire Services Station ...	29.244341	-81.071419	Fire Stations				Moderate	160 MPH	
Holly Hill Fire Rescue Station 96	29.243544	-81.038338	Fire Stations			X	Moderate	160 MPH	
Daytona Beach Fire Department Station 3	29.239725	-81.021317	Fire Stations			X	Moderate	160 MPH	
Daytona Beach Fire Department Station 5	29.216045	-81.045746	Fire Stations		X	X	Moderate	160 MPH	
Daytona Beach Fire Department Station 1	29.208252	-81.01696	Fire Stations	X	X	X	Moderate	160 MPH	X
Daytona Beach Fire Department Station 4	29.210711	-81.067894	Fire Stations				Moderate	160 MPH	
South Daytona Fire Department	29.181292	-81.008041	Fire Stations		X	X	Moderate	160 MPH	
Port Orange Fire Rescue Department St...	29.12542	-81.02359	Fire Stations				Moderate	160 MPH	

Port Orange Fire Rescue Department St...	29.104071	-80.987793	Fire Stations	X	X	X	Moderate	160 MPH	X
Port Orange Fire and Rescue Department	29.140692	-80.986359	Fire Stations	X	X	X	Moderate	160 MPH	
Daytona Beach Fire Department Station 2	29.202818	-80.998535	Fire Stations		X	X	Moderate	160 MPH	
Daytona Beach Shores Department of Pu...	29.166441	-80.97776	Fire Stations			X	Moderate	160 MPH	
Ponce Inlet Fire Rescue Department	29.098698	-80.941292	Fire Stations	X	X	X	Moderate	160 MPH	X
New Smyrna Beach Fire and Rescue Fire...	29.029137	-80.899757	Fire Stations	X	X	X	High	160 MPH	X
Volusia County Fire Services Station ...	28.979507	-80.860939	Fire Stations	X	X	X	Moderate	160 MPH	
New Smyrna Beach Fire and Rescue Fire...	29.049016	-80.93711	Fire Stations		X	X	High	160 MPH	
New Smyrna Beach Fire	29.025545	-80.922874	Fire Stations	X	X	X	Low	160 MPH	X

Department									
Volusia County Fire Services Station ...	29.018578	-80.945824	Fire Stations	X	X	X	Low	160 MPH	X
Volusia County Fire Services Station	28.870298	-80.850899	Fire Stations		X	X	Low	160 MPH	
Edgewater Department of Fire Rescue S...	28.953962	-80.895821	Fire Stations			X	Moderate	160 MPH	
Edgewater Department of Fire Rescue S...	28.975962	-80.897278	Fire Stations			X	Moderate	160 MPH	
Ormond Beach Fire Department Station 94	29.274183	-81.146088	Fire Stations				Moderate	160 MPH	
Volusia County Fire Services Training Center	29.1467	-81.153572	Fire Stations				High	150 MPH	
Port Orange Fire Rescue Department St...	29.111418	-81.052704	Fire Stations				Moderate	160 MPH	
New Smyrna Beach Fire and	29.015745	-80.995117	Fire Stations				High	160 MPH	

Rescue Station									
Volusia County Fire Services Station	28.730654	-81.032677	Fire Stations				High	160 MPH	
Volusia County Fire Services Station ...	29.082958	-81.066414	Fire Stations			X	Moderate	160 MPH	
Port Orange Fire Rescue Department St...	29.068159	-81.038208	Fire Stations				Moderate	160 MPH	
Volusia County Fire Services Station ...	29.242687	-81.466835	Fire Stations				Moderate	150 MPH	
Deland Fire Department Station 82	29.055044	-81.307663	Fire Stations				Moderate	150 MPH	
Volusia County Fire Rescue DeLeon Spr...	29.118317	-81.34951	Fire Stations				Moderate	150 MPH	
Volusia County Fire Services Glenwood...	29.072231	-81.327965	Fire Stations				High	150 MPH	
Volusia County Fire Services Kepler R...	29.061321	-81.26252	Fire Stations				Moderate	150 MPH	
Deland Fire	29.000546	-81.263062	Fire Stations				Moderate	150 MPH	

Department Station 83									
Deland Fire Department Station 81	29.026661	-81.30574	Fire Stations				Moderate	150 MPH	
Volusia County Fire Rescue Saint John...	29.022877	-81.359039	Fire Stations				High	150 MPH	
Volusia County Fire Rescue Spring Lak...	28.977438	-81.301079	Fire Stations				High	150 MPH	
Orange City Fire Department Station 68	28.918688	-81.292389	Fire Stations				Low	150 MPH	
Orange City Fire Department	28.950084	-81.29812	Fire Stations				Moderate	150 MPH	
Volusia County Fire Station 33 Debary	28.883015	-81.308228	Fire Stations				Moderate	150 MPH	
Volusia County Fire Services Station ...	28.985029	-81.242889	Fire Stations				Moderate	150 MPH	
Deltona Fire Rescue Department Statio...	28.900116	-81.271469	Fire Stations				Moderate	150 MPH	

Deltona Fire Rescue Department Statio...	28.879847	-81.174805	Fire Stations				High	150 MPH	
Volusia County Fire Services Station ...	28.846548	-81.16304	Fire Stations				Moderate	160 MPH	
Volusia County Fire Services Station ...	28.857195	-81.2248	Fire Stations				Moderate	150 MPH	
Deltona Fire Rescue Department Station	28.906279	-81.225914	Fire Stations				Moderate	150 MPH	
Deltona City Fire Station 65	28.947231	-81.232574	Fire Stations				Moderate	150 MPH	
Deltona Fire Rescue Department Station	28.923847	-81.189384	Fire Stations				Moderate	150 MPH	
Daytona Beach Fire Department Station 6	29.163551	-81.058022	Fire Stations				Moderate	160 MPH	A
Volusia County Fire Rescue Daytona Be...	29.178478	-81.057175	Fire Stations				Low	160 MPH	
VOLUSIA COUNTY EMERGENCY	29.140482	-81.144876	Emergency Operations Centers				Moderate	160 MPH	

MANAGEMENT									
VOLUSIA COUNTY EOC	29.029469	-81.304948	Emergency Operations Centers				Low	150 MPH	

Table 4: Water and Sewage Hazard Analysis

Asset Name	Asset Type	Asset Owner	Cat 1 Surge	Cat 3 Surge	Cat 5 Surge	Wildfire Risk	Wind Zone	FEMA Flood Zone
Ocean Shore Lift Station	Stormwater Treatment Facilities And Pump Stations	Private			X	Moderate	160mph	
Taxiway Lindy Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	
Ohio Lift Station	Stormwater Treatment Facilities And Pump Stations	Orange City				Moderate	150mph	
Navel Orange Lift Station	Stormwater Treatment Facilities And Pump Stations	Orange City				Moderate	150mph	
Quail View Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	A
Bella Vista Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County		X	X	Moderate	160mph	
H H Birch Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County	X	X	X	High	160mph	AE
Ridgewood Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	
Coleman Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County	X	X	X	Low	160mph	AE

Charles Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County	X	X	X	Moderate	160mph	X
Douglas Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County	X	X	X	Moderate	160mph	AE
Lewis Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County	X	X	X	Moderate	160mph	X
Navajo Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County	X	X	X	Moderate	160mph	X
Golden Bay Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County	X	X	X	Moderate	160mph	X
Fishermans Cove Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County		X	X	Moderate	160mph	
Ariel Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County		X	X	High	160mph	
Ridgewood Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County		X	X	Very High	160mph	
Division Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Moonlight Cove Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	

Greenleaf Lift Station	Stormwater Treatment Facilities And Pump Stations	Orange City				Moderate	150mph	
Southlake Lift Station	Stormwater Treatment Facilities And Pump Stations	Orange City				High	150mph	
Industrial Lift Station	Stormwater Treatment Facilities And Pump Stations	Orange City				Moderate	150mph	
Dr Martin Luther King Lift Sta	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	
Debary Plantation Lift Station	Stormwater Treatment Facilities And Pump Stations	Debary				Low	150mph	A
Quail Hill Lift Station	Stormwater Treatment Facilities And Pump Stations	Debary				Low	150mph	
Charles R Beall Lift Station	Stormwater Treatment Facilities And Pump Stations	Debary				Low	150mph	
Charles R Beall Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	
Charles R Beall Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Charles R Beall Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	

Halifax Crossings Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Very High	150mph	
Tullamore Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	160mph	
Lazio Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Florida Willow Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	
Porter Rye Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	
Terrapin Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	
Kenmare Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	160mph	
Killarney Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	
Peninsula Winds Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	
Barrier Isle Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	

Sandpiper Ridge Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County		X	X	Moderate	160mph	
Pelican Dunes Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	
Ocean Shore Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	
Ocean Shore Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	
Red John Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	160mph	
Plantation Oaks Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X		160mph	
Roscommon Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	
Acoma Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	
Speerin Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Low	160mph	
Carlow Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	A

Acoma Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	
Cessna Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	
Taxiway Lindy Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	
Spruce Creek Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	160mph	
Roscoe Turner Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	
Autumn Leaves Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	160mph	
Forest Edge Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	
Howland Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	
Wolf Pack Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	
Blaney Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	A

Eustace Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Volusia Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Volusia Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Volusia Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Terrace Hills Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Florence Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	
Kingslake Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	A
Charles R Beall Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Debary Plantation Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Eagles Estates Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	

Dogwood Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	
Charles R Beall Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Highbanks Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Legion Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	
Dirksen Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Charles R Beall Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	
Charles R Beall Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	
Fairway Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Glen Club Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	
Pine Valley Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	A

Pine Meadow Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Glen Abbey Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	
Toronto Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	A
Enterprise Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Enterprise Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Saxon Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Enterprise Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Enterprise Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	
Enterprise Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Grand Plaza Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	

Volusia Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Water Oak Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Moss Point Cove Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	
Howland Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
James Pond Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	
Saxon Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	
Normandy Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	
Normandy Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Treemonte Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Saxon Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	

Verde Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Hammock Oak Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	
Charles R Beall Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Enterprise Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Horseshoe Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	AE
Warrior Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	AE
Arrowhead Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	AE
Kettledrum Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	AE
Stone Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	AE
Howland Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	

Wild Pepper Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Dr Martin L King Jr Lift Stati	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	
Baron Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	
Spurce Creek Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Very Low	160mph	
Monaghan Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	High	160mph	
Bass Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	AE
Shell Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Eustace Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Plantation Club Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	A
Leisure Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	

New Hope Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	
Fairlawn Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Garfield Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	
Charles R Beall Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	
Charles R Beall Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	150mph	
Charles R Beall Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Highbanks Lift Station	Stormwater Treatment Facilities And Pump Stations	Debary				Very Low	150mph	A
Charles R Beall Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Acoma Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				High	160mph	
Ocean Shore Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County			X	Moderate	160mph	

Rosa Bella Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Integra Reserve Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Low	150mph	
Lazio Lift Station	Stormwater Treatment Facilities And Pump Stations	Volusia County				Moderate	150mph	
Four Towns Wwtp	Wastewater Treatment Facilities And Lift Stations	Volusia County				Low	150mph	
Vc/Southwest Regional Wwtf-2	Wastewater Treatment Facilities And Lift Stations	Volusia County				Moderate	150mph	
Vc/Southeast Regional Wwtf-7	Wastewater Treatment Facilities And Lift Stations	Volusia County			X	Low	160mph	
Vc/Halifax Plantation Wwtf-8	Wastewater Treatment Facilities And Lift Stations	Volusia County				Moderate	160mph	
West Volusia Transfer Station	Wastewater Treatment Facilities And Lift Stations	Volusia County				Moderate	150mph	
Vc/Southwest Regional Wwtf-1	Wastewater Treatment Facilities And Lift Stations	Volusia County				Moderate	150mph	
Vc/New Hope Wwtp-20	Wastewater Treatment Facilities And Lift Stations	Volusia County				Very High	150mph	

Vc/Pelican Dunes Wwtp-9	Wastewater Treatment Facilities And Lift Stations	Volusia County			X	Moderate	160mph	
Vc/Pine Island Wwtp-10	Wastewater Treatment Facilities And Lift Stations	Volusia County				Moderate	150mph	AE
Tomoka Landfill Leachate Sprayfield	Wastewater Treatment Facilities And Lift Stations	Volusia County				High	160mph	A
Vc/Halifax Plantation Wtp-8	Drinking Water Facilities					Low	160mph	
Vc/Southwest Wtp-1d	Drinking Water Facilities					Low	150mph	
Vc/Spruce Creek Wtp-15	Drinking Water Facilities				X	Moderate	160mph	
Vc/Southwest Wtp-1a	Drinking Water Facilities					Moderate	150mph	
Vc/Southwest Wtp-1b	Drinking Water Facilities					Moderate	150mph	
Vc/Southwest Wtp-2	Drinking Water Facilities					Moderate	150mph	
Chuck Lennon Park	Drinking Water Facilities					Low	150mph	
Highbridge Park	Drinking Water Facilities		X	X	X	High	160mph	X
Oak Hill Medical Clinic	Drinking Water Facilities			X	X	High	160mph	
Mary Deweese Park	Drinking Water Facilities				X	Moderate	160mph	
Osteen R&B Barn	Drinking Water Facilities					Low	160mph	

Lake Beresford Park	Drinking Water Facilities					High	150mph	
Lake Dias	Drinking Water Facilities					Moderate	150mph	
Nancy Cummings Park	Drinking Water Facilities			X	X	Moderate	160mph	
Green Springs Park	Drinking Water Facilities					High	150mph	
Bill Keller Park	Drinking Water Facilities					Moderate	150mph	A
Vc/Southwest Wtp-1c	Drinking Water Facilities					Moderate	150mph	
Lake Ashby Park	Drinking Water Facilities					High	160mph	
Hester Park / Malloy School	Drinking Water Facilities					Moderate	150mph	
Cassadaga Wtp	Drinking Water Facilities					High	150mph	
Vc/New Hope Wtp-20	Drinking Water Facilities					Moderate	150mph	
Vc/Pine Island Wtp-10	Drinking Water Facilities					Moderate	150mph	
Beck Ranch Wtp	Drinking Water Facilities					Moderate	150mph	
Osteen Civic Center	Drinking Water Facilities					Moderate	160mph	
Shell Harbor Park	Drinking Water Facilities					High	150mph	AE

APPENDIX E: ASSET IDENTIFICATION AND VULNERABILITY PER JURISDICTION

This analysis involves numerous sources, such as:

- HAZUS
- National Hurricane Center
- ECFRPC
- Volusia County and Jurisdictions
- FDEP

JURISDICTION APPENDIX: DAYTONA BEACH

Table 1: Asset Location and Surge Vulnerability - Daytona Beach

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
Select Specialty Hospital - Daytona B...	Medical Care Facilities	12127080808	301 Memorial Medical Parkway, 11th Floor	29.242562	-81.107419	5
Adventhealth Daytona Beach	Medical Care Facilities	12127080808	301 Memorial Medical Pkwy	29.24311	-81.107657	5
Halifax Psychiatric Center-North	Medical Care Facilities	12127081702	841 Jimmy Ann Dr	29.21402	-81.068593	5
Halifax Health Medical Center	Medical Care Facilities	12127081800	303 N Clyde Morris Blvd	29.202385	-81.054828	5
Daytona Beach Veterans Affairs Outpat...	Medical Care Facilities	12127082303	551 National Health Care Drive	29.206409	-81.061756	5
Volusia County Emergency Management	Emergency Operations Centers	12127083206	49 Keyton Drive	29.140482	-81.144876	5
Daytona Beach Fire Department Station 6	Fire Stations	12127092500	2020 Beville Road	29.163551	-81.058022	5
Volusia County Fire Rescue Daytona Be...	Fire Stations	12127092500	2316 Bellevue Avenue Extension	29.178478	-81.057175	5
Volusia County Fire Services Training...	Fire Stations	12127083206	3889 Tiger Bay Road	29.1467	-81.153572	5
Daytona Beach Fire Department Station 3	Fire Stations	12127081201	945 North Halifax Avenue	29.239725	-81.021317	5
Daytona Beach Fire Department Station 2	Fire Stations	12127082604	126 Botefuhr Avenue	29.202818	-80.998535	5
South Daytona Fire Department	Fire Stations	12127082401	1672 South Ridgewood Avenue	29.181292	-81.008041	5
Volusia County Fire Services Station ...	Fire Stations	12127083211	1979 Taylor Road	29.082958	-81.066414	5

Daytona Beach Fire Department Station 1	Fire Stations	12127082000	301 South Beach Street	29.208252	-81.01696	5
Daytona Beach Fire Department Station 4	Fire Stations	12127082303	1675 Mason Avenue	29.210711	-81.067894	5
Daytona Beach Fire Department Station 5	Fire Stations	12127081600	627 North Nova Road	29.216045	-81.045746	5
Volusia County Sheriff's Office - Bea...	Police Stations	12127081300	515 South Atlantic Avenue	29.218758	-81.003544	5
South Daytona City Police Department	Police Stations	12127082401	1672 South Ridgewood Avenue	29.181315	-81.007999	5
Volusia County Sheriffs Department - ...	Police Stations	12127092500	700 Catalina Drive	29.184706	-81.060813	5
Volusia County Sheriffs Department - ...	Police Stations	12127082000	251 North Ridgewood Avenue	29.215296	-81.023479	5
Volusia County Sheriffs Department - ...	Police Stations	12127082000	250 North Beach Street, Suite 119	29.215451	-81.021655	5
Volusia County Sheriffs Department - ...	Police Stations	12127083206	3825 Tiger Bay Road	29.14645	-81.148881	5
Volusia Sheriffs Department - Operati...	Police Stations	12127083206	1330 Indian Lake Road	29.143009	-81.145737	5
Volusia County Sheriffs Department - ...	Police Stations	12127082000	125 East Orange Avenue	29.210803	-81.013856	5
Daytona Beach Police Department - Sub...	Police Stations	12127081202	510 Harvey Avenue	29.223916	-81.00984	5
Daytona Beach Police Department - Hea...	Police Stations	12127082100	990 Orange Avenue	29.200853	-81.037924	5

The Chiles Academy	Schools	12127081900	868 George W Engram Blvd	29.213284	-81.039736	
Volusia Regional Juvenile Detention C...	Schools	12127083206	3840 Old Deland Rd	29.136766	-81.142734	
Richard Milburn Academy	Schools	12127081800	1031 Mason Ave	29.217315	-81.049547	
Palm Terrace Elementary School	Schools	12127082302	1825 Dunn Ave	29.198401	-81.074249	
Riverview Learning Center	Schools	12127081201	801 N Wild Olive Ave	29.238417	-81.016584	
David C. Hinson Sr. Middle School	Schools	12127080808	1860 N Clyde Morris Blvd	29.239699	-81.094684	
Mainland High School	Schools	12127092500	1255 W International Speedway Blvd	29.197773	-81.050885	
Amikids Volusia	Schools	12127081702	1420 Mason Ave Ste A	29.213356	-81.063596	
Daytona Juvenile Residential Facility	Schools	12127083206	1386 Indian Lake Rd	29.136718	-81.142758	
Seabreeze High School	Schools	12127081101	2700 N Oleander Ave	29.266532	-81.02991	
Turie T. Small Elementary School	Schools	12127082100	800 South St	29.195917	-81.027159	
Campbell Middle School	Schools	12127082100	625 S Keech St	29.195004	-81.030466	
Ortona Elementary School	Schools	12127081102	1265 N Grandview Ave	29.24729	-81.02356	
Stewart Treatment Center	Schools	12127083206	3875 Tiger Bay Rd	29.144914	-81.152038	
Halifax Behavioral Services	Schools	12127081702	841 Jimmy Ann Dr	29.214037	-81.06858	
Dept. Of Corrections Educational Program	Schools	12127083206	1300 Red John Dr	29.140435	-81.149447	
Westside Elementary School	Schools	12127082302	1700 5th St	29.224138	-81.071315	
Easter Seals Child Development Center...	Schools	12127081800	1219 Dunn Ave	29.206916	-81.054454	
R. J. Longstreet	Schools	12127082605	2745 S Peninsula Dr	29.176687	-80.986041	

Elementary School						
Champion Elementary School	Schools	12127083205	921 Tournament Dr	29.207816	-81.137	
Basilica School Of St Paul	Schools	12127081500	317 Mullally St	29.216946	-81.027161	
Halifax Academy	Schools	12127082302	275 N Williamson Blvd	29.189019	-81.081327	
Daytona Beach Christian Academy	Schools	12127082415	1850 S Clyde Morris Blvd	29.170829	-81.038026	
Lourdes Academy	Schools	12127081102	1014 N.Halifax Ave	29.2418	-81.02111	
Father Lopez Catholic High School	Schools	12127081600	3918 Lpga Blvd	29.218548	-81.045937	
Mount Calvary Academy	Schools	12127082100	700 Bellevue Ave	29.194227	-81.024035	
Living Faith Academy	Schools	12127081701	950 Derbyshire Rd	29.229362	-81.064155	
Imagination Station Too Montessori	Schools	12127081201	528 N Peninsula Dr	29.233445	-81.016323	
Pure In Heart Christian Acad& Perform...	Schools	12127082000	121 S Palmetto Ave	29.210732	-81.020541	
Daytona State College - Advanced Tech...	Schools	12127080808	1770 Technology Blvd	29.232026	-81.098931	
Daytona State College - News-Journal ...	Schools	12127082000	221 North Beach St	29.21517	-81.019609	
University Of Central Florida - Dayto...	Schools	12127081800	1200 W. International Speedway Blvd.	29.201995	-81.048576	
Daytona State College	Schools	12127081800	1200 W. International Speedway Blvd.	29.202259	-81.051285	
Embry-Riddle Aeronautical University-...	Schools	12127092500	1 Aerospace Blvd.	29.189219	-81.049481	
Bethune-Cookman University	Schools	12127082000	640 Dr Mary Mcleod Bethune Blvd	29.210556	-81.031595	
Embry-Riddle Aeronautical University-...	Schools	12127092500	1 Aerospace Blvd.	29.189241	-81.04955	

Wesh Ch 2	Communication Facilities	12127090804		28.93832	-81.3159	
Wven-Tv Ch 26	Communication Facilities	12127090102		29.28637	-81.4934	
Wndb 1150	Communication Facilities	12127080805		29.23526	-81.07172	
Wrod 1340	Communication Facilities	12127082201		29.18887	-81.00756	
Wdyb-Lp Ch 53	Communication Facilities	12127080902		29.23165	-81.04172	
Wmfj 1450	Communication Facilities	12127081500		29.22526	-81.02478	
Wjhm Ch 270	Communication Facilities	12127090804		28.92138	-81.31895	
Vehicle Maintenance Facility	Waste Water Facilities	12127081500	412 North Seagrave Avenue	29.217501	-81.0289	
Daytona Beach/Bethune Point (D	Waste Water Facilities	12127082201	1 Shady Place	29.196199	-81.008301	
Dots Terminal	Bus Facilities	1034 N Nova Rd	12127081702	29.226	-81.0511	
Greyhound Bus Station	Bus Facilities	138 S Ridgewood Ave	12127082000	29.2101	-81.023	
Daytona Bch Mun Yacht Basin	Port Facilities	12127081300	Intracoastal Waterway, Jacksonville T...	29.21716	-81.01551	
Total Asset Count:	**74**					

JURISDICTION APPENDIX: DAYTONA BEACH SHORES

Table 2:Asset Location and Surge Vulnerability - Daytona Beach Shores

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
Daytona Beach Shores Department Of Pu...	Fire Stations	12127082605	3050 South Atlantic Avenue	29.16644	-80.9778	5
Daytona Beach Shores Department Of Pu...	Police Stations	12127082605	3050 South Atlantic Avenue	29.16579	-80.9775	5
Total Asset Count:	**2**					

JURISDICTION APPENDIX: DEBARY

Table 3:Asset Location and Surge Vulnerability - DeBary

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
Volusia County Fire Station 33 Debary	Fire Stations	12127090905	93 South Charles Richard Beall Boulevard	28.88302	-81.3082	5
Volusia County Sheriffs Department - ...	Police Stations	12127090905	94 South United States Highway 17-92	28.88407	-81.308	5
The Reading Edge Academy	Schools	12127090905	2975 Enterprise Rd	28.89505	-81.2827	
Highbanks Learning Center	Schools	12127090905	336 E Highbanks Rd	28.89078	-81.2851	
Debary Elementary School	Schools	12127090903	88 W Highbanks Rd	28.89119	-81.3207	
Florida Power & Light Co	Electric Power Facilities	12127090904	950 S Hwy 17-92	28.84316	-81.3255	
Duke Energy Florida, Llc	Electric Power Facilities	12127090803	176 West Highbanks Rd.	28.90386	-81.3323	
Total Asset Count:	**7**					

JURISDICTION APPENDIX: DELAND

Table 4: Asset Location and Surge Vulnerability - Deland

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
Adventhealth Deland	Medical Care Facilities	12127090202	701 W Plymouth Ave	29.04365	-81.3173	5
Volusia County Emergency Operations C...	Emergency Operation Centers	12127090500	123 West Indiana Avenue	29.02947	-81.3049	5
Deland Fire Department Station 81	Fire Stations	12127090500	201 West Howry Avenue	29.02666	-81.3057	5
Deland Fire Department Station 83	Fire Stations	12127090306	1655 East Taylor Road	29.00055	-81.2631	5
Volusia County Fire Services Kepler R...	Fire Stations	12127090305	1885 Kepler Road	29.06132	-81.2625	5
Deland Fire Department Station 82	Fire Stations	12127090202	257 West International Speedway Boule...	29.05504	-81.3077	5
Volusia County Fire Rescue Spring Lak...	Fire Stations	12127090803	2850 Firehouse Road	28.97744	-81.3011	5
Volusia County Fire Services Glenwood...	Fire Stations	12127090204	920 Glenwood Road	29.07223	-81.328	5
Volusia County Fire Rescue Saint John...	Fire Stations	12127090701	2580 West State Highway 44	29.02288	-81.359	5
Volusia County Sheriffs Department - ...	Police Stations	12127090303	951 Singleton Drive	29.0602	-81.2862	5
De Land Police Department	Police Stations	12127090500	219 West Howry Avenue	29.02671	-81.307	5
Volusia County Sheriffs Department La...	Police Stations	12127090702	1706 South Woodland Boulevard	28.99841	-81.3047	5
Volusia County Sheriffs Department - ...	Police Stations	12127090500	101 North Alabama Avenue	29.02925	-81.2998	5

Volusia County Sheriff's Office	Police Stations	12127090500	123 West Indiana Avenue	29.02952	-81.305	
Florida Highway Patrol Troop D - Deland	Police Stations	12127090303	1551 East International Speedway Boul...	29.05884	-81.2744	
Deland Middle School	Schools	12127090307	1400 Aquarius Ave	29.00428	-81.2975	
Citrus Grove Elementary School	Schools	12127090204	729 Hazen Rd	29.03934	-81.3358	
George W. Marks Elementary School	Schools	12127090304	1000 N Garfield Ave	29.04608	-81.297	
Edith I. Starke Elementary School	Schools	12127090600	730 S Parsons Ave	29.01502	-81.309	
Deland High School	Schools	12127090402	800 N Hill Ave	29.04167	-81.284	
Freedom Elementary School	Schools	12127090306	1395 S Blue Lake Ave	28.99411	-81.2714	
Florida Technical College - Deland Ca...	Schools	12127090307	1199 South Woodland Blvd	29.00912	-81.3006	
Lighthouse Christian Preparatory Academy	Schools	12127090701	126 S Ridgewood Ave	29.02371	-81.341	
T.O.P Academy	Schools	12127090600	330 S Thompson Ave	29.02343	-81.3107	
Daytona State College - Deland	Schools	12127090306	1155 County Road 4139	29.01203	-81.2431	
Casa Montessori	Schools	12127090401	217 N Stone St Ste B	29.03042	-81.3157	
St Barnabas Episcopal School	Schools	12127090401	322 W Michigan Ave	29.03307	-81.3084	
Children's House Montessori School	Schools	12127090402	509 E Pennsylvania Ave	29.03961	-81.2942	
St Peter Catholic School	Schools	12127090500	421 W New York Ave	29.02868	-81.3099	
Stetson Baptist Christian School	Schools	12127090202	1025 W Minnesota Ave	29.0358	-81.3239	
Pk Child Care Program	Schools	12127090401	200 N Clara Ave	29.03016	-81.3085	

Southwestern Middle School	Schools	12127090702	605 W New Hampshire Ave	29.00753	-81.3143	
Blue Lake Elementary School	Schools	12127090304	282 N Blue Lake Ave	29.03089	-81.2763	
Ese Related Services	Schools	12127090401	200 N Clara Ave	29.03019	-81.3086	
Woodward Avenue Elementary School	Schools	12127090701	1201 S Woodward Ave	29.01077	-81.3309	
Stetson University	Schools	12127090402	421 N Woodland Blvd	29.03532	-81.3006	
Wynd 1310	Communication Facilities	12127090307		28.99943	-81.2981	
Wocl Ch 290	Communication Facilities	12127090804		28.92138	-81.319	
Wnda 1490	Communication Facilities	12127090600		29.01637	-81.2859	
Wnda 1490	Communication Facilities	12127090600		29.01832	-81.2995	
Deland, City Of - Wiley M Nash Wrf	Waste Water Facilities	12127090307	1032 S Amelia Ave	29.009	-81.2981	
Daytona Beach Intl	Airport Facilities	12127092500	123 W Indiana Ave	29.17992	-81.0581	
Deland Muni-Sidney H Taylor Field	Airport Facilities	12127090303	120 S. Florida Ave.	29.06703	-81.2838	
Advent Health Deland	Airport Facilities	12127090202	701 W Plymouth Ave	29.04463	-81.3178	
Highbride Park	Potable Water Facilities	12127080201	300 E. New Hampshire	29.40856	-81.0995	
Fla Power & Light Lake Monroe	Port Facilities	12127090904	St. Johns River, Fl Jacksonville To L...	28.83962	-81.3261	
Enterprise Fla	Port Facilities	12127091018	St. Johns River, Fl Jacksonville To L...	28.86845	-81.2721	
Total Asset Count:	**47**					

JURISDICTION APPENDIX: DELTONA

Table 5:Asset Location and Surge Vulnerability - Deltona

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
Halifax Health UF Health Medical Cent...	Medical Care Facilities	12127091001		28.957659	-81.2557	5
Deltona Fire Rescue Department Statio...	Fire Stations	12127091030	1685 Providence Boulevard	28.906279	-81.2259	5
Deltona Fire Rescue Department Statio...	Fire Stations	12127091018	320 Diamond Street	28.900116	-81.2715	5
Deltona Fire Rescue Department Statio...	Fire Stations	12127091025	236 Fort Smith Boulevard	28.879847	-81.1748	5
Deltona Fire Rescue Department Statio...	Fire Stations	12127091036	2146 Howland Boulevard	28.923847	-81.1894	5
Deltona City Fire Station 65	Fire Stations	12127091032	2983 Howland Boulevard	28.947231	-81.2326	5
Volusia County Sheriffs Department - ...	Police Stations	12127091030	16941 Providence Blvd	28.906735	-81.2253	
Deltona Middle School	Schools	12127091018	250 Enterprise Rd	28.877966	-81.2724	
Sunrise Elementary School	Schools	12127091025	3155 Phonetia Dr	28.881496	-81.1755	
Deltona Christian School	Schools	12127091017	1200 Providence Blvd	28.881367	-81.2428	
Trinity Christian Academy	Schools	12127091033	875 Elkcam Blvd	28.924473	-81.2543	
Gateway Christian Academy	Schools	12127091028	950 Doyle Rd	28.870378	-81.2504	
Academy Of Career Training - Deltona ...	Schools	12127091018	1260 Deltona Boulevard	28.897291	-81.2674	
Daytona State College - Deltona Campus	Schools	12127091019	2351 Providence Blvd	28.929134	-81.2216	

Good Shepherd Academy	Schools	12127091025	750 Howland Blvd	28.883624	-81.1668	
Aldersgate Academy	Schools	12127091018	51 Childrens Way	28.868036	-81.2666	
Pine Ridge High School	Schools	12127091035	926 Howland Blvd	28.886829	-81.162	
Spirit Elementary School	Schools	12127091015	1500 Meadowlark Dr	28.90587	-81.2423	
Friendship Elementary School	Schools	12127091019	2746 Fulford St	28.93433	-81.1885	
Heritage Middle School	Schools	12127091025	1001 Parnell Ct	28.891873	-81.1721	
Galaxy Middle School	Schools	12127091032	2400 Eustace Ave	28.929963	-81.2301	
Forest Lake Elementary School	Schools	12127091028	1600 Doyle Rd	28.873479	-81.2286	
Timbercrest Elementary School	Schools	12127091032	2401 Eustace Ave	28.932539	-81.231	
Pride Elementary School	Schools	12127091035	1100 Learning Ln	28.89545	-81.1621	
Discovery Elementary School	Schools	12127091017	975 Abagail Dr	28.89193	-81.2503	
Deltona Lakes Elementary School	Schools	12127091019	2022 Adelia Blvd	28.921411	-81.2174	
Deltona High School	Schools	12127091032	100 Wolf Pack Run	28.946599	-81.2464	
Total Asset Count:	**27**					

JURISDICTION APPENDIX: EDGEWATER

Table 6: Asset Location and Surge Vulnerability - Edgewater

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
Edgewater Department Of Fire Rescue S...	Fire Station	12127083008	1605 South Ridgewood Avenue	28.97596	-80.8973	5
Edgewater Department Of Fire Rescue S...	Fire Station	12127083006	2628 Hibiscus Drive	28.95396	-80.8958	5
Edgewater Police Department	Police Stations	12127083008	135 East Park Avenue	28.9929	-80.9053	5
Indian River Elementary School	Schools	12127083005	650 Roberts Rd	28.94558	-80.8912	
Edgewater Public School	Schools	12127083008	801 S Old County Rd	28.9842	-80.9071	
Little Explorers Montessori	Schools	12127083008	408 N Ridgewood Ave	29.0004	-80.9125	
Edgehop Christian Academy	Schools	12127083005	3042 S Ridgewood Ave Ste A	28.94675	-80.8845	
Discovery Days Institute Of Learning	Schools	12127083008	227 N Ridgewood Ave	28.99451	-80.9088	
Wkro-Fm Ch 226	Communicatio n Facilities	12127083003	Unknown	28.89471	-80.8853	
Wkto Ch 204	Communicatio n Facilities	12127083209	Unknown	29.04165	-81.0562	
Kennedy Space Cntr Federal Cre	Waste Water Facilities	12127083005	Unknown	28.9505	-80.8856	
Kennedy Park Improvements	Waste Water Facilities	12127083008	103 S Riverside Dr	28.9933	-80.9047	
Edgewater, City Of	Waste Water Facilities	12127082704	500 W Ocean Ave	28.9898	-80.8999	
Edgewater Fla	Port Facilities	12127083008	Intracoastal Waterway, Jacksonville T...	29.0016	-80.9065	
Total Asset Count:	**14**					

JURISDICTION APPENDIX: HOLLY HILL

Table 7: Asset Location and Surge Vulnerability - Holly Hill

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
Volusia County Fire Services Station ...	Fire Station	12127080805	1580 Derbyshire Road	29.24434	-81.0714	5
Holly Hill Fire Rescue Station 96	Fire Station	12127081002	1030 Daytona Avenue	29.2062	-81.0362	5
Volusia County Sheriffs Department - ...	Police Stations	12127080102	1435 Us Hwy 1, Suite D-3	29.33017	-81.1217	5
Holly Hill Police Department	Police Stations	12127081002	1065 Ridgewood Avenue	29.24512	-81.04	5
Holly Hill School	Schools	12127080901	1500 Center Ave	29.24934	-81.0554	
Ubic Academy	Schools	12127080901	560 Flomich St	29.25283	-81.0554	
Installer Institute	Schools	12127081001	1524 Ridgewood Avenue	29.2546	-81.0468	
Wvyb Ch 277	Communication Facilities	12127080805	Unknown	29.23637	-81.0728	
Wapn Ch 218	Communication Facilities	12127081001	Unknown	29.25192	-81.0478	
Holly Hill, City Of (Dw)	Waste Water Facilities	12127081002	453 Lpga Boulevard	29.2447	-81.0341	
Total Asset Count:	**10**					

JURISDICTION APPENDIX: LAKE HELEN

Table 8: Asset Location and Surge Vulnerability - Lake Helen

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
Volusia County Fire Services Station ...	Fire Station	12127091001	630 West Main Street	28.98503	-81.2429	5
Lake Helen Police Department	Police Stations	12127091001	493 South Lakeview Drive	28.97773	-81.2315	5
Blake Memorial Day School	Schools	12127091001	134 N Euclid Ave	28.98545	-81.2344	
Volusia Pines Elementary School	Schools	12127091001	500 E Kicklighter Rd	28.97211	-81.2261	
Central Fellowship Christian Academy	Schools	12127091021	626 E Kicklighter Rd	28.97038	-81.2147	
Ivy Hawn Charter School Of The Arts	Schools	12127091001	565 S Lakeview Dr Unit 110	28.97798	-81.2308	
Total Asset Count:	**6**					

JURISDICTION APPENDIX: NEW SMYRNA BEACH

Table 9: Asset Location and Surge Vulnerability - New Smyrna Beach

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
Adventhealth New Smyrna Beach	Medical Care Facilities	12127082802	401 Palmetto St	29.02029	-80.9219	5
New Smyrna Beach Fire Department	Fire Stations	12127082802	103 Faulkner Street	29.02555	-80.9229	5
Volusia County Fire Services Station ...	Fire Stations	12127082903	1850 Pioneer Trail	29.01858	-80.9458	5
Volusia County Fire Services Station ...	Fire Stations	12127082704	4840 South Atlantic Avenue	28.97951	-80.8609	5
New Smyrna Beach Fire And Rescue Stat...	Fire Stations	12127083209	151 Williamson Boulevard Extension	29.01575	-80.9951	5
New Smyrna Beach Fire And Rescue Fire...	Fire Stations	12127082703	500 East 3rd Avenue	29.02914	-80.8998	5
New Smyrna Beach Fire And Rescue Fire...	Fire Stations	12127082802	1400 North Dixie Freeway	29.04902	-80.9371	5
Volusia County Sheriff - Civil Division	Police Stations	12127082802	101 Canal Street	29.02576	-80.9213	5
New Smyrna Beach Police Department	Police Stations	12127082802	1400 North Dixie Freeway	29.04753	-80.9407	5
Read-Pattillo Elementary School	Schools	12127082802	400 6th St	29.0109	-80.9198	
Chisholm Elementary School	Schools	12127082903	557 Ronnoc Ln	29.03004	-80.9327	
Samsula Academy	Schools	12127083209	248 N Samsula Dr	29.02228	-81.0509	
New Smyrna Beach Middle School	Schools	12127082902	1200 S Myrtle Ave	29.00452	-80.9236	
New Smyrna Beach High School	Schools	12127082902	1015 10th St	29.00317	-80.9304	
Coronado Beach	Schools	12127082705	3550 Michigan Ave	29.00276	-80.8787	

Elementary School						
Sacred Heart Catholic School	Schools	12127082802	1003 Turnbull St	29.03898	-80.9346	
Bethel Christian Academy	Schools	12127082903	312 N Duss St	29.02431	-80.9331	
Space Coast Christian Academy	Schools	12127083209	223 N Samsula Dr	29.02075	-81.0508	
Knight's Christian Academy	Schools	12127082802	310 Douglas St	29.02296	-80.9232	
Daytona State College - New Smyrna Be...	Schools	12127083009	940 10th St	28.99996	-80.927	
WJLU Ch 209	Communication Facilities	12127082902		29.00915	-80.9739	
WCEU Ch 15	Communication Facilities	12127083206		29.17359	-81.1565	
WSBB 1230	Communication Facilities	12127082802		29.03276	-80.9173	
New Smyrna Beach Utili...	Electric Power Facilities	12127082902	1000 Field Street	29.01732	-80.9329	
New Smyrna Beach Muni	Airport Facilities	12127082802	210 Sams Ave	29.05569	-80.9489	
New Smyrna Bch Municipal Whfs	Port Facilities	12127082701	Intracoastal Waterway, Jacksonville T...	29.03892	-80.9064	
Shrimp Docks New Smyrna Bch	Port Facilities	12127082701	Intracoastal Waterway, Jacksonville T...	29.03919	-80.9061	
Uscg Station, Ponce De Leon Inlet, Fl	Port Facilities	12127082701	Intracoastal Waterway, Jacksonville T...	29.06346	-80.9146	
Total Asset Count:	**28**					

JURISDICTION APPENDIX: OAK HILL

Table 10: Asset Location and Surge Vulnerability - Oak Hill

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (ft)
Volusia County Fire Services Station ...	Fire Stations	12127083003	213 North US Highway 1	28.8703	-80.8509	5
OAK HILL POLICE DEPARTMENT	Police Stations	12127083003	234 SOUTH UNITED STATES HIGHWAY 1	28.85887	-80.8512	5
BURNS SCIENCE AND TECHNOLOGY CHARTER ...	Schools	12127083003	160 RIDGE RD	28.86216	-80.849	
OAKHILL FISH DOCK	Port Facilities	12127083003	Intracoastal Waterway, Jacksonville t...	28.88228	-80.8425	
TOTAL ASSET COUNT:	**4**					

JURISDICTION APPENDIX: ORANGE CITY

Table 11: Asset Location and Surge Vulnerability - Orange City

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
Adventhealth Fish Memorial	Medical Care Facilities	12127090806	1055 Saxon Blvd	28.91437	-81.2852	5
Orange City Fire Department	Fire Stations	12127090808	215 North Holly Avenue	28.95008	-81.2981	5
Orange City Fire Department Station 68	Fire Stations	12127090806	743 Harley Strickland Boulevard	28.91869	-81.2924	5
Orange City Police Department	Police Stations	12127090808	207 North Holly Avenue	28.94959	-81.2981	5
River Springs Middle School	Schools	12127090804	900 W Ohio Ave	28.93878	-81.3092	
Orange City Elementary School	Schools	12127090808	555 E University Ave	28.95138	-81.2916	
University High School	Schools	12127090804	1000 W Rhode Island Ave	28.93184	-81.313	
Sunrise Academy	Schools	12127090905	2700 Enterprise Rd Ste A	28.90869	-81.291	
Manatee Cove Elementary School	Schools	12127090804	734 W Ohio Ave	28.93914	-81.3001	
Total Asset Count:	**9**					

JURISDICTION APPENDIX: ORMOND BEACH

Table 12: Asset Location and Surge Vulnerability - Ormond Beach

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
Volusia County Fire Services Station …	Fire Stations	12127080102	3935 Old Dixie Highway	29.40434	-81.1448	5
Volusia County Fire Services Station …	Fire Stations	12127080101	15 Southland Road	29.3288	-81.1124	5
Volusia County Fire Services Station …	Fire Stations	12127080202	1716 Atlantic Avenue	29.33538	-81.0611	5
Ormond Beach Fire Department Station 92	Fire Stations	12127080803	189 South Nova Road	29.27547	-81.0824	5
Ormond Beach Fire Department Station 94	Fire Stations	12127083203	2300 Airport Road	29.27418	-81.1461	5
Ormond Beach Fire Department Station 93	Fire Stations	12127080600	300 Wilmette Avenue	29.29069	-81.0686	5
Ormond Beach Fire Department Station 91	Fire Stations	12127080500	364 South Atlantic Avenue	29.28255	-81.036	5
Ormond Beach Police Department	Police Stations	12127080600	170 West Granada Boulevard	29.28288	-81.0608	5
Ormond Beach Elementary School	Schools	12127080600	100 Corbin Ave	29.28376	-81.0577	
St Brendan Catholic School	Schools	12127080400	1000 Ocean Shore Blvd	29.31555	-81.0535	
Calvary Christian Academy	Schools	12127083203	1687 W Granada Blvd	29.25741	-81.1188	
Temple Beth-El School	Schools	12127080807	579 N Nova Rd	29.29289	-81.0864	
Riverbend Academy	Schools	12127083205	2080 W Granada Blvd	29.24984	-81.1349	
The Children's House	Schools	12127083205	55 N Washington St	29.25239	-81.13	
Chabad Esformes	Schools	12127080806	1079 W Granada Blvd	29.27351	-81.0955	

Hebrew Academy						
The Little Engine Academy	Schools	12127080803	499 S Nova Rd	29.2681	-81.0783	
Acs Educational Resources And Consult...	Schools	12127080807	53 N Old Kings Rd Ste D	29.27968	-81.0802	
Reign Homeschooling Academy	Schools	12127080808	1060 W Granada Blvd	29.2736	-81.0943	
Ormond Beach Middle School	Schools	12127080700	151 Domicilio Ave	29.3081	-81.0702	
Pace Center For Girls	Schools	12127080600	208 Central Ave	29.27934	-81.0592	
Pathways Elementary School	Schools	12127083203	2100 Airport Rd	29.27229	-81.1351	
Tomoka Elementary School	Schools	12127080808	999 Old Tomoka Rd	29.2748	-81.0908	
Osceola Elementary School	Schools	12127080400	100 Osceola Ave	29.28661	-81.0399	
Pine Trail Elementary School	Schools	12127080101	300 Airport Rd	29.27525	-81.1142	
Daytona College	Schools	12127080803	425 South Nova Road	29.27008	-81.0801	
Wele 1380	Communication Facilities	12127080805	<Null>	29.26942	-81.0815	
Whog-Fm Ch 239	Communication Facilities	12127080805	<Null>	29.23637	-81.0728	
Ormond Beach, City Of - Ormond Beach ...	Waste Water Facilities	12127080807	550 N Orchard St	29.2936	-81.0831	
Ormond Beach Muni	Airport Facilities	12127080101	Po Box 277	29.30114	-81.1138	
Ormond Beach Fla	Port Facilities	12127080400	Intracoastal Waterway, Jacksonville T...	29.30745	-81.0581	
Total Asset Count:	**30**					

JURISDICTION APPENDIX: PIERSON

Table 13: Asset Location and Surge Vulnerability - Pierson

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
Volusia County Fire Services Station ...	Fire Stations	12127090102	132 North Fountain Drive	29.24269	-81.4668	5
Pierson Elementary School	Schools	12127090102	1 W 1st Ave	29.24407	-81.4637	
T. Dewitt Taylor Middle-High School	Schools	12127090101	100 E Washington Ave	29.24629	-81.4579	
Pierson Muni	Airport Facilities	12127090101	106 North Center Street	29.25003	-81.4593	
Total Asset Count:	**4**					

JURISDICTION APPENDIX: PONCE INLET

Table 14: Asset Location and Surge Vulnerability - Ponce Inlet

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
Ponce Inlet Fire Rescue Department	Fire Stations	12127082606	4680 South Peninsula Drive	29.0987	-80.9413	5
Ponce Inlet Police Department	Police Stations	12127082606	4301 South Peninsula Drive	29.12053	-80.9534	5
Total Asset Count:	**2**					

JURISDICTION APPENDIX: PORT ORANGE

Table 15: Asset Location and Surge Vulnerability - Port Orange

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
Halifax Health Medical Center - Port Orange	Medical Care Facilities	12127082506	1041 Dunlawton Ave	29.12621	-81.0086	5
Port Orange Fire Rescue Department St...	Fire Stations	12127082506	1090 City Center Boulevard	29.12542	-81.0236	5
Port Orange Fire Rescue Department St...	Fire Stations	12127083207	1701 Town West Boulevard	29.11142	-81.0527	5
Port Orange Fire And Rescue Departmen...	Fire Stations	12127082511	4200 South Ridgewood Avenue	29.14069	-80.9864	5
Port Orange Fire Rescue Department St...	Fire Stations	12127082509	5839 Trailwood Drive	29.10407	-80.9878	5
Port Orange Fire Rescue Department St...	Fire Stations	12127083211	6701 Airport Road	29.06816	-81.0382	5
Port Orange Police Department	Police Stations	12127082506	1395 Dunlawton Avenue	29.12097	-81.0177	5
Spruce Creek High School	Schools	12127082512	801 Taylor Rd	29.10871	-81.016	
Sugar Mill Elementary School	Schools	12127082503	1101 Charles St	29.14733	-81.001	
Spruce Creek Elementary School	Schools	12127082508	642 Taylor Rd	29.10572	-81.0048	
Horizon Elementary School	Schools	12127082410	4751 Hidden Lake Dr	29.1194	-81.038	
Silver Sands Middle School	Schools	12127082506	1300 Herbert St	29.13142	-81.0172	
Creekside Middle School	Schools	12127083211	6801 Airport Rd	29.06639	-81.0417	
Hospital Homebound	Schools	12127082414	1250 Reed Canal Rd	29.14862	-81.0267	
Cypress Creek Elementary School	Schools	12127083210	6100 S Williamson Blvd	29.08312	-81.0272	

Port Orange Elementary School	Schools	12127082511	402 Dunlawton Ave	29.14225	-80.9914	
Sweetwater Elementary School	Schools	12127082512	5800 Victoria Gardens Blvd	29.11633	-81.0174	
Tlc Kids Care	Schools	12127083210	1835 Taylor Rd	29.08951	-81.0487	
Wise Independent Private School System	Schools	12127082510	250 Poinciana Ave	29.11069	-80.9779	
Rock Church Academy	Schools	12127083207	1818 Taylor Rd	29.09101	-81.0506	
Atlantic High School	Schools	12127082414	1250 Reed Canal Rd	29.14864	-81.0267	
Port Orange (Dw)	Waste Water Facilities	12127082503	817 Oak St	29.1361	-80.9947	
Total Asset Count:	**22**					

JURISDICTION APPENDIX: SOUTH DAYTONA

Table 16: Asset Location and Surge Vulnerability - South Daytona

Asset Name	Asset Type	Census Tract	Address	Latitude	Longitude	Cat 3 Water Depth (Ft)
South Daytona Elementary School	Schools	12127082405	600 Elizabeth Pl	29.16828	-81.0082	
Warner Christian Academy	Schools	12127082401	1730 S Ridgewood Ave	29.17948	-81.0073	
The Chase Academy, Inc.	Schools	12127082202	2400 S Ridgewood Ave Ste 17	29.17773	-81.0248	
Blue Jay Academy	Schools	12127082404	960 Rooster Rd	29.17319	-81.0252	
International Academy	Schools	12127082401	2550 S Ridgewood Ave	29.16218	-80.9978	
WPUL 1590	Communication Facilities	12127082414		29.1547	-81.022	
Total Asset Count:	**6**					

APPENDIX F: HAZARD IDENTIFICATION RISK ANALYSIS (HIRA) CAPABILITY TARGETS

This section of the report details the core capability targets and resource requirements for some natural, man-made, and technological hazards covered in the Local Mitigation Strategy. The tables provided for each hazard are based on the template created as part of the Threat and Hazard Identification and Risk Assessment Guide (Second Edition) created by the U.S. Department of Homeland Security.

The following hazards are covered within this portion of the THIRA analysis:

- Drought
- Extreme Temperatures
- Flood
- HazMat Incident
- Public Health Emergency
- Sea Level Rise
- Severe Weather
- Storm Surge
- Terrorism
- Tornado
- Tropical Cyclone
- Wildland Fire

Drought

Drought	
Context Description	It is the beginning of summer. East central Florida is in a severe drought, as it has not rained in two months in Volusia County. The drought has caused brushfires to start in the western portions of the County. Dehydration-related deaths in the County have reached 10 since January.
Core Capability	
Capability Target	Community Resilience; Prescribed Burns, Long Term Vulnerability Reduction, Mass Care Services, Mass Search/Rescue, Aerial Reconnaissance and GIS Mapping of Fire, Aerial Firefighting Services (Regional, State, Federal), Inter-County Cooperation and Resource Sharing, Operational Communication/ Coordination, Planning, Public/Private Services, Health/Medical Service, Public Info/Warning, Risk Resilience Management, Threat/Hazard Identification, Health/Medical Services, Rapid Medical Air Transport
Resource Requirement	
Resources	**Number Required**

Extreme Temperatures

Extreme Temperatures	
Context Description	It is mid-August and temperatures reach 110 degrees Fahrenheit for five straight days. Students returning to school are beginning to be hospitalized for heat stroke and other heat-related illnesses, and multiple elderly residents have passed away as a result of heat stroke.
Core Capability	
Capability Target	Health/Medical Services; Rapid Medical Air Transport; Mass Care Services; Public Info/Warning Systems; Social Media and Media Outreach; School District Coordination with Schools; Medical Training for School Staff Member(s); Intensive Care Unit; Response for Environmental/Health/Safety; Fatality Management; Coordination with the Federal/State Government; Coordination with the Red Cross
Resource Requirement	
Resources	**Number Required**

Flood

Flooding	
Context Description	A large tropical low has formed off of the coast of Florida and has been held stationary by the presence of a low pressure system moving southward from northern Florida for over three days. An estimated 50% of the parcels within Flood Zone 'A' are affected, 50% of the parcels within Flood Zones 'AH', 'AO' and 'AE' are affected, 75% of the parcels within Flood Zone 'VE' are affected, and 1% of the parcels within Flood Zone X (500-Year Floodplain) are affected. The storm affects the building and assessed values of the parcels hit by an estimated 10%.
Core Capability	
Capability Target	Community Resilience, Critical Transportation, Economic Recovery, Environmental Response, Health and Social Services, Housing, Infrastructure Systems, Long Term Vulnerability Reduction, Mass Care Services, Mass Search/Rescue, Natural and Cultural Resources, On-Scene Security/Protection, Operational Communication/Coordination, Planning, Public/Private Services, Health/Medical Service, Public Info/Warning, Risk Resilience Management, Risk Management Programs, Situational Assessment, Threat/Hazard Identification
Resource Requirement	
Resources	**Number Required**

HazMat Incident

HazMat Incident	
Context Description	A train traveling along the Florida East Coast Railway crashes into Dubious Chemz, a chemical facility located along the Florida East Coast Railway line in unincorporated Volusia County. The train is not carrying hazardous materials, but the impact with the chemical facility triggers a simultaneous release of 26,000 pounds of chlorine stored in the facility into the air. Wind is registered at 5 miles per hour from the east southeast, humidity is 50% and the air temperature is 85 degrees Fahrenheit. The constant chemical leak lasts for exactly one hour, at which point all 26,000 pounds of chlorine have been released.
Core Capability	
Capability Target	Community Resilience, Critical Transportation, Economic Recovery, Response for Environmental/Health/Safety, Fatality Management, Forensics/Attribution, Health/Social Services, Infrastructure Systems, Intelligence/Information Sharing, Interdiction/Disruption, Long Term Vulnerability Reduction, Mass Care Services, Mass Search/Rescue, Natural and Cultural Resources, On-Scene Security and Protection, Operational Communication, Operational Coordination, Planning, Public/Private Services and Response, Health/Medical Services, Public Info/ Warning, Risk Resilience Management, Risk Management Programs, Screen/ Search/ Detect, Situational Assessment, Threat/Hazard Identification
Resource Requirement	

Resources	Number Required

Public Health Emergency

Public Health Emergency	
Context Description	An airplane landing at Daytona Municipal Airport carrying 234 passengers becomes overwhelmed by a NLV-like pandemic that sickens 80% of the passenger. After the passengers de-board the plane without a health check, the virus is airborne, has a 20% spread rate (20% of people who come in contact with the infected become infected) and is caught when a person with the sickness comes within 1 foot of a person with the pandemic. Moreover, of the 234 passengers affected with the sickness, those 234 passengers come in contact (or spread the disease) with an average of 7.5 persons per hour. The disease does not inflict casualties until at least 12 to 18 hours after the initial infection period, adding to the number of individuals who can be exposed to the disease from those infected individuals that are still alive.
Core Capability	
Capability Target	Access Control/ID Verification, Community Resilience, Economic Recovery, Response for Environmental/Health/Safety, Fatality Management, Health/Social Services, Intelligence/Information Sharing, Interdiction/ Disruption, Long Term Vulnerability Reduction, Mass Care Services, Mass Search/ Rescue, On-Scene Security and Protection, Operational Communication, Operational Coordination, Physical Protective Measures, Planning, Public/ Private Services and Response, Health/Medical Services, Public Info/ Warning, Risk Resilience Management, Risk Management Programs, Screen/ Search/ Detect, Situational Assessment, Supply Chain Integrity, Threat/Hazard Identification
Resource Requirement	
Resources	**Number Required**

Sea Level Rise

Sea Level Rise	
Context Description	It is the year 2070. A neighborhood located on the barrier islands is beginning to flood frequently due to sea level rise, subsidence and other factors. Property owners are having a hard time selling their properties and the value of the properties is decreasing.
Core Capability	
Capability Target	Pre-Planning as part of the HMGP Program (Demolition, etc.); Sea Level Rise Vulnerability Assessments and Identified Countermeasures; Gray/Green Infrastructure (Sea Walls); Other Protective Measures; Community Resilience; Economic Recovery, Environmental Response, Health and Social Services, Housing, Infrastructure Systems, Long Term Vulnerability Reduction
Resource Requirement	
Resources	**Number Required**

Severe Weather

Severe Weather	
Context Description	A youth sports team is caught in a severe thunderstorm and multiple members of the team are struck by lightning. The sports complex is located in a rural area of west Volusia, not close to any hospital facilities. Some patients need immediate hospital care while others have very minor injuries.
Core Capability	
Capability Target	Health/Medical Services; Rapid Medical Air Transport; Mass Care Services; Mass Search/Rescue; Public Info/Warning Systems; Social Media; National Weather Service Coordination; Regional EMS Support; Inter-Local Agreements for Medical Response; Intensive Care Unit; Medical Specialists
Resource Requirement	

Resources	Number Required

Storm Surge

Storm Surge	
Context Description	A Category 3 Hurricane hits Volusia County, affecting a large portion of the county with storm surge damage. An estimated 60% of the parcels within the Category 1 Storm Surge zone are affected, 45% of the parcels within the Category 2 zone are affected, 30% of the parcels within the Category 3 zone are affected, 2% of the parcels within the Category 4 zone are affected and 1% of the parcels within the Category 5 zone are affected.
Core Capability	
Capability Target	Community Resilience, Critical Transportation, Economic Recovery, Environmental Response, Health and Social Services, Housing, Infrastructure Systems, Long Term Vulnerability Reduction, Mass Search/Rescue, Natural and Cultural Resources, On-Scene Security/Protection, Operational Communication/ Coordination, Planning, Public/Private Services, Health/Medical Service, Public Info/Warning, Risk Resilience Management, Risk Management Programs, Situational Assessment, Threat/Hazard Identification
Resource Requirement	
Resources	**Number Required**

Terrorism

Terrorism	
Context Description	A terrorist of unknown domestic or international origin detonates an explosive at the Daytona 500 car race while attendees are exiting the stadium. There are immediate casualties, both fatal and non-fatal, including fatal injuries to the perpetrator. It is unknown whether or not the perpetrator acted alone.
Core Capability	
Capability Target	Federal Coordination of Assets and Intelligence (FBI, CIA); State Coordination of Assets and Intelligence (FDLE); Regional Coordination of Assets and Equipment (CFIX); COOP Planning; Economic Recovery Planning; Mass Care Services; Mass Search/Rescue; On-Scene Law Enforcement Response; Health/Medical Services; Physical Protective Measures; Public Information; Coordination through the Media, Social Media and Law Enforcement; Operational Communication, Operational Coordination
Resource Requirement	
Resources	**Number Required**

Tornado

Tornado	
Context Description	A Category 3 Hurricane spawns several F1 tornadoes near the Ponce Inlet area. 100% of the parcels that are directly hit by the tornado are affected with 100% damage (as a percentage of building value), 50% of the parcels within 1/8 of a mile are affected with 75% damage, 20% of the parcels closer than 1/4 mile but farther than 1/8 mile away are affected with 20% damage, 5% of the parcels closer than 1/2 mile but farther than 1/4 mile away are affected with 2% in damage, and 1% of the parcels father than 1/2 mile away but less than one mile away are affected with minor, variable damage.
Core Capability	
Capability Target	Community Resilience, Economic Recovery, Environmental Response, Health and Social Services, Housing, Infrastructure Systems, Long Term Vulnerability Reduction, Mass Care Services, Mass Search/Rescue, Natural and Cultural Resources, On-Scene Security/Protection, Operational Communication/ Coordination, Planning, Public/Private Services, Health/Medical Service, Public Info/Warning, Risk Resilience Management, Risk Management Programs, Situational Assessment, Threat/Hazard Identification
Resource Requirement	
Resources	**Number Required**

Tropical Cyclone

Tropical Cyclone	
Context Description	A Category 3 Hurricane hits Volusia County from the Atlantic Ocean, affecting a large portion of the county with wind damage. An estimated 60% of the parcels within the 111-115 Wind Zone are affected, while 25% of the parcels within the 106-110 Wind Zone and 10% of the parcels within the 105-110 Wind Zone are affected.
Core Capability	
Capability Target	Community Resilience, Economic Recovery, Environmental Response, Health and Social Services, Housing, Infrastructure Systems, Long Term Vulnerability Reduction, Mass Care Services, Mass Search/Rescue, Natural and Cultural Resources, On-Scene Security/Protection, Operational Communication/ Coordination, Planning, Public/Private Services, Health/Medical Service, Public Info/Warning, Risk Resilience Management, Risk Management Programs, Situational Assessment, Threat/Hazard Identification
Resource Requirement	
Resources	**Number Required**

Wildland Fire

Wildland Fire	
Context Description	A wildfire spawns and spreads within a 'Very High Risk' area within Volusia County. The fire spreads, and as a result, 1% of the parcels within the 'Very High Risk' zone are affected, 0.5% of the parcels within the 'High Risk' zone are affected, 0.25% of the parcels within the 'Low Risk' zone are affected, and 0.1% of the parcels within the 'No Risk' or 'None' zone are affected. The fire affects parcels uniformly across hazard zones.
Core Capability	
Capability Target	Community Resilience, Economic Recovery, Environmental Response, Health and Social Services, Housing, Infrastructure Systems, Long Term Vulnerability Reduction, Mass Care Services, Mass Search/Rescue, Natural and Cultural Resources, On-Scene Security/ Protection, Operational Communication/ Coordination, Planning, Public/Private Services, Health/Medical Service, Public Info/Warning, Risk Resilience Management, Risk Management Programs, Situational Assessment, Threat/Hazard Identification; Prescribed Burns
Resource Requirement	
Resources	**Number Required**

Volusia County Integrated Floodplain Management Plan

I. ACKNOWLEDGEMENTS

The East Central Florida Regional Planning Council would like to thank the Volusia Prepares Working Group for their participation in the preparation of this plan. The following jurisdictions were instrumental in the completion of this plan: Volusia County, Daytona Beach, Daytona Beach Shores, Debary, DeLand, Deltona, Edgewater, Holly Hill, Lake Helen, New Smyrna Beach, Oak Hill, Orange City, Ormond Beach, Pierson, Ponce Inlet, Port Orange, and South Daytona. Thank you to the Volusia County Division of Emergency Management for assisting in the plan development and coordination necessary for its success.

II. INTRODUCTION

The National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains. The Community Rating System (CRS) grades the various Community Floodplain Management Programs and reduces flood insurance premiums in those communities that meet certain requirements. In order to reduce the potential for personal/property losses in flood prone areas and ensure the lowest possible flood insurance premiums for our residents, Volusia County and the jurisdictions of Daytona Beach, Daytona Beach Shores, Debary, Deland, Deltona, Edgewater, Holly Hill, New Smyrna Beach, Oak Hill, Orange City, Ormond Beach, Pierson, Ponce Inlet, Port Orange and South Daytona have developed this Floodplain Management Plan (FMP) which includes specific jurisdictional plans. The Plan was developed and is updated with input from the Volusia County Volusia Prepares Working Group. In 2013, the Volusia Prepares Steering Committee voted unanimously to incorporate the Plan into the Local Mitigation Strategy.

Activity section 510 of the CRS Coordinator's Manual requires an annual update of the Plan's implementation to be made available to the local governing body (distributed electronically), the community, and the media. Copies of this plan are available for review at the Volusia County Emergency Management Division, 386-258-4088 or downloading a copy from the County's website, https://www.volusia.org/services/emergency-services/emergency-management/.

III. BACKGROUND

This Floodplain Management Plan was developed by the East Central Florida Regional Planning Council for Volusia County and the jurisdictions within. The plan is designed to encompass a snapshot of floodplain hazards throughout the county and also provide separate jurisdictional plans developed as the appendices of the main plan. This design promotes a unified approach to mitigation and planning efforts and consistency across the county. As part of the planning process, this plan was integrated with the Volusia County Local Mitigation Strategy document (LMS). The LMS provides in-depth analysis of hazards and mitigation strategies. Various sections of the LMS have been identified throughout this Floodplain Management Plan in order to provide additional information for projects and analysis. The Volusia County Floodplain Management Plan follows the format and outline of the Community Rating System guidance.

IV. PLANNING PROCESS

A. Prepare the Plan

The 2025 Volusia County Floodplain Management Plan update was prepared by the East Central Florida Regional Planning Council (ECFRPC), a community planning office, in conjunction with the Volusia County Emergency Management Division, the Volusia County Growth and Resource Management Department and the jurisdictions within Volusia County. The planning team was staff from the ECFRPC and VCEM. The planning committee consisted of the Volusia Prepares LMS Working Group, Volusia County Growth and Resource Management, County CRS Coordinator, Floodplain Managers, and additional jurisdictional staff responsible for the implementation of floodplain management strategies, State Mitigation Officers and the Florida Division of Emergency Management. The planning process and committee were supported by the jurisdictional commissions, and the names of the planning team members (Volusia Prepares) are included below. These individuals acted as liaisons between the planning team (VCEM and ECFRPC) and city commissioners for support and adoption of the plan. Members were included in the beginning of the planning process via the Volusia Prepares meetings and were provided copies of the draft plan for comment before final plan adoption.

The following list are the members of the Volusia Prepares Working Group and supported the development of this plan.

- Justin Barton, Daytona Beach
- Angie Sehenuk, Daytona Beach
- Lori Irwin, Daytona Beach Shores
- Amy Long, DeBary
- David Hamstra, DeBary
- Mike Grebosz, DeLand
- Kieu Moses, DeLand
- Jonathan Jacob, DeLand
- Sue Houle, Deltona
- Bill Snyder, Deltona
- Tyna Lynn Hilton, Edgewater Sandy Camp, Edgewater
- Jeff Miller, Holly Hill
- Steve Juengst, Holly Hill
- Jim Gleason, Lake Helen
- David Hamstra, New Smyrna Beach
- Kyle Fegley, New Smyrna Beach
- Mark Bell, Oak Hill
- John Peters, Orange City
- Joseph Ruiz, Orange City
- Ronnie Long, Orange City
- Loretta Moisio, Ormond Beach
- Robin Gawel, Ormond Beach
- Yvonne Braddock, Pierson
- Hank Baker, Ponce Inlet
- Ami Pierce, Ponce Inlet
- Valerie Duhl, Port Orange
- Marget Tomlinson, Port Orange
- Becky Witte, South Daytona
- James Gillis Jr, South Daytona

- Josh McEnany, South Daytona
- Jessica Fentress, Volusia County Coastal Division
- Niles Cyzycki, Volusia County Coastal Division
- Corry Brown, Volusia County Community Assistance
- Aubrie Austin, Volusia County Emergency Management
- Yolanda Buckles, Volusia County Emergency Management
- Suzie Darby, Volusia County Emergency Services
- Samantha West, Volusia County Environmental Management
- Jeff Alberts, Volusia County Fire Services
- Nancy Church, Volusia County GIS
- Tim MacHardy, Volusia County Mosquito Control
- Jill Hemmerlein, Volusia County Planning & Development Services
- Arden Fontaine, Volusia County Public Works David Linkinhoker, Volusia County Recovery and Resiliency
- Chris William, Volusia County Recovery and Resiliency
- Ron Young, Volusia County School Board
- Michael Ulrich, Volusia County Water Resources and Utilities
- Michael Poinatowski, Advent Health
- Pat White, Aptim
- Karen Feaster, Daytona Beach International Airport
- McKenna Korzeniewski, East Central Florida Regional Planning Council
- Michelle Cechowski, East Central Florida Regional Planning Council
- Austin Beeghly, FDEM
- Elizabeth Caison, FDEM
- Stephen Civitelli, Florida Health Department – Volusia
- Cammie Dewey, St. Johns River WMD
- Jim Cannon, St. Johns River WMD
- Jim Peterson, St. Johns River WMD
- Mike McMunigle, St. Johns River WMD

Several planning committee meetings were held throughout the process. Due to the limited time frame to prepare the planning document, meetings focused on multiple steps of the process. The table below lists the planning team meeting dates, locations and focus areas of each meeting.

Meeting Name & Attendees	Date	Location	Focus Areas
Kick Off Meeting (ECFRPC, County Departments and Divisions)	March 2024	Volusia County EOC	Project Budget, Plan and Overview, Planning Process, Planning Team
Planning Meeting (ECFRPC, County Departments and Divisions)	June 2024	Volusia County EOC	Volusia Prepares Meeting, Data Collection, Hazard Analysis
Public Kickoff Engagement Meeting	September 2024	Volusia County EOC	Goals and Objectives, Project Priorities
Public Engagement	November 2024	Daytona and DeLand Public Libraries	Volusia Prepares Members, Action Plan, Draft Plan, Surveys, Public Meetings
Final Planning Meeting	December 2024	Volusia County EOC	Jurisdictional Profiles, Plan Adoption, Final Updates

Table 1: Planning meetings

B. Involve the Public

As part of the planning process, numerous efforts to engage the public were implemented. The ECFRPC developed a survey that was reviewed by the planning committee and allowed the committee to provide comments prior to public release. The public survey was created using Survey123 and a link and QR code were provided to all jurisdictions for release in newsletters, utility/water bills, and through websites, and social media. Additionally, the survey was made accessible at the public meetings. There were 136 responses in the floodplain management public survey for homeowners. Not all questions were mandatory in the survey; thus, not all percentages total to 100% as some participants skipped questions. This section lists the key findings. See Appendix B for full results.

Key findings from the public survey are as follows:

- 50.74% of respondents have lived in their current residence for over 10 years, 27.21% for 5 to 10 years, and 22.06% at less than 5 years.
- Approximately 25% of respondents indicated their home was built prior to 1987. 42.65% of respondents' homes were built between 1987 and 2001. 6,62% answered between 2002 and 2012, while 9.56% of participants home were built after 2012. 11.76% are unsure.
- 15.44% responded that they are not concerned about the possibility of their home flooding, 22.06% are somewhat concerned, and 61.03% are very concerned about the possibility of their home being flooded.
- 33.82% of respondents noted that their homes are located within a floodplain, 40.44% are located outside a floodplain, and 25% are unsure if their home is located within a designated floodplain.
- Of the 34% of respondents knowing within the floodplain, 20 are in Zone AE, 1 is in Zone A1-A30, 0 are in Zone AH. However, 61 respondents are unsure of their zone classification.
- Nearly 56.6% of respondents indicated that their home, to their knowledge, has never flooded due to natural causes.
- Of the of respondents indicating their home had flooded due to natural causes, 9.56% noted that the last flooding occurred between 2000 and 2009 (this would include the 2004

Hurricanes and TS Fay). 4.4% flooded in 2017. 38.97% flooded in 2022 (this would include Hurricanes Ian and Nicole). 25% flooded in 2024 (this would include Hurricanes Helene and Milton).

- 27.21% of those respondents who have experienced flooding in their homes noted that the flooding was less than 1 foot in depth, 9.56% experienced between 1 and 2 feet of water 3.68% experienced between 2 and 3 feet.
- The cost of structural damages associated with this flooding was varied; 5.88% noted less than $1,000; 18.38% noted between $1,000 and $50,000; 16.18% noted greater than $50,000; and 15.44% were unsure.
- The approximate dollar value of personal items lost was varied as well; 7.35% noted less than $1,000 in loss; 15.44% indicated between $1,000 and $9,999; 14.71% noted between $ 10,000 and $50,000. 5.88% noted greater than $50,000.
- 81.62% of total respondents have flood insurance; 7.35% do not.
- Of those without flood insurance, the majority (25 participants) stated that the main reason for not having flood insurance was that the property is outside the floodplain; 18 indicated that high cost is the main reason; 12 indicated that there was no perceived threat to their property; 8 indicated that they rent their home.
- Nearly 28.68% of respondents noted that flood mitigation efforts had been implemented on their property. 11% were unsure, while 55.88% did not have any mitigation efforts undertaken on their property.
- For those who have implemented mitigation efforts, the efforts included:
    - Built higher than 100-year floodplain (11 participants)
    - Elevated home/ first floor was parking or access only (5 participants)
    - Landscaping/drainage improvements (40 participants)
    - Installed flood barriers (13 participants)
    - Other effort not listed (24 participants)
- 31.62% of respondents indicated that they have not considered implementing flood management strategies on their property. The main reason for the lack of implementation was the financial setback (50.74%). Other reasons include multi-family dwellings, not feeling like it would make an impact, time, perceived difficulty, permitting, and HOA restrictions.
- 15.44% or 21 of respondents indicated that their property is currently classified as a repetitive flood loss property. 56.35% indicated no. 24.26% are unsure.
- 48.53% of respondents have visited the Volusia County Floodplain website.
- 2% of respondents are very satisfied with jurisdictional efforts of public involvement and outreach as it concerns flood hazards; 7.5% are somewhat satisfied; 8.82% are somewhat dissatisfied; 60% are very dissatisfied, and 21.32% are unaware of public

involvement/outreach efforts.

The business community was engaged in the process through a survey created specifically for business owners. The link to this survey was made available to jurisdictions to release to the various Chambers of Commerce and other business-oriented agencies and groups within their community. The link was distributed through various websites at the beginning of the planning process, and through a final press release near the end of the planning process. This survey was also made available at the public meetings for any business owners in attendance. This survey received 6 responses during its collection period.

Key findings from the business survey are as follows:

- 33.33% of respondents have been in business at their current locations for over 20 years.
- 33.33% of buildings were constructed before 1987; 50% were constructed between 2002-2012.
- 50% of the respondents are “not concerned” about their business flooding and 33.33% are “very concerned” about the flooding possibility of streets accessing their business.
- While 16.67% of respondents indicated they are located within a designated flood hazard zone, 33.33% are unsure.
- Being located in a flood zone was not a concern in business location for 83.33% of respondents.
- 33.33% of respondents indicated that their place of business has flooded due to natural/environmental causes, but 66.67% of respondents noted an increase in frequency and duration of local flood events.
- 50% of respondents have flood insurance for their property.
- Those who have flooded the indicated impacts are: loss of business days, employees unable to work, profit loss, and property damage.
- Flood mitigation efforts consist of flood insurance, improved landscaping/drainage, and flood proofing.
- 33.33% of business respondents are very satisfied with public involvement and outreach efforts by local jurisdictions as related to floodplain management, while 33.33% of respondents are very dissatisfied with how their jurisdiction handles outreach concerning flood in their area.

In Volusia County, several Homeowner Associations are associated with developments within the 100-year floodplain. Another specialized survey was conducted and distributed to local HOA’s via email and through public meetings. During this time, 4 surveys were completed.

Key findings from the HOA surveys are as follows:

- 75% agreed that property owners are very concerned about flooding in their communities.
- 2 neighborhoods are in the floodplain, while 2 communities have no portion located within a floodplain.
- All respondents noted flooding occurred between 2017-2024.
- 3 communities indicated they flood during extreme rainfall events, and all four respondents noticed an increase in frequency and duration of roadway flooding.

Due to the size of Volusia County, it was determined the best way to reach the residents was to hold one meeting on the east side of the county (Daytona Beach) and one on the west side (DeLand). Additionally, the meetings were held at different times of the day to accommodate working residents. The meetings were held on November 25th and 26th, 2024. The meetings consisted of a presentation on the plan background and purpose, question and answer session, and an open house session. Pamphlets and QR codes were provided at the meeting for attendees to access the public survey and to visit the Volusia County website to determine whether a specific property is located within the floodplain. Public comments were recorded and brought back to the planning team for discussion and review.

Attempts to encourage public input to the planner or Floodplain Management Plan Committee included information distributed through the County's website and informational notices posted on webpages. Local television channels, including Spectrum 13, were provided with press releases of the FMP Public Survey to televise. Local news outlets advertised the November 2024 public meetings. Additionally, Volusia County Emergency Management's website houses links that provide flood and other natural hazard related information.

C. Coordinate

Existing studies, reports, plans and other information were reviewed in the development of this plan. These documents include the Volusia County Local Mitigation Strategy, local Comprehensive Plans, Land Development Codes, Ordinances, and stormwater management plans. During the LMS update of 2024, individual plan updates were reviewed as well to ensure consistency and overlapping projects and priorities. **Table 2** illustrates the plans, reports, codes, and other documents within each jurisdiction. The results from Table 2 were collected through the jurisdictional representative that sits on the Volusia Prepares Working Group.

APPENDIX H: VOLUSIA COUNTY INTEGRATED FLOODPLAIN MANGEMENT PLAN

The Volusia County LMS provides more information concerning each plan and its role in emergency management and floodplain management. This information can be found in Section 7: Capability Assessment of the LMS.

Additionally, this plan coordinated with Volusia County and its jurisdictions within to coordinate the plan's assessment and goals. While members of the public were invited to engage, various departments participated in this plan through the representation of the Volusia Prepares Working Group. Input was provided through a variety of government agencies including:

- Planning & Development Services
- Environmental Management
- Public Works
- Community Assistance
- Emergency Management
- Recovery & Resiliency

VCEM engaged community leaders from low-income and underserved communities to request input on the risks and hazards over the 5-year planning period. The survey was distributed to these partners as an approach to report local experiences of hazard events.

Table 2: Relevant Plans, Ordinances, and Programs

Jurisdiction	Local Mitigation Strategy	Comprehensive Land Use Plan	Floodplain Management Plan*	Open Space Management Plan	Stormwater Management Plan	Natural Resource Protection Plan	Flood Response Plan	Emergency Operations Plan	Continuity of Operations Plan	Evacuation Plan	Disaster Recovery Plan	Economic Development Plan	Historic Preservation Plan	Flood Damage Prevention	Zoning Ordinance	Subdivision Ordinance	Unified Development Ordinance	Post-disaster Redevelopment /Reconstruction Ordinance	Building Code Effectiveness Grading Schedule (BCEGS)	Fire Code	National Flood Insurance Program	NFIP Community Rating System	Vulnerability Assessment
Daytona Beach	X	X	X		X		X	X		X	X	X	X	X	X	X	X	X		X	X	X	X
Daytona Beach Shores	X	X	X		X			X						X	X				X	X	X	X	X
DeBary	X	X	X	X	X	X	X	X	X		X	X		X	X	X				X	X		
Deland	X	X	X		X		X	X	X	X	X		X	X	X	X	X	X	X	X	X		
Deltona	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X			X	X		
Edgewater	X	X	X		X		X	X		X		X		X	X					X	X	X	
Holly Hill	X	X	X		X	X		X	X	X	X	X		X	X	X	X			X	X	X	X
Lake Helen	X	X	X		X	X		X		X				X	X	X	X			X	X		
New Smyrna Beach	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	
Oak Hill	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Orange City	X	X	X	X	X	X		X	X				X	X	X	X				X	X		X
Ormond Beach	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Pierson	X	X	X					X		X				X	X	X				X	X		
Ponce Inlet	X	X	X	X	X	X	X	X	X	X	X		X	X	X				X	X	X	X	X
Port Orange	X	X	X		X			X	X	X		X		X	X	X	X		X	X	X	X	

South Daytona	X	X	X	X	X	X	X	X	X	X	X			X	X	X			X	X	X	X	X
Volusia County	X	X	X			X	X	X	X	X	X	X	X	X	X	X				X	X	X	X

APPENDIX H: VOLUSIA COUNTY INTEGRATED FLOODPLAIN MANGEMENT PLAN

The Planning Team reviewed plans from the County and all jurisdictions for information geared to assist in the data collection, analysis and overall development of this plan. While the Local Mitigation Strategy provided a great deal of information, individual Comprehensive Plans gave the planning team good insight into the policy-driven needs of these jurisdiction from a community resiliency and land use perspective. The datasets compiled from the Future Land Use element of each Comprehensive Plan within the County (city and county) were utilized to create a land-use based GIS analysis in the risk assessment portion of this report. Volusia County Emergency Operations Plan and Continuity of Operations Plans (COOP) were also reviewed by the Planning team to ensure the initiative and analyses included in this plan reflect the actual response mechanisms already in place in Volusia County. Of the plans listed above, another crucial piece of information from the jurisdictional level came from building codes and standards located within Land Development Codes.

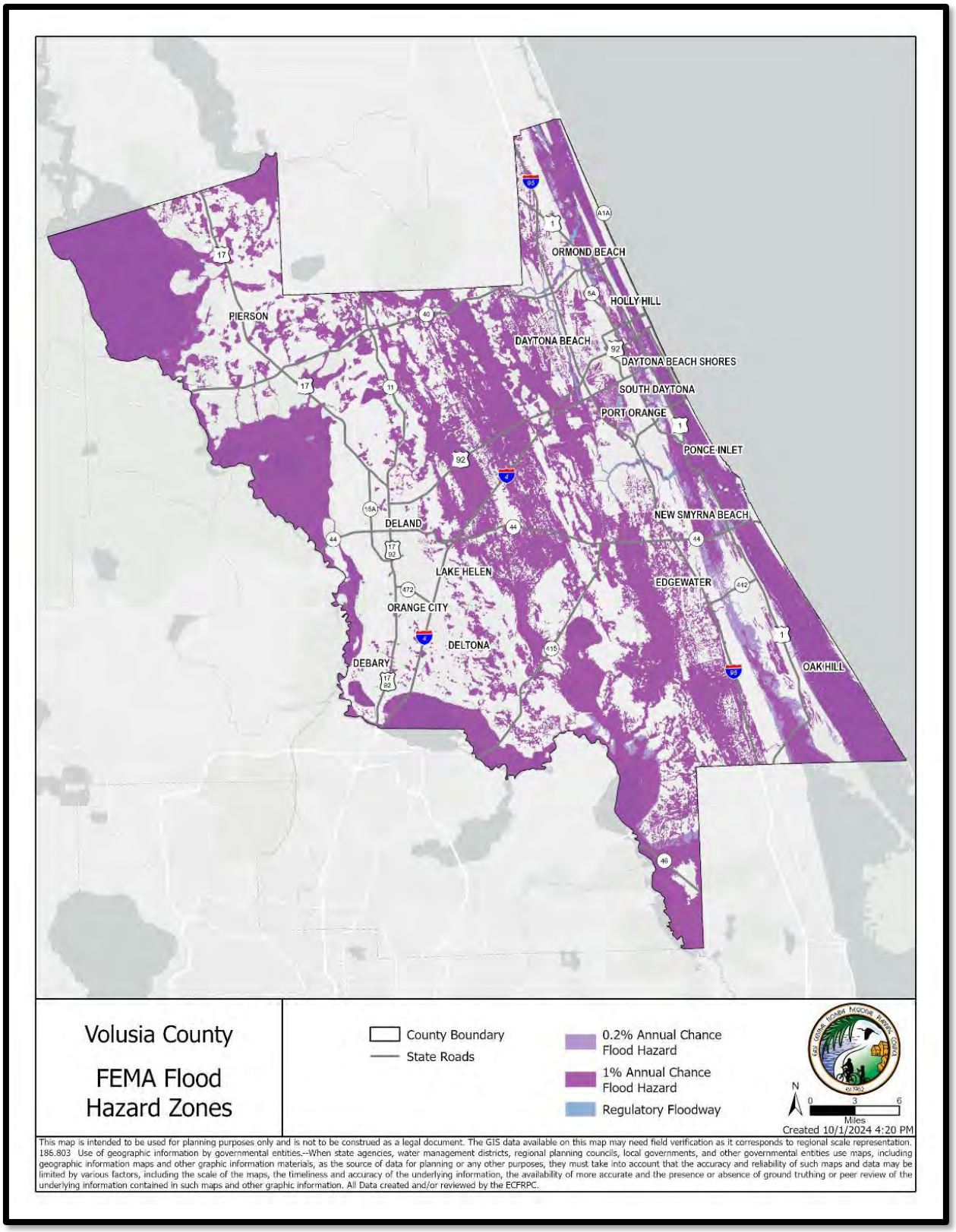
D. Methodology

To analyze the change in the 100-year FEMA flood zone since the previously accepted FMP, the ECFRPC compared the total acreage of the 2017 flood zone (used in the 2020 analysis) to the acreage of the current 2024 flood zone. To understand where and how the extent of the 100- year flood zone had changed, the ECFRPC analyzed where the floodplain increased and decreased for each jurisdiction. Generalized repetitive loss areas were provided by Volusia County GIS and Emergency Management. Exposure of parcels and critical assets to the 100-year flood zone was assessed through an overlay analysis to identify locations in which the parcels and assets intersect with the floodplain. The acreage of overlapping areas was then calculated.

The principal tool utilized in assessing the hazard of storm surge is the Sea, Lake and Overland Surges from Hurricane (SLOSH) model. The computerized SLOSH model predicts the tidal surge heights that result from hypothetical hurricanes with selected various combinations of pressure, size, forward speed, track and winds. The SLOSH model, which is utilized locally for hazard and vulnerability analysis, has been digitized into the County's Geographical Information System (GIS) mapping system. For this analysis, the Maximum of the Maximum Envelope of Water (MOM) was utilized from the SLOSH Model provided from the National Hurricane Center.

The MOM provides a worst-case snapshot for a particular storm category under "perfect" storm conditions. Each MOM considers combinations of forward speed, trajectory, and initial tide level. These products are compiled when a SLOSH basin is developed or updated. No single hurricane will produce the regional flooding depicted in the MOMs. Instead, the product is intended to capture the worst-case high-water value at a particular location for hurricane evacuation planning. The MOMs are also used to develop the nation's evacuation zones.

Figure 1: FEMA Flood Zones



V. RISK ASSESSMENT

A. Assessing the Hazards

FLOODING

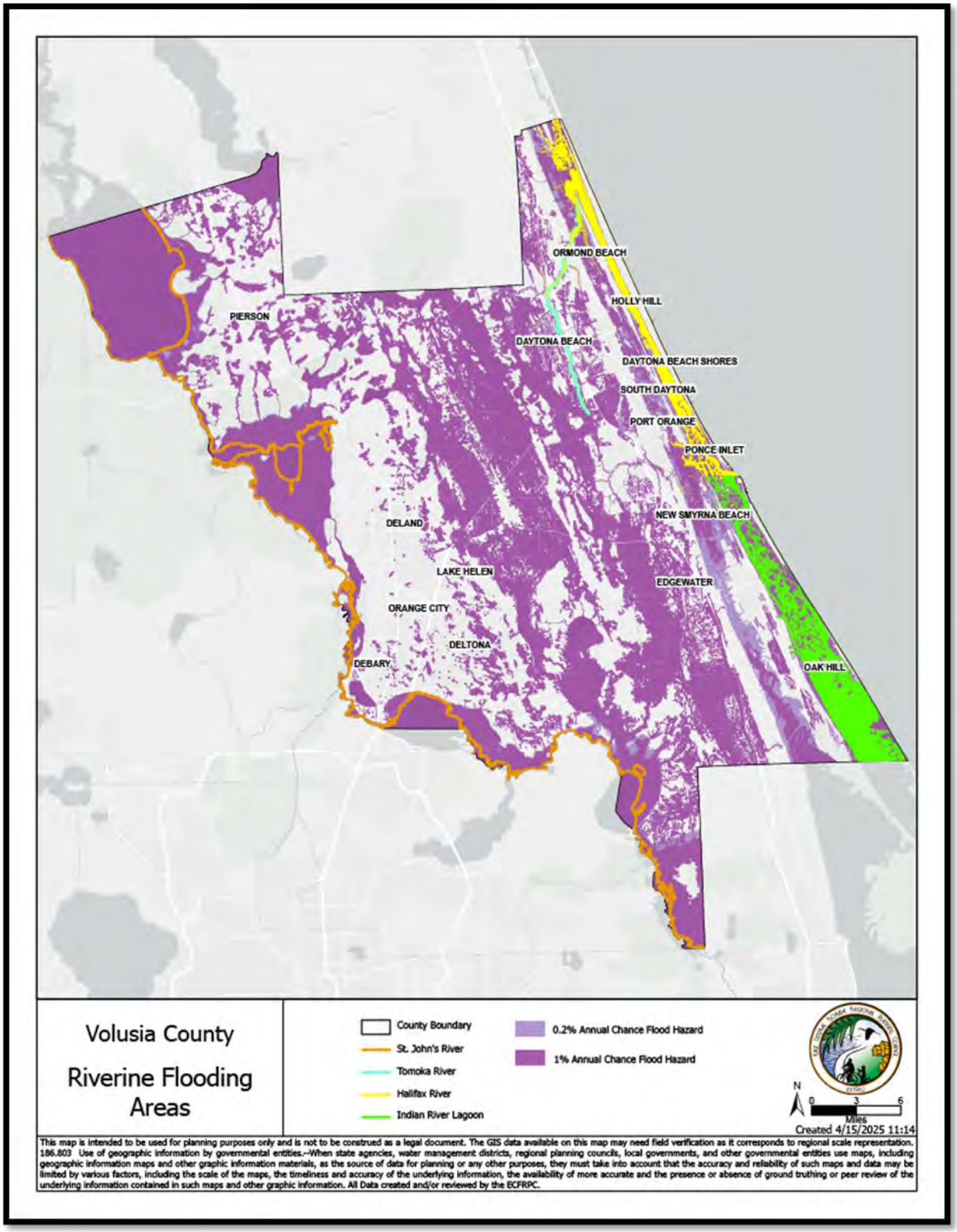
Volusia County encompasses approximately 1,210 square miles, including 50 miles of Atlantic coastline. Of this, 982 square miles fall within unincorporated areas, while 238 square miles are incorporated. The eastern portion of the county is characterized by the Halifax River and the Indian River North/Mosquito Lagoon, which together form the Intracoastal Waterway. These long, narrow estuaries separate the mainland from the barrier island. The Ponce de Leon Inlet, located near the center of the county's coastline, is the only natural tidal inlet, allowing for ocean water exchange and serving as a pathway for storm surge and tidal fluctuations into the Intracoastal Waterway.

Volusia County is highly susceptible to riverine, urban, and storm surge flooding as shown in **Figures 1 and 2**. Major waterways vulnerable to flooding include the St. Johns River, Halifax River, and Tomoka River, along with tributaries and creeks such as Thompson Creek and Laurel Creek in the Ormond Beach area. Additionally, low-lying inland areas in the northwest, north, southeast, and southwest are prone to flooding, which can impact evacuation routes if not properly elevated or designed for flood resilience.

The St. Johns River, the county's largest river, flows along the western boundary and presents a significant flooding threat. The Tomoka River, covering a 159-square-mile tributary area, serves the northeastern and central portions of the county. It flows south to north, ultimately discharging into the Tomoka Basin and Halifax River, both of which are susceptible to storm surge-related flooding.

Additionally, certain low-lying inland areas in the northwest, north, southeast and southwest are considered flood-prone areas. Many evacuation routes traverse the floodplain and if not mitigated properly (elevated, designed, etc.), could be prone to flooding.

Figure 2: Riverine Flooding Areas



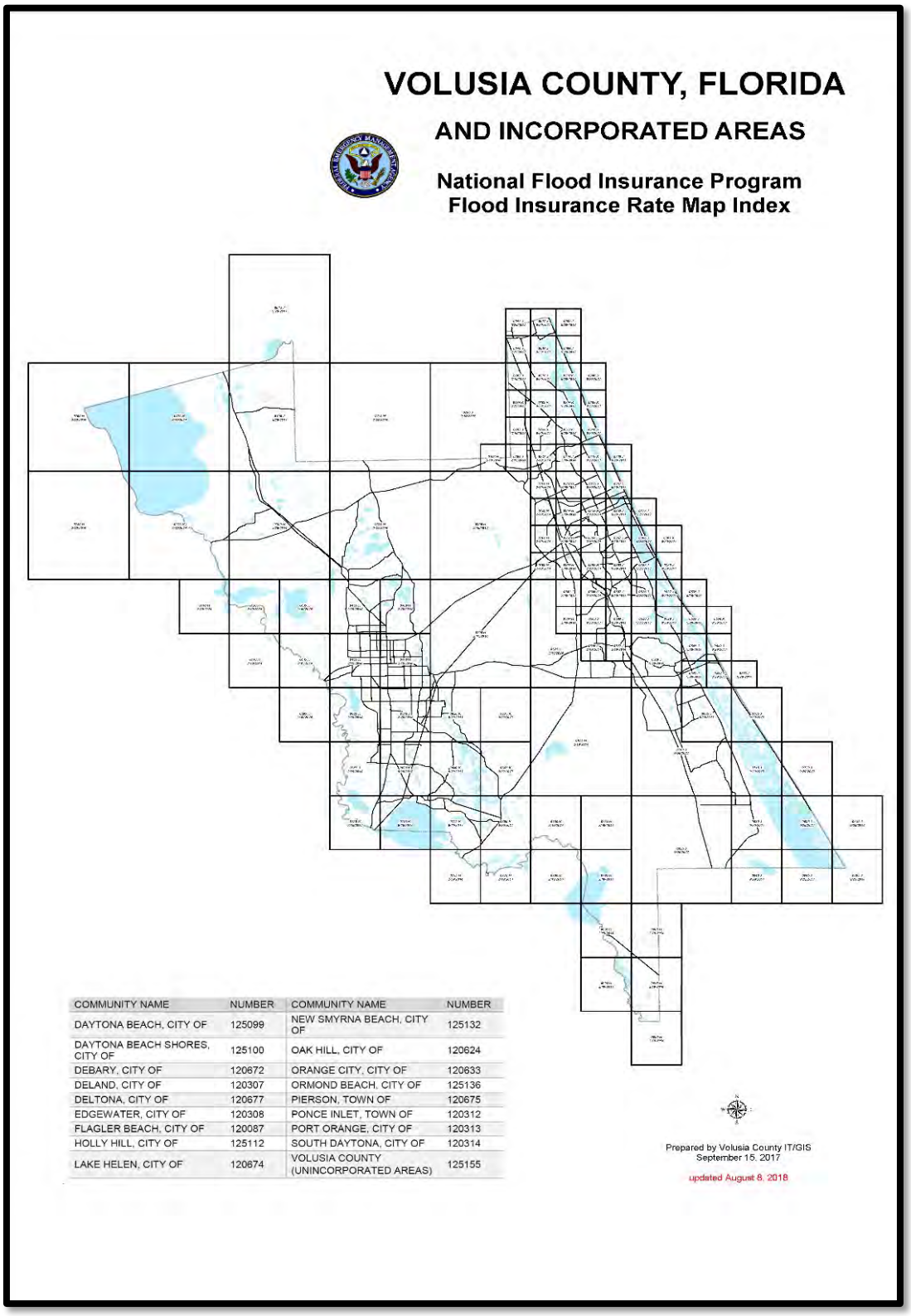
FEMA's Flood Insurance Rate Maps (FIRMs) are official maps used to identify flood hazards and assess flood risk. These maps are a key component of the National Flood Insurance Program (NFIP) and help communities, insurers, and property owners understand their flood risk and insurance requirements. **Figure 3** depicts the Volusia County most up-to-date FIRM flood zones throughout the County, last updated in 2018.

Areas vulnerable to flooding are higher when located within the floodplain, but all areas of Volusia County are susceptible to flooding. Flood-prone areas are primarily located within FEMA-designated floodplains, as detailed in the updated FIRMs for Volusia County, published in November 2023. While flood prone areas have shifted in the past five years, the FIRMs remain a standard to flood mitigation. These maps provide revised Base Flood Elevations (BFEs) from the Flood Insurance Study, which serve as key resources for flood risk assessment, infrastructure planning, and regulatory compliance. Tropical cyclone events remain the primary driver of severe flooding in Volusia County, producing both heavy rainfall and coastal storm surges.

Areas with the highest risk of flooding, known as Special Flood Hazard Areas (SFHAs), include Zone A, AE, AH, AO, and VE. According to FEMA, Special Flood Hazard Areas are **high**-risk areas. These zones have at least a 1% annual chance of flooding (commonly referred to as the 100-year floodplain), and properties with federally backed mortgages in these areas are required to carry flood insurance.

Non-Special Flood Hazard Areas are moderate-to-low risk areas. The risk of flooding is reduced, but not completely removed. FEMA identifies **Moderate**- to **low**-risk areas as zones beginning with the letters 'B', 'C' or 'X' (or a shaded X). Moderate-risk areas, such as Zone X (shaded), have a 0.2% annual chance of flooding (the 500-year floodplain), while Zone X (unshaded) represents areas with minimal flood risk. These areas submit more than 20 percent of National Flood Insurance Program claims and receive one-third of federal disaster assistance for flooding. FIRMs also highlight floodways, which are critical for water flow during flood events, where development is highly restricted.

Figure 3: Latest FIRM Map for Volusia



A key feature of FIRMs is the Base Flood Elevation (BFE), which indicates the estimated height of floodwater during a 100-year flood event. Properties built above the BFE are generally at lower risk and may qualify for lower insurance premiums. Because flood risks change over time due to factors such as development, climate change, and evolving hydrology, FEMA periodically updates FIRMs through Flood Risk Studies to ensure accurate assessments. The impact of FIRMs extends beyond flood insurance. Local governments use these maps to implement floodplain management regulations, ensuring that new development is built to withstand potential flood events. Homeowners and businesses rely on FIRMs to determine their flood risk and take necessary mitigation measures, such as elevating structures or purchasing flood insurance.

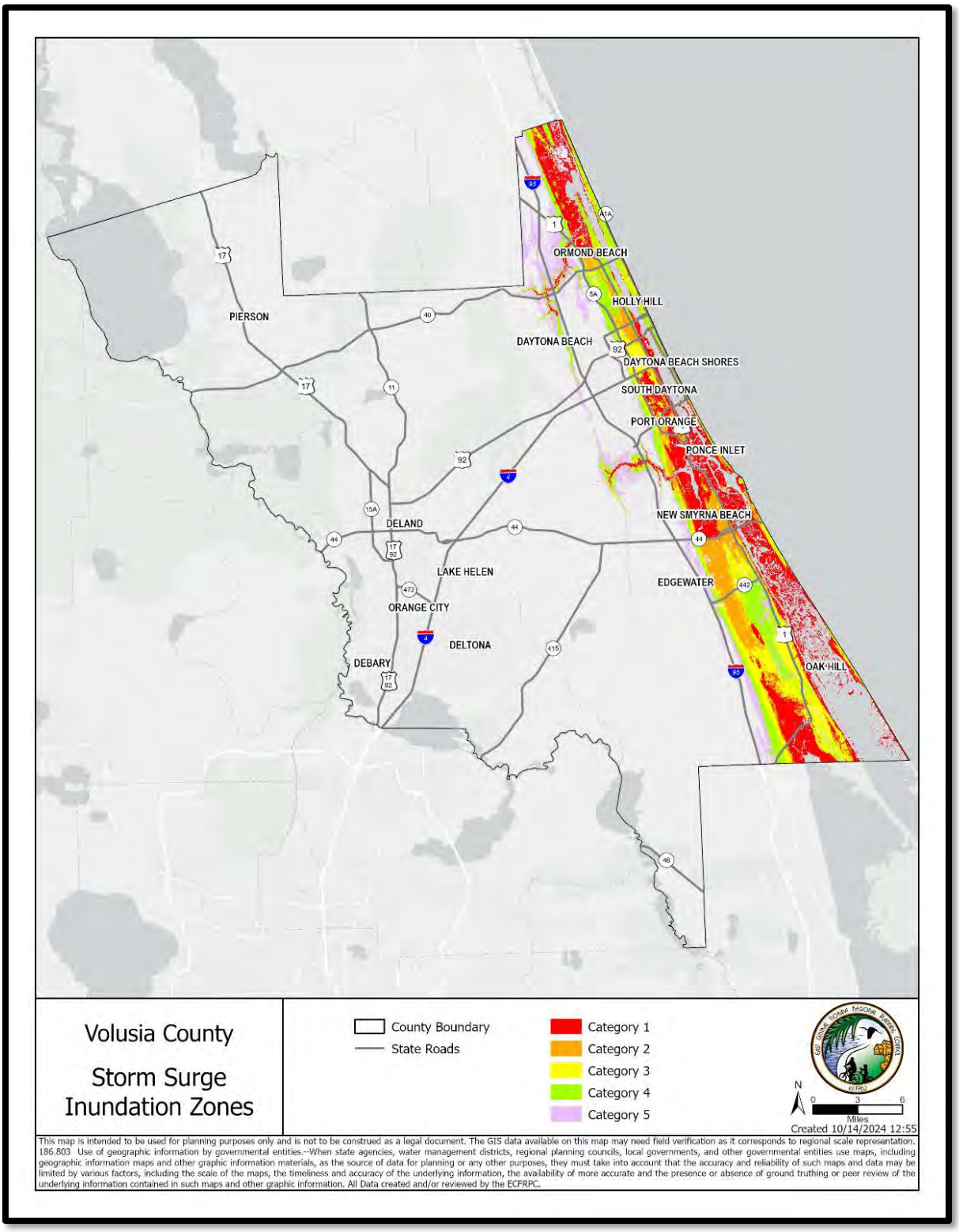
STORM SURGE

Coastal flooding caused by tropical cyclones and unusually high tides combined with strong easterly or northeasterly winds also poses a continuing threat to the County. Storm surges produce much of the flood damage and loss of life associated with storms that make landfall or that closely approach a coastline. This hazard is historically the leading cause of hurricane related deaths in the United States. Storm surge and large battering waves can result in large loss of life and cause massive destruction along the coast. Storm surges can travel several miles inland, especially along bays, rivers, and estuaries.[1] **Figure 4** indicates communities susceptible to storm surge in Volusia County.

The principal tool utilized in assessing the hazard of storm surge is the Sea, Lake and Overland Surges from Hurricane (SLOSH) model. The computerized SLOSH model predicts the tidal surge heights that result from hypothetical hurricanes with selected various combinations of pressure, size, forward speed, track and winds. The SLOSH model, which is utilized locally for hazard and vulnerability analysis, has been digitized into the County's Geographical Information System (GIS) mapping system. Estimated storm surge heights range from two to four feet in a Category 1 storm to in excess of twenty feet in a Category 5 storm. For further information on the methodology, please see the methodology section of this report.

[1] https://www.weather.gov/safety/hurricane

Figure 4: Storm Surge Inundation Zones in Volusia County



TROPICAL CYCLONES

Since 1965, Volusia County has experienced numerous federally declared disasters due to tropical cyclones, coastal flooding, and erosion. Riverine and storm surge-induced flooding frequently extends beyond FEMA-designated 100-year floodplains, affecting inland areas, levee-protected zones, and coastal erosion-prone locations. Long-term hazards such as sea level rise and tsunamis further contribute to flood risks outside traditional flood-prone areas. The most recent tsunami-type event occurred in Daytona Beach on July 3, 1992, injuring over 70 individuals. Mitigation strategies, including infrastructure improvements, shoreline protection, and resilient land-use planning, are essential to reducing future risk. Strategies such as smart growth initiatives and clustering development in non-vulnerable areas can significantly mitigate long-term exposure to flooding, storm surge, and erosion. Volusia County has endured severe flooding and storm surge impacts from multiple significant storm events:

- 2004 Hurricanes Charley, Frances, and Jeanne brought extreme precipitation and storm surge flooding. Tidal waters rose 3 to 5 feet above the mean high tide, and Hurricane Frances alone delivered 13 inches of rainfall, leading to countywide inundation. Combined wind and flood damage exceeded $390 million.
- May 2009 "No-Name" Rain Event resulted in severe freshwater flooding, submerging properties under two feet of water on the county's east side.
- Tropical Storm Fay (2008) caused severe flooding in western Volusia County, with rainfall accumulations ranging from 3 to over 10 inches, leading to $13.5 million in damage.
- Hurricane Matthew (2016) tracked just offshore, generating storm surge, extensive wind damage, and widespread coastal and inland flooding.
- Hurricane Irma (2017) delivered excessive rainfall that compromised electrical infrastructure, inundated properties, and caused significant storm surge damage, including the destruction of a boardwalk near Ponce Inlet.

Since the last Flood Mitigation Plan (FMP) update in 2020, four hurricanes have significantly impacted Volusia County:

- Hurricane Ian (2022), downgraded to a tropical storm upon reaching the county, produced up to 22 inches of rainfall, setting historic precipitation records. Persistent onshore winds caused storm surges of 1 to 3 feet, resulting in moderate to severe beach erosion and infrastructure damage, particularly along the coastline.
- Hurricane Nicole (2022), making landfall just south of Volusia County as a Category 1 storm, generated 30-foot offshore seas and long-duration high surf, worsening beach erosion caused by Hurricane Ian. Extensive coastal structure failures were reported.
- Hurricane Helene (2024) impacted Volusia County on September 25–26, producing 0.5 to

1.5 inches of rain and wind gusts up to 55 mph.

- Hurricane Milton (2024) brought significantly more severe impacts, delivering 7 to 17 inches of rain and wind gusts reaching 99 mph near Ponce Inlet. Major flooding was reported along the St. Johns River at Astor and DeLand, with two direct and two indirect fatalities. Widespread damage included downed trees, power outages, and structural flooding affecting public, residential, and commercial properties. Throughout Hurricane Milton, Volusia County remained under multiple weather alerts, including tropical storm warnings, hurricane watches, tornado warnings, flood watches, and wind advisories. The cumulative effects of these storms underscore the county's ongoing vulnerability to tropical cyclone-driven flooding and the critical need for continued mitigation efforts to protect residents and infrastructure.

Table 3 displays Emergency Operations Center (EOC) activations in Volusia County from the past three decades. These disasters resulted in widespread flooding and required a wide variety of resources to respond and recover.

Figure 5 is from the 2021 Statewide Regional Evacuation Study Program: Regional Hazard Analysis developed for the east central Florida region by the ECFRPC and the Florida State Emergency Response Team. Through SLOSH Analysis, it was determined that a Category 1 storm surge will produce storm tide heights up to 6 feet. A category 5 storm will produce storm tide heights up to 26 feet. It should be noted again that these surge heights represent the maximum surge height recorded in the county from the storm tide analysis including inland and back-bay areas where the surge can be magnified depending upon storm parameters.

Figure 5: Potential Storm Tide Heights by County (In feet above NAVD88)[2]

(In feet above NAVD88)

*Storm Strength	Brevard	Volusia
Category 1	5.7	5.7
Category 2	9.6	9.5
Category 3	15.8	14.3
Category 4	20.8	22.8
Category 5	25.9	25

*Based upon the category of storm on the Saffir-Simpson Hurricane Scale
** Surge heights represent the maximum values from selected SLOSH MOMs

[2] https://www.floridadisaster.org/dem/preparedness/regional-evacuation-studies/

Table 3: Emergency Operations Center Activations Relating to Flooding in Volusia County

Date of Event	Type of Event	Area of Event	Damage Estimate	Damage Estimates
			# of Parcels	Dollars
11/17/1994	T.S. Gordon	County-wide	658	$10,602,924.00
8/3/1995	Hurricane Erin	Edgewater	31	$65,052.00
7/10/1996	Hurricane Bertha	County-wide	N/A	N/A
9/5/1996	Hurricane Fran	County-wide	N/A	N/A
10/8/1996	T.S. Josephine	County-wide	193	$1,232,343.00
9/14/1999	Hurricane Floyd	East Side	433	$18,655,353.00
10/16/1999	Hurricane Irene	East Side	185	$16,809,266.00
9/16/2000	Hurricane Gordon	County-wide	N/A	N/A
9/14/2001	T.S. Gabrielle	County-wide	44	$474,135.00
11/15/2001	Rain Event	East Volusia	39	$561,300.00
9/4/2002	T.S. Edouard	County-wide	N/A	N/A
8/13/2004	Hurricane Charley	County-wide	5,719	$106,900,000.00
9/4/2004	Hurricane Frances	County-wide	26,964	$393,900,000.00
9/25/2004	Hurricane Jeanne	County-wide	N/A	$59,500,000.00
9/8/2005	T.S. Ophelia	County-wide	Beach	N/A
10/23/2005	Hurricane Wilma	County-wide	3	$752,000.00
8/29/2006	T.S. Ernesto	County-wide	N/A	N/A
8/18/2008	T.S. Fay	County-wide	240	$13,580,016.00
5/17/2009	May Rainstorm	County-wide	1,654	$69,516,703.00
10/7/2016	Hurricane Matthew	County-wide	N/A	$442,509,779
9/11/2017	Hurricane Irma	County-wide	4,808	$321,038,971
9/2/2019	Hurricane Dorian	County-wide	N/A	$2,600,600
9/28/22	Hurricane Ian	Countywide	7,051	$357,449,754
11/7/22	Hurricane Nicole	Countywide	615	$495,385,828
10/10/24	Hurricane Milton	Countywide	5,102	$267,508,457

500 YEAR FLOODS

A 500-year flood zone represents an area with a 0.2% annual chance of flooding, meaning that in any given year, there is a 1 in 500 probability of a significant flood event occurring. This does not imply that such a flood will occur precisely once every 500 years, but rather that over a long period, the probability remains consistent. The Federal Emergency Management Agency (FEMA) designates these zones as part of the Flood Insurance Rate Maps (FIRMs) to guide floodplain management, emergency planning, and insurance decisions.

In Volusia County, the 500-year flood zone is extensive, particularly concentrated along the eastern portion of the county and near major water systems such as the Halifax River and Tomoka River. These areas are highly susceptible to storm surge, tidal flooding, and extreme rainfall events that can overwhelm natural and engineered drainage systems. **Figure 6** depicts the FEMA 500-year flood hazard zone in Volusia County.

The 500-Year Flood Zone has a variety of implications:

- Increased Vulnerability to Extreme Events: While less frequent than 100-year flood events (which have a 1% annual chance), 500-year floods can still cause catastrophic damage, particularly when combined with hurricanes or tropical storms.
- Coastal and Inland Flooding Risks: Due to its proximity to the Atlantic Ocean, Intracoastal Waterway, and major rivers, Volusia County's low-lying areas in the 500-year floodplain are at risk from storm surge, rising sea levels, and heavy inland rainfall.
- Historical Flooding in the 500-Year Zone: Some of Volusia County’s most severe flood events, including those from Hurricanes Ian (2022), Nicole (2022), and Milton (2024), affected areas classified within the 500-year flood zone. These events highlight the need for enhanced flood mitigation efforts, as extreme flooding is becoming more frequent due to climate change and increased storm intensity.
- Infrastructure and Development Considerations: Roads, bridges, and evacuation routes passing through 500-year flood zones may become impassable during major flood events. Floodplain development regulations must consider elevated construction, resilient drainage systems, and strategic land-use planning to minimize future flood impacts.

As sea levels rise and extreme weather events become more intense, flood risk within the 500-year flood zone may increase beyond historical expectations. Volusia County's flood mitigation strategies—such as enhancing stormwater infrastructure, enforcing stricter building codes, and prioritizing resilient land-use planning—will be crucial in reducing long-term flood exposure in these vulnerable areas.

Figure 6: FEMA 500 Year Flood

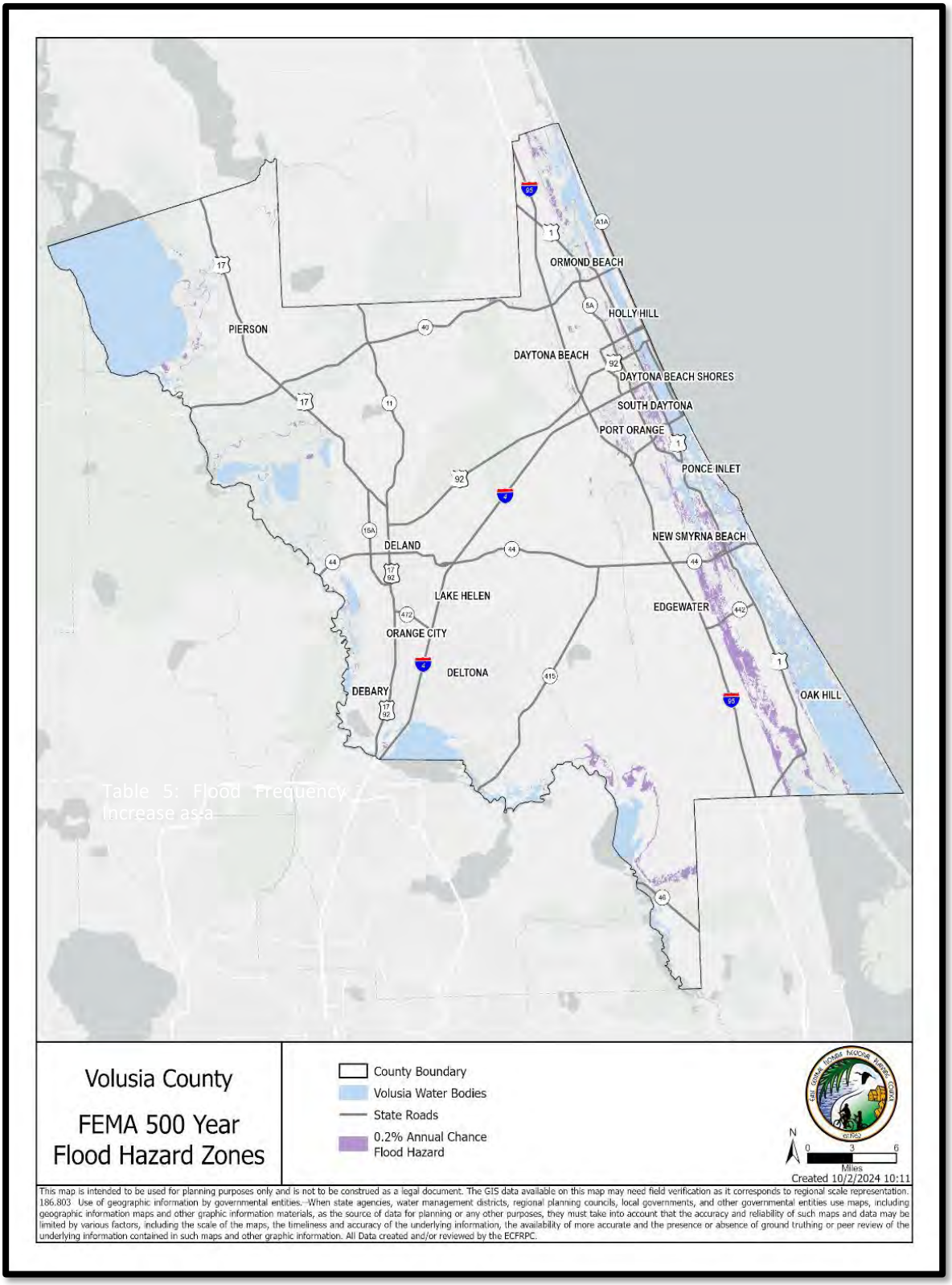


Table 5: Flood Frequency
Increase as a

SEA LEVEL RISE

Flooding and storms have become more frequent across Florida's coastal communities due to the changing climate and sea level rise. Mean elevation for the State of Florida is approximately 100 feet above sea level with the highest point registering at only 345 feet above sea level. In Volusia County, the highest natural point of elevation is 120 feet above sea level. Local governments and residents are starting to see the beginning impacts sea level rise combined with storms will have on their community. As sea level rise continues, it is becoming of critical importance to understand the potential vulnerability of inundation and flooding on communities and infrastructure, specifically those facilities located in low-lying coastal areas. The NOAA 2017 High/ECFRPC High Projection Rate Curve anticipates sea level rise along Daytona Beach Shores to be 8.48feet by 2100. This, along with a 100-year storm, could mean devastation to coastal communities if appropriate planning and action is not taken early enough.

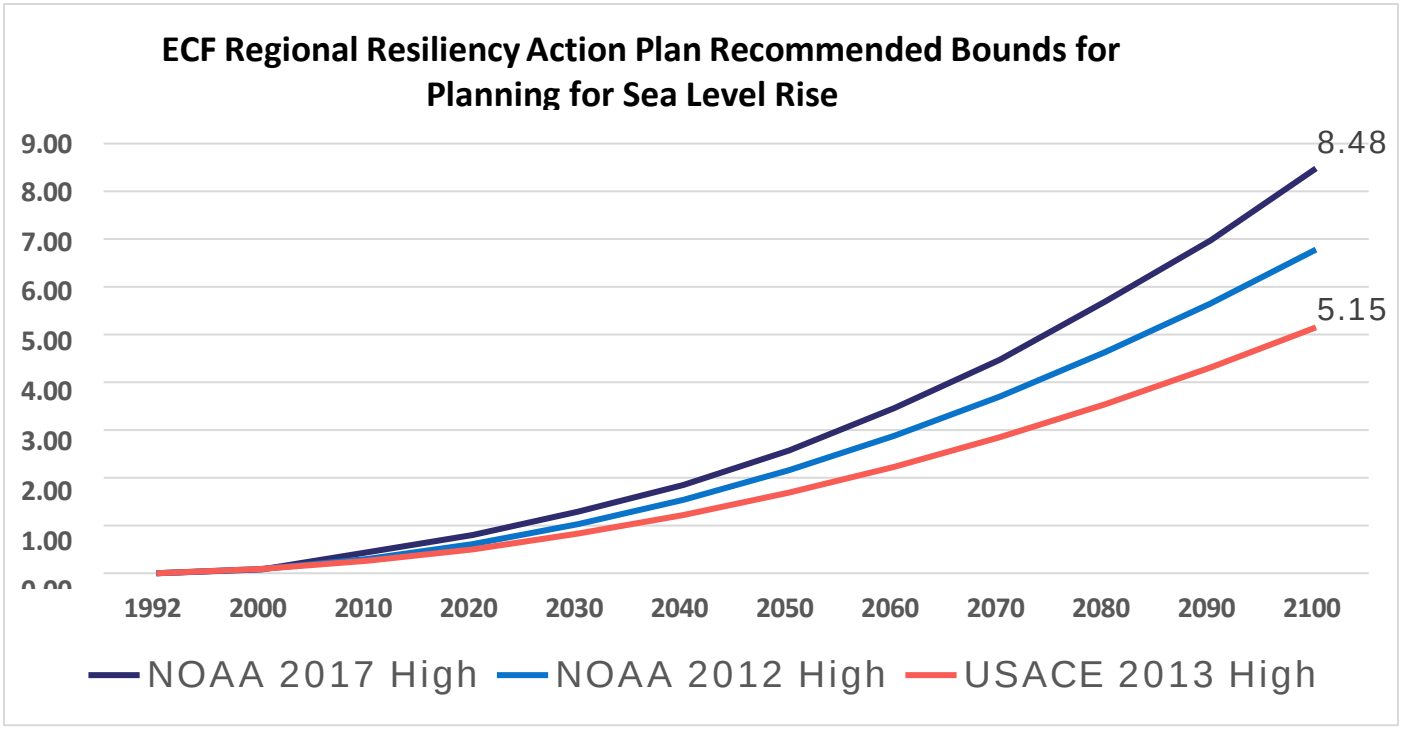


Figure 7: Recommended range for sea level rise planning and includes the projected rise in sea level by decade based on the ECFRRAP.

In 2017, the County worked with the East Central Florida Regional Planning Council, Florida Department of Transportation, the River to Sea Transportation Planning Organization, and University of Florida Geoplan to create Resilient Volusia County – Phase 1. This plan modeled impacts to critical assets from sea level rise combined with a 100-year coastal storm, using the FDOT Sea Level Scenario Sketch Planning Tool and FEMA's HAZUS-MH software. By taking a risk-based approach and identifying vulnerable facilities, agencies and jurisdictions can implement adaptation practices overtime that will protect these facilities and minimize impacts on the community.

The information, data and recommendations developed through these efforts has been made available to communities and agencies throughout Volusia County to aid them in the planning for future conditions related to flooding and sea level rise inundation.

Figure 8: The frequency of coastal flooding (pictured) is projected to increase with rises in sea levels.

In 2018, through extensive stakeholder input with Brevard and Volusia Counties, the ECFRPC and Volusia County Council adopted two scenarios for planning for sea level rise (NOAA 2017 High/ECFRPC High and USACE 2013 High/ECFRPC Low) through the East Central Florida Regional Resiliency Action Plan (ECFRRAP). The plan identifies that "no one projection rate curve should be used for planning purposes across all projects and programs. Instead, a range of rise should be considered based upon the vulnerability, allowable risk, and project service life and the forecast project "in-service" date of a facility or development."

The studies were built on through the County's 2024 Countywide Vulnerability Assessment, which identified impacts to local and regional critical assets within unincorporated Volusia County and all 16 municipalities. Critical assets, defined in section 380.093 F.S., includes four main categories - transportation assets and evacuation routes; critical infrastructure; critical community and emergency facilities; and natural, cultural, and historical resources. The exposure analysis was performed to identify the depth of water-based hazards – sea level rise and high tide flooding, and current and future storm surge. Sea-level rise projects used within the

exposure analysis includes the 2017 NOAA Intermediate-Low and Intermediate-High (required by 380.093 F.S.) and the ECFRRAP High and Low scenarios for 2040, 2070, and 2100. The sensitivity analysis determined the severity of impact to the critical asset through utilizing a hex grid and applying the Social Vulnerability Index, Regional Drivers of Vulnerability, population, present day flooding, and natural attributes. This methodology included future high tide flooding analysis with sea level rise, and was ran for each projection scenario. This updated Vulnerability Assessment provides a communitywide dataset of risk to identify needed capital improvement projects and enhance access to community lifelines for vulnerable populations.

B. ASSESSING THE PROBLEM

VULNERABILITY SUMMARY

Within the LMS there is a Hazard Risk Score for each jurisdiction as it concerns flooding and storm surge as per the Local Mitigation Strategy. Each hazard was scored by on the frequency, magnitude, warning time, and duration. Each hazard was given a score between one and five with five being the greatest. Additional hazard information can be found in the Volusia County Multi-Jurisdictional Local Mitigation Strategy (LMS), Section 5 Hazard Profiles.

The Flood Hazard analysis includes location and spatial extent of the hazard, historical occurrences and impacts, historical summary of insured flood losses, analysis of loss properties and probability of future occurrences.

LIFE, SAFETY, AND HEALTH

Flooding along rivers and streams poses a significant threat to life, safety, and property, with the potential to cause injury and fatalities. Over the past 20 years, flood waters have become the leading cause of hurricane-related deaths. This shift is partly due to improved storm surge evacuation planning, which has reduced coastal drowning incidents in the U.S. since the early 2000s. However, inland flooding risks remain underrecognized, particularly among residents who underestimate flood dangers when driving.

To address this risk, the "Turn Around, Don’t Drown" program was implemented nationally in 2002 to educate the public about hazardous road conditions and the dangers of attempting to drive through floodwaters. While hurricane-related rainfall does not always necessitate immediate evacuation, delayed inland flooding can require post-storm evacuations as rivers and streams exceed capacity. Slow-moving storms exacerbate flooding, leading to widespread roadway inundation, making critical evacuation routes impassable.

Evacuation and Infrastructure Preparedness

Florida’s climate and seasonal weather patterns introduce additional flooding risks, as heavy rain preceding a hurricane can saturate the ground and flood roadways before the storm even arrives. To mitigate these risks, contingency planning efforts include:

- Route rerouting to bypass flooded roadways.
- Sandbagging and pumping operations coordinated with local and state agencies.
- Stormwater management improvements to limit standing water accumulation.
- Evacuation timing adjustments to ensure residents leave before road conditions deteriorate.

- With growing use of Electic Vehicles (EV), new considerations must be made to accommodate evacuations and public messaging.

Health Hazards from Floodwaters and Mold

Floodwater poses serious public health risks, including exposure to contaminated water, bacteria, and mold. Standing water following major rain events creates an ideal environment for mold growth, which can lead to respiratory issues and long-term health complications. Volusia County Emergency Management will use social media, the County's Emergency Management app, local news stations, and emergency alert systems to warn residents of mold exposure risks in the aftermath of prolonged flooding. Additionally, effective stormwater management systems play a critical role in minimizing the presence of standing water on both public and private properties after storm events.

Impact of Hazards on Warning and Evacuation Procedures

Timely and effective communication is essential during flood hazard events. The Volusia County Emergency Management X account (formerly known as Twitter) provides real-time updates before, during, and after flood emergencies. However, mass communication and power outages may disrupt normal information channels. In such cases, emergency communication will be facilitated through:

- Shelter staff and law enforcement personnel stationed in affected areas.
- Emergency Operations Center (EOC) protocols for alternative communication methods.
- Door-to-door alerts when necessary.

Additionally, strong winds and extreme weather conditions can delay emergency response efforts, emphasizing the need for advanced preparedness measures to ensure public safety during and after severe flooding events.

Volusia County, situated within the rapidly growing Central Florida region, has experienced significant population growth since the 1970s and continues to do so. Future development strategies should prioritize locations outside of flood-prone areas to reduce human exposure to flood risks. Key approaches include:

- Urban infill development to direct population growth away from high-risk floodplains.
- Increased density near transit to promote resilient land use.
- Low impact development, nature-based solutions, and green infrastructure.

CRITICAL FACILITIES

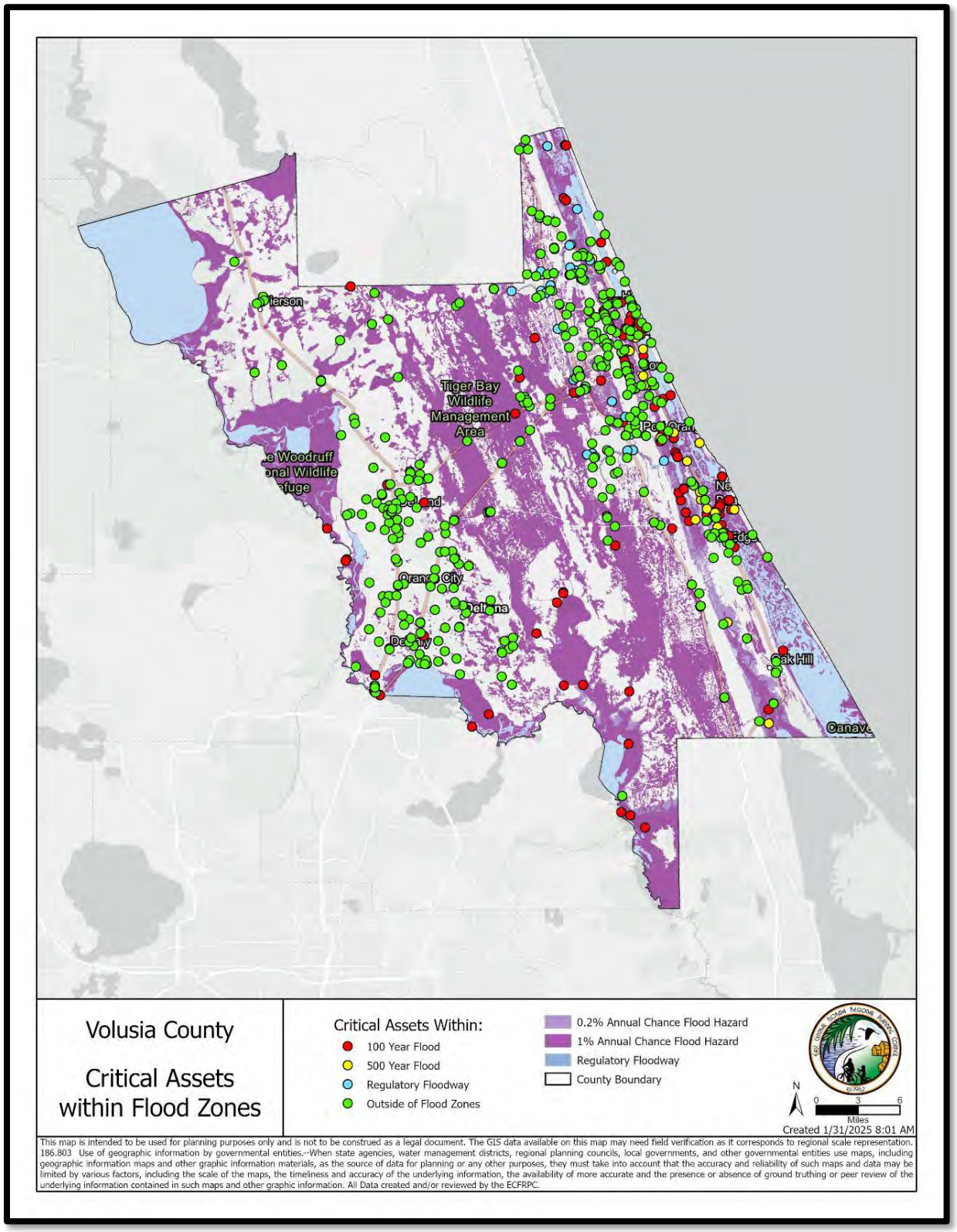
Flooding can have impacts on critical facilities and the ability to respond to emergencies. According to the Florida Division of Emergency Management, "critical facilities" are defined as those structures from which essential services and functions for victim survival, continuation of public safety actions, and disaster recovery are performed or provided. Shelters, emergency operation centers, public health, public drinking water, sewer and wastewater facilities are examples of critical facilities. Though not explicitly included in the definition, supporting life-line infrastructure essential to the mission of critical facilities must also be included in the inventory when appropriate. Although several western jurisdictions are low in elevation, a disproportionately high number of critical facilities that are exposed to the floodplain are within a short distance to the Atlantic Ocean or inter-coastal waterway on the east side of the county. Many of the exposed critical facilities countywide are located east of Interstate-95.

The inundation of critical facilities can have a profound effect on the ability for coordination among county and city planning officials and mitigation activities must provide guidance to avoid cascading losses from a critical infrastructure perspective.

Figure 9 depicts the flood hazard zones and the locations of vulnerable critical facilities at the countywide scale. The critical infrastructure database was derived from FEMA's HAZUS database.[3]

[3] The assets used for analysis in the FMP come from the Department of Homeland Security's Homeland Infrastructure Foundation-Level Data: https://hifld-geoplatform.hub.arcgis.com/pages/hifld-open

Figure 9: Critical Assets



ECONOMIC ANALYSIS

An analysis of all properties exposed to the 100-Year Floodplain in Volusia County revealed that approximately 75,943 properties are located partially or completely within the 100-Year Floodplain. The county's taxable value at risk is $16,338,193,216 based on the ECFRPC analysis.

The following data summarizes the exposure within the 100-Year flood zone.
Land Value: $ 10,267,673,027
Building Value: $17,620,771,558
Total Value: $ 27,888,444,586

Table 4 displays the financial exposure within the 100-Year floodplain by jurisdiction.

Table 4: Total Financial Exposure to 100-Year Floodplain

Municipality	Properties in Floodplain	Land Value in Floodplain	Assessed Building Value in Floodplain	Total Value	County Taxable Value in Floodplain
Daytona Beach	12,759	$1,662,132,754	$4,774,499,134	$6,436,631,889	$3,945,909,214
Daytona Beach Shores	502	$156,928,856	$278,560,434	$435,489,290	$372,475,948
DeBary	1,380	$210,284,592	$378,959,546	$589,244,138	$339,144,099
DeLand	369	$74,530,425	$160,357,535	$234,887,960	$120,198,104
Deltona	5,522	$398,367,606	$1,147,280,949	$1,545,648,555	$668,644,860
Edgewater	1,166	$304,009,640	$294,055,323	$598,064,963	$353,613,966
Holly Hill	2,594	$164,159,638	$462,844,277	$627,003,915	$417,408,075
Lake Helen	288	$32,412,697	$45,911,931	$78,324,628	$36,649,988
New Smyrna Beach	6,251	$1,453,090,176	$2,186,466,969	$3,639,557,145	$2,303,289,141
Oak Hill	633	$126,767,625	$92,622,181	$219,389,806	$116,199,911
Orange City	74	$46,406,822	$208,269,347	$254,676,169	$131,349,031
Ormond Beach	4,325	$928,807,534	$1,781,229,586	$2,710,037,120	$1,882,276,510
Pierson	163	$18,748,996	$18,966,907	$37,715,903	$17,576,761
Ponce Inlet	813	$268,308,232	$254,911,926	$523,220,158	$360,984,348
Port Orange	5,254	$647,646,952	$1,424,083,158	$2,071,730,110	$1,296,532,918

South Daytona	2,435	$231,955,358	$579,611,197	$811,566,555	$493,465,148
Unincorporated	31,415	$3,543,115,124	$3,532,141,158	$7,075,256,282	$3,482,475,194
Countywide	**75,943**	**$10,267,673,027**	**$17,620,771,558**	**$27,888,444,586**	**$16,338,193,216**

FLOODPLAIN EXPANSION

An analysis of the previous 100-year flood zones showed considerable change from 2017 to 2024. Newly exposed and removed areas can be viewed in **Figure 10**. The acreage added since 2017 is 2,219 acres; however, 8,336 acres have been removed from the floodplain.

The most expansion has occurred in the Daytona Beach, DeBary, Ormond Beach, and unincorporated Volusia areas by 191, 1308, 380, and 197 acres respectively. This floodplain growth increases financial liability within the county, as a number of the parcels in these areas are developed. The jurisdictions with the most acreage removed are Daytona Beach, Daytona Beach Shores, and unincorporated Volusia by 6429, 891, and 960 acres respectively.

Volusia County is also susceptible to increases in the size of the 100-year Floodplain as a result of rising sea levels. This would primarily affect parcels near the coast, lagoon and inland rivers.

Floodplain Size Comparison
2007 DFIRM: Volusia County: 406,303 Acres
2017 DFIRM: Volusia County: 417,939 Acres (+2.9%)
2024: Volusia County: 411,383 (-1.6%)

Figure 10: Change In The 100-Year FEMA Flood Zone Since 2017

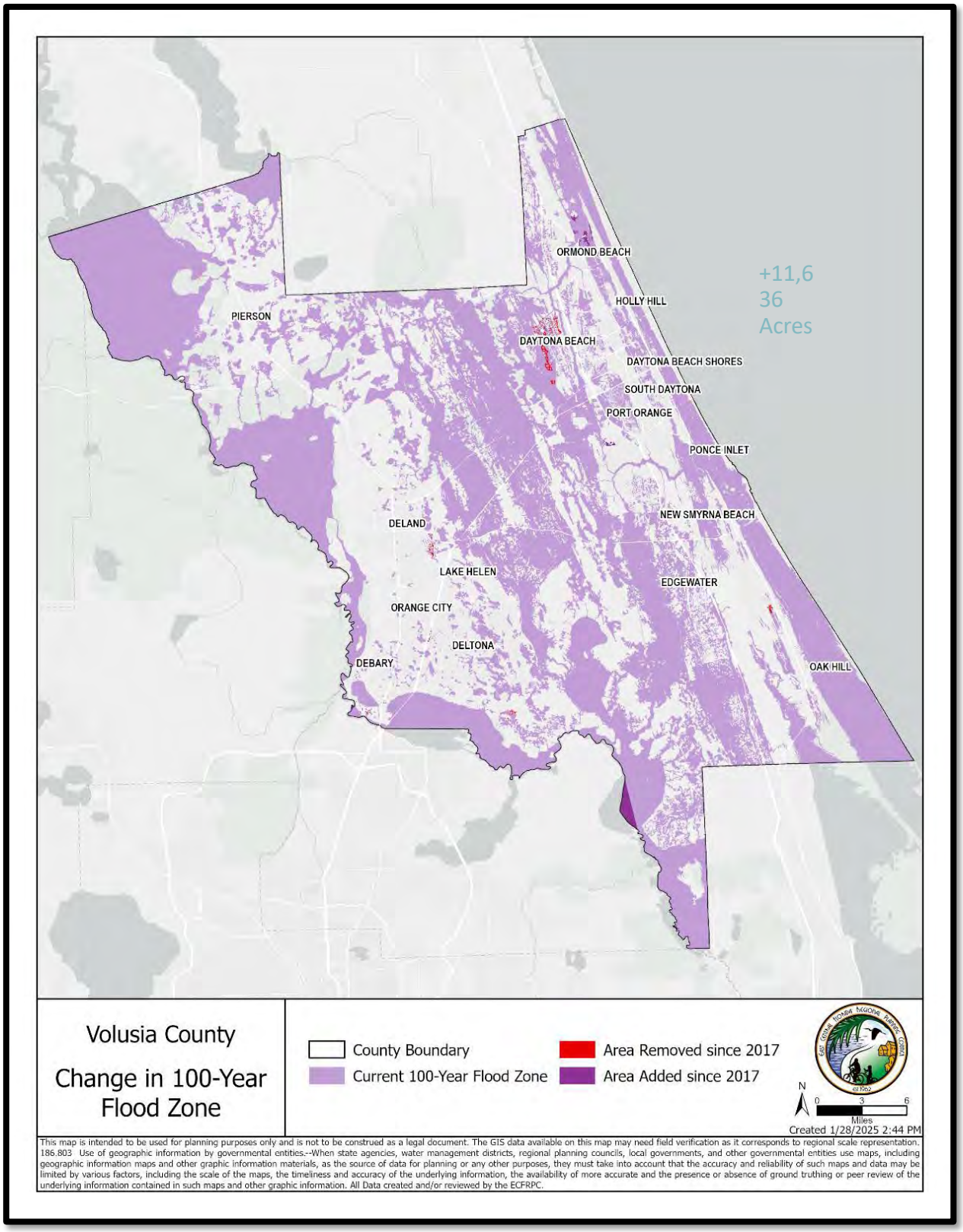
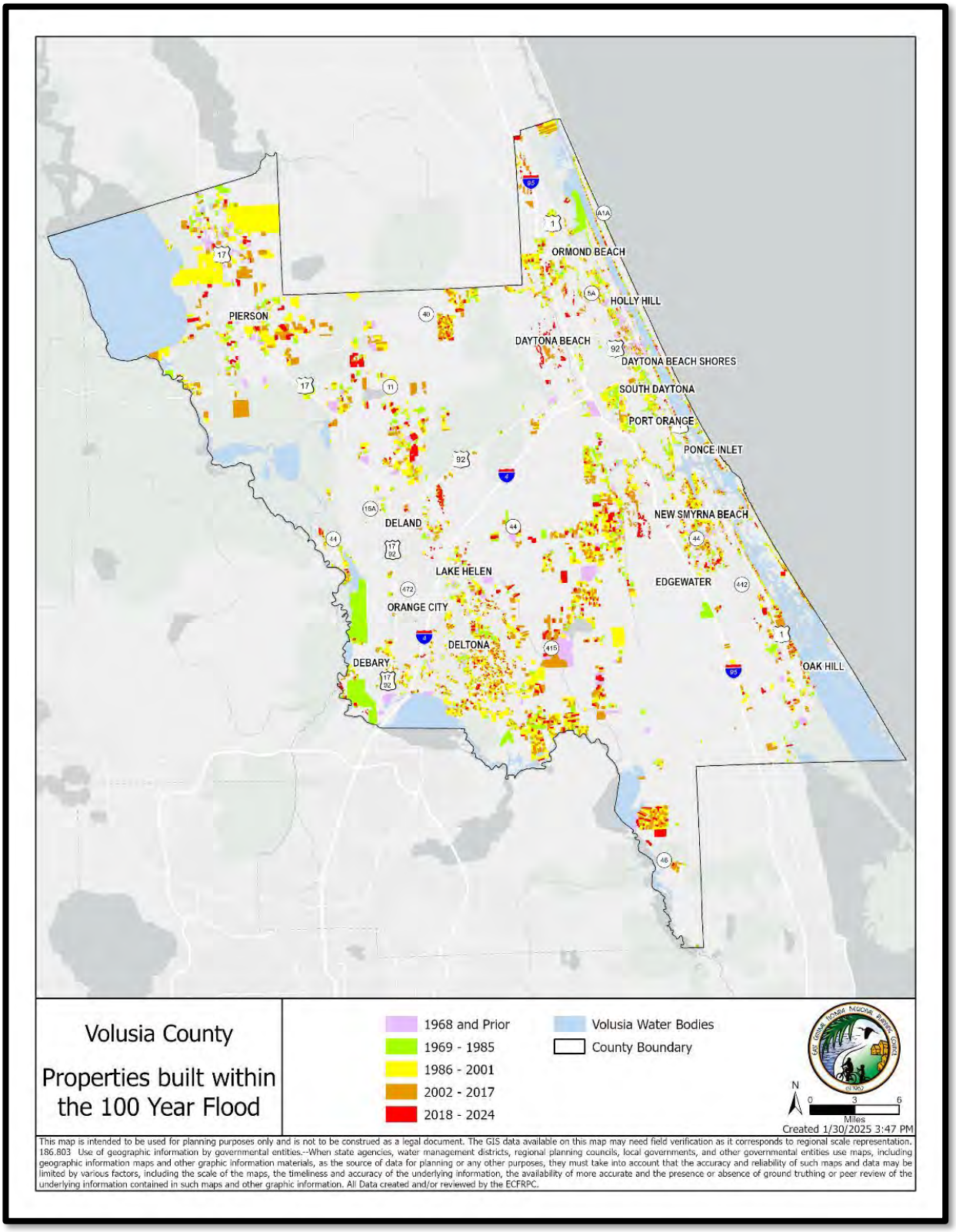


Figure 11: Floodplain Growth



PROPERTY ANALYSIS

An analysis of properties located totally, or in part, within the floodplain reveals countywide the percentage of properties in the floodplain. Jurisdictions such as New Smyrna Beach (54.72%), Oak Hill (48.5%), Ponce Inlet (52.47%), and South Daytona (79.74%) rank the highest percentage of properties within the floodplain; therefore, these jurisdictions are most susceptible to flooding. The year a property was built does alter flood risk because building code has included more requirements over time. **Table 5** breaks down the year built of all buildings within the 100 and 500-Year floodplain by jurisdiction. **Figure 11** displays the year that properties were built within the 100-year floodplain.

Key Dates Include:

The following dates are important from a building code perspective, as parcels built before or after these dates had different requirements at the time of construction.

1968

Federally backed flood insurance became available to all Americans.

1986

The County Stormwater Management ordinance was amended, enacting minimum design standards.

2002

The Florida building code went into effect.

Table 5: Year Built of Structures in the 100 and 500-Year Floodplain

Municipality	Number of Properties in Floodplain	Percentage of Properties in Floodplain	Built Prior to 1968	Built 1969-1985	Built 1986-2001	Built 2002-2017	Built 2018-2024
Daytona Beach	13,847	43.87%	2,781	2,808	1,511	923	904
Daytona Beach Shores	507	38.53%	89	155	45	50	5
DeBary	1,387	11.7%	195	153	332	247	64
DeLand	369	2.11%	2	-	18	71	67
Deltona	5,522	13.77%	221	1,072	2,071	755	233
Edgewater	1,564	12.52%	110	201	196	115	176
Holly Hill	3,160	57.93%	866	647	212	184	61
Lake Helen	288	16.65%	63	29	25	16	4
New Smyrna Beach	10,556	54.72%	635	1,380	1,188	690	913
Oak Hill	891	48.5%	37	134	86	113	48
Orange City	74	1.59%	2	-	1	5	166
Ormond Beach	5,093	25.29%	401	1,166	1,004	473	2
Pierson	163	12.72%	28	21	13	6	25
Ponce Inlet	1,083	52.47%	30	189	147	53	279
Port Orange	8,567	34.22%	493	1,566	1,335	766	28

South Daytona	4,311	79.74%	652	994	382	83	900
Unincorporated	31, 415	38.45%	1,596	3,474	3,083	2,010	3,875
Countywide			**8,201**	**13,989**	**11,649**	**6,560**	**904**

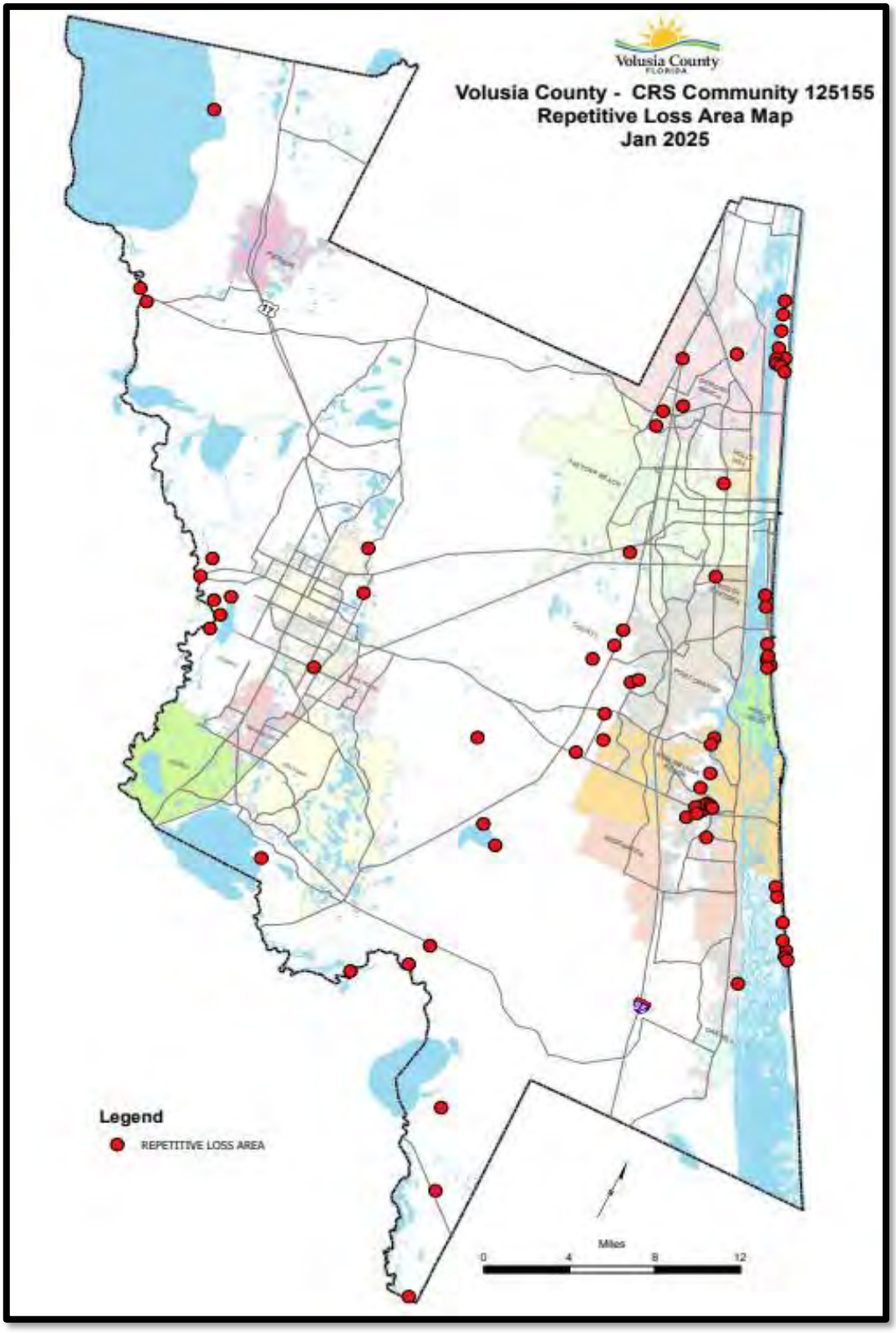
REPETITIVE LOSS ANALYSIS

FEMA defines a repetitive loss (RL) property as any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period, since 1978. A repetitive loss property may or may not be currently insured by the NFIP.

There are repetitive loss properties within 13 of the 16 jurisdictions within Volusia County. This includes 1,280 properties in total. Countywide distribution of repetitive loss properties is somewhat weighted to the east, as a majority of the repetitive loss properties in the county are in Port Orange, South Daytona, and Daytona Beach. Each of these three jurisdictions has over 200 RL properties each. Unincorporated Volusia also has roughly 232 RL properties throughout. The western side of the county also has several repetitive loss properties, most notably the cluster within the Stone Island residential area in the southwestern portion of the county. Data collected showed that many properties have not undergone mitigation efforts; however, there is insufficient data to measure an actual percentage for the entire county. According to FEMA, the total building payments for these properties are approximately $182,712,911.

Because of the sensitivity with repetitive loss information, Volusia County and its jurisdictions have advised to omit the exact numbers of losses by land use, but many of these properties are residential. **Figure 12** displays the general location of RL properties as provided by Volusia County GIS.

Figure 12: Repetitive Loss



Mitigation Strategy for Repetitive Loss Properties

The Volusia Prepares working group, mentioned previously in this plan, prioritizes mitigation projects among the county and all municipalities through the within Section 9 of the 2025-2030 LMS.

Of the many project types included in the Mitigation Action Plan is the mitigation of repetitive loss properties by raising the properties or through other measures. These properties are often mitigated with funds from the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program (HMGP). FDEM announced Florida's first statewide residential mitigation program, Elevate Florida. The goal of this program is to enhance community resilience by mitigating private residences against natural hazards. The main focus is to elevate, reconstruct, and/or acquire.

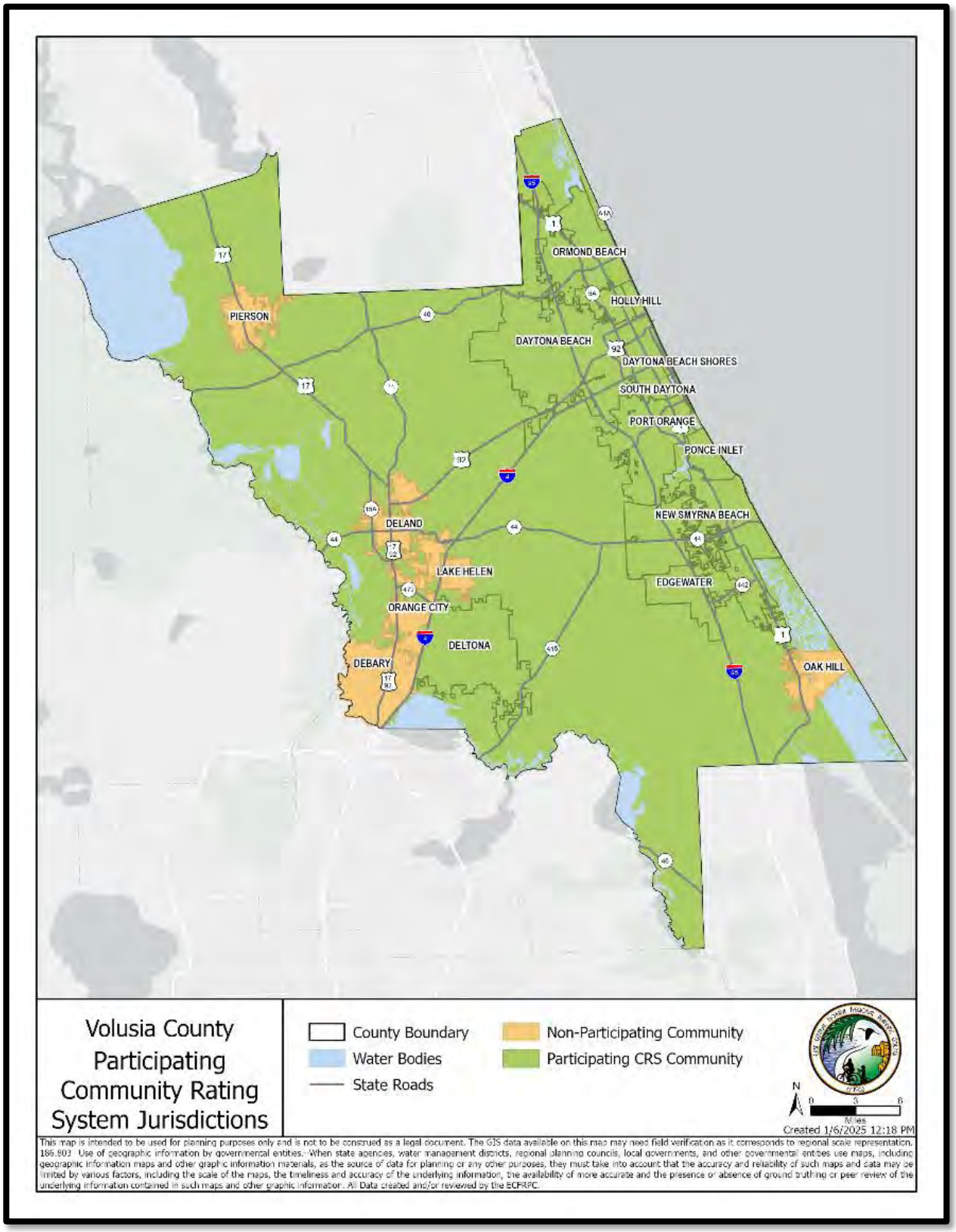
FLOOD CLAIM ANALYSIS

All jurisdictions in Volusia County participate in the National Flood Insurance Program (NFIP) and eleven (11) participate in the Community Rating System (CRS) program as shown in **Figure 13**. The average savings per policy by the participating jurisdictions is $75 per policy and $2,164,580 for total community savings.

As of January 2025, the total number of policies in force with the NFIP throughout Volusia County is 47,874 according to FEMA. The mean discounted premium for the county is $655. The median total annual payment is $889. The total discounted premium is $23,172,513. The total annual payment is $31,143,950. The City of Daytona Beach has the most active policies at 8,537.

In Volusia County, significant NFIP claim payouts were made in 2022 and 2024. For those within flood zones A, B, V, X and unknown, the grand total of payouts in 2022 was $268,842,848. Whereas zones A, B, and X in 2024 had a total of $121,019, 328. In those two years alone, the grand total of NFIP claims was approximately $389,862,176.

Figure 13: Participating Community Rating System Jurisdictions



As the effects of climate change become more pronounced and frequent, insurance providers have become less willing to insure homes in hazardous areas. In Florida, Progressive alone has dropped coverage for nearly 100,000 homes[4]—most of which were in high-risk areas—and nearly one-third of Florida residents who lost their provider had intentions to move or already had.[5] In July 2024, the Louisiana state legislature repealed a law preventing insurance ACT NOW companies from canceling policies that had been in effect for at least three years. Insurers are seeing reduced profits or even losses in most states; the resulting rising costs have led some people to forgo home insurance altogether. Homeowners that never considered having flood insurance are being hit hard, as was the case for North Carolinians in September 2024 with Hurricane Helene in 2024. Both owners and developers of affordable multifamily properties that receive tax credits are also experiencing surging insurance premiums, which is disincentivizing new development. To mitigate industry impacts to homeowners, some regulators employ strategies such as mandating insurance industry transparency and forbidding "bluelining"—the increase in premiums or withdrawal of services in high-risk areas—by providers. The National Association of Insurance Commissioners PREPARE recently adopted a National Climate Resilience Strategy for Insurance to guide regulators and providers alike, and Florida has passed several laws aiming to reduce insurance premiums and provide mitigation grants to homeowners and multifamily properties.[6] Growth in "non-admitted" residential insurance policies is skyrocketing, though this lightly regulated sector lacks guaranty funds and major disasters could leave those policyholders without protection.

NATURAL PROTECTION

The Volusia County Comprehensive Plan and jurisdictional comprehensive plans all include a conservation element which aims to prevent the degradation of water bodies, wetlands, rivers, estuaries and essential upland areas. Goals and policies in the conservation elements include the protection of surface water resources and the floodplains associated with the water sources, including limiting dwelling unit densities within the floodplains and flood-prone areas. The County works alongside the St. Johns Water Management District to approve development, evaluate freshwater resource capacity, and manage stormwater.

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[4] https://www.clickorlando.com/news/florida/2024/04/26/progressive-dropping-100000-home-insurance-policies-in-florida-here-are-the-details/

[5] https://www.news4jax.com/news/local/2024/04/18/1-in-3-floridians-who-get-dropped-by-their-homeowners-insurance-company-are-choosing-to-move-study/

[6] https://www.floridapeninsula.com/blog/florida-legislation-helping-to-reduce-runaway-home-

insurance-premium-costs

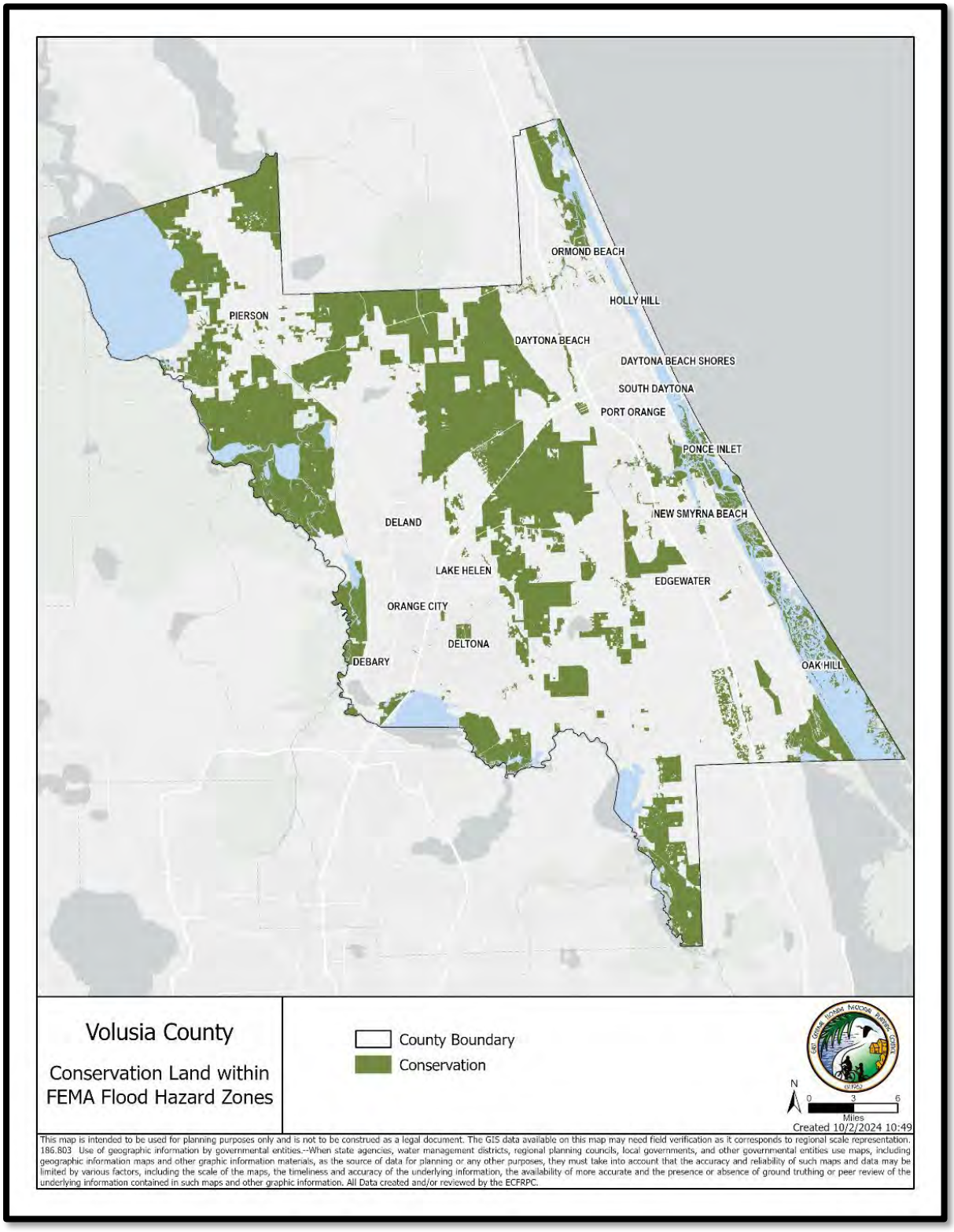
To this effect, the protection of undisturbed segments of floodplains associated with surface water bodies shall continue through land use controls, conservation easements, public acquisition and other methods. These and other policies in the Comprehensive Plans aim to protect and utilize physical and ecological functions of natural drainage ways and patterns to protect developed areas from flood impacts. Wetland and easements maintained along water bodies not only serve as flooding buffers to development but also provide habitat for various species which may otherwise be displaced through fill and development.

According to the analysis performed using GIS by the ECFRPC, there are 411,383.43 acres within the 100-Year floodplain countywide (**Figure 14**). Throughout the county there are 236.620.55 acres zoned as conservation. The acreage of the 100-Year flood zone which falls within conservation lands is 147,171.36.

35.77% of the 100-Year flood zone intersects with areas zoned as conservation; whereas 62.21% of conservation land falls within the 100-Year flood zone.

This would be inclusive of all types of conservation properties such as wetlands and other floodplain areas. It should be the goal of all jurisdictions within the County to maximize the amounts of undeveloped lands in the floodplain with a conservation future land use. This would ensure that development does not infringe into the floodplain.

Figure 14: Conservation Lands in the Floodplain



LAND USE AND TREND ANALYSIS

Table 6 below summarizes the total allocation of Future Land Use Designations by acreage of all parcels exposed to the 100-Year and 500-Year Floodplain in Volusia County. Most of the exposed developed parcels are categorized as "Residential" with roughly 50,000 acres exposed. That is by far the highest-ranking future land use exposed to flood zones. The future land use designation with the second highest exposure is mixed use, with slightly over 9,000 acres exposed. As population and development continue to risk, mitigation techniques should be implemented to ensure residents' safety and wellbeing. **Figure 15** displays the future land uses in the floodplain.

Population and Development Trends

According to the U.S. Census Bureau, Volusia County's population has seen an increase over the past few decades. This trend is expected to be maintained, with population growth expected.

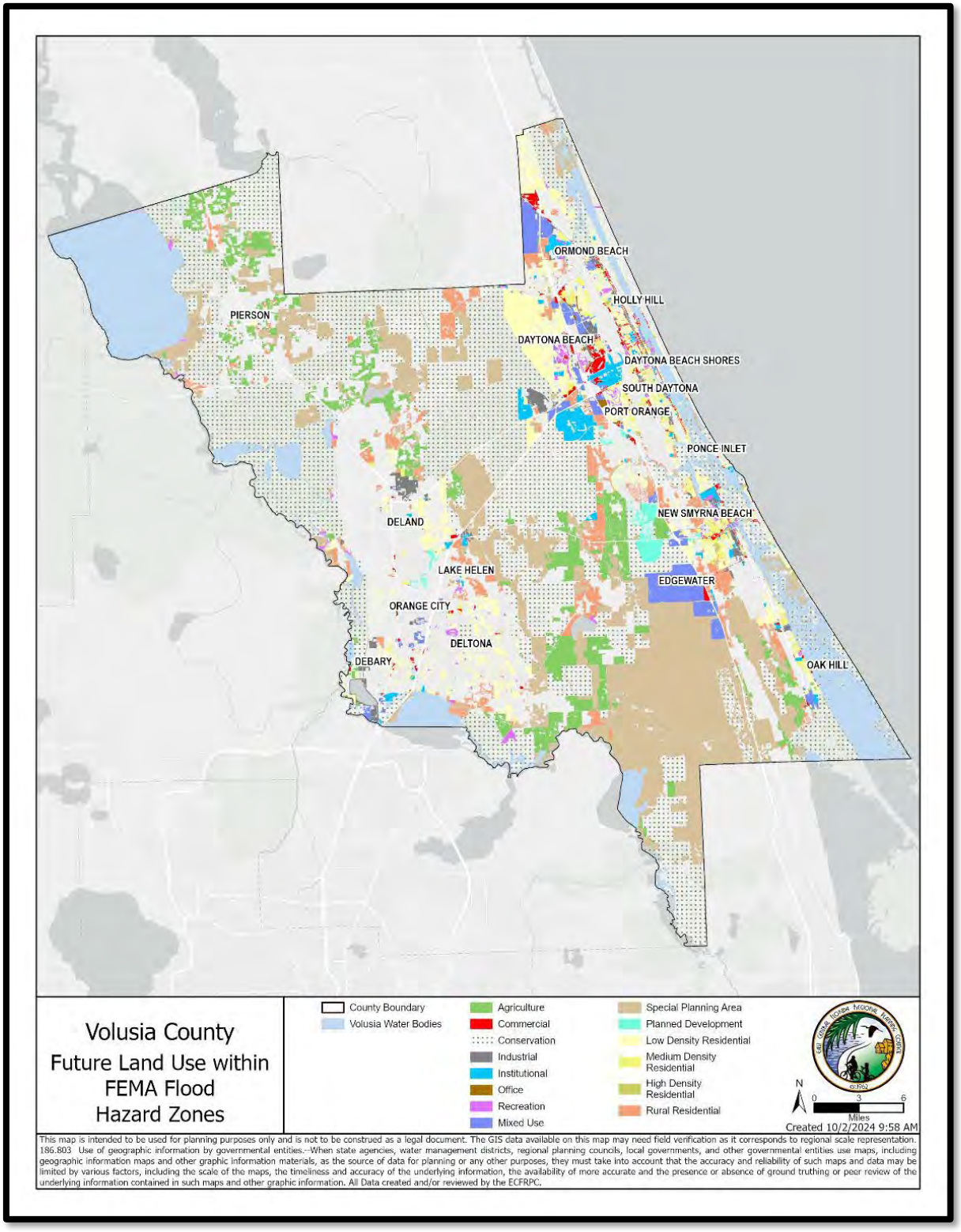
Volusia County Population, 2000: 445,060
Volusia County Population, 2010: 494,610 (+11.1%)
Volusia County Population, 2017: 538,692 (+8.9%)
Volusia County Population, 2023: 574,286 (+6.6%)

Future Land Use

Table 6: Analysis of Acreage of Future Land Uses Located within the 100 and 500-Year Flood Plain

Municipalities	Residential FLU	Commercial FLU	Mixed Use FLU	Industrial FLU	PD FLU	Institutional FLU
Daytona Beach	9,383.93	1,008.15	1,611.28	977.84	45.03	864.09
Daytona Beach Shores	11.98	15.18	-	-	1.58	1.15
DeBary	482.88	69.27	110.81	1276.54	-	97.03
DeLand	889.78	8.7	1.69	407.6	162.82	2.25
Deltona	21,742.91	942.59	803.46	-	-	-
Edgewater	806.99	66.80	3,976.84	166.87	-	55.28
Holly Hill	603.81	69.36	8.30	222.08	-	27.98
Lake Helen	0	3.31	9.38	-	-	8.41
New Smyrna Beach	2846.42	406.93	313.81	303.1	2061.65	404.49
Oak Hill	650.58	59.45	-	7.59	-	21.1
Orange City	32.43	21.98	223.1	1.11	-	-
Ormond Beach	2,086.27	289.64	1,679.42	196.74	-	149.60
Pierson	31.69	-	-	-	-	-
Ponce Inlet	163.20	30.83	-	-	-	74.28
Port Orange	2,561.51	204.38	66.27	196.65	235.82	141.5
South Daytona	951.22	46.12	120.73	72.33	-	42.89
Unincorporated	4658.5	500.63	422.64	381.29	-	381.29

Figure 15: Future Land Uses in the Floodplain



Shelters and Evacuations

Figure 16 shows the evacuation routes and storm shelter locations as identified by the Statewide Regional Evacuation Study (SRES). It is important to note that shelters located within a floodplain may be inaccessible to the public during flooding events, either due to property flooding or the flooding of access roads. The analysis showed that only one shelter is located within the 100-year floodplain.

The following evacuation routes are primary movers of traffic out of Volusia County:

- Interstate 4 (to Orlando)
- Interstate 95 (to Miami, Jacksonville)
- State Road 40 (to Lake County)
- State Road 415 (to Sanford)
- U.S. 1 (coastal)

Table 7 lists all the designated storm shelters in Volusia County.

In the event of a mass-evacuation situation in Volusia County, the roadways utilized to reach these storm shelters could become damaged or inundated by water, thus creating the need for mitigation activities that would identify shelters that have additional capacity or those that can serve excess capacity from an inundated shelter. Public messaging about evacuations is extremely time sensitive.

Figure 16: Shelters and Evacuation Routes in the Floodplain

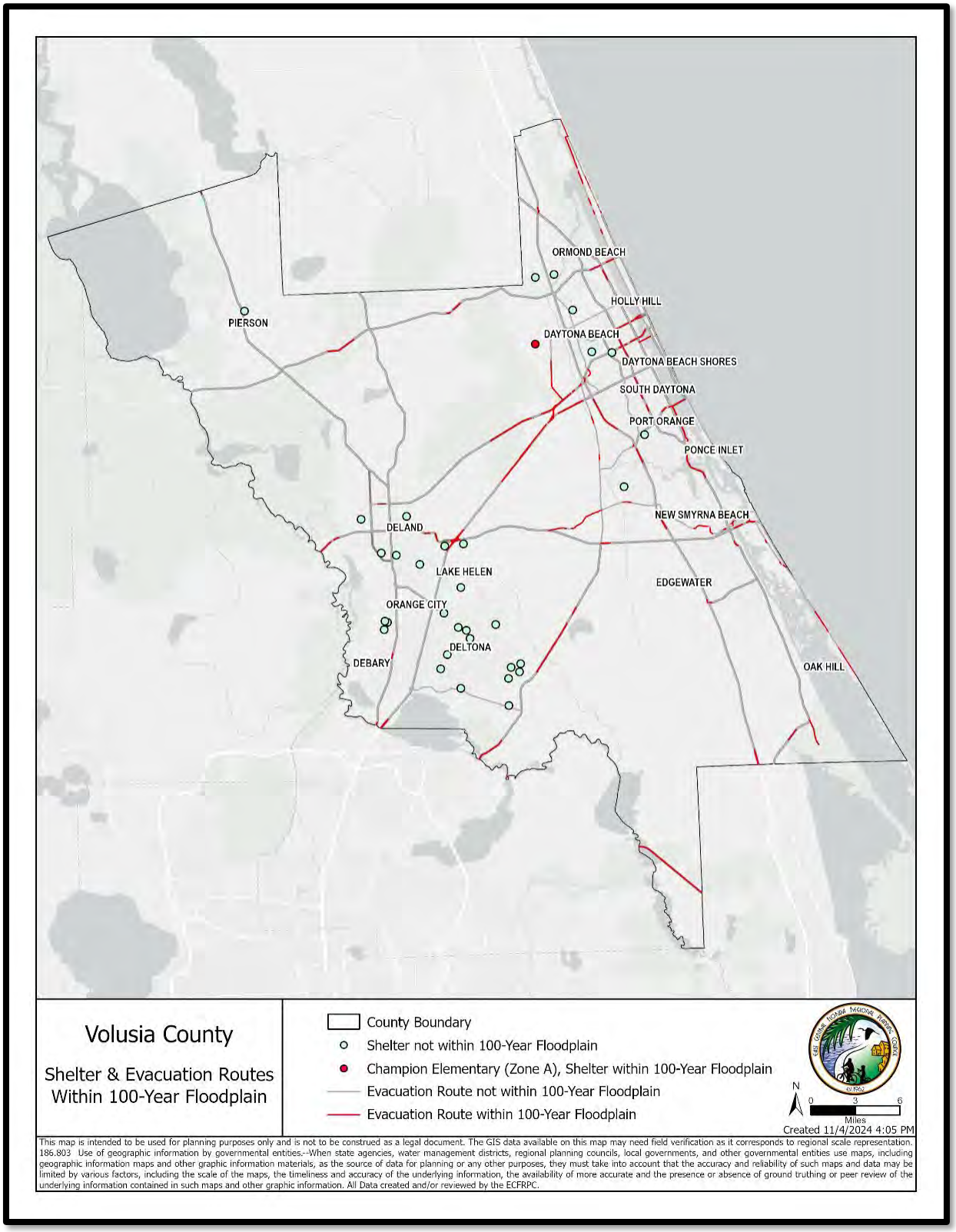


Table 7: List of Shelters

Jurisdiction	Name
Daytona Beach	Palm Terrace ES
Daytona Beach	Mainland HS
Daytona Beach	Champion ES (K-5)
DeLand	DeLand HS
DeLand	Freedom ES
DeLand	Daytona State College DeLand
Deland	Southwestern MS
Deland	Volusia County Fairground
DeLand	Citrus Grove ES (K-5)
DeLand	DeLand MS
Deltona	Sunrise ES
Deltona	Deltona HS
Deltona	Deltona Lakes ES
Deltona	Daytona State College Deltona
Deltona	Timber Crest ES
Deltona	Pride ES
Deltona	Friendship ES
Deltona	Spirit ES
Deltona	Heritage MS
Deltona	Discovery ES
Deltona	Forest Lake ES
Deltona	Pine Ridge HS

Deltona	Galaxy MS
Lake Helen	Volusia Pines ES
Orange City	Manatee Cove ES
Orange City	University HS
Orange City	River Springs MS
Ormond Beach	Hinson MS
Ormond Beach	Pathways ES
Ormond Beach	Pine Trail ES
Osteen	Osteen ES
Pierson	T.D. Taylor MS/HS
Port Orange	Creekside MS
Port Orange	Sweetwater ES
Port Orange	Hinson MS

C. Impacts of Flooding

Flooding poses a significant threat to Volusia County, affecting nearly every aspect of life, from the economy and infrastructure to community resilience and environmental sustainability. As storms grow more intense and rainfall totals increase, the consequences of flooding become more severe, leaving lasting damage that extends well beyond the initial event.

Economically, the cost of flooding is staggering. Property damage from floodwaters can leave homes and businesses uninhabitable, forcing residents and business owners to invest in costly repairs or relocation. Insurance premiums for flood-prone areas rise, placing additional financial strain on homeowners and deterring economic growth in affected communities. Prolonged flooding also disrupts commerce, shutting down businesses, damaging inventory, and creating long-term economic instability. Major employment sectors in the county, including tourism, agriculture, and coastal industries, suffer significant losses when roads are impassable, infrastructure is compromised, or natural attractions like beaches and parks are eroded or destroyed.

The county's infrastructure is particularly vulnerable to repeated flood events. Roads and bridges may be washed out, undermining connectivity and delaying emergency response times. Utilities, including water treatment plants and electrical grids, can become inundated, leading to prolonged power outages and boil-water advisories. As storm surges and riverine flooding breach critical infrastructure, the cost of repairs increases, and the risk of cascading failures—such as sewage system overflows and contaminated drinking water—rises. Public transit systems and evacuation routes often traverse floodplains, leaving them impassable during storms and further complicating response efforts.

For residents, flooding creates lasting hardship, particularly for the county's most vulnerable populations. Low-income communities, many of which are located in flood-prone areas due to historically lower property values, face disproportionate risks. Without financial resources to repair or elevate homes, many residents are left living in unsafe conditions long after floodwaters recede. Elderly and disabled individuals, who may have difficulty evacuating or accessing aid, are at higher risk of becoming stranded or experiencing health complications. Displaced families struggle with housing instability, often relying on temporary shelters or FEMA assistance while facing an uncertain future.

The environmental consequences of flooding further exacerbate the challenges faced by Volusia County. As floodwaters move through developed areas, they pick up pollutants, chemicals, and debris, contaminating rivers, estuaries, and groundwater supplies. The Halifax and Tomoka Rivers, along with the St. Johns River, serve as critical water sources for both human consumption and local ecosystems. Flooding accelerates saltwater intrusion into freshwater supplies, diminishing the availability of clean drinking water and threatening agriculture. Additionally, coastal erosion intensifies with each flood event, weakening natural barriers and making future storms even more destructive. Wetlands, which serve as natural buffers for floodwaters, become overwhelmed or permanently degraded, reducing their ability to absorb excess water and increasing the risk of more severe flooding in the future.

In the aftermath of major flood events, the road to recovery is long and arduous. The county must balance the immediate need for rebuilding with the long-term necessity of flood mitigation and climate adaptation. While investment in resilient infrastructure, improved drainage systems, and sustainable land-use planning can help reduce future risk, the reality remains that Volusia County will continue to grapple with the growing threats of flooding. The challenge of moving forward is not simply about responding to flood events but adapting to a future where rising waters become an ever-present concern.

VI. MITIGATION STRATEGY

A. Setting Goals

The Floodplain Management Plan Committee reviewed the goals of the current Volusia County FMP and the Local Mitigation Strategy. The following goals and objectives were adopted for the 2025 Volusia County Floodplain Management Plan.

GOAL 1 - Prevent new development in the floodplain from increasing runoff and resulting in increases in flood volumes in the floodplain.

- Objective 1.1 Enforce the building requirements, from the National Flood Insurance Program and not allow variances that are feasibly avoidable.
- Objective 1.2 Ensure any new development in the floodplain is in accordance with county or municipal ordinances.
- Objective 1.3 Minimize flood hazards and protect water quality county-wide by employing watershed-based approaches that balance environmental, economic, and engineering considerations.
- Objective 1.4 Protect environmentally sensitive lands and aquifers to maximize their survivability from known flood hazards where appropriate and financially feasible.
- Objective 1.5 Reduce flood exposure and maximize flood protection efforts.

Goal 2 – Develop and maintain a proactive public awareness and outreach that informs and notifies property owners that they are located in a flood zone and provides assistance and information regarding flood zones, protection of property, local drainage and sewer back-up problems.

- Objective 2.1 Create easily accessible information to educate residents about the hazards, loss reduction measures, and the natural and beneficial functions of floodplains.
- Objective 2.2 Encourage land and water uses compatible with the protection of environmentally sensitive lands and coastal resources.
- Objective 2.3 Review the adequacy and completeness of emergency procedures that address catastrophic flood events and every year conduct a test of the flood warning system.
- Objective 2.4 Minimize impacts from flooding in FEMA designated special flood hazard areas (i.e. flood zones starting with the letters “V” or “A”) where financially feasible.
- Objective 2.5 Build a constituency that desires to see the plan's recommendations implemented.
- Objective 2.6 Provide leadership in protecting low-income properties and public housing

from the impacts of floods.

Goal 3 - Continue with the Hazard Mitigation Grant Program to identify and obtain funding for both pre-and-post disaster residential mitigation projects regarding flooding.

- Objective 3.1 Continue to identify cost-beneficial residential units for various flood mitigation grants.
- Objective 3.2 Continue to utilize "Volusia Prepares" Local Mitigation Strategy to guide and assist the County and municipalities in establishing priorities for hazard mitigation projects.

Goal 4 – Reduce the number of repetitive loss properties within Volusia County.

- Objective 4.1: Mitigate identified repetitive loss properties through the HMGP funding program when possible.

Goal 5 - Review the locations and effects on areas that experience flooding and determine what steps, if any, the County and municipalities can take to alleviate future impacts.

- Objective 5.1 Maintain a database of flood problems and hazards, mitigation, and repetitive loss claim history.
- Objective 5.2 Build public and political support for projects that prevent new problems, reduce losses, and protect the natural and beneficial functions of floodplains.
- Objective 5.3 Continue to prioritize capital projects that will mitigate flood impacts in those areas of the County and municipalities that have experienced significant flooding problems.
- Objective 5.4 Continue and enhance existing programs that acquire wetland areas for passive recreation uses while providing significant watershed volume storage and buffer areas from the floodplain.

VII. MITIGATION ACTIVITIES

Flood Mitigation specifically involves managing and controlling flood movement to prevent and minimize flooding. Flood mitigation is any action taken to reduce risk to people or property from flooding and its effects. The Volusia County Multi-Jurisdictional Local Mitigation Strategy (LMS) has evolved over the years and not only focuses on flooding, but other natural hazards. The Volusia Prepares LMS Working Group has developed Bylaws and Operating Procedures to formalize the LMS update process and working group. The Plan documents and represents the County's and participating local jurisdictions' sustained efforts to incorporate hazard mitigation principles and practices into the routine government activities and functions of Volusia County and its participating jurisdictions and partners. This includes documenting the goals and objectives that Volusia County deems necessary to protect people and property from hazards. At its most inner core, the Plan recommends specific actions to combat hazard vulnerability and protect its residents from losses to those hazards that pose the greatest risk.

Table 8: Funding Sources for Property Mitigation Activities

Eligible Activities	Hazard Mitigation Grant	Pre-Disaster Mitigation	Flood Mitigation Assistance	Repetitive Flood Claim	Community Development Block Grant	Public Assistance Program	Severe Repetitive Loss
Acquisition/ Demolition *(for purposes of open space)*	✓	✓	✓	✓	✓		✓
Relocation	✓	✓	✓	✓	✓		✓
Elevation	✓	✓	✓	✓	✓		✓
Dry Flood-proofing *(historic residential structures)*	✓	✓	✓	✓	✓		✓
Public Facility Mitigation					✓	✓	✓
Mitigation Re-construction					✓		✓

A detailed description of the funding sources can be found in Section 9 of the Volusia County Local Mitigation Strategy.

A. Flooding Preventative Activities

Planning and regulatory capability is based on the implementation of plans, ordinances and programs that demonstrate a local jurisdiction's commitment to guiding and managing growth, development and redevelopment in a responsible manner while maintaining the general welfare of the community. It includes emergency management, mitigation planning, and comprehensive land use planning. Examples include:

- **Enforcement of Zoning and Subdivision Ordinances and Building Codes** - regulate how land is developed and how structures are built.
- **Urban Service Area Boundaries** – created to regulate sprawl and apply land use policies within defined, manageable boundaries. When a city has an urban service boundary, services and infrastructure are not provided outside the boundary to prevent development in sensitive areas and future losses. This supports development in lower-risk areas.
- **Transfer of Development Rights** – transfer of development rights is a market-based tool that allows communities to channel development toward designated growth areas and away from natural areas. Purchasing land may be beneficial to conserve natural land or relocate facilities from at risk areas.
- **Down Zoning** – involves rezoning an area to a usage of lower intensity, limiting financial exposure of development in high-risk areas. This can be applied in parts of the city that might be vulnerable to the impacts of sea level rise, storm surge, and flooding.
- **Cluster Zoning** – the type of zoning is used to "cluster" density within well-defined urban centers, leaving room for open spaces and conservation land. This strategy is best implemented in areas located away from high hazard zones and are centrally located.

B. Property Preventative Activities

Property preventive activities are generally undertaken by property owners on a building-by-building or parcel basis. Some activities may include:

- **Buy-Out & Acquisition** - the act of acquiring or gaining possession to flood damaged properties and permanently preserving the land.
- **Relocation** – physically moving an asset or facility that is at risk or that has experienced multiple flood losses in the past. A cost-benefit analysis should be performed due to the potential alternative to building an entirely new facility.
- **Elevation** – to reduce the probability of inundation and wave action, private and public property owners may choose to raise structures above base flood elevation.
- **Flood Insurance** – a specific insurance coverage against property loss from flooding.

- **Flood-Proofing** – this strategy includes making foundations, doors, and windows watertight or changing the use of the ground flood facilities to tolerate temporary inundation. Dry proofing makes assets waterproof. While wet proofing ensures that key materials are water resistant or elevated above the designated flood elevation.

C. Natural Resource Protection Activities

These activities are customarily conducted to preserve or restore natural areas or the natural functions of floodplain and watershed areas. Natural resource protection activities reduce the impact of natural hazards by preserving or restoring natural areas and their protective functions. Such areas include floodplains, wetlands, steep slopes and sand dunes. Parks, recreation or conservation agencies and organizations often implement these protective measures. Examples of Natural Resource Protective Measures:

- **Floodplain protection and watershed management** – regulate how land is developed.
- **Low impact development and nature-based solutions** – this includes the use of multiple strategies such as bioretention, permeable surfaces, solar, green buildings, and other features in masse in a new or existing development.
- **Living shorelines** – a vegetated shoreline that utilizes native plants with the purpose of dissipating erosive wave energy, filtering out toxins from water draining into the lagoon, and supporting coastal marine ecosystems. Many types of living shorelines exist such as salt marshes, oyster reefs, and dunes.
- **Shoreline nourishment and replenishment** – lengthens beaches or reduces water depths, may restore natural sand flow where it has been interrupted, and provides erosion protection for a large area over time. This is most useful along waterways prone to erosion.
- **Habitat restoration** – restoration of dunes, wetlands, and marshlands can improve water quality and health of ecosystems, provides recreational and philanthropic opportunities, and buffer property from water velocity.

D. Emergency Services Activities

Emergency services measures are taken prior to, during, and after an emergency to minimize vulnerability and impact. Volusia County Division of Emergency Management actively participates in training and exercise, as well as evacuation planning and emergency response. Currently Volusia County and 15 jurisdictions have an evacuation plan in place. In addition, Volusia County participated in the Statewide Regional Evacuation Study. Activities include:

- **Distributing sandbags for flood protection** - coordinating with the community prior to an expected flood event.

- **Emergency response training and exercises** – practices response and recovery efforts and identifying gaps.
- **Comprehensive Emergency Management Plan (CEMP)** – VCEM maintains a CEMP.

E. Structural Projects

Structural projects keep floodwaters away from an area with a levee, reservoir, or other flood control measure. Structural projects are usually designed by engineers and managed or maintained by public works staff. Examples of structural projects include:

- **Seawalls** – designed to prevent erosion and flooding on property in coastal areas.
- **Levees** – manmade or naturally occurring to regulate water levels and prevent outflow.
- **Tidal Dams** – damn like structure that limits high tides and storm surge from traveling upstream, reducing potential overflow of creeks and banks.
- **Water Pump Systems** – essential for cities to have adequate water pumping systems to allow the distribution of clean water and disposal of wastewater.
- **Green Streets** – combines bioretention swales, planters, and other green features with the elements of complete streets to enhance aesthetics and on-site water retention.

F. Public Education and Awareness Activities

Public Education and Awareness activities are used to advise residents, elected officials, business owners, potential property buyers, and visitors about hazards, hazardous areas, and mitigation techniques they can use to protect themselves and their property. Examples of measures to educate and inform the public include outreach projects.

Through an agreement with Volusia County, WNDB 1150AM/WHOG 95.7FM radio and WDSC TV-15 are Volusia County's official emergency management information stations. WNDB has a broadcast outlet at the CEOC. WDSC enhances the County's ability to provide critical public safety information with a direct, live television connection. Volusia County’s website hosts a flood map viewer which is an online mapping program that has searchable flood maps. The flood map viewer allows an individual to type in an address or property identification number to see the parcel on an interactive map in relation to the high-risk flood areas. Volusia County and its jurisdictions also provide real estate agents with floodplain disclosures. Information regarding floods can also be found at the County Libraries. Volusia County actively provides updates on events and public outreach through Facebook and X (formally known as Twitter).

It was identified through the public survey process that many residents are unsatisfied with educational and outreach efforts provided by the jurisdictions. It is recommended that

throughout the year and during the yearly plan update, at least one public meeting be held to provide information to the residents concerning mitigation and associated funding options. In addition, social media, mailings, workshops, and information booths at events are also suggested as well as public service announcements and information in the local newspaper. Providing strategies, funding resources and other education material both electronically on all the jurisdictional websites and in print in libraries and City Halls would be beneficial.

As of 2024, Volusia County Emergency Management has a downloadable app for cellphones that alerts and notifies residents with important information. This app supports push notifications that can be sent directly to the user's phone.

G. Action Plan

The Volusia County Multi-Jurisdictional Local Mitigation Strategy features a mitigation action plan that is maintained through the LMS Working Group. The Mitigation Strategy is the selection and prioritization of specific mitigation actions, referred to as Hazard Mitigation Initiatives, for Volusia County and participating jurisdictions. The Mitigation Action Plan (MAP) represents an unambiguous and functional plan for action and is considered to be the most essential outcome of the mitigation planning process. This detailed Action Plan can be found in Section 8 of the Volusia County Multi-Jurisdictional Local Mitigation Strategy.

The MAP includes a prioritized listing of proposed hazard mitigation actions (policies and projects) for Volusia County and its participating jurisdictions and partners to carry out with accompanying information such as those departments or individuals assigned responsibility for their implementation, potential funding sources and an estimated target date for completion, serving as an important tool for monitoring success or progress over time. The cohesive collection of actions listed in the MAP can also serve as an easily understood menu of mitigation policies and projects for those local decision makers who want to quickly review the recommendations and proposed actions of the Hazard Mitigation Plan.

The LMS working group has reviewed and prioritized the initiatives and projects found in the Action Plan. The prioritization was based on the following factors: population benefited, health and safety considerations, environmental impact, consistency with other plans and programs, reduces risk of future property damage, supports essential or critical services, probability of receiving funding and ease of implementation, community rating system, repetitive loss mitigation, and benefit cost ratio. Refer to Table 9 on the next page which justifies the scoring system. It is important to note that since this plan is to be incorporated into the Volusia County Local Mitigation Strategy (LMS), it will fall under all the implementation, evaluation, and revision

criteria and schedule as outlined specifically in the LMS.

H. Post-Disaster Redevelopment Strategies and Procedures

The County has completed and incorporated a Post Disaster Redevelopment Plan and Debris Management Plan into its ongoing planning process. In addition, a Continuity of Operations Plan has been developed to ensure that all County Emergency Support Functions (ESF's) work in unison following a hazard event.

I. Natural Hazard Mitigation Strategies and Procedures

The County deals with natural hazard mitigation and procedures through this plan and the Local Mitigation Strategy. The Local Mitigation Strategy Priority Projects list includes projects geared to reduce the impacts of flooding, storm surge, tropical cyclones, and other hazards. The 2025 Floodplain Management Plan has been affirmed with Resolutions of Adoption (Appendix H) for incorporation into the Volusia County Floodplain Management Plan.

Table 9: Prioritization and Scoring Worksheet

Prioritization Criteria	*Scoring*			
Population Benefited	**4 Points:** Project will benefit a multi-jurisdictional area	**3 Points:** Project will befit a jurisdictional area	**2 Points:** Project will benefit less than 100% of a jurisdiction.	
Health and Safety Considerations	**4 Points:** Project would benefit 75% or more of the population.	**3 Points:** Project would benefit 50 -74 % of the population.	**2 Points:** Project would benefit 25-49% of the population.	**1 Point:** Project would benefit less than 25% of the population.
Environmental Impact	**1 Point:** Project improves the environment.	**0 Point:** Risk to the environment is undetermined.	**(-1) Point:** Project poses a risk to the environment.	
Consistency with other plans and programs	**4 Points:** Project is incorporated into the LMS, CEMP, and Comp Plan and supports the NFIP.	**3 Points:** Project is incorporated into at least two of these plans.	**2 Points:** Project is incorporated into at least one of these plans.	**1 Point:** Project is consistent with other local standards, aside from LMS, CEMP, and Comp Plan.
Reduces Risk of Future Property Damage	**4 Points:** Mitigates a hazard of high frequency or risk.	**3 Points:** Mitigates a hazard of moderate frequency or risk.	**2 Points:** Mitigates a hazard of low frequency or risk.	**1 Point:** Mitigates a hazard of very low frequency or risk.
Supports Essential or Critical Services	**5 Points:** Project will ensure continuity of operations for essential infrastructure or services.	**3 Points:** Project will support infrastructure or services with loss/damage history.	**1 Point:** Project will support infrastructure or services without loss/damage history.	**0 Points:** Projects operation will have no impact on community infrastructure or services if disrupted.
Probability of Receiving Funding for Implementation	**4 Points:** Limited funding potential exists.	**3 Points**: Potential funding sources are other state or federal grants or similar funding sources.	**2 Points:** Potential funding is readily available through emergency preparedness or mitigation funding sources.	**0 Points**: Potential funding is readily available through local funding sources.

Feasibility of Implementation	**4 Points:** Project would be relatively easy to implement in one year.	**3 Points**: Project would be easy to implement in three years.	**2 points:** Project would be easy to implement in five years.	**0 Points:** Project would be difficult to implement.
Community Rating System (CRS) -public information, mapping - damage reduction -flood preparedness	**4 Points:** Project supports four CRS elements	**3 Points:** Project supports three CRS elements.	**2 Points:** Project supports two CRS elements.	**1 Point:** Project supports one CRS element.
Repetitive Loss (RL) Mitigation	**4 Points:** Project protects 50% or more of the RL structures.	**2 Points**: Project protects less than 50% of the RL structures.	**0 Points:** Project does not protect a RL structures.	
Benefit Cost Ratio (BCR)	**5 Points:** Project has a BCR of "1" or higher, using FEMA approved software.	**3 Points:** Project has a BCR of less than "1" using FEMA approved software.	**0 Points:** BCR cannot be determined.	

VIII. PLAN MAINTENANCE

A. Adopt the Plan

Each jurisdiction participating in the CRS program is required to adopt the Floodplain Management Plan formally through individual jurisdictional boards. The Appendix provides copies of all adopted resolutions. Please note, this section is a working section, as the adoption process may vary amongst the jurisdictions. As each jurisdiction provides a copy of the adopted resolution, it will be added to the appendix of the plan. The Volusia County Emergency Management Division is responsible for the master copy of the Floodplain Management Plan.

B. Implement, Evaluate, and Revise

As the party responsible for the FMP, the Volusia County Emergency Management Division will oversee the implementation, evaluation, and revision of the plan on a County-wide basis. Jurisdictional implementation and revision of Appendix A is the responsibility of each individual jurisdiction.

Procedures for monitoring the implementation, progression and revisions of the plan are completed through the Local Mitigation Strategy Steering Committee, also referred to as “Volusia Prepares”. This committee meets on a quarterly basis to review aspects of the LMS, including the FMP, and other topics such as CRS upkeep and requirements. The working group is made up of Volusia County Emergency Management staff and one representative from each participating Town or City. The working group implements the plan through Resolutions of Support and Resolutions of Adoption, evaluates the plan on a case- by-case basis, and revises the plan through the development of the “Action Plan” of priority projects, which are updated during Steering Committee Meetings as needed.

The LMS Steering Committee and the FMP Planning Committee are generally comprised of the same jurisdictional staff members. For the purpose of updating and maintaining the FMP, the FMP Planning Committee composition will continue to encompass the jurisdictional staff responsible for the implementation of the FMP and related policies and projects as it had been during the initial planning process. Pursuant to CRS Activity #510, an annual progress report is submitted.

This Floodplain Management Plan is considered an appendix to the Volusia County LMS. To that end, the maintenance of this document will occur in conjunction with the quarterly LMS updates. During the third quarter of the calendar year (July/August/September), the County and the jurisdictions will provide updates, including data and projects, to the County for review by the LMS

Steering Committee/FMP Planning Committee. The steering committee will review any updates, and the County will be responsible for implementing the updates in the master plan. In addition, the evaluation report will be prepared by the FMP Planning Committee and address updates per jurisdiction. Each community will submit its copy of the annual evaluation report with its recertification annually. The Volusia County Emergency Management Division will be responsible for the five-year update process. During this update period, the public will have the opportunity to participate in the updating process. It is recommended that at least one public meeting is held during this period to provide input. In addition, it is recommended that notification be submitted via databases, utility mailings, websites, and social media, concerning the update process, public meetings, and other avenues of input. The current plan as well as the proposed changes should be made available on each jurisdictional website as well as a hard copy being provided at the City Halls and libraries. Press releases, website or social media posts, radio, and TV announcements may also be utilized to inform the public.

Once per year, elected officials will be provided with a copy of the most current Floodplain Management Plan in conjunction with the LMS. At that time, hard copies of the plan will be replaced at the designated location in participating jurisdictions or be found online via the County's website.

JURISDICTIONAL PROFILES

Profiles

Daytona Beach

Floodplain Management Goals and Objectives

Goal 1: Promote public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas

- Objective 1.1: Maintain the City's Community Rating System Classification.
- Objective 1.2: Provide flood protection information to residents.
- Objective 1.3: Coordinate and implement small and/or large-scale projects to help alleviate drainage and flood concerns.
- Objective 1.4: To protect human life, health and to eliminate or minimize property damage.
- Objective 1.5: Require the use of appropriate construction practices to prevent or minimize future flood damage.
- Objective 1.6: Manage filling, grading, dredging, mining, paving, excavation, drilling operations, storage of equipment or materials and other development activities which may increase flood damage or erosion potential.
- Objective 1.7: Manage the alteration of flood hazard areas, watercourses and shorelines to minimize the impact of development on the natural and beneficial functions of floodplains.
- Objective 1.8: To minimize the need for rescue and relief efforts associated with flooding that are generally undertaken at the expense of the general public.
- Objective 1.9: To minimize prolonged business interruptions.
- Objective 1.10: To minimize damage to public facilities and utilities, such as water mains, gas mains, electric lines, telephone lines and sanitary sewer lines, streets, bridges and stormwater culverts located in floodplains.
- Objective 1.11: To maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize flood blight areas.
- Objective 1.12: To ensure that potential homebuyers are notified when the property is in a flood hazard area.

- Objective 1.13: To help maintain a stable tax base by providing for the sound use and development of flood prone areas in order to minimize flood blight areas.

Goal 2: To create programs to manage the surface water runoff

- Objective 2.1: Develop/maintain storm water management plan.
- Objective 2.2: Develop alternative water supply on western city limits.

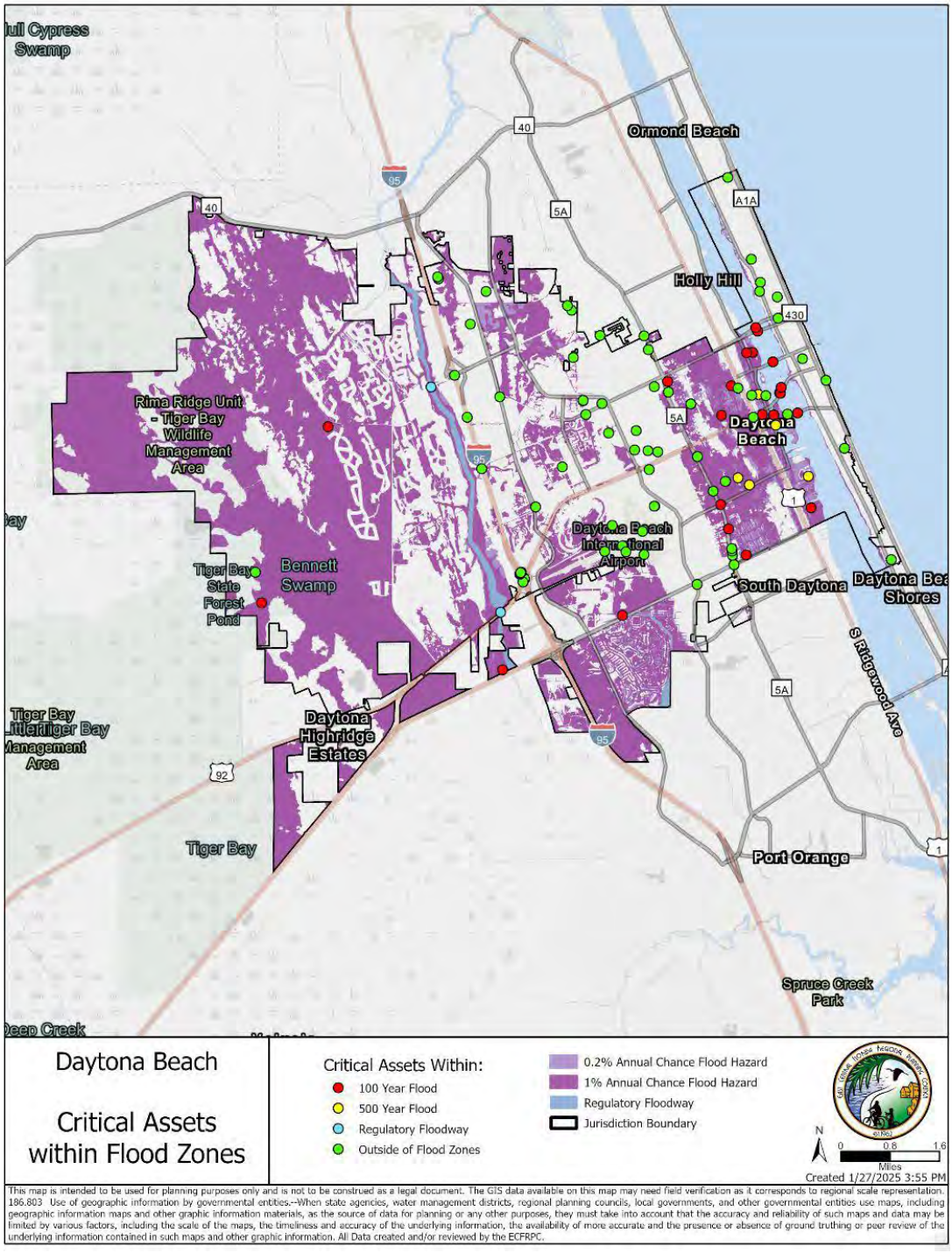
Table 1: Daytona Beach- Exposed Critical Facilities

Facility Name	Facility Type	Flood Zone
Iww Halifax River Highway Bridge	Transportation Systems	100-Year
Daytona Canal Highway Bridge	Transportation Systems	100-Year
Nova Canal Highway Bridge	Transportation Systems	100-Year
Tomoka River Highway Bridge	Transportation Systems	100-Year
Municipal Yacht Basin	Transportation Systems	100-Year
Vehicle Maintenance Facility	Utility Systems	100-Year
Daytona Beach/Bethune Point Drinking Water Facility	Utility Systems	500-Year
WROD 1340	Utility Systems	100-Year
WMFJ 1450	Utility Systems	100-Year
Father Lopez Catholic High School	Essential Facilities	100-Year
Pure In Heart Christian Academy	Essential Facilities	100-Year
Bethune-Cookman University	Essential Facilities	100-Year
Turie T. Small Elementary School	Essential Facilities	500-Year
Mount Calvary Academy	Essential Facilities	500-Year
The Chase Academy, Inc.	Essential Facilities	100-Year
Champion Elementary School	Essential Facilities	100-Year
Volusia County Sheriffs Department	Essential Facilities	500-Year
Daytona Beach Fire Department Station 1	Essential Facilities	500-Year
Daytona Beach Fire Department Station 6	Essential Facilities	100-Year

Table 2: Daytona Beach- Floodplain Exposure Analysis

Exposure	Percentage
Percent of Properties in the Floodplain	43.87%
Properties in the Floodplain	13,847
Exposed Acreage: Residential Future Land Use	9,383.93
Exposed Acreage: Commercial Future Land Use	1,008.15
Exposed Acreage: Mixed Use Future Land Use	1,611.28
Exposed Acreage: PD Future Land Use	45.03
Exposed Acreage: Institutional Future Land Use	864.09
Total Exposure: Land Value	$1,703,773,217
Total Exposure: Building Value	$4,954,662,325
Total Exposure: Assessed Value	$6,658,435,543
Total Exposure: Taxable Value	$4,082,706,747
Exposed Acreage: Industrial Future Land Use	977.84

Figure 1: Critical Assets with Flood Zone - Daytona Beach



Daytona Beach Shores

Floodplain Management Goals and Objectives

Goal 1: Prevent new development in the floodplain from increasing runoff and resulting in increases in flood volumes in the floodplain.

- Objective 1.1 Enforce building requirements from the National Flood Insurance Program and not allow variances that are feasibly avoidable.
- Objective 1.2 Permit new development in the Special Flood Hazard Area consistent with federal, state and local laws.
- Objective 1.3 Minimize flood hazards and protect water quality by employing approaches that balance environmental, economic, and engineering considerations.
- Objective 1.4 Protect environmentally sensitive lands to maximize their inherent mitigation attributes and reduce known flood hazards where appropriate and financially feasible.
- Objective 1.5 Reduce flood exposure and maximize flood protection efforts.

Goal 2: Develop and maintain a proactive public awareness and outreach that informs and notifies property owners that they are located in a flood zone and provides assistance and information regarding flood zones, protection of property, local drainage and sewer back-up problems.

- Objective 2.1 Create easily accessible information to educate residents about the hazards, loss reduction measures, and the natural and beneficial functions of floodplains.
- Objective 2.2 Encourage land and water uses compatible with the protection of environmentally sensitive lands and coastal resources.
- Objective 2.3 Review the adequacy and completeness of emergency procedures that address catastrophic flood events.
- Objective 2.4 Minimize impacts from flooding in FEMA designated special flood hazard areas (i.e. flood zones starting with the letters “V” or “A”) where financially feasible.
- Objective 2.5 Build a constituency that desires to see the plan's recommendations

implemented.

Goal 3: Continue with the Hazard Mitigation Grant Program to identify and obtain funding for both pre-and-post disaster residential mitigation projects regarding flooding.

- Objective 3.1 Identify various flood mitigation grants that may assist residences located in the floodplain.
- Objective 3.2: Utilize "Volusia Prepares" Local Mitigation Strategy to guide and assist in establishing priorities for hazard mitigation projects.

Goal 4: Reduce the number of repetitive loss properties within Volusia County.

Goal 5: Review the locations and effects on areas that experience flooding and determine what steps, if any, the City can take to alleviate future impacts.

- Objective 5.1 Maintain a database of flood problems and hazards, mitigation and repetitive loss claim history.
- Objective 5.2 Build public and political support for projects that prevent new problems, reduce losses, and protect the natural and beneficial functions of floodplains.
- Objective 5.3 Prioritize capital projects that will mitigate flood impacts in areas of the City that have experienced significant flooding problems.
- Objective 5.4 Utilize the findings of the Daytona Beach Shores Resiliency Study (25-26) to guide and assist in establishing flood related priorities and future actions.
- Objective 5.5 Coordinate with adjacent jurisdictions to address multi-jurisdictional flood issues where feasible.

There are no critical assets within the 100-year or 500-year flood zones.

Table 3: Daytona Beach Shores - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	38.53%
Properties in the Floodplain	507
Exposed Acreage: Residential Future Land Use	11.98
Exposed Acreage: Commercial Future Land Use	15.18
Exposed Acreage: Mixed Use Future Land Use	0
Exposed Acreage: PD Future Land Use	1.58
Exposed Acreage: Institutional Future Land Use	1.15
Total Exposure: Land Value	$157,904,972
Total Exposure: Building Value	$279,484,175
Total Exposure: Assessed Value	$437,389,147
Total Exposure: Taxable Value	$373,912,678
Exposed Acreage: Industrial Future Land Use	0

Figure 2: Critical Assets with Flood Zone - Daytona Beach Shores

DeBary

Floodplain Management Goals and Objectives

Goal 1: Manage storm water runoff and the preservation of water resources.

- Objective 1.1: Alleviate downstream flood hazards
- Objective 1.2: Prevent significant loss of life and property due to runoff from any foreseeable rainfall event
- Objective 1.3: Reduce the capital expenditure associated with flood-proofing and the installation and maintenance of storm drainage systems.

Goal 2: Promote public health, safety and general welfare and minimize public and private losses due to flood conditions in specific areas.

- Objective 2.1: Protect human life, health and eliminate or minimize property damage
- Objective 2.2: Minimize expenditure of public money for costly flood control projects
- Objective 2.3: Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public
- Objective 2.4: Maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize flood blight areas.
- Objective 2.5: Ensure that potential homebuyers are notified that property is in a flood hazard area.

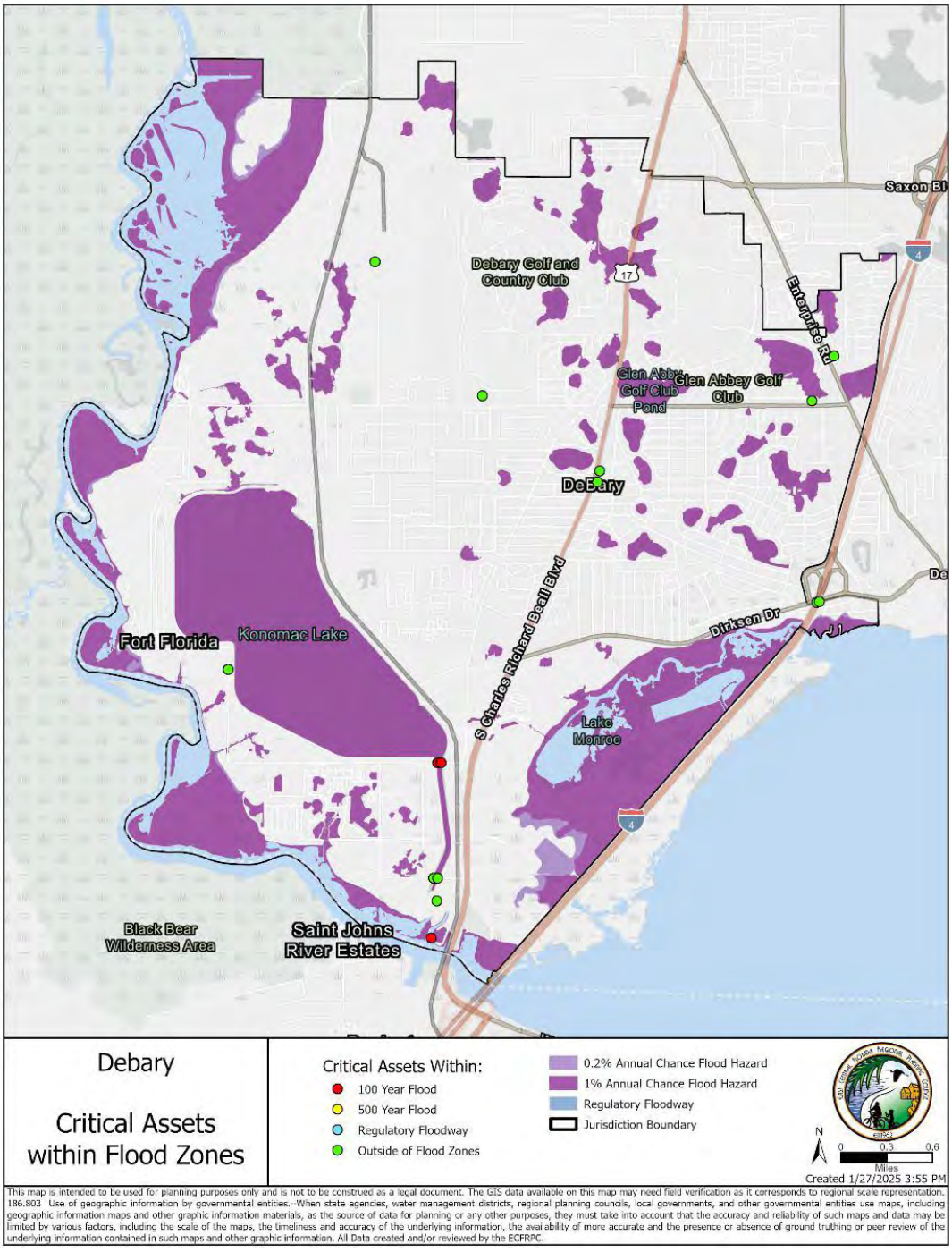
Table 4: DeBary - Exposed Critical Facilities

Facility Name	Facility Type	Flood Zone
FPL Cooling Discharge Canal Highway Bridge	Transportation Systems	100-Year
FPL Cooling Intake Canal Highway Bridge	Transportation Systems	100-Year
FPL Lake Monroe Highway Bridge	Transportation Systems	100-Year

Table 5: DeBary - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	11.7
Properties in the Floodplain	1,387
Exposed Acreage: Residential Future Land Use	482.88
Exposed Acreage: Commercial Future Land Use	69.27
Exposed Acreage: Mixed Use Future Land Use	110.81
Exposed Acreage: PD Future Land Use	N/A
Exposed Acreage: Institutional Future Land Use	97.03
Total Exposure: Land Value	$210,727,482
Total Exposure: Building Value	$380,092,845
Total Exposure: Assessed Value	$590,820,327
Total Exposure: Taxable Value	$340,103,975
Exposed Acreage: Industrial Future Land Use	0

Figure 3: Critical Assets with Flood Zone - DeBary



DeLand

Floodplain Management Goals and Objectives

Goal 1: Minimize public and private losses due to flood conditions in specific areas.

- Objective 1.1: Prioritize and implement capital projects to alleviate known drainage and flooding problems.
- Objective 1.2: Maintain existing storm water facilities to function near optimal capacity.
- Objective 1.3: Sweep streets to maintain positive visual appearance and to prevent build-up of debris in storm systems within City right of way.
- Objective 1.4: Maintain storm water pump stations and standby generators in good condition at all times.

Goal 2: Provide adequate funding for construction of storm water system improvements and operation and maintenance of existing systems.

- Objective 2.1: Obtain revenue from all storm water system users by collection of utility fees accessed in proportion to benefit derived.
- Objective 2.2: Analyze and adjust storm water utility rates as necessary to fund priority capital projects and operating expenses.

Goal 3: Regulate new development and redevelopment to reduce or eliminate increases in flood volumes and additional flooding conditions.

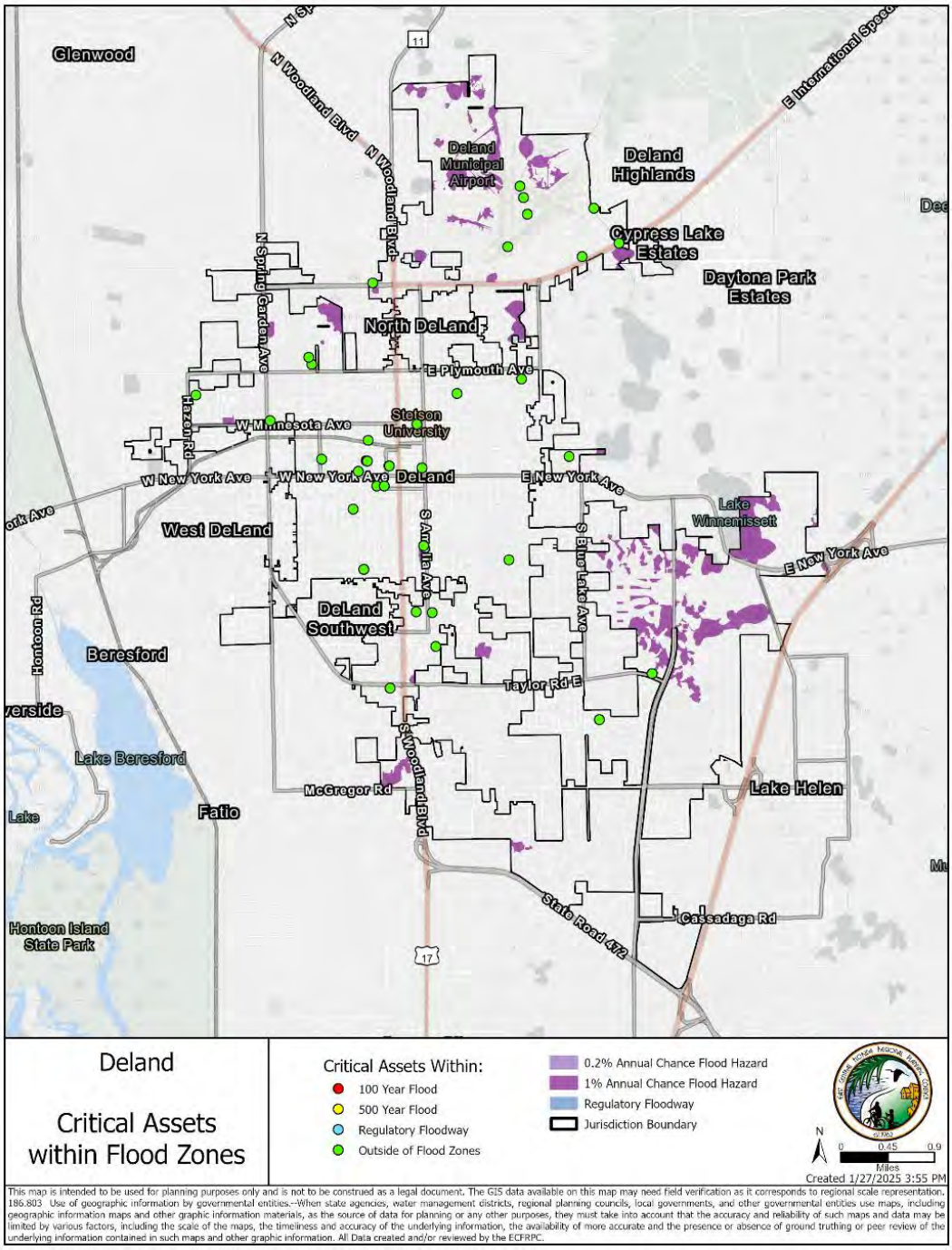
- Objective 3.1: Enforce building requirements from the National Flood Insurance Program.
- Objective 3.2: Prevent new development in the flood plain unless mitigated.
- Objective 3.3: Consider downstream effects of new development and require mitigation as appropriate.
- Objective 3.4: Reduce quantity and improve quality of runoff from developed properties when redeveloped.

There are no critical assets within the 100-year or 500-year flood zones.

Table 6: Deland - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	2.11%
Properties in the Floodplain	369
Exposed Acreage: Residential Future Land Use	889.78
Exposed Acreage: Commercial Future Land Use	8.7
Exposed Acreage: Mixed Use Future Land Use	1.69
Exposed Acreage: PD Future Land Use	162.82
Exposed Acreage: Institutional Future Land Use	2.25
Total Exposure: Land Value	$745,304,25
Total Exposure: Building Value	$160,357,535
Total Exposure: Assessed Value	$234,887,960
Total Exposure: Taxable Value	$120,198,104
Exposed Acreage: Industrial Future Land Use	407.6

Figure 4: Critical Assets with Flood Zone - Deland



Deltona

Floodplain Management Goals and Objectives

Goal 1: Protect and appropriately utilize the physical and ecological functions of natural drainage ways and related drainage patterns.

- Objective 1.1: The City shall discourage development within any known flood plains as identified by the best available data, such as FEMA flood maps.
- Objective 1.2: Development and structures shall be discouraged within the 100-year flood plain; however, if located therein they shall be constructed in a manner that results in no loss in of existing 100-year floodplain storage and function.
- Objective 1.3: If structures are allowed in the 100-year flood plain, development within areas prone to 100-year flooding shall compensate for the full amount of flood storage displacement within the 100-year floodplain and shall not increase expected flood levels for adjacent properties or reduce receiving surface water quality below established levels.
- Objective 1.4: The functions of flood plains and other flood prone areas shall be protected by directing development away from such areas. If activities do occur within floodplain or flood prone areas such impacts shall be minimized. In addition, if development does occur within floodplain/prone areas then techniques such as compensating storage and the elevation/design of improvements shall be required to ensure that floodplain functions are protected.

Goal 2: The City of Deltona shall continue to implement the comprehensive surface and groundwater watershed management plan.

- Objective 2.1: On-site sewage disposal systems and associated drain fields shall be discouraged within the flood plain of surface water bodies as provided for inland development regulations, to the extent that such systems are designed and located to not contribute to the degradation of ambient water quality as consistent with applicable State regulations.
- Objective 2.2: Undisturbed segments of flood plains shall be protected through public acquisition, land use controls, conservation easements, or other methods as appropriate.
- Objective 2.3: Proposed structures located within the flood plain of surface water

bodies and within flood prone areas, shall be required to utilize building methods as provided in land development regulations, to the extent that fill material required for construction or other impervious surfaces will not reduce the ability of the floodplains to store and convey floodwaters, or degrade the natural physical and biological functions of protected habitat without approved mitigation. Impacts of filling in the floodplains and flood prone areas shall be considered both sites specifically and cumulatively. 9J- 5.013(2)(c)(9)

- Objective 2.4: Dwelling unit densities shall not be increased within the flood plains of surface water bodies and in other flood prone areas as provided for in land development regulations, and per Florida Statute in that allowable densities do not create potential flood hazards or degrade the natural functions of the flood plain. Dwelling unit density determinations in the floodplain shall consider both site specific and cumulative impacts.

Goal 3: Protect and appropriately utilize the physical and ecological functions of natural drainage ways and related drainage patterns.

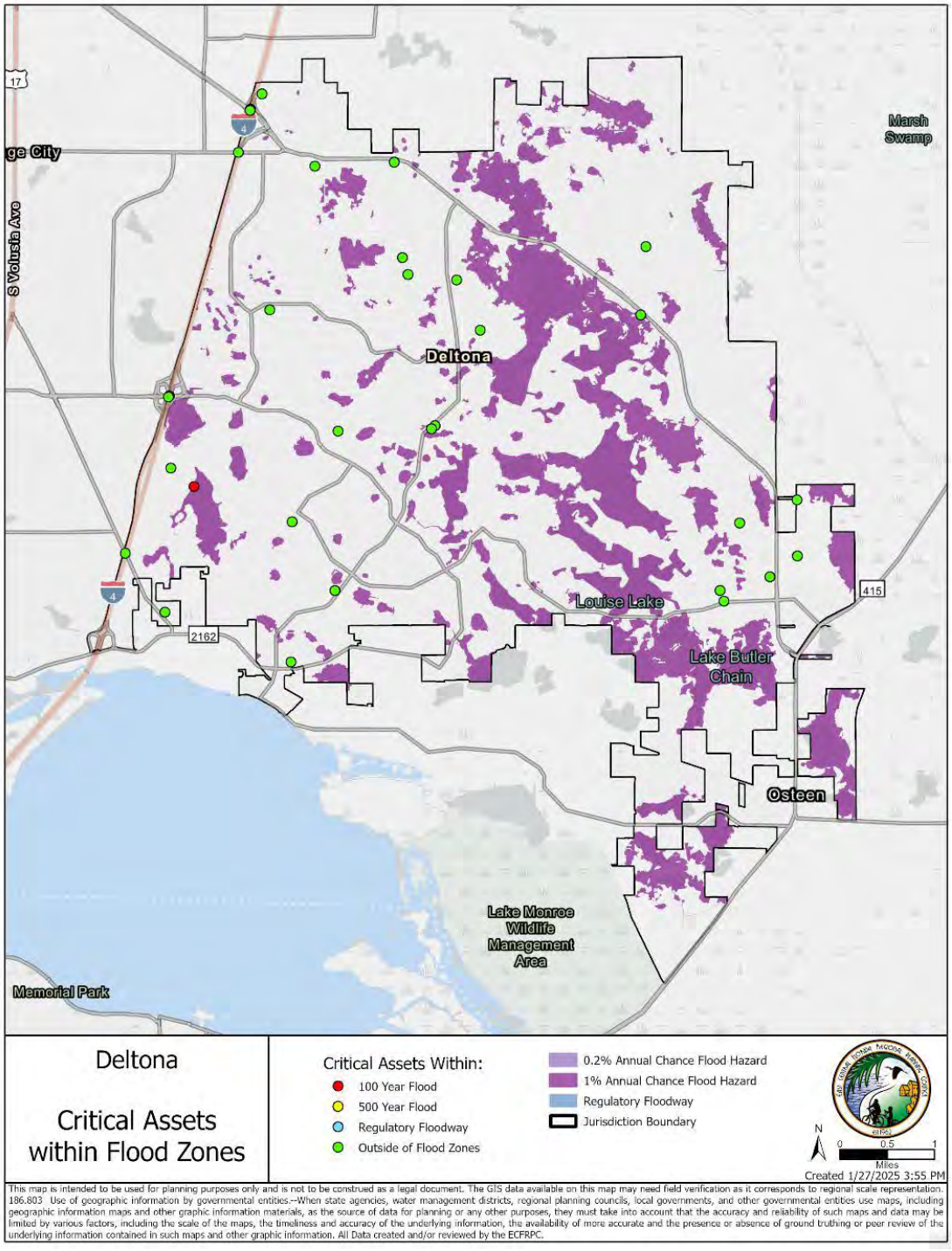
Table 7: Deltona - Exposed Critical Facilities

Facility Name	Facility Type	Flood Zone
Academy Of Career Training	Essential Facilities	100-Year

Table 8: Deltona - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	13.77%
Properties in the Floodplain	5,522
Exposed Acreage: Residential Future Land Use	21,742.91
Exposed Acreage: Commercial Future Land Use	942.59
Exposed Acreage: Mixed Use Future Land Use	803.46
Exposed Acreage: PD Future Land Use	N/A
Exposed Acreage: Institutional Future Land Use	N/A
Exposed Acreage: Industrial Future Land Use	N/A
Total Exposure: Land Value	$398,367,606
Total Exposure: Building Value	$1,147,280,949
Total Exposure: Assessed Value	$1,545,648,555
Total Exposure: Taxable Value	$668,644,860

Figure 5: Critical Assets with Flood Zone - Deltona



Edgewater

Floodplain Management Goals and Objectives

Goal 1: Continue to maintain a floodplain management ordinance, which includes the development standards required for participation in the National Flood Insurance Program.

- Objective 1.1: New construction, or substantial improvement, of any residential structure shall have the lowest floor, including basement, elevated no less than one foot (1') above the base flood elevation or crown of the paved road whichever is greater, or 16 inches (16") above an unpaved road.
- Objective 1.2: Plans and designs for subdivisions shall minimize potential flood damage by locating recreation and conservation uses, if included in the plans, to areas within the Flood Zone, reserving as much land as possible outside the flood zone for other land uses. Flood zones shall be identified on all final development plans submitted to the City.

Goal 2: Strongly discourage development within flood prone areas is strongly discouraged and mitigate any adverse impacts to the surrounding area that may be related to drainage, public health or public safety.

- Objective 2.1: Encroachments within the published flood way will not be approved under any circumstances.
- Objective 2.2: Compensatory storage for 100-year flood plain encroachments shall be provided in accordance with the City requirements.
- Objective 2.3: Projects located near the coast should evaluate any flooding effects associated with both storm surge (FEMA Zones V and VE) and the freshwater flood (FEMA Zones A, AE, AH and AO).

Goal 3: Protect the natural function and values of the 100-year floodplain.

- Objective 3.1: 100-year floodplain shall be given high priority in the selection of conservation areas within the City and for public acquisition of lands for conservation and recreational purposes.
- Objective 3.2: Development within the 100 Year Floodplain shall provide necessary

mitigation to maintain the natural storm water flow regime.

- Objective 3.3: All new construction and substantial improvements of existing construction shall be constructed with materials and utility equipment resistant to flood damage and using methods and practices that will minimize flood damage and prevent the pollution of surface waters during a 100-year flood event.

Goal 4: Limit development in the Coastal High Hazard Area and direct population concentrations away from this area.

- Objective 4.1: No new public facilities shall be located in the Coastal High Hazard Areas other than those necessary to support the levels of service identified in the Capital Improvement Element and for overriding health and safety reasons.
- Objective 4.2: By December 2014, the City shall identify areas in the Coastal High Hazard Area needing redevelopment, including eliminating unsafe conditions and inappropriate uses as opportunities arise.
- Objective 4.3: No future land use amendments shall be approved within the Coastal High Hazard Area which will increase the previously permitted density.

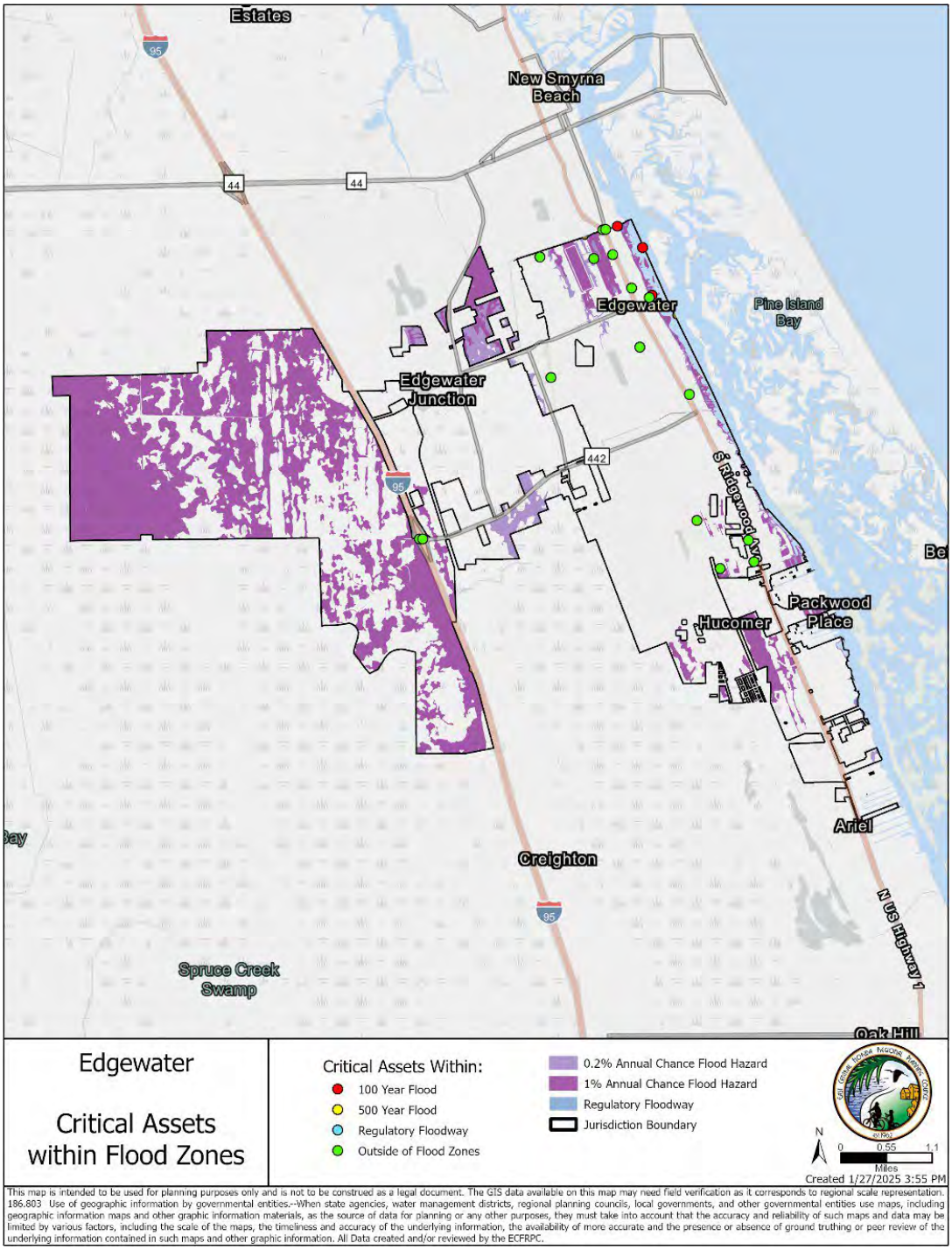
Table 9: Edgewater - Exposed Critical Facilities

Facility Name	Facility Type	Flood Zone
Gabordys Canal Highway Bridge	Transportation Systems	100-Year
Edgewater Port Facility	Transportation Systems	100-Year
Kennedy Park Waste Water System	Utility Systems	100-Year

Table 10: Edgewater - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	12.52%
Properties in the Floodplain	1,564
Exposed Acreage: Residential Future Land Use	806.99
Exposed Acreage: Commercial Future Land Use	66.80
Exposed Acreage: Mixed Use Future Land Use	3,976.84
Exposed Acreage: PD Future Land Use	N/A
Exposed Acreage: Institutional Future Land Use	55.28
Exposed Acreage: Industrial Future Land Use	166.87
Total Exposure: Land Value	$338,017,870
Total Exposure: Building Value	$352,694,303
Total Exposure: Assessed Value	$690,712,173
Total Exposure: Taxable Value	$417,012,709

Figure 6: Critical Assets with Flood Zone - Edgewater



Holly Hill

Floodplain Management Goals and Objectives

Goal 1: Safeguard the public health, safety and general welfare and to minimize public and private losses due to flooding through regulation of development in flood hazard areas.

- Objective 1.1: Minimize unnecessary disruption of commerce, access and public service during times of flooding.
- Objective 1.2: require the use of appropriate construction practices in order to prevent or minimize future flood damage.
- Objective 1.3: Manage filling, grading, dredging, mining, paving, excavation, drilling operations, storage of equipment or materials and other development which may increase flood damage or erosion potential.
- Objective 1.4: Manage the alteration of flood hazard areas, watercourses and shorelines to minimize the impact of development on the natural and beneficial functions of the floodplain.
- Objective 1.5: Minimize damage to public and private facilities and utilities.
- Objective 1.6: Help maintain a stable tax base by providing for the sound use and development of flood hazard areas.
- Objective 1.7: Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events.
- Objective 1.8: Meet the requirements of the National Flood Insurance Program for community participation as set forth in the Title 44 Code of Federal Regulations, Section 59.22.

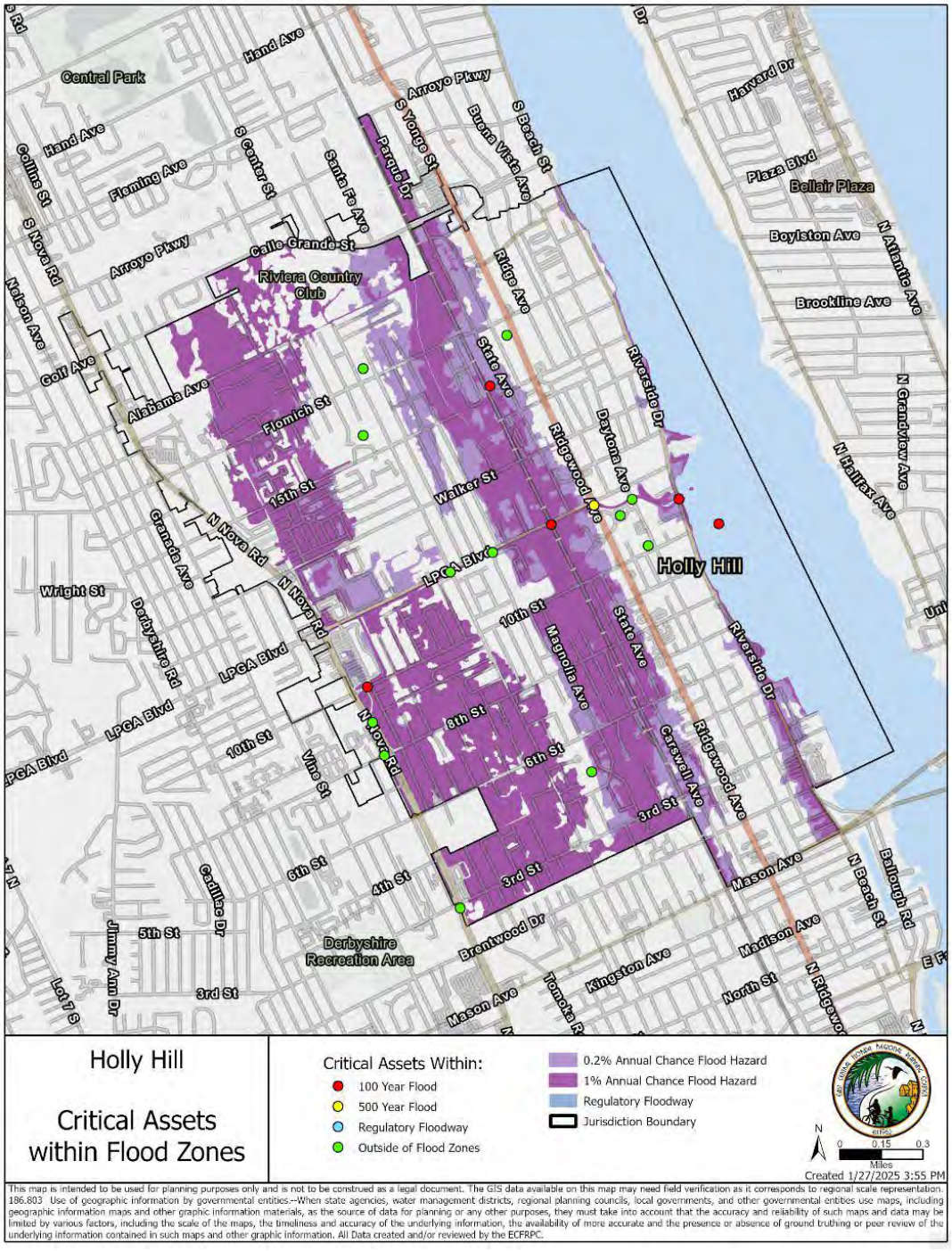
Table 11: Holly Hill- Exposed Critical Facilities

Facility Name	Facility Type	Flood Zone
Canal Highway Bridge	Transportation Systems	100-Year
11th St. Canal Highway Bridge	Transportation Systems	500-Year
Halifax Canal Highway Bridge	Transportation Systems	100-Year
Holly Hill Drinking Water Facility	Utility Systems	100-Year
WAPN CH 218	Utility Systems	100-Year

Table 12: Holly Hill - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	57.93%
Properties in the Floodplain	3,160
Exposed Acreage: Residential Future Land Use	603.81
Exposed Acreage: Commercial Future Land Use	69.36
Exposed Acreage: Mixed Use Future Land Use	8.30
Exposed Acreage: PD Future Land Use	N/A
Exposed Acreage: Institutional Future Land Use	27.98
Exposed Acreage: Industrial Future Land Use	222.08
Total Exposure: Land Value	$191,432,996
Total Exposure: Building Value	$564,359,250
Total Exposure: Assessed Value	$755,792,246
Total Exposure: Taxable Value	$502,823,799

Figure 7: Critical Assets with Flood Zone - Holly Hill



Lake Helen

Floodplain Management Goals and Objectives

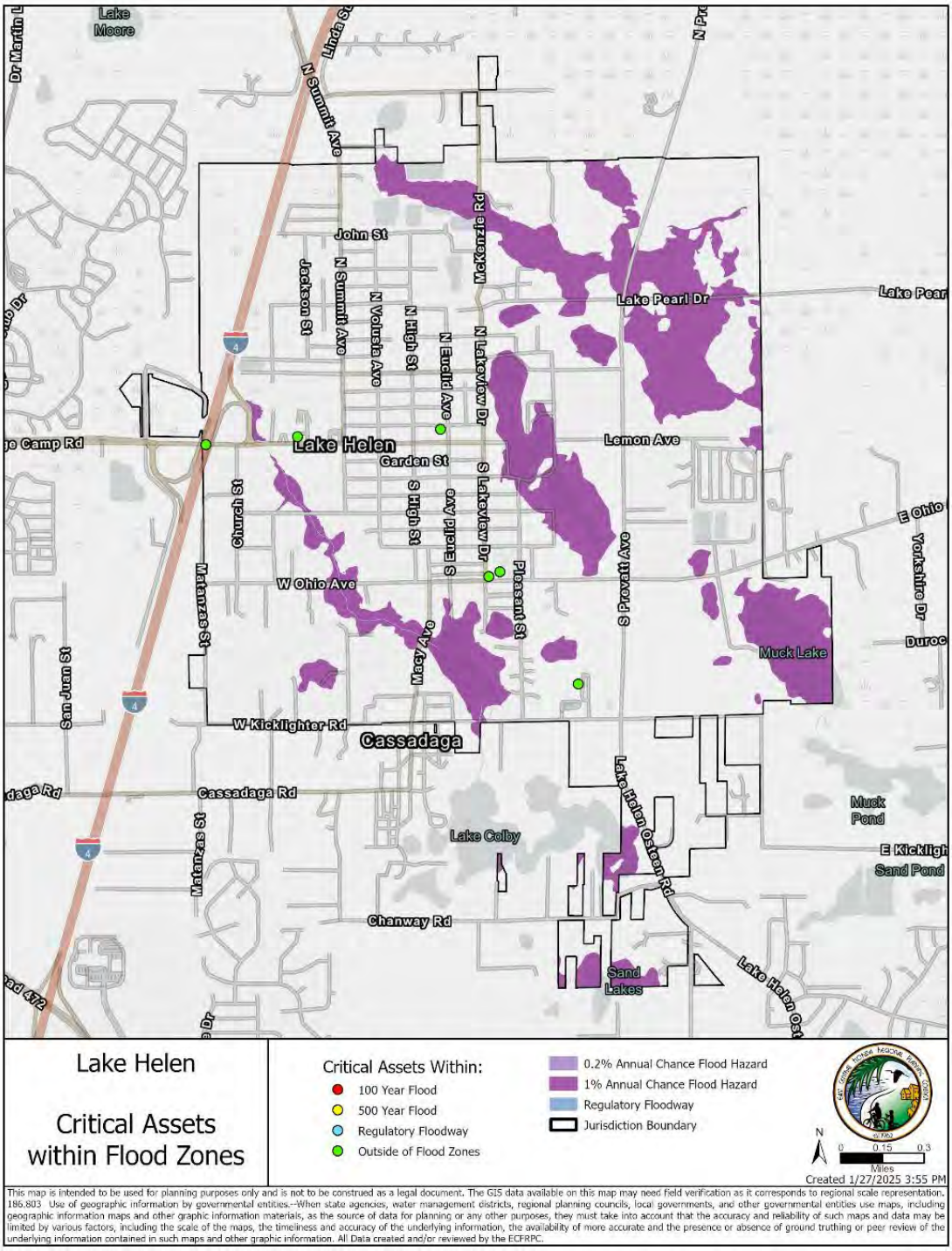
There are no additional goals to the countywide goals stated in the report.

There are no critical assets within the 100-year or 500-year flood zones.

Table 13: Lake Helen - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	16.65%
Properties in the Floodplain	288
Exposed Acreage: Residential Future Land Use	0
Exposed Acreage: Commercial Future Land Use	3.31
Exposed Acreage: Mixed Use Future Land Use	9.38
Exposed Acreage: PD Future Land Use	N/A
Exposed Acreage: Institutional Future Land Use	8.41
Exposed Acreage: Industrial Future Land Use	N/A
Total Exposure: Land Value	$32,412,697
Total Exposure: Building Value	$45,911,931
Total Exposure: Assessed Value	$78,324,628
Total Exposure: Taxable Value	$36,649,988

Figure 8: Critical Assets with Flood Zone - Lake Helen



New Smyrna Beach

Floodplain Management Goals and Objectives

Goal 1: Promote public health, safety and general welfare, and minimize public and private losses due to flood conditions in specific areas.

- Objective 1.1: Maintain the City's Community Rating System Classification.
- Objective 1.2: Provide flood protection information to residents.
- Objective 1.3: Coordinate and implement small and/or large-scale projects to help alleviate drainage and flood concerns.
- Objective 1.4: To protect human life, health and to eliminate or minimize property damage.
- Objective 1.5: require the use of appropriate construction practices in order to prevent or minimize future flood damage.
- Objective 1.6: Manage filling, grading, dredging, mining, paving, excavation, drilling operations, storage of equipment or materials and other development which may increase flood damage or erosion potential.
- Objective 1.7: Manage the alteration of flood hazard areas, watercourses and shorelines to minimize the impact of development on the natural and beneficial functions of the floodplain.
- Objective 1.8: To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.
- Objective 1.9: To minimize prolonged business interruptions.
- Objective 1.10: To minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone and sewer lines, streets, bridges and culverts located in floodplains.
- Objective 1.11: To maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize flood blight areas.
- Objective 1.12: To endeavor to ensure that potential homebuyers are notified that property is in a flood hazard area.
- Objective 1.13: To help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize flood blight

areas.

Goal 2: Create programs to manage the surface water runoff

- Objective 2.1: Develop/maintain storm water management plan.
- Objective 2.2: Develop alternative water supply on western city limits.

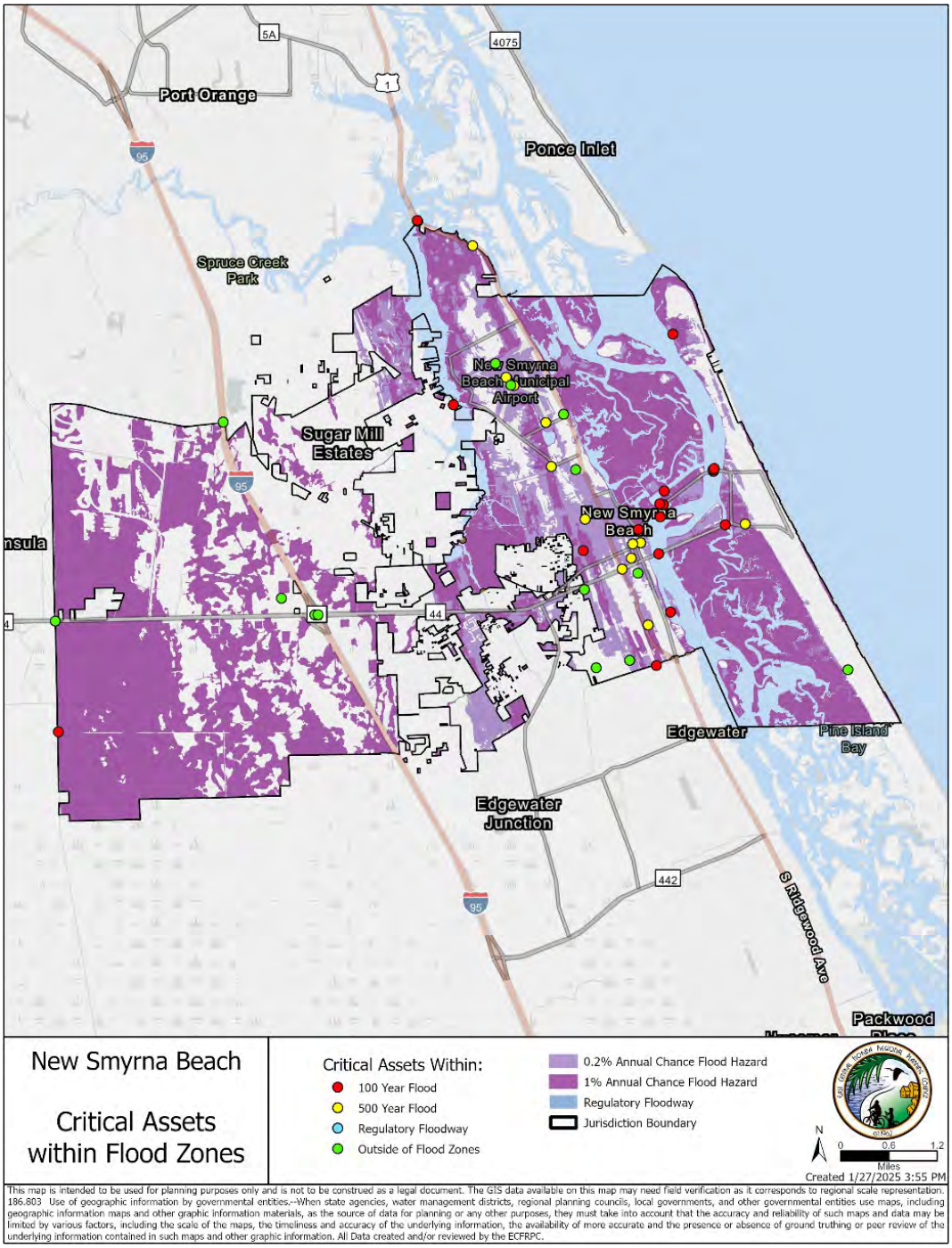
Table 14: New Smyrna Beach - Exposed Critical Facilities

Facility Name	Facility Type	Flood Zone
IWW Indian River Highway Bridge	Transportation Systems	100-Year
Callalisa Creek Highway Bridge	Transportation Systems	100-Year
Spruce Creek S. Relief Highway Bridge	Transportation Systems	100-Year
Spruce Creek S. Relief Highway Bridge	Transportation Systems	100-Year
Murray Creek Highway Bridge	Transportation Systems	500-Year
US-1 & FECRR Highway Bridge	Transportation Systems	500-Year
Berrys Canal Highway Bridge	Transportation Systems	100-Year
Conners Canal Highway Bridge	Transportation Systems	100-Year
IWW Indian River Highway Bridge	Transportation Systems	100-Year
Brando Canal Highway Bridge	Transportation Systems	100-Year
Yacht Club Cut Highway Bridge	Transportation Systems	100-Year
Samsula Canal Highway Bridge	Transportation Systems	100-Year
New Smyrna Beach Municipal Port	Transportation Systems	100-Year
Shrimp Docks New Smyrna Bch	Transportation Systems	100-Year
New Smyrna Beach Municipal Airport	Transportation Systems	500-Year
New Smyrna Beach Electric Substation	Utility Systems	100-Year
WSBB 1230	Utility Systems	100-Year
Read-Pattillo Elementary School	Essential Facilities	500-Year
Knight's Christian Academy	Essential Facilities	500-Year
Chisholm Elementary School	Essential Facilities	500-Year
Bethel Christian Academy	Essential Facilities	100-Year
New Smyrna Beach Police Department	Essential Facilities	500-Year
Volusia County Sheriff - Civil Division	Essential Facilities	500-Year
New Smyrna Beach Fire and Rescue Fire...	Essential Facilities	500-Year
New Smyrna Beach Fire Department	Essential Facilities	500-Year

Table 15: New Smyrna Beach - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	54.72%
Properties in the Floodplain	10.556%
Exposed Acreage: Residential Future Land Use	2,846.42%
Exposed Acreage: Commercial Future Land Use	406.93%
Exposed Acreage: Mixed Use Future Land Use	313.81%
Exposed Acreage: PD Future Land Use	2,061.65%
Exposed Acreage: Institutional Future Land Use	404.49%
Exposed Acreage: Industrial Future Land Use	303.1%
Total Exposure: Land Value	$2,015,156,071
Total Exposure: Building Value	$3,271,039,853
Total Exposure: Assessed Value	$5,286,195,924
Total Exposure: Taxable Value	$3,238,539,783

Figure 9: Critical Assets with Flood Zone - New Smyrna Beach



Oak Hill

Floodplain Management Goals and Objectives

There are no additional goals to the countywide goals stated in the report.

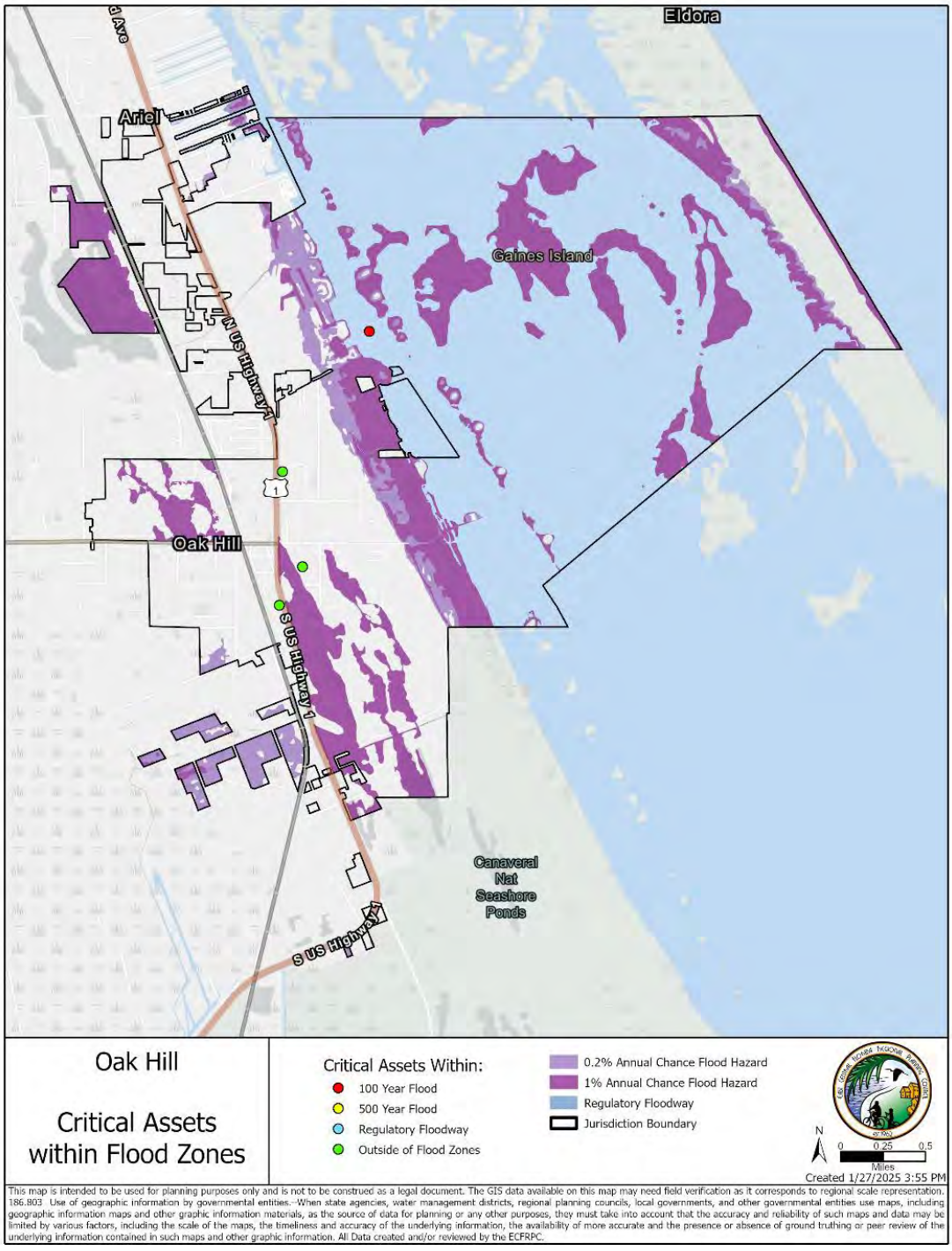
Table 16: Oak Hill - Exposed Critical Facilities

Facility Name	Facility Type	Flood Zone
Fish Dock	Transportation Systems	100-Year

Table 17: Oak Hill - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	48.5%
Properties in the Floodplain	891
Exposed Acreage: Residential Future Land Use	650.58
Exposed Acreage: Commercial Future Land Use	59.45
Exposed Acreage: Mixed Use Future Land Use	0
Exposed Acreage: PD Future Land Use	N/A
Exposed Acreage: Institutional Future Land Use	21.1
Exposed Acreage: Industrial Future Land Use	7.59
Total Exposure: Land Value	$142,084,167
Total Exposure: Building Value	$125,928,956
Total Exposure: Assessed Value	$268,013,123
Total Exposure: Taxable Value	$143,174,110

Figure 10: Critical Assets with Flood Zone - Oak Hill



Orange City

Floodplain Management Goals and Objectives

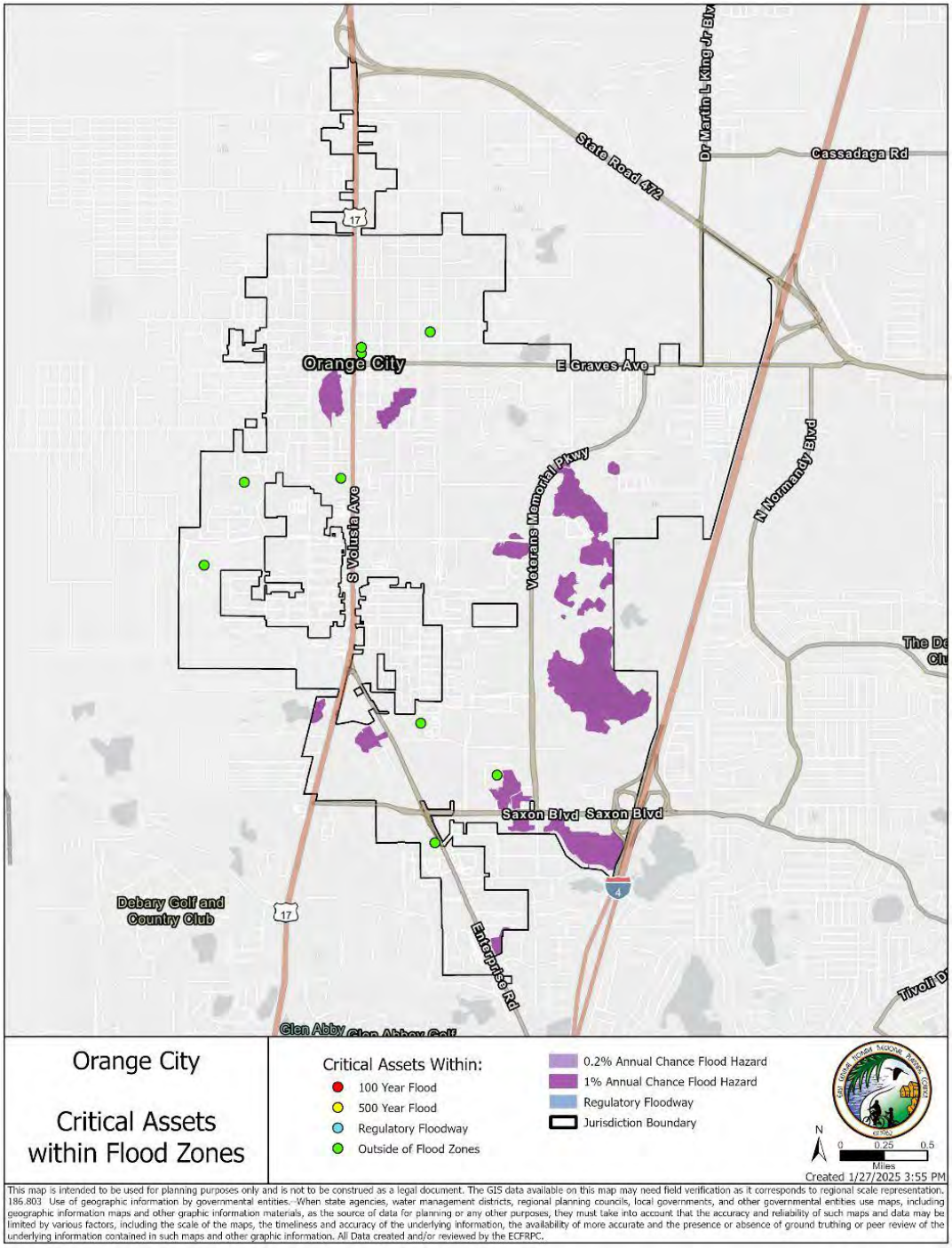
There are no additional goals to the countywide goals stated in the report.

There are no critical assets within the 100-year or 500-year flood zones.

Table 18: Orange City - Floodplain Exposure Analysis

Exposure	Value
Percent of Properties in the Floodplain	1.59%
Properties in the Floodplain	74
Exposed Acreage: Residential Future Land Use	32.43
Exposed Acreage: Commercial Future Land Use	21.98
Exposed Acreage: Mixed Use Future Land Use	223.1
Exposed Acreage: PD Future Land Use	N/A
Exposed Acreage: Institutional Future Land Use	0
Exposed Acreage: Industrial Future Land Use	1.11
Total Exposure: Land Value	$46,406,822
Total Exposure: Building Value	$208,269,347
Total Exposure: Assessed Value	$254,676,169
Total Exposure: Taxable Value	$131,349,031

Figure 11: Critical Assets with Flood Zone - Orange City



Ormond Beach

Floodplain Management Goals and Objectives

Goal 1: Promote the public health, safety and general welfare, and to minimize public and private losses due to flooding through the regulation of development in flood hazard areas.

- Objective 1.1: Protect human life and health.
- Objective 1.2: Minimize or eliminate property damage.
- Objective 1.3: Minimize the need for future expenditure of public money for costly flood control projects and response to and recovery from flood events.
- Objective 1.4: Minimize unnecessary disruption of commerce, access and public service during times of flooding; Objective: Minimize damage to public and private facilities and utilities located in areas of special flood hazard.
- Objective 1.5: Help maintain a stable tax base by providing for the sound use and development of flood hazard area.
- Objective 1.6: Ensure that potential buyers are notified that property is in an area of special flood hazard.
- Objective 1.7: Require the use of appropriate construction practices in order to prevent or minimize future flood damage.
- Objective 1.8: Manage the alteration of flood hazard areas, watercourses, and shorelines to minimize the impact of development on the natural and beneficial functions of the floodplain.

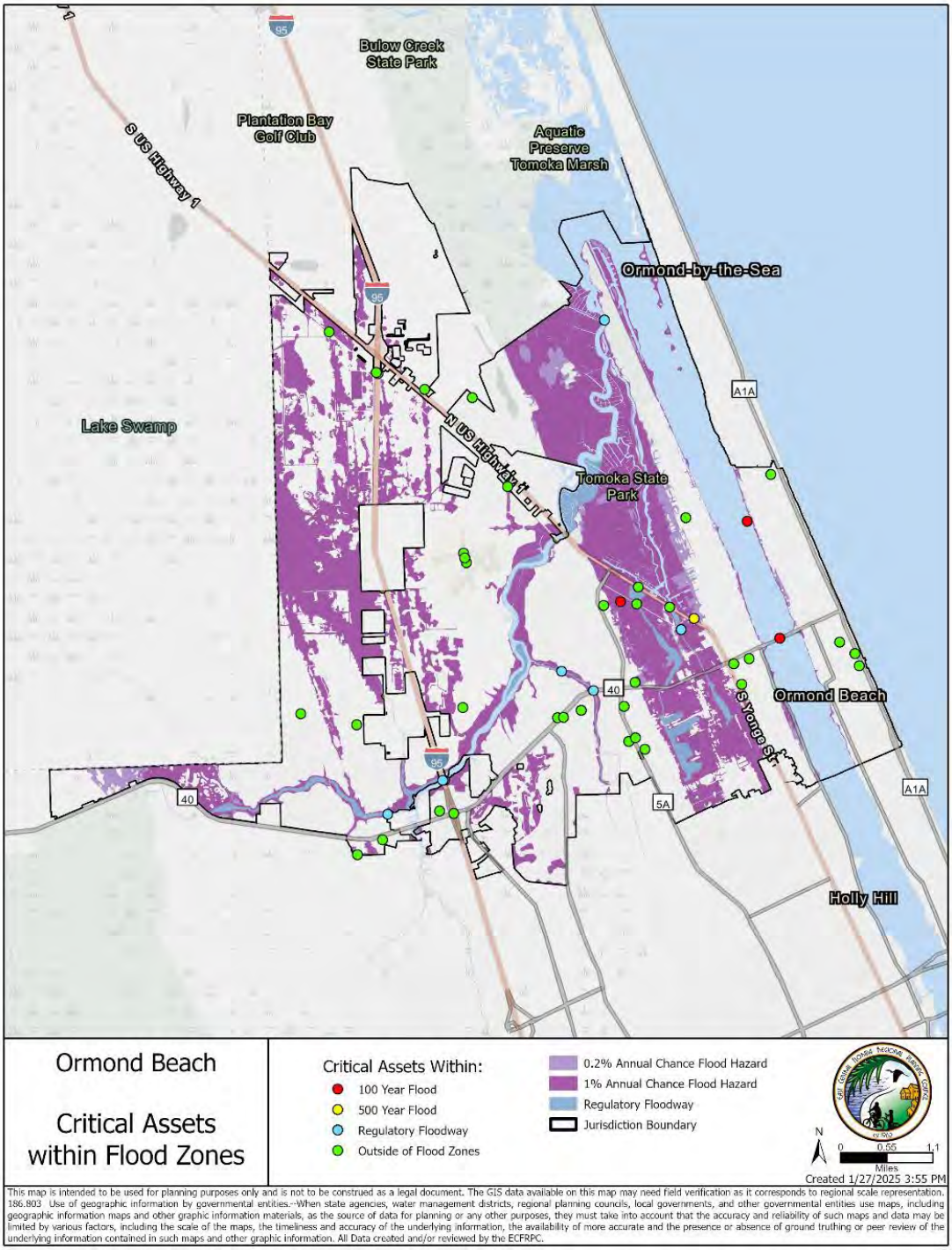
Table 19: Ormond Beach - Exposed Critical Facilities

Facility Name	Facility Type	Flood Zone
Halifax River IWW Highway Bridge	Transportation Systems	100-Year
Ormond Beach Waste Water System	Utility Systems	100-Year
Ormond Beach Fire Department Station 93	Essential Facilities	500-Year

Table 20: Ormond Beach - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	25.29%
Properties in the Floodplain	5,093
Exposed Acreage: Residential Future Land Use	2,086.27
Exposed Acreage: Commercial Future Land Use	289.64
Exposed Acreage: Mixed Use Future Land Use	1,679.42
Exposed Acreage: PD Future Land Use	N/A
Exposed Acreage: Institutional Future Land Use	149.60
Exposed Acreage: Industrial Future Land Use	196.74
Total Exposure: Land Value	$993,429,590
Total Exposure: Building Value	$1,999,859,870
Total Exposure: Assessed Value	$2,993,289,460
Total Exposure: Taxable Value	$2,032,959,092

Figure 12: Critical Assets with Flood Zone - Ormond Beach



Pierson

Floodplain Management Goals and Objectives

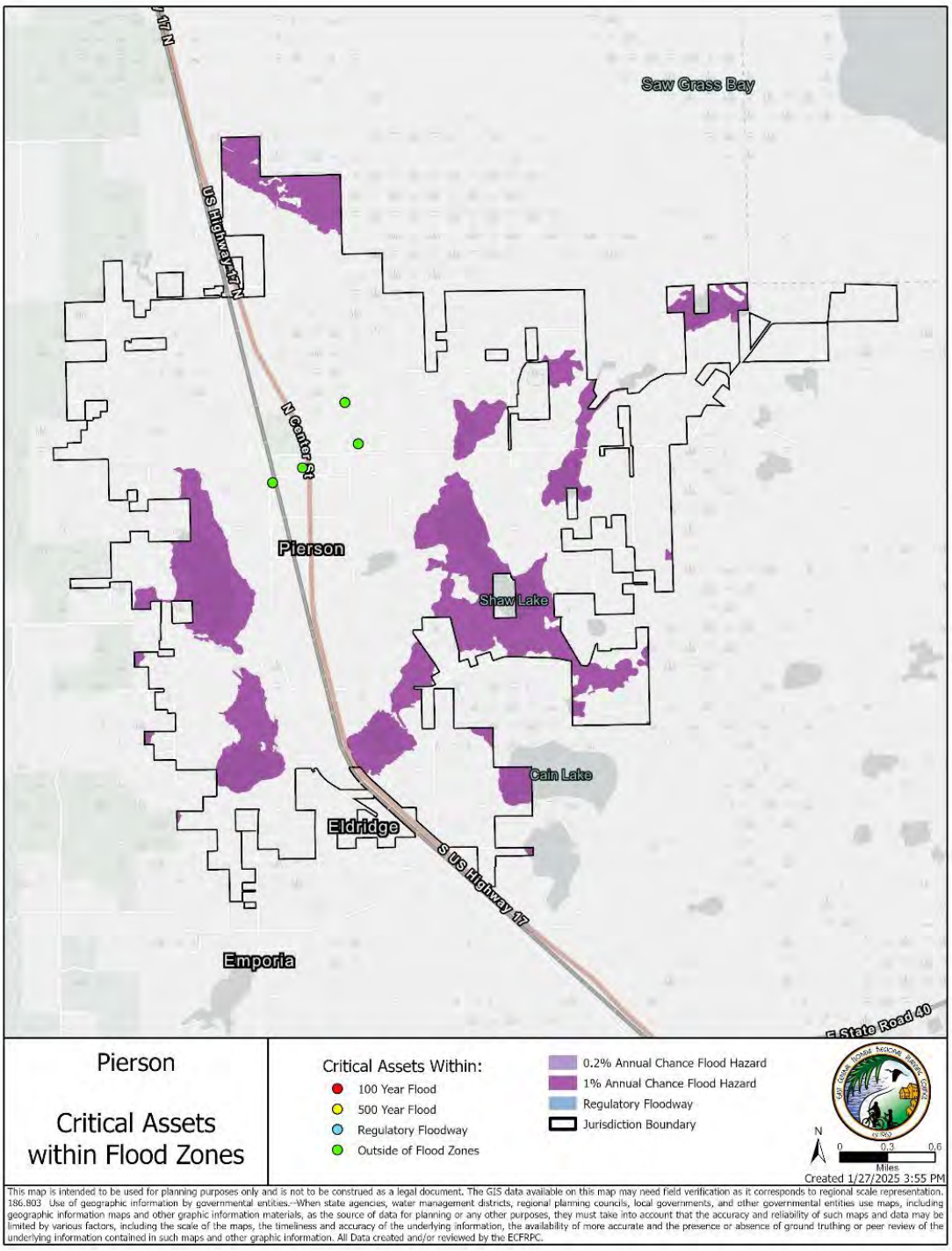
There are no additional goals to the countywide goals stated in the report.

There are no critical assets within the 100-year or 500-year flood zones.

Table 21: Pierson - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	12.72%
Properties in the Floodplain	163
Exposed Acreage: Residential Future Land Use	31.69
Exposed Acreage: Commercial Future Land Use	0
Exposed Acreage: Mixed Use Future Land Use	N/A
Exposed Acreage: PD Future Land Use	N/A
Exposed Acreage: Institutional Future Land Use	149.60
Exposed Acreage: Industrial Future Land Use	196.74
Total Exposure: Land Value	$18,748,996
Total Exposure: Building Value	$18,966,907
Total Exposure: Assessed Value	$37,715,903
Total Exposure: Taxable Value	$17,576,761

Figure 13: Critical Assets with Flood Zone - Pierson



Ponce Inlet

Floodplain Management Goals and Objectives

Goal 1: Conserve, protect, and restore coastal natural resources to maintain and enhance native habitats, floral and faunal species diversity, water quality, and natural surface water characteristics: and preserve and expand opportunities for the general public to access, use and enjoy the ocean beaches, the Halifax River, and other natural resource areas with passive and active recreational potential.

- Objective 1.1: Ensure the long-term protection, restoration and enhancement of the natural upland and wetland habitats of the coastal area, particularly areas identified as critical habitat for threatened and endangered species and species of special concern, through cooperation and coordination with federal, state and regional agencies, as well as Volusia County and adjoining coastal municipalities.
- Objective 1.2: Protect, conserve and enhance coastal resource wetlands, wildlife habitat and living marine resources by continued implementation of the LUDC's development regulations.
- Objective 1.3: The town shall permit the use of limited shoreline land areas based on type of water-dependent use, adjacent land use, water quality, impact on critical habitat and coastal resources and in accordance with the priorities for shoreline uses set forth in Policy 1.3.1.
- Objective 1.4: The town shall develop strategies to lessen the impact of a destructive storm on human life, property, public facilities and natural resources.
- Objective 1.5: Population concentrations shall be directed away from the Coastal High Hazard Area* (CHHA).
- Objective 1.6: Public facilities shall be prohibited that will encourage new development inside the CHHA, unless the facilities are consistent with policies specifically identified in this Comprehensive Plan.
- Objective 1.7: Prior to the development of public facilities in the CHHA, it shall be determined that there are no other feasible sites outside said area.
- Objective 1.8: If constructed, all public facilities in the CHHA shall be flood-proofed to ensure minimum damage from storms and hurricanes.
- Objective 1.9: The town shall regulate development that could impact natural dune systems by requiring developments to provide a plan that addresses that avoids

disturbance to dunes if possible, and provides dune protection and stabilization measures, flood-proofing of utilities and requirements for structural wind resistance and floodplain management; Policy 1.4.6 - All development in the Hurricane Vulnerability Zone (HVZ) shall be consistent with the federal flood hazard requirements; Policy 1.4.7 - The town shall continue to participate in the National Flood Insurance Program (NFIP); Policy 1.4.8 - Any reconstruction or repair of the infrastructure necessitating state funds shall be designed to minimize potential damage (i.e., wind and/or flooding) from hurricanes or other storms; Policy 1.4.9 - The town, in accordance with Federal Emergency Management Agency requirements, shall adopt and implement a mitigation plan to reduce damage in areas of repetitive loss due to flooding; Policy 1.4.10 - The town shall continue to participation in the county's Emergency Management Service's "Local Mitigation Strategy" (LMS), as necessary and appropriate, through capital improvements programming and land development regulations in order to establish a continuing program of hurricane mitigation.

- Objective 1.10: In conjunction with Port Orange, Volusia County and Daytona Beach Shores, the town shall ensure that it maintains hurricane evacuation times at no more than 16 hours from the time of the first official order to evacuate during a Category 5 storm event as measured on the Saffir-Simpson scale prior to the consideration of any proposals to amend a Future Land Use designation that has the effect of increasing residential density in the community.

Goal 2: Protect, enhance, and restore the natural function of the beach and dune system.

- Objective 2.1: The town will continue to administer and enforce its comprehensive dune management program for the purpose of preserving and enhancing the existing dunes and stabilizing vegetation.
- Objective 2.2: The town shall coordinate with the East Central Florida Regional Planning Council, Volusia County and other coastal cities, as appropriate, in continually evaluating the long-term problems related to post-disaster redevelopment.

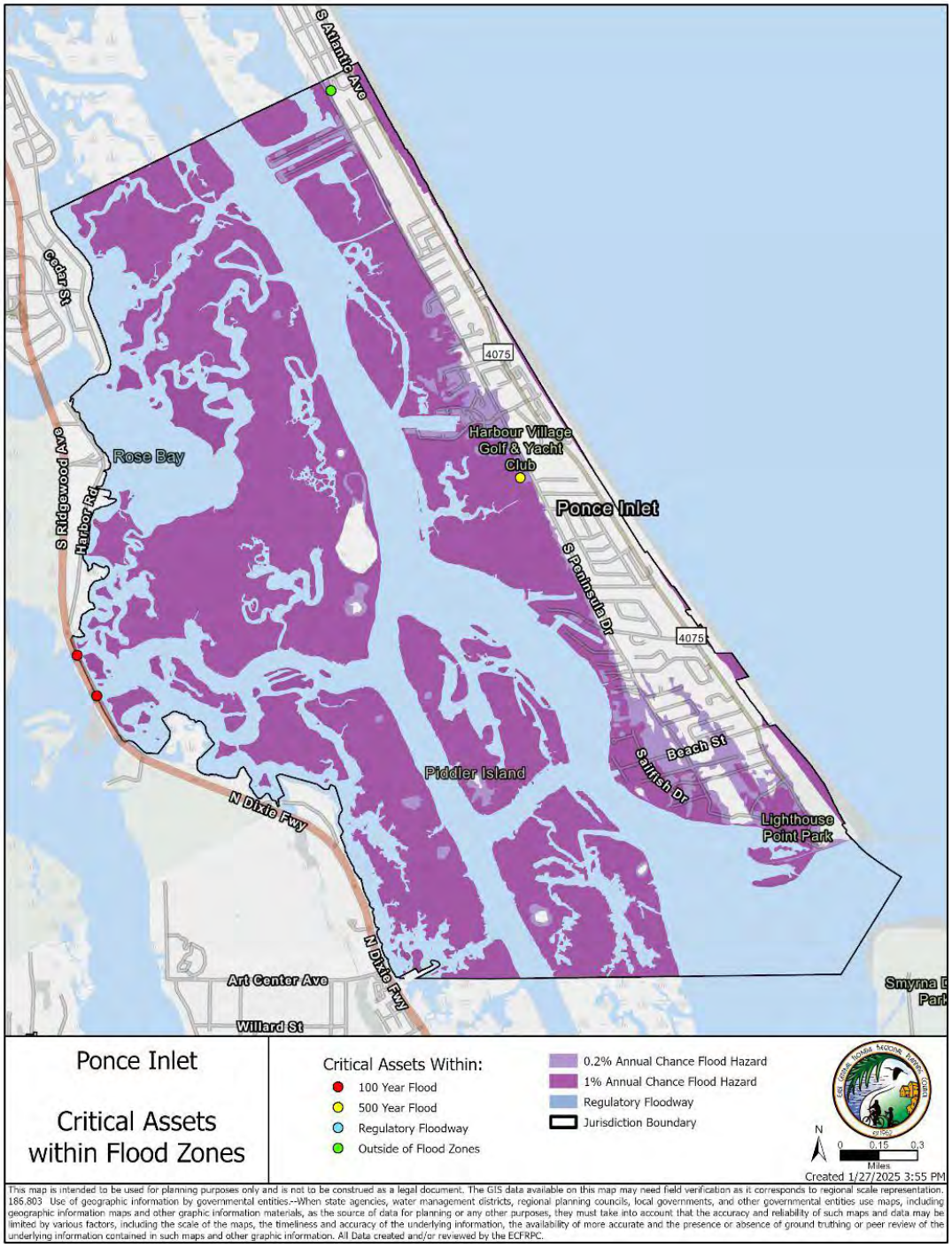
Table 22: Ponce Inlet - Exposed Critical Facilities

Facility Name	Facility Type	Flood Zone
Spruce Creek N. Relief Highway Bridge	Transportation Systems	100-Year
Spruce Creek Highway Bridge	Transportation Systems	100-Year
Ponce Inlet Fire Rescue Department	Essential Facilities	500-Year

Table 23: Ponce Inlet - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	52.47%
Properties in the Floodplain	1,083
Exposed Acreage: Residential Future Land Use	163.20
Exposed Acreage: Commercial Future Land Use	30.83
Exposed Acreage: Mixed Use Future Land Use	N/A
Exposed Acreage: PD Future Land Use	N/A
Exposed Acreage: Institutional Future Land Use	74.28
Exposed Acreage: Industrial Future Land Use	N/A
Total Exposure: Land Value	$326,817,306
Total Exposure: Building Value	$357,079,118
Total Exposure: Assessed Value	$683,896,424
Total Exposure: Taxable Value	$450,947,795

Figure 14: Critical Assets with Flood Zone - Ponce Inlet



Port Orange

Floodplain Management Goals and Objectives

Goal 1: Provide an efficient and effective drainage and storm water management system which, to the maximum extent practical, protects persons and property from flooding, prevents negative impacts to the groundwater aquifer, and safeguards surface waters against erosion and degradation of quality.

- Objective 1.1*:* To provide a storm water management level-of-service that will eliminate existing local flooding during the 25-year, 24-hour storm, and require all new development to provide storm water management facilities based on a 25-year, 24-hour storm event.
    - *Policy:* Continue to utilize the Port Orange Master Drainage Plan, which establishes high water elevations, addresses existing deficiencies, and coordinates the construction of new facilities.
    - *Policy:* Utilize the full carrying capacity of the existing culverts and ditches. The City will perform annual inspections of system elements to ascertain whether ditches have been maintained and culverts cleaned.
    - *Policy:* Review on a yearly basis the priorities for replacement, correction of facility deficiencies, and provision of future drainage facility needs. These priorities will be based on those facilities that: 1) have failed or have a high probability of failure; and 2) will meet future capacity needs. The City shall establish a construction schedule for identified improvements in order to meet the future needs of flood control and storm water management.

Goal 2: Lessen the impact of a destructive storm on human life, property, public facilities and natural resources.

- Objective 2.1: To utilize land development regulations that minimizes danger to life and property.
    - *Policy:* If constructed, all public facilities in the Coastal High Hazard Area, where necessary and appropriate, shall be flood-proof to ensure minimum damages from storms and hurricanes.
    - *Policy:* City utility infrastructure shall be designed to withstand floods and wind damage associated with major storms and hurricanes. Furthermore, the City shall require, where necessary and appropriate, that electric,

telephone, television cable, and other private utility infrastructure be designed to withstand flood and storm damage.

- *Policy:* Incorporate the recommendations of the Comprehensive Emergency Management Plan and the Local Mitigation Strategy (LMS), and other relevant interagency reports and agreements into the Comprehensive Plan and Land Development Code, as appropriate.
- *Policy:* Continue to participate in the county-wide Local Mitigation Strategy (LMS) program and implement the LMS, as necessary and appropriate, through capital improvements programming; *Policy:* Continue to participate in the National Flood Insurance Program (NFIP).
- *Policy:* Continue to pursue the improvement of Port Orange's insurance rating under the NFIP Community Rating System.

Goal 3: Conserve, protect, manage, restore, and enhance the City's air, water, and soil resources to maintain a living environment that supports a healthy population and does not cause illness.

- Objective 3.1*:* To protect, enhance and improve the ambient water quality of surface waters within the city.
  - *Policy:* On-site waste treatment system facilities and drain fields shall not be located within 75 feet of the 100-year floodplain; within 75 feet of an upland/wetland interface; or within 120 feet of the mean high-water mark of any surface water body, whichever is greater. On-site waste treatment systems should be located as far inland from a water body or wetland as possible.

Goal 4: Conserve, protect, manage, restore, and enhance the functional, aesthetic, and qualitative value of the natural environment for the benefit of present and future generations.

- Objective 4.1*:* To protect the natural function of the 100-year floodplains of Spruce Creek, the Halifax River, and their tributaries. In accordance with the provisions of the Comprehensive Plan, the City shall enforce development regulations to maintain the capability of floodplains to carry, store and filter flood waters.
  - *Policy:* Continue the use of the Conservation land use designation, as well as the Floodplain-Conservation (F-C) Zoning District, to protect the natural functions of floodplains and shorelines.

- *Policy:* Floodplains whose functional values have been degraded or destroyed through human intervention should be restored, if possible, through the public acquisition of historic floodplain lands. Various state, regional, and local acquisition programs shall be used for this purpose.
- *Policy:* No fill will be allowed in the Floodplain-Conservation (F-C) Zoning District that will decrease the flood carrying capacity of the riverine floodplain.
- *Policy:* No fill will be allowed in isolated floodplain pockets that will decrease the flood storage capacity of depressional wetlands.
- *Policy:* If any filling of land occurs during site design such that the volume of floodplain storage would be reduced, an equal volume of soil shall be excavated within the same floodplain to provide compensatory storage.
- *Policy:* Ensure that fill material or other structures do not adversely obstruct the natural movement of floodwater overland sheet flow or pose a threat to the public health, safety, and welfare.
- *Policy:* Encourage the development of a strict floodplain management program by state, regional, and local governments designed to preserve hydrologically significant wetlands and other natural floodplain features.

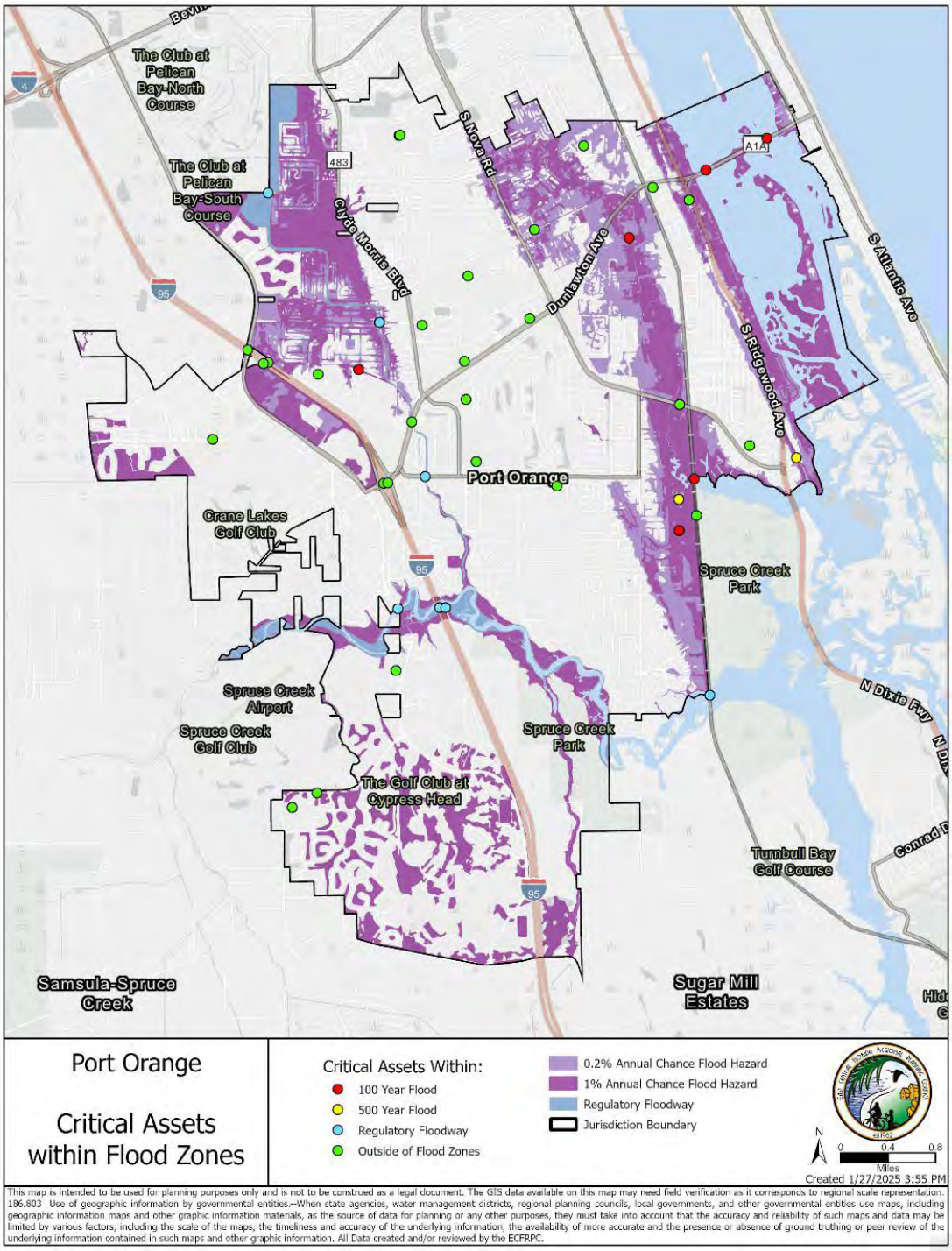
Table 24: Port Orange - Exposed Critical Facilities

Facility Name	Facility Type	Flood Zone
B-19 Canal / Trib 1 Highway Bridge	Transportation Systems	100-Year
Cambridge Canal Highway Bridge	Transportation Systems	100-Year
Rose Bay Canal Highway Bridge	Transportation Systems	500-Year
Halifax River Highway Bridge	Transportation Systems	100-Year
IWW Halifax River Highway Bridge	Transportation Systems	100-Year
Florida East Coast; Stream/River Highway Bridge	Transportation Systems	100-Year
Port Orange Drinking Water Facility	Utility Systems	100-Year
Port Orange Fire Rescue Department	Essential Facilities	500-Year

Table 25: Port Orange - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	34.22%
Properties in the Floodplain	8,567
Exposed Acreage: Residential Future Land Use	2,561.51
Exposed Acreage: Commercial Future Land Use	204.38
Exposed Acreage: Mixed Use Future Land Use	66.27
Exposed Acreage: PD Future Land Use	235.82
Exposed Acreage: Institutional Future Land Use	141.5
Exposed Acreage: Industrial Future Land Use	196.65
Total Exposure: Land Value	$908,860,231
Total Exposure: Building Value	$2,120,287,570
Total Exposure: Assessed Value	$3,029,147,801
Total Exposure: Taxable Value	$1,859,130,800

Figure 15: Critical Assets with Flood Zone - Port Orange



South Daytona

Floodplain Management Goals and Objectives

Goal 1: To protect human life and health through preparedness of emergency response teams from the Fire, Police and Public Works Departments.

Goal 2: Provide leadership in protecting residential properties and businesses from the impacts of floods by coordinating historical data with updated storm water management studies to identify possible flooding concerns.

Goal 3: To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public with proper planning and cost-effective storm water improvements.

Goal 4: To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains through hardening facilities and Public Works Department preparedness.

Goal 5: To help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize flood blighted areas.

Goal 6: Provide advice and assistance to property owners by the Floodplain Manager and Chief Building Official concerning the protection of their properties from flooding.

Goal 7: Maintain a Public awareness program that informs all property owners in the flood zones that they are in a flood zone through mail- outs and website postings.

Goal 8: Maintain an aggressive grant program to identify and obtain funding for both pre and post disaster mitigation projects through the Community Development and the Ridgewood Corridor Re-Development Departments.

Goal 9: Create programs to manage the surface water runoff through maintaining an updated storm water management plan through the Public Works Department in conjunction with the Floodplain Manager and Chief Building Official.

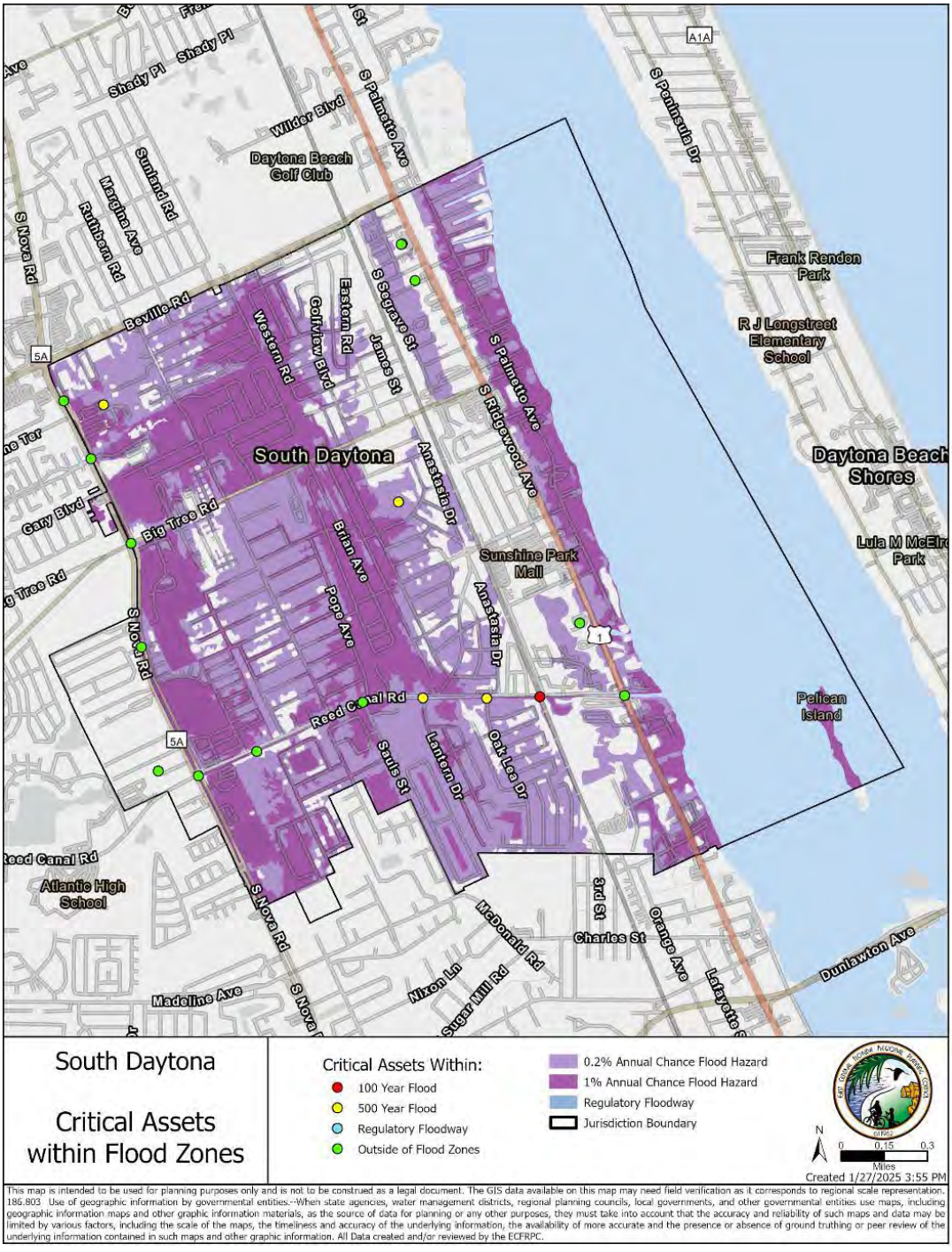
Table 26: South Daytona - Exposed Critical Facilities

Facility Name	Facility Type	Flood Zone
Reed Canal Highway Bridge	Transportation Systems	500-Year
Blue Jay Academy	Essential Facilities	500-Year
South Daytona Elementary School	Essential Facilities	500-Year

Table 27: South Daytona - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	79.74%
Properties in the Floodplain	4,311
Exposed Acreage: Residential Future Land Use	951.22
Exposed Acreage: Commercial Future Land Use	46.12
Exposed Acreage: Mixed Use Future Land Use	120.73
Exposed Acreage: PD Future Land Use	N/A
Exposed Acreage: Institutional Future Land Use	42.89
Exposed Acreage: Industrial Future Land Use	72.33
Total Exposure: Land Value	$338,613,235
Total Exposure: Building Value	$946,397,817
Total Exposure: Assessed Value	$1,285,011,052
Total Exposure: Taxable Value	$765,792,886

Figure 16: Critical Assets with Flood Zone - South Daytona



Unincorporated Volusia

Floodplain Management Goals and Objectives

Goal 1: Reduce future floodplain impacts due to development.

- Objective 1.1: Review and update existing regulations to enhance practices related to stormwater management, flood hazard management, resiliency, and sea level rise.
- Objective 1.2: Continue to enforce enhanced building and development requirements identified in the Flood Hazard and Stormwater Management Ordinances and not allow variances that are feasibly avoidable.

Goal 2: Protect natural areas identified as green infrastructure for flood mitigation.

- Objective 2.1: Continue to utilize Volusia Forever, the small lot acquisition program, and other funding sources to conserve areas identified as Natural Critical Assets vulnerable to sea level rise and flooding.
- Objective 2.2: Continue to enforce protection standards of environmentally sensitive lands, as identified in the Comprehensive Plan and Chapter 72 Land Planning Code, to maximize their inherent mitigation attributes and reduce known flood hazards.

Goal 3: Prioritize capital projects to mitigate current and future flood impacts.

- Objective 3.1: Update and complete basin studies for all watersheds.
- Objective 3.2: Identify priority projects for funding to alleviate current and future impacts.
- Objective 3.3: Utilize the “Volusia Prepares” Local Mitigation Strategy as a tool for funding and prioritization needs.
- Objective 3.4: Maintain a Vulnerability Assessment report to identify critical assets that are within areas identified as at risk from flooding and sea level rise.

Goal 4: Educate the public on current and future flood hazards, resiliency and resources.

- Objective 4.1: Update the Volusia Multi-Jurisdictional Program for Public Information to include additional focus on resiliency.
- Objective 4.2: Update existing educational resources and websites to provide engaging, vital, and simplified information.

- Objective 4.3: Continue resiliency outreach through the Volusia Forward initiative.
- Objective 4.4: Provide outreach materials and presentations to inform stakeholders about Substantial Damage and FEMA's 50% rule.

Goal 5: Provide the community with funding assistance and grant opportunities.

- Objective 5.1: Continue the flood hazard mitigation program for pre-and-post disaster residential mitigation projects.
- Objective 5.2: Assist citizens with submitting residential projects to available state and federal grant programs.
- Objective 5.3: Continue to provide aid through Transform 386 Homeowner Recovery, Mitigation, and Infrastructure programs.
- Objective 5.4: Continue to provide post-event services for low- and moderate-income residents (e.g. Hurricane Housing Recovery, Relocation, Repair and Insurance Deductible Program, and Homeowner's/Flood Insurance Assistance) through the Community Assistance Division, as funding allows.

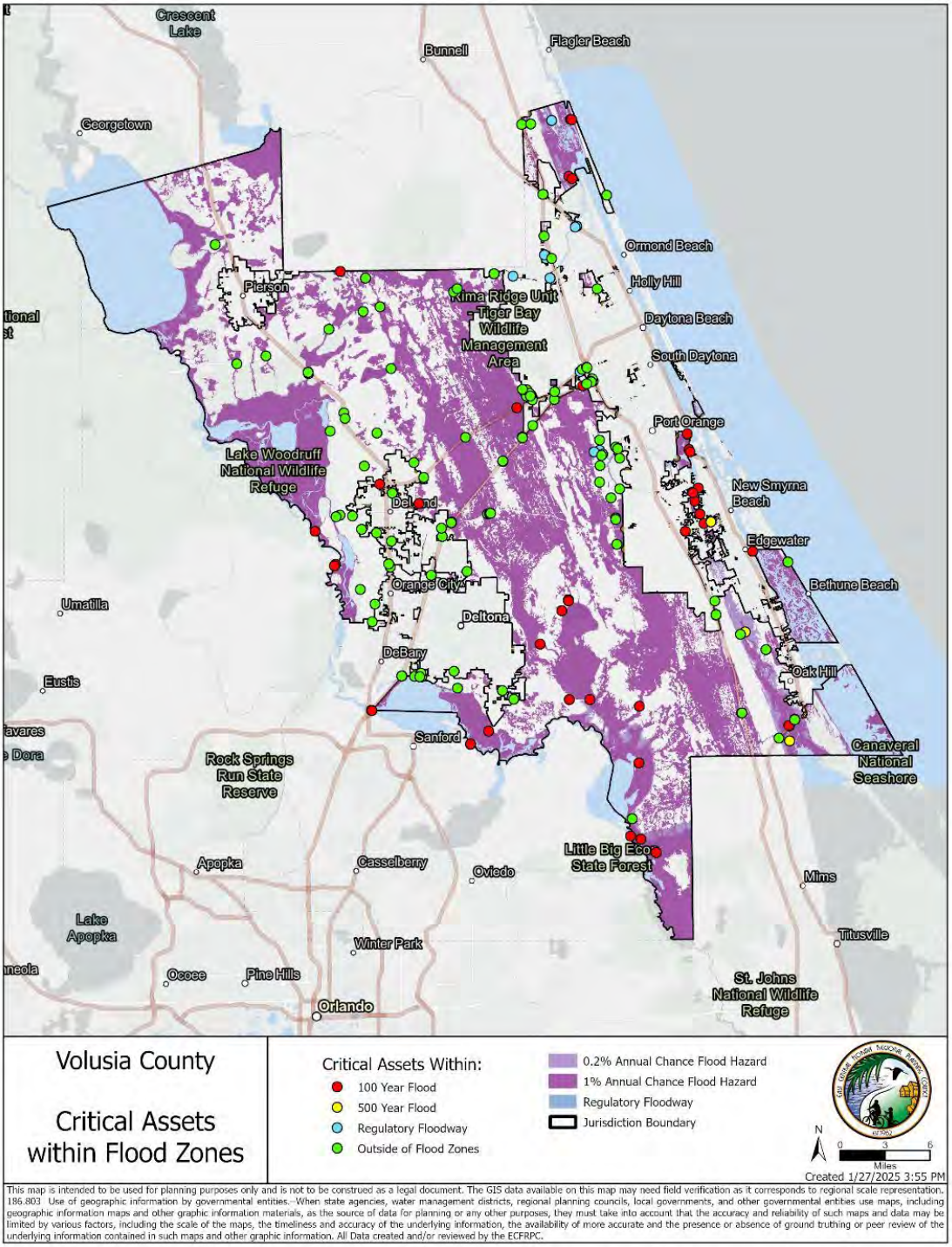
Table 28: Unincorporated Volusia - Exposed Critical Facilities

Facility Name	Facility Type	Flood Zone
Drainage Canal Highway Bridge	Transportation Systems	100-Year
Canal Highway Bridge	Transportation Systems	100-Year
Intracoastal Waterway Highway Bridge	Transportation Systems	100-Year
Spruce Creek Highway Bridge	Transportation Systems	100-Year
Rose Bay Highway Bridge	Transportation Systems	100-Year
Spruce Creek Highway Bridge	Transportation Systems	100-Year
Turnbull Creek Highway Bridge	Transportation Systems	100-Year
Cnl.Trib. to Turnbull Ck Highway Bridge	Transportation Systems	100-Year
Trib To Turnbull Creek Highway Bridge	Transportation Systems	100-Year
Tomoka River Highway Bridge	Transportation Systems	100-Year
Cougar Wildlife Crossing Highway Bridge	Transportation Systems	100-Year
Cabbage Slough Highway Bridge	Transportation Systems	100-Year
St Johns River Relief Highway Bridge	Transportation Systems	100-Year
St. Johns River Highway Bridge	Transportation Systems	100-Year
Alamana Canal Highway Bridge	Transportation Systems	100-Year
Lake Ashby Canal Highway Bridge	Transportation Systems	100-Year
Cow Creek Highway Bridge	Transportation Systems	100-Year
Underhill Slough Highway Bridge	Transportation Systems	100-Year
Lake Ashby Canal Highway Bridge	Transportation Systems	100-Year
Little Haw Swamp Highway Bridge	Transportation Systems	100-Year
Lake Gertie Highway Bridge	Transportation Systems	100-Year
Blue Lake Equalizer Highway Bridge	Transportation Systems	100-Year
I-4 Highway Bridge	Transportation Systems	100-Year
St. Johns River Highway Bridge	Transportation Systems	100-Year
US-17-92 -St Johns River Highway Bridge	Transportation Systems	100-Year
Deep Creek Highway Bridge	Transportation Systems	100-Year
St Johns River Relief Highway Bridge	Transportation Systems	100-Year
Deep Ck. Diversion Cnl Highway Bridge	Transportation Systems	100-Year
Florida East Coast; Turnbull Creek Highway Bridge	Transportation Systems	500-Year
Hontoon Island State Park Highway Bridge	Transportation Systems	100-Year
Highbride Park	Essential Facilities	100-Year
City of Edgewater Waste Water System	Utility Systems	100-Year
WJLU CH 209	Utility Systems	100-Year
Volusia County Fire Services Station	Essential Facilities	500-Year

Table 29: Unincorporated Volusia - Floodplain Exposure Analysis

Exposure	Values
Percent of Properties in the Floodplain	38.45%
Properties in the Floodplain	31,415
Exposed Acreage: Residential Future Land Use	4658.5
Exposed Acreage: Commercial Future Land Use	500.63
Exposed Acreage: Mixed Use Future Land Use	422.64
Exposed Acreage: PD Future Land Use	N/A
Exposed Acreage: Institutional Future Land Use	381.29
Exposed Acreage: Industrial Future Land Use	381.29
Total Exposure: Land Value	$3,758,319,189
Total Exposure: Building Value	$3,832,474,567
Total Exposure: Assessed Value	$7,590,793,756
Total Exposure: Taxable Value	$3,779,939,002

Figure 17: Critical Assets with Flood Zone - Unincorporated Volusia



APPENDIX H: PLAN ADOPTIONS

Resolutions of Adoption

STAFF REPORT
CITY OF HOLLY HILL, FLORIDA

City Commission
Resolution

MEETING DATE: **March 25, 2025**
FROM: **Josef Grusauskas**
SUBJECT: **A Resolution of the City Commission of the City of Holly Hill, Florida, Authorizing the City Manager to Accept and Approve the City of Holly Hill's Designated Portion of the Volusia County Mitigation Strategy Plans; Providing for Severability; and Providing for an Effective Date.**
NUMBER: **2025-R-26**
APPLICANT:
PLANNER:

DISCUSSION:

Florida is currently operating under Program Administration by States (PAS) with regard to the review and approval of Local Mitigation Strategy (LMS) plans.

The Volusia County Local Mitigation Strategy is a working group, which has established a comprehensive, coordinated planning process involving the county and its municipalities. The LMS, represented by staff throughout municipalities of the county, have identified, justified and prioritized a number of proposed projects needed to mitigate the vulnerabilities as identified by municipalities.

Volusia County is asking that all jurisdictions accept and approve its designated portion of the Volusia County LMS and accept and endorse the mitigation goals and objectives established by Volusia Prepares for the countywide plan.

A copy of the 2025 Multi-Jurisdictional Local Mitigation Strategy for Volusia County is included as **"Exhibit A"**. City staff have asked that Jeff Miller be removed as a member of the Volusia Prepares working group representing Holly Hill and that the address for the fire station be changed to 1030 Daytona Avenue. These revisions have been accepted and are anticipated to be reflected along with other minor revisions from other jurisdictions in the final 2025 Local Mitigation Strategy.

FISCAL ANALYSIS:

Adoption of the 2025 Multi-Jurisdictional Local Mitigation Strategy for Volusia County has no financial impact.

STAFF RECOMMENDATION:

Authorize the City Manager to adopt the Local Mitigation Strategy.

COMMISSION GOAL:

Goal #1: Develop and maintain a sound and sustainable financial plan for the city that establishes sufficient reserves for all funds, ensures (whenever possible) that user fees pay for services rendered, provides a realistic capital improvement program, and encourages public/private sector partnerships and intergovernmental partnerships.

Goal #4: Provide proficient public health and safety services in terms of police and fire protection, water, storm water, waste water and solid waste management and disaster preparedness with a focus on intergovernmental collaboration, private sector partnerships, and utilization of technologies and proven innovations.

MOTION:

APPROVE AUTHORIZING THE CITY MANAGER TO ACCEPT AND APPROVE THE CITY OF HOLLY HILL'S DESIGNATED PORTION OF THE VOLUSIA COUNTY LOCAL MITIGATION STRATEGY.

ATTACHMENTS:

- Exhibit A - Local Mitigation Strategy (PDF)

Resolution No. 2025-26

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, AUTHORIZING THE CITY MANAGER TO ACCEPT AND **APPROVE THE CITY OF HOLLY HILL'S DESIGNATED PORTION OF THE** VOLUSIA COUNTY MITIGATION STRATEGY PLANS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, AUTHORIZING THE CITY MANAGER TO ACCEPT AND APPROVE THE CITY OF HOLLY HILL'S DESIGNATED PORTION OF THE VOLUSIA COUNTY MITIGATION STRATEGY PLANS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, areas of Holly Hill are vulnerable to the human and economic costs of natural, technological and societal disasters; and

WHEREAS, the Holly Hill City Commission realizes the importance of reducing or eliminating those vulnerabilities for the overall good and welfare of the community; and

WHEREAS, Holly Hill has been an active participant in Volusia Prepares, the Local Mitigation Strategy working group, which has established a comprehensive, coordinated planning process involving the county and its municipalities, as well as other public and private sector organizations, to eliminate or decrease these vulnerabilities; and

WHEREAS, Holly Hill representatives and staff have identified, justified and prioritized a number of proposed projects and programs needed to mitigate the vulnerabilities of unincorporated areas of Volusia County to the impacts of future disasters; and

WHEREAS, Holly Hill staff have reviewed the information provided by or for other participating jurisdictions and organizations, including the projects and programs they have proposed for incorporation into the Volusia County Local Mitigation Plan; and

WHEREAS, these proposed projects and programs have been incorporated into the current edition of the Volusia County Local Mitigation Plan that has been prepared and issued for consideration and implementation by the communities and jurisdictions of Volusia County.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:

SECTION 1. The City of Holly Hill accepts and approves of its designated portion of the Volusia County Local Mitigation Plan.

SECTION 2. The City of Holly Hill accepts and endorses the mitigation goals and objectives established by Volusia Prepares for countywide plan, and the anticipated schedule of the next updating of the plan

SECTION 3. The City of Holly Hill finds that the proposed mitigation projects and programs included in the plan by other jurisdictions and organizations are acceptable, that they will not adversely affect the county of its neighborhoods, and that they do not conflict with or duplicate the mitigation proposals made by the county itself.

SECTION 4. The personnel of Holly Hill are requested and instructed to pursue available funding opportunities for implementation of the proposals designated therein.

SECTION 5. The agencies and organizations within Holly Hill will, upon receipt of such funding or other necessary resources, seek to implement the proposals contained in the county's individual section of the strategy.

SECTION 6. The City of Holly Hill will continue to participate in the updating and expansion of the Volusia County Local Mitigation Plan in the years ahead.

SECTION 7. The City of Holly Hill will further seek to encourage the businesses, industries and community groups operating within Holly Hill to also participate in the updating and expansion of the Volusia County Local Mitigation Plan in the years ahead.

SECTION 8. SEVERABILITY. If any section or portion of a section of this Resolution prove to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 9. EFFECTIVE DATE. This Resolution shall take effect immediately upon its adoption.

APPROVED AND AUTHENTICATED on this 25th day of MARCH, 2025.

John Penny, Mayor 3/25/2025

Valerie Manning, City Clerk,CMC 3/25/2025

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Penny Currie, City Commissioner
SECONDER:	Jeffrey DeLanoy, City Commissioner
AYES:	Penny, Snow, Currie, DeLanoy
EXCUSED:	Johnson

City of Daytona Beach Shores

"Life is Better Here"
"A Premier, Friendly Place to Be"

Office of The City Clerk

State of Florida
County of Volusia

I, the undersigned duly appointed City Clerk of the City of Daytona Beach Shores, Florida, HEREBY CERTIFY that the attached is a true copy of Resolution 2025-05 adopted on May 6, 2025, as shown in the records of the City on file in the office of the City Clerk.

WITNESS my hand and the corporate seal of the City of Daytona Beach Shores, Florida, this 7th day of May, 2025.

Cheri Schwab, CMC
City Clerk

2990 S. Atlantic Avenue, Daytona Beach Shores, FL 32118 - Phone 386/763-5364; Fax 386/763-5360

RESOLUTION NO. 2025-05

A RESOLUTION OF THE CITY OF DAYTONA BEACH SHORES, VOLUSIA COUNTY, FLORIDA IN SUPPORT OF THE 2025 VOLUSIA COUNTY LOCAL MITIGATION STRATEGY PLAN; ADOPTING THE PLAN INCLUDING THE FLOOD WARNING PLAN - APPENDIX A; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Article VIII, Section 2, *Constitution of the State of Florida,* authorizes the City of Daytona Beach Shores to exercise any power for municipal purposes except as otherwise provided by law; and

WHEREAS, coastal and riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

WHEREAS, the City Commission of the City of Daytona Beach Shores recognizes the importance of reducing vulnerabilities to flood events for the overall good and welfare of the community; and

WHEREAS, the City of Daytona Beach Shores has been an active participant in the Volusia Local Mitigation Strategy Working Group, which has established a comprehensive, coordinated planning process involving the county and its municipalities, as well as other public and private sector organizations, to eliminate or decrease these vulnerabilities; and

WHEREAS, Daytona Beach Shores representatives and staff have identified, justified and prioritized a number of proposed projects and programs needed to mitigate the vulnerabilities of unincorporated areas of Volusia County to the impacts of future flood events; and

WHEREAS, the National Flood Insurance Program (NFIP) provides federally subsidized flood insurance in communities that regulate development in floodplains; and

WHEREAS, the National Flood Insurance Program Community Rating System (CRS) rates the various community floodplain management programs and reduces flood insurance premiums in those communities that meet Community Rating System Program requirements; and

WHEREAS, the proposed projects and programs are undertaken to reduce the potential for personal and property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents; and

WHEREAS, the adoption of the 2025 Volusia County Integrated Floodplain Management Plan and its integration into the Local Mitigation Strategy is intended to support this effort; and

WHEREAS, the formal adoption of the Plan by the local governing body is a requirement of the Community Rating System Program;

NOW, THEREFORE, BE IT RESOLVED THAT THE CITY COMMISSION OF THE CITY OF DAYTONA BEACH SHORES, FLORIDA, AS FOLLOWS:

SECTION ONE. FINDINGS.

1. The City Commission of the City of Daytona Beach Shores hereby accepts and approves of its designated portion of the Volusia County Integrated Floodplain Management Plan 2025.
2. The City Commission of the City of Daytona Beach Shores accepts and endorses the mitigation goals and objectives established by the Volusia County Local Mitigation Strategy work group for the countywide Plan, and the anticipated schedule for the next updating of the strategy.
3. The City Commission of the City of Daytona Beach Shores finds that the proposed flood mitigation projects and programs included in the Plan by other jurisdictions and organizations are acceptable, that they will not adversely affect the City or its neighborhoods, and that they do not conflict with or duplicate the flood mitigation proposals made by the City itself.
4. Relevant City Staff are requested and instructed to pursue available funding opportunities for the implementation of the proposals designated therein.
5. The agencies and organizations within the City of Daytona Beach Shores will, upon receipt of such funding or other necessary resources, seek to implement the proposals contained in the City's individual section of the Plan.
6. The City Commission of the City of Daytona Beach Shores will continue to participate in the updating and expansion of the Volusia County Integrated Floodplain Management Plan in the years ahead.
7. The City Commission of the City of Daytona Beach Shores will further seek to encourage the businesses, industries and community groups operating within Daytona Beach Shores to also participate in the updating and expansion of the Volusia County Integrated Floodplain Management Plan in the years ahead.

SECTION TWO. SAVINGS. The prior actions of the City of Daytona Beach Shores relating to the local mitigation strategy and floodplain mauagement are hereby ratified and affirmed.

SECTION THREE: CONFLICTS. All resolutions or parts thereof in conflict with this Resolution are hereby repealed to the extent of such conflict.

SECTION FOUR. SEVERABILITY. If any section, subsection, sentence, clause, phrase, or portion of this Resolution, or application hereof, is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion or application shall be deemed a separate, distinct, and independent provision and such holding shall not affect the validity of the remaining portions thereof.

SECTION FIVE. EFFECTIVE DATE. This Resolution shall take effect immediately upon its adoption.

CITY OF DAYTONA BEACH SHORES, FLORIDA

Nancy Miller

NANCY MILLER, MAYOR

KURT SWARTZLANDER, CITY MANAGER

CHERI SCHWAB, CITY CLERK

Approved as to form and legality:

VOSE LAW FIRM, CITY ATTORNEY

Adopted on first reading this 6 **day of** May **, 2025.**

RESOLUTION NO. 25-22

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA, AUTHORIZING SUPPORT FOR THE VOLUSIA COUNTY LOCAL MITIGATION STRATEGY; PROVIDING AN EFFECTIVE DATE.

WHEREAS, areas of the City of Port Orange are vulnerable to the human and economic costs of natural, technological and societal disasters; and

WHEREAS, the City of Port Orange realizes the importance of reducing or eliminating those vulnerabilities for the overall good and welfare of the community; and

WHEREAS, the City of Port Orange has been an active participant in Volusia Prepares, the Local Mitigation Strategy working group, which has established a comprehensive, coordinated planning process involving the county and its municipalities, as well as other public and private sector organizations, to eliminate or decrease these vulnerabilities; and

WHEREAS, City of Port Orange representatives and staff have identified, justified and prioritized a number of proposed projects and programs needed to mitigate the vulnerabilities of areas of Port Orange to the impacts of future disasters; and

WHEREAS, Port Orange representatives and staff have reviewed the information provided by or for other participating jurisdictions and organizations, including the projects and programs they have proposed for incorporation into the Volusia County Local Mitigation Plan; and

WHEREAS, these proposed projects and programs have been incorporated into the current edition of the Volusia County Local Mitigation Strategy that has been prepared and issued for consideration and implementation by the communities and jurisdictions of Volusia County.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA:

Section 1. The City of Port Orange hereby accepts and approves of its designated portion of the Volusia County Local Mitigation Strategy.

Section 2. The City of Port Orange accepts and endorses the mitigation goals and objectives established by Volusia Prepares for the countywide strategy, and the anticipated schedule for the next updating of the strategy.

Section 3. The City of Port Orange finds that the proposed mitigation projects and programs included in the plan by other jurisdictions and organizations are acceptable, that they will not adversely affect the county or its neighborhoods, and that they do not conflict with or duplicates the mitigation proposals made by the City itself.

Section 4. The agency personnel of the City of Port Orange are requested and instructed to pursue available funding opportunities for implementation of the proposals designated therein.

Section 5. The agencies and organizations within the City of Port Orange will, upon receipt of such funding or other necessary resources, seek to implement the proposals contained in the county's individual section of the

strategy.

Section 6. The City of Port Orange will continue to participate in the updating and expansion of the Volusia County Local Mitigation Strategy in the years ahead.

Section 7. The City of Port Orange will further seek to encourage the businesses, industries and community groups operating within Port Orange to also participate in the updating and expansion of the Volusia County Local Mitigation Strategy in the years ahead.

Section 8. This Resolution shall become effective immediately upon adoption by the City Council.

CITY OF PORT ORANGE 1867 FLORIDA

MAYOR SCOTT STILTNER

ATTEST:

Robin L. Fenwick, MMC, City Clerk

Adopted on the 6th day of May 2025

Reviewed and Approved:

Shannon K. Balmer Senior Assistant City Attorney

RESOLUTION NO. 2025-13

A RESOLUTION OF THE CITY OF SOUTH DAYTONA, FLORIDA AUTHORIZING THE ADOPTION OF THE UPDATED VOLUSIA COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION STRATEGY PLAN AND THE VOLUSIA INTEGRATED FLOODPLAIN MANAGEMENT PLAN; PROVIDING FOR CONFLICTING RESOLUTIONS; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, areas of the City of South Daytona are vulnerable to the human and economic costs of natural, technological, and societal disasters; and

WHEREAS, the City of South Daytona governing body realizes the importance of reducing or eliminating those vulnerabilities for the overall good and welfare of the community; and

WHEREAS, the City of South Daytona has been an active participant in Volusia Prepares, the Local Mitigation Strategy working group, which has established a comprehensive, coordinated planning process involving the county and its municipalities, as well as other public and private sector organizations, to eliminate or decrease these vulnerabilities; and

WHEREAS, the City's professional staff have identified, justified, and prioritized a number of proposed projects and programs needed to mitigate the vulnerabilities of areas of South Daytona to impacts of future disasters; and

WHEREAS, these proposed projects and programs have been incorporated into the current edition of the Volusia County Multi-Jurisdiction Local Mitigation Strategy Plan and the Volusia County Integrated Floodplain Management Plan that has been prepared and issued for consideration and adoption by the communities and jurisdictions of Volusia County; and

WHEREAS, a copy of the Volusia County, Florida Multi-Jurisdictional Local Mitigation Strategy Plan and the Volusia County Integrated Floodplain Management Plan have been attached hereto as Attachment "A" and incorporated herein by reference; and

WHEREAS, the City Council finds that adopting the Volusia County, Florida Multi-Jurisdictional Local Mitigation Strategy Plan and the Volusia County Integrated Floodplain Management Plan is in the best interest of the residents.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SOUTH DAYTONA, FLORIDA:

Section 1. The City Council of South Daytona hereby adopts the Volusia County, Florida Multi-Jurisdictional Local Mitigation Strategy Plan and the Volusia County Integrated Floodplain Management Plan.

Section 2. Repealer. All prior resolutions, if any, which conflict with this resolution are hereby repealed.

Section 3. Severability. If any section, subsection, sentence, clause, phrase or portion of this resolution, or application hereof, is for any reason held invalid or unconstitutional by any Court, such portion or application shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions or application hereof.

Section 4. Effective Date. This resolution shall become effective immediately upon its adoption

THIS RESOLUTION APPROVED ON FIRST AND ONLY READING this 13th day of May 2025 by the City Council of the City of South Daytona, Florida.

CITY OF SOUTH DAYTONA, FLORIDA

_____
William C. Hall, Mayor

ATTEST: _____
James L. Gillis Jr, City Manager

APPROVED AS TO FORM AND LEGALITY:

_____
Wade C. Vose, City Attorney

RESOLUTION NO. 2025 - 34

A RESOLUTION OF THE CITY COMMISSION OF DELAND, FLORIDA, SUPPORTING THE VOLUSIA COUNTY LOCAL MITIGATION PLAN; PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, areas of the City of DeLand are vulnerable to the human and economic costs of natural, technological and societal disasters; and

WHEREAS, the City of DeLand governing body realizes the importance of reducing or eliminating those vulnerabilities for the overall good and welfare of the community; and

WHEREAS, the City of DeLand has been an active participant in Volusia Prepares, the Local Mitigation Strategy working group, which has established a comprehensive, coordinated planning process involving the county and its municipalities, as well as other public and private sector organizations, to eliminate or decrease these vulnerabilities; and

WHEREAS, the City of DeLand representatives and staff have identified, justified and prioritized a number of proposed projects and programs needed to mitigate the vulnerabilities of unincorporated areas of Volusia County to the impacts of future disasters; and

WHEREAS, the City of DeLand representatives and staff have reviewed the information provided by or for other participating jurisdictions and organizations, including the projects and programs they have proposed for incorporation into the Volusia County Local Mitigation Plan; and

WHEREAS, these proposed projects and programs have been incorporated into the current edition of the Volusia County Local Mitigation Plan that has been prepared and issued for consideration and implementation by the communities and jurisdictions of Volusia County.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF DELAND, FLORIDA:

Section 1. The City of DeLand hereby accepts and approves of its designated portion of the Volusia County Local Mitigation Plan.

Section 2. The City of DeLand accepts and endorses the mitigation goals and objectives established by Volusia Prepares for the countywide plan, and the anticipated schedule for the next updating of the plan.

Section 3. The City of DeLand finds that the proposed mitigation projects and programs included in the plan by other jurisdictions and organizations are acceptable, that they will not adversely affect the county or its neighborhoods, and that they do not conflict with or duplicate the mitigation proposals made by the county itself.

Section 4. The agency personnel of the City of DeLand are requested and instructed to pursue available funding opportunities for implementation of the proposals designated therein.

Section 5. The agencies and organizations within the City of DeLand will, upon receipt of such funding or other necessary resources, seek to implement the proposals contained in the county's individual section of the strategy.

Section 6. The City of DeLand will continue to participate in the updating and expansion of the Volusia County Local Mitigation Plan in the years ahead.

Section 7. The City of DeLand will further seek to encourage the businesses, industries and community groups operating within the City of DeLand to also participate in the updating and expansion of the Volusia County Local Mitigation Plan in the years ahead.

Section 8. If any section, sentence, clause or phrase of this Resolution is held to be invalid or unconstitutional by any court of competent jurisdiction, that holding shall in no way affect the remaining portions of this Resolution.

Section 9. This Resolution shall become effective immediately upon its adoption.

PASSED AND DULY ADOPTED this 19th day of May, 2025.

Christopher M. Cloudman
Mayor-Commissioner

ATTEST:

Julie A. Hennessy
City Clerk - Auditor

APPROVED AS TO FORM AND LEGALITY:

Darren J. Elkind
City Attorney

Meeting Date: 8/21/2025

Agenda Item: 11-C

Report to Town Council

Topic: Resolution 2025-11 – Adjusting waste collection fees, effective October 1, 2025.

Summary: Per the agreement between the Town and Waste Pro of Florida, Inc., the rates for residential collection service shall be adjusted annually starting October 1, 2021, provided the rate increase is submitted to the Town by July 1st of each year. Resolution 2025-11 has been prepared for the purpose of adjusting waste collection fees, which the Town has not increased to residents since August 2023. Please see the attached staff report and supporting documentation for more information.

Suggested motion: Approval of Resolution 2025-11 as presented.

Requested by: Mr. Disher, Town Manager

Approved by: Mr. Disher, Town Manager

MEMORANDUM

Town of Ponce Inlet – Office of the Town Manager

The Town of Ponce Inlet staff shall be professional, caring and fair in delivering community excellence while ensuring Ponce Inlet citizens obtain the greatest value for their tax dollar.

To: Town Council

From: Michael E. Disher, AICP, Town Manager

Date: August 13, 2025

Subject: Resolution 2025-11 - Adjusting waste collection fees, effective 10/1/25

On August 22, 2019, the Town entered into a five-year agreement with Waste Pro of Florida, Inc. to provide residential waste collection services. The agreement was renewed for an additional five-year term on August 22, 2024. Per the agreement (attached), the rates for residential collection service shall be adjusted annually starting October 1, 2021, provided the rate increase is submitted to the Town by July 1st of each year. Any such increase must be based on the Consumer Price Index (CPI), the U.S. DOE Fuel Index, the Solid Waste Disposal Element Adjustment, and the Bulk Waste Disposal Element Adjustment as stated in their attached contract (see Page 14-15, Items D, E, G & H). The latter of these two allow for rate increases based on changes to tipping fees at the Volusia County landfill.

The Town traditionally has increased the fees it charges to residents sufficiently to cover any cost increases by the provider over the term of the agreement. Even though the fee charged by the provider to the Town may increase year-to-year, the cost to residents would stay the same. The Town uses the difference between the fees charged and collected to pay for hazardous waste disposal and paper shredding events, extra yard waste pick-ups, and small transfers to reserves, the general fund, and stormwater debt service.

The Town has not increased its fees to residents since August 2023, per Res. 2023-08. The monthly solid waste and disposal fee for a single-family residence was increased at that time to $35 per month, where it has remained. Since October 1, 2021, the fees charged by Waste Pro to the Town have increased annually as shown below.

Fiscal Year	Monthly Fee from Waste Pro	Monthly Fee from Town	Difference per Unit
21/22	$27.87	$30	$2.13
22/23	$29.46	$30	$0.54
23/24	$32.18	$35	$2.82
24/25	$33.39	$35	$1.61
25/26	$35.02	$35	$(.02)

Waste Pro submitted its rate increase notice to the Town on May 27, 2025 (attached), requesting a monthly fee of $35.02 per single-family residential unit. This is based on a CPI increase of 5%, a Fuel Index decrease of 8.78%, and landfill tipping fee increases of $1.78/ton for solid waste and $1.44/ton for yard waste. Without raising its own fees, the Town would face a deficit of $.02 per unit, which would have to be made up from other funding sources.

As a semi-enterprise fund, the fees charged for waste collection services are expected to fully cover the cost of these services. Therefore, Staff is proposing to increase the monthly rate to $37.50 to cover the Waste Pro rate adjustment for the upcoming fiscal year and the next. The increase covers services for collection and disposal of solid waste, recyclables, and bulk waste, and along with popular community events for hazardous waste disposal and paper shredding. The proposed increase was recommended at the Council's July budget workshop. If approved, the increase would take effect for all bills rendered after October 1, 2025.

Attachments:

- Agreement between the Town of Ponce Inlet and Waste Pro, August 22, 2019
- Rate Increase Notification letter from Waste Pro, Inc., May 27, 2025

SOLID WASTE, RECYCLABLES, AND BULK WASTE COLLECTION AND DISPOSAL AGREEMENT

Agreement Between

Town of Ponce Inlet

and

Waste Pro of Florida, Inc.

Approved: August 22, 2019

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SOLID WASTE, RECYCLABLES, AND BULK WASTE COLLECTION AND DISPOSAL AGREEMENT

Town of Ponce Inlet, Florida

This Contract is made and entered into this 26th day of August, 2019, between the Town of Ponce Inlet, a municipal corporation of the State of Florida, Volusia County, Florida, hereinafter referred to as "TOWN," and Waste Pro of Florida, Inc. authorized to do business in the State of Florida, hereinafter referred to as "CONTRACTOR."

Now, therefore, in consideration of the mutual covenants, agreements and consideration contained herein, the TOWN and CONTRACTOR hereby agree as hereinafter set forth:

SECTION 1. EFFECTIVE DATE, COMMENCEMENT DATE, AND TERM

A. Effective and Commencement Dates. The Effective Date of this Contract is the date this Contract is executed and signed by both the TOWN and CONTRACTOR. The Commencement Date is the date that Collection services required pursuant to this Contract commence, or October 1, 2019.

B. Initial Term. The term of this Contract shall be for a five (5) year period beginning on the Commencement Date, October 1, 2019, and terminating September 30, 2024.

C. Renewal Option. This Contract shall automatically renew for up to three (3) additional five (5) year periods unless either party provides the other party with written notice of non-renewal at least one (1) year prior to the conclusion of any Contract term.

SECTION 2. DEFINITIONS

For the purpose of this Solid Waste, Recyclables, and Bulk Waste Collection and Disposal Agreement, hereinafter referred to as "Contract," the definitions contained in this Section shall apply unless otherwise specifically stated or otherwise in conflict with Florida law. If a word or phrase is not defined in this Section, the definition of such word or phrase as contained in the TOWN Code shall control except where preempted by Florida law, in which case Florida law shall control. When not inconsistent with the context, words used in the present tense include the future, words in the plural include the singular, and words in the singular include the plural. Use of the masculine gender shall include the feminine gender. The word "shall" is always mandatory and not merely discretionary.

A. Active Utility Billing Account means any property with a water meter paying at least the minimum monthly water service charge.

B. Biohazardous or Biomedical Waste means any waste that may cause disease or reasonably be suspected of harboring pathogenic organisms, including waste resulting from the operation of medical clinics, hospitals, and other facilities processing waste that may consist of, but are not limited to, human and animal parts, contaminated bandages, pathological specimens, hypodermic needles, sharps, contaminated clothing, and surgical gloves.

C. Bulk Trash means those wastes that may require special handling and management and which by reason of bulk, shape, or weight cannot be placed in a Container. Bulk Trash includes, but is not limited to, furniture and fixtures, mattresses, White Goods, equipment, and any and all household goods that are customary to ordinary housekeeping operations of a Residential Service Unit. Bulk Trash must be generated by the customer at the Residential Service Unit at which the Bulk Trash is placed for Collection. Bulk Trash does not include Construction and Demolition Debris, Contractor-Generated Waste, or Exempt Waste.

D. Bulk Waste means the combination of Bulk Trash and Yard Trash. Bulk Waste must be generated by the customer at the Residential Service Unit at which it is placed for Collection. Bulk Waste does not include Construction and Demolition Debris, Contractor-Generated Waste, or Exempt Waste.

E. Business(es) means all retail, professional, wholesale, agricultural. industrial facility, or any other commercial enterprises offering goods or services to the public or other businesses; any church, synagogue, mosque, or other house of worship; and any schools or other institutions.

F. Certificate of Occupancy means a document produced by the Town certifying that a newly constructed building has been constructed in compliance with Town specifications and Florida Building Code and is suitable for use.

G. Collection means the process whereby Solid Waste, Recyclable Materials, or Bulk Waste is removed and transported to the facilities designated in this Contract.

H. Commencement Date means the date Collection services pursuant to this Contract commence, or October 1, 2019.

I. Compactor means any container that has a compaction mechanism, whether stationary or mobile.

J. Construction and Demolition Debris or C&D Debris means discarded materials generally considered to be not water-soluble and nonhazardous in nature, including, but not limited to, steel, glass, brick, concrete, asphalt roofing material, pipe, gypsum wallboard, and lumber, from the construction or destruction of a structure as part of a construction or demolition project or from the renovation of a structure, and including rocks, soils, tree remains, trees, and other vegetative matter that normally results from land clearing or land development operations for a construction project.

K. Container means any container intended for Collection.

L. Contract means this agreement, including all attachments and amendments thereto, between the TOWN and the CONTRACTOR, governing the provision of services as provided herein.

M. Contract Administrator means the Town Manager or designee.

N. Contract Year means the time from the Commencement Date through September 30, 2020 and each year thereafter during the term of the Contract.

O. CONTRACTOR means that person or entity that has obtained from the TOWN a Contract to provide the services set forth herein.

P. Contractor-Generated Waste means Bulk Trash and/or Yard Trash generated by builders, building contractors, privately employed tree trimmers and tree surgeons, landscape services, lawn or yard maintenance services, and nurseries.

Q. County means Volusia County, Florida.

R. Designated Disposal Facility means the disposal facility designated by the TOWN.

S. Designated Materials Recovery Facility or Designated MRF means the facility designated by the TOWN for delivery of all Residential Recyclable Materials collected pursuant to this Contract. The designated facility for collected recycling material will be the Ormond Beach Transfer Station, 600 North Orchard Street, Ormond Beach, FL 32174.

T. Dumpster means any metal container, with a capacity of two (2) or more cubic yards, designed or intended to be mechanically dumped into a loader packer type garbage truck.

U. Effective Date means the date this Contract is executed by both the TOWN and CONTRACTOR.

V. Exempt Waste means Biohazardous or Biomedical Waste, Hazardous Waste, Sludge, construction and demolition waste, tree parts or lumber that is more than four (4) feet in length in its longest dimension, automobiles, automobile parts, boats, boat parts, boat trailers, internal combustion engines, lead-acid

batteries, used oil and tires, those wastes under the control of the Nuclear Regulatory Council, Contractor-Generated Waste, and those other materials whose size and/or weight are in excess of that allowed for Bulk Waste as defined herein.

W. Hazardous Waste means any solid waste that is defined as a hazardous waste by the Florida Department of Environmental Protection in the State of Florida Administrative Code, or by any current or future federal, state, or local law.

X. Holiday means a designated holiday on which the CONTRACTOR shall not be required to provide Residential Collection Service or to maintain office hours. For the purposes of this Contract, Holiday shall only mean Christmas Day, New Year's Day, Thanksgiving Day and any day that the landfill closes unless additional Holidays are approved by the Contract Administrator.

Y. Non-Collection Notice means a durable tag, sign, and/or sticker placed on any Container or waste that has been set out for Collection by a customer but is not collectable in accordance with the provisions of this Contract and, therefore, has not been collected by the CONTRACTOR.

Z. Recyclable Materials or Recyclables means those materials that are capable of being recycled and which would otherwise be processed or disposed of as Residential Solid Waste. Recyclable Materials include newspapers (including inserts), corrugated cardboard, mixed paper (including brown paper bags, magazines, phonebooks, junk mail, white and colored paper, and paperboard), aluminum cans, plastic containers and bottles marked with SPI codes 1-2, tin and ferrous cans, and other materials added by the TOWN.

AA. Recycling Bin means a rigid rectangular receptacle made of plastic or other suitable substance of no less than eighteen (18) gallons for the Collection of Recyclable Materials.

BB. Residence means any individual living unit in a single-family structure or building intended for, or capable of being utilized for, residential living. For the purposes of this Contract, the term Residence shall include a living unit that adjoins or is part of a building from which a duly licensed Business is conducted or operated.

CC. Residential Collection Service means the Collection of Residential Waste from all Residential Service Units in the Service Area and the delivery of such materials to the facilities designated in this Contract.

DD. Residential Customer means the occupant of the Residential Service Unit that receives Collection services pursuant to this Contract.

EE. Residential Service Unit means any Residence receiving Residential Collection Service pursuant to this Contract.

FF. Residential Waste means Solid Waste, Bulk Waste, and Recyclable Materials generated by Residential Customers and by the Town.

GG. Roll Cart means a wheeled container designed and intended to be used for automated or semi-automated Collection of Solid Waste and/or Recyclable Materials that is a type and size approved by the Town.

HH. Roll-off Container means any open-top Container of a capacity of ten (10) cubic yards or more.

II. Service Area means the municipal limits of the TOWN.

JJ. Sludge means the accumulated solids, residues, and precipitates generated as a result of waste treatment or processing, including wastewater treatment, water supply treatment, or operation of an air pollution control facility, and mixed liquids and solids pumped from septic tanks, grease traps, privies, or similar disposal appurtenances, or any other such waste having similar characteristics or effects.

KK. Solid Waste means garbage, rubbish, refuse, trash, or other similar discarded material resulting from domestic, industrial, agricultural, or governmental operations. For the purposes of this Contract, the only things Solid Waste excludes are Recyclable Materials, Exempt Waste, and Residential Bulk Waste.

LL. TOWN means the Town of Ponce Inlet, Florida.

MM. Town Council or Council means the governing body of the Town of Ponce Inlet, Florida.

NN. White Goods means inoperative and discarded refrigerators, ranges, water heaters, freezers, and other similar domestic appliances. White Goods must be generated by the customer at the Residential Service Unit at which the White Goods are placed for Collection.

OO. Work Day means any day, Monday through Saturday, which is not a Holiday as set forth in this Contract.

PP. Yard Trash means any vegetative matter resulting from normal yard and landscaping maintenance that is not more than four (4) feet in its longest dimension. Yard Trash must be generated by the customer at the Residential Service Unit at which the Yard Trash is placed for Collection. Yard Trash includes Christmas trees, but does not include Contractor-Generated Waste or Exempt Waste. Yard trash does not include vegetative or bulk material that is generated as the result of a hurricane or other declared disaster event.

SECTION 3. GENERAL DESCRIPTION OF CONTRACTOR'S SERVICES

A. Exclusive Contract. The CONTRACTOR is herein granted an exclusive Contract to provide Residential Collection Service within the TOWN. The CONTRACTOR is not granted the exclusive right to collect C&D Debris. The CONTRACTOR may provide C&D Debris collection services at competitive rates that shall not be controlled by this Contract.

B. Services to be Provided. The CONTRACTOR shall provide Residential Collection Service to all Residential Service Units and to the Town within the Service Area. The CONTRACTOR shall transport and deliver all Solid Waste, Recyclable Materials, and Bulk Waste collected pursuant to this Contract to the facilities designated herein. CONTRACTOR agrees and understands that the Residential Bulk Waste is not required to be containerized in cans or plastic bags. CONTRACTOR further agrees and understands that CONTRACTOR is responsible for collecting any Residential Waste that has spilled or is no longer containerized, unless such spillage is clearly not caused by the CONTRACTOR or an employee of the CONTRACTOR.

C. Exempt Waste. The CONTRACTOR shall not be required to collect or dispose of Exempt Waste, but may offer such services. All such collection and disposal of Exempt Waste are not regulated under this Contract, but if provided by the CONTRACTOR shall be in strict compliance with all federal, state, and local laws and regulations.

D. Responsibility for Billing. The TOWN shall be responsible for the billing and collection of payments for Residential Collection Service. The CONTRACTOR shall be responsible for the billing and collection of payments for providing and servicing extra Residential Roll Carts, special collection services requested and provided to Residential Customers as outlined in Section 5.D of this Contract.

E. Payment for Disposal. The CONTRACTOR shall be responsible for making payment to the Designated Disposal Facility for the disposal of all Solid Waste collected pursuant to this Contract, and shall provide documentation of such payment to the TOWN. If the Designated Disposal Facility requires that a payment bond be posted for disposal of Solid Waste collected pursuant to this Contract, the CONTRACTOR shall be responsible for posting such payment bond.

SECTION 4. TRANSITION IN SERVICE

A. Transition Prior to Commencement Date of Service. The CONTRACTOR is responsible for providing a smooth transition in services to minimize inconvenience to Residential Customers. To accomplish this objective, the CONTRACTOR shall submit to the Contract Administrator, prior to the TOWN's execution of this Contract, a Transition Plan that provides a detailed description of how the CONTRACTOR will plan and prepare for initiating Collection services on the Commencement Date. The Transition Plan must meet the approval of the Contract Administrator. If the Contract Administrator does not approve any part of the Transition Plan, CONTRACTOR shall provide a revised proposed Transition Plan within five (5) Work Days of notification. At a minimum, the CONTRACTOR must address the specific performance requirements listed below in the Transition Plan and accomplish them according to deadlines specified in the TOWN-approved plan. This list is not intended to identify all necessary tasks to be performed by the CONTRACTOR, but to provide a springboard for the CONTRACTOR to develop a comprehensive Transition Plan.

(1) Contact List: List of key transition personnel including, but not limited to, service transition project manager, education and outreach coordinator, and operations director (or similarly titled positions).

(2) Transition Meeting and Call Schedules: Proposed meeting and call schedules including, but not limited to, meetings with the Contract Administrator, Town staff, and outgoing contractor leading up to the Commencement Date.

(3) Office: Schedule for setting up an office, installing local telephone number routed to the office, and training staff to begin receiving calls.

(4) Fleet: Schedule for ensuring that all vehicles are street legal (registered, insured, licensed, and tagged) and providing a vehicle/equipment list and route summary to the Contract Administrator. For all new purchases, CONTRACTOR shall provide a list of vehicles, manufacturer, purchase order, and documentation of anticipated delivery date.

(5) Staffing and Training: Schedule for obtaining necessary labor and training staff on equipment and routes.

(6) Routing: Schedule for developing Solid Waste, Recyclables, and Bulk Waste routes, identifying obstacles such as low trees and overhead wires, and conducting dry-runs of collection routes.

B. Transition Prior to Expiration of this Contract.

(1) Should the TOWN choose not to exercise the renewal option of this Contract or should no renewal options remain, the TOWN anticipates awarding a new contract at least six (6) months prior to the expiration of this Contract or any subsequent renewals. In the event a new contract has not been awarded within such time frame, the CONTRACTOR agrees to provide service to the TOWN for up to an additional one hundred and eighty (180) day period beyond the expiration of the Contract, provided the TOWN requests said services, in writing, at such time. The service rates for this additional period will be adjusted as they normally would on October 1 as specified in Sections 12 and 13 of this Contract.

(2) At the expiration of this Contract, the CONTRACTOR shall work with the TOWN and the newly selected hauler to ensure a smooth transition period with no interruption of service, including, but not limited to, compliance with the following performance requirements:

(a) Attend coordination meetings with the TOWN and newly selected hauler, as requested.

(b) Work with the newly selected hauler to develop a mutually agreeable schedule for removal of CONTRACTOR-owned Containers and placement of newly selected hauler's containers. The schedule shall ensure no interruption in solid waste services.

(c) Allow the newly selected hauler to purchase or rent for up to ninety (90) days, CONTRACTOR-owned Containers from the CONTRACTOR. The purchase price and/or rental shall be negotiated.

(3) The TOWN reserves the right to withhold payment to CONTRACTOR for the final month of service until CONTRACTOR has complied with all requirements of this Section.

SECTION 5. RESIDENTIAL COLLECTION SERVICE

A. Residential Solid Waste Collection.

(1) The CONTRACTOR shall provide Residential Solid Waste Collection to all Residential Service Units in the Service Area two (2) times per week with not less than forty-eight (48) hours or more than seventy-two (72) hours between regularly scheduled pickup days, with the exception of Holidays as set forth herein. Residential Solid Waste Collection shall occur twice per week on Monday and Thursday, unless a modification is approved by the Contract Administrator.

(2) All Residential Solid Waste shall be properly containerized. All Solid Waste to be hand-lifted is to be placed in customer-provided containers or non-dissolvable plastic garbage bags with a capacity of not more than thirty-two (32) gallons and weighing not more than fifty (50) pounds. Any trash container larger than 32 gallons must be able to be lifted with a mechanical trash container lifting device. If the Town decides to implement carted Collection of Solid Waste, to the extent possible all Solid Waste is to be placed in CONTRACTOR-provided Roll Carts; CONTRACTOR is expected to pick up additional bags, boxes, etc... that may be placed next to Roll Carts. Residential Customers may request the CONTRACTOR to provide and service additional Solid Waste Roll Carts as specified in Section 6.B(4) of this Contract.

(3) Hours: Residential Collection Service shall be provided commencing no earlier than 7:00 a.m. and terminating no later than 7:00 p.m. The hours and days of Collection may be extended due to extraordinary circumstances or conditions, with the prior written consent of the Contract Administrator.

B. Residential Bulk Waste Collection.

(1) The CONTRACTOR shall provide Residential Bulk Waste Collection, consisting of Yard Trash and Bulk Trash, to all Residential Service Units in the Service Area. Non-vegetative Residential Bulk Waste Collection shall occur on shall occur on the solid waste collection days and vegetative bulk waste shall occur once per week on Wednesday, unless otherwise approved in writing by the Contract Administrator; large piles of vegetative bulk waste may require multiple days for full collection. Collection is limited to twelve (12) cubic yards per set-out. In a few locations where space is limited (such as cul-de-sacs), one or more Residential Customers may combine their Bulk Waste into a single large pile. The TOWN will work with the residents and CONTRACTOR to identify these locations.

(2) If Bulk Waste exceeds the twelve (12) cubic yard limit, the CONTRACTOR will treat any amount above the twelve (12) cubic yard limit as a special collection service in accordance with Section 5.D(2).

(3) The CONTRACTOR may collect Bulk Trash and Yard Trash in the same vehicle or in separate vehicles but shall collect such material in such a way that Yard Trash can be separated for recycling. Residents are asked to place non-containerized Yard Trash separate from Bulk Trash into an unobstructed pile to permit the CONTRACTOR to collect such Yard Trash with a grapple or clam truck, although at times hand collection, or an alternative method of collection, may be required. Collection of Yard Trash using a grapple or clam truck may be on the same Collection day as Collection of Bulk Trash. Collection of Bulk Trash may use a grapple or clam truck, although at times hand collection, or an alternative method of collection, may be required.

(4) The CONTRACTOR shall collect White Goods so that they can be recycled. Residents are asked to place White Goods adjacent to other Bulk Trash but separate so as not to be obstructed. Even if residents fail to separate their White Goods, CONTRACTOR shall still utilize its best efforts to recycle comingled White Goods collected.

C. Residential Recyclables Collection.

(1) The CONTRACTOR shall provide Residential Recyclables Collection to all Residential Service Units in the Service Area. This service shall be provided once every week on Tuesday, unless a modification is approved in writing by the Contract Administrator.

(2) Residential Recyclables shall be collected in a single stream, meaning that paper and commingled containers may be placed in the same 18 gallon recycle bin. All Recyclables are to be placed in 18 gallon recycle bins. Residential Customers may request the CONTRACTOR to provide and service additional recycle bins as specified in Section 6.C(2) of this Contract.

(3) Contractor and City shall mutually agree on any additions or deletions of recyclable types to be collected. The addition of items shall be at no additional cost to the TOWN unless the CONTRACTOR can document that the addition of such items substantially impacts the cost of providing Residential Collection Service.

D. Residential Special Collection Service.

(1) For an additional fee, Residential Customers may request special collection service from the CONTRACTOR that exceeds the base-level services outlined herein. CONTRACTOR shall be responsible for invoicing and collecting payment from Residential Customers for special collection services outside the scope of this contract. The TOWN is not liable for a Residential Customer's failure to remit payment to CONTRACTOR for any special collection service provided.

(2) Bulk Waste in excess of twelve (12) cubic yard limit. If a Residential Customer places more than twelve (12) cubic yards of Bulk Waste curbside for Collection, the CONTRACTOR shall collect all Bulk Waste and shall invoice the Customer for the amount of Bulk Waste exceeding the twelve (12) cubic yard limit. This per cubic yard amount shall be as approved in the contract between the Town and the CONTRACTOR.

(3) By noon the business day following each Work Day, the CONTRACTOR shall provide the Town with the residential address associated with any overage of bulk waste to be charged and shall provide digital photographs of the entire pile prior to Collection, to document the size of the Bulk Waste pile.

(4) No Mixing of Residential Materials.

(5) The CONTRACTOR shall collect Residential Solid Waste, Bulk Waste, and Recyclable Materials generated in the TOWN separate from any Solid Waste, Bulk Waste, or Recyclable Materials generated in another jurisdiction.

(6) The CONTRACTOR shall not commingle Residential Recyclable Materials with other Residential Waste.

E. Side or Back Door Collection. Notwithstanding any term or definition set forth in this Contract, side or back door Collection of Residential Solid Waste and Residential Recyclable Materials from a Residential Service Unit shall be required if all adult occupants residing therein are disabled and if a request for side or back door Collection has been made to, and approved by, the Contract Administrator in the manner required by TOWN. The Contract Administrator shall notify the CONTRACTOR in writing of any customers requiring side or back door Collection. No additional monies shall be due to the CONTRACTOR for the provision of side or back door Collection to disabled Residential Customers. The CONTRACTOR will not be required to enter any buildings, garages or gated areas of the property to service a Residential Customer.

F. Dead Animals Collection. CONTRACTOR shall pickup any dead animals from both streets and right of ways within the Town upon visually observing such or being notified by the Town of the need for said pickup, within four (4) hours of notification, on any day in which they are in Town performing other collections – currently scheduled for Monday – Thursday.

G. Hours. Residential Collection Service shall be provided Monday through Saturday, commencing no earlier than 7:00 a.m. and terminating no later than 7:00 p.m., with no service on or Sunday. The hours and/or days of Collection may be extended due to extraordinary circumstances or conditions, with the prior consent of the Contract Administrator.

H. Holidays. In the event a Residential Customer's normal Collection day falls on a holiday observed by the CONTRACTOR and accepted by the TOWN via this CONTRACT, Collection shall occur on the Residential Customer's next regularly scheduled Collection day.

I. Accessibility. All properly prepared Residential Containers, including Roll Carts, shall be placed within three (3) feet of the curb, swale, paved surface of the public roadway, closest accessible roadway, or other such location agreed to by the CONTRACTOR and customer, that will provide safe and efficient accessibility to the CONTRACTOR'S collection crew and vehicle. When possible, CONTRACTOR shall work to ensure that Containers, including Roll Carts, are placed in an upright position within three (3) feet of the curb, swale, roadway, or other such location agreed to by the CONTRACTOR and customer, that will help to ensure that no Container or Roll Cart impedes, alters, or prevents the vehicular traffic. In certain instances, properly prepared Residential Waste may be placed in driveway turnout areas to avoid placing it in the traveled roadway. The CONTRACTOR shall report monthly to the Contract Administrator all situations that prevent or hinder Collection on any premises.

J. Manner of Collection.

(1) The CONTRACTOR shall provide Residential Collection Service with as little noise and disturbance as possible.

(2) CONTRACTOR's employees shall completely empty any Container without obstructing alleys, roadways, driveways, sidewalks, or mail boxes. Roll Carts shall be placed in an upright position with the lid closed. Containers with unattached lids shall be placed either in an upright position with the lid set on top or in an inverted position with the lid placed underneath to help prevent the lid from flying away or if that is impractical directly behind the Container.

(3) CONTRACTOR'S employees shall follow the regular walk for pedestrians while on private property. No trespassing by CONTRACTOR'S employees will be permitted or crossing property to the adjoining premises unless the occupant or owner of both properties has given permission. Care shall be taken to prevent damage to property, including flowers, shrubs, and other plantings. CONTRACTOR is responsible for repairs to all damaged property.

(4) CONTRACTOR's Collection vehicles shall remain on the right-hand side of the road when providing Residential Collection Service on two-way streets with center stripes. At no time shall collection crews cross to the opposite side of a street with center stripes to retrieve Containers, Roll Carts, or materials that have been set out for Collection. In situations where it is impossible or difficult to turn around to serve a location from the right side of the vehicle, then left-side service is permitted, but only in a manner than ensures the safety of residents and collection workers and only when approved by the Contract Administrator. At no time shall collection workers use the riding steps when the vehicle is backing up, exceeding 10 miles per hour, or traveling more than 0.2 miles.

K. Spillage. The CONTRACTOR shall clean up any Residential Solid Waste spilled from a Container by the CONTRACTOR or its employees or Residential Bulk Waste spilled or scattered by the CONTRACTOR or its

employees prior to proceeding to the next customer, if reasonably possible, but in no event prior to the end of that pick-up day. Care shall be taken by CONTRACTOR'S employees to prevent damage to Containers by unnecessary rough treatment.

L. Routes and Schedules. The CONTRACTOR shall provide the Contract Administrator with schedules for all Residential Collection Service routes in accordance with the Transition Plan and shall always keep such information current. If any changes in the Collection routes occur, the Contract Administrator shall be immediately notified in writing. No permanent change in routes or schedules that will alter the days of Residential Waste Collection may be made without the prior written consent of the Contract Administrator. In the event a permanent change in routes or schedules that will alter the days of Residential Waste Collection is approved by the Contract Administrator, the CONTRACTOR shall immediately notify the affected Residential Customers, in writing or other manner as approved by the Contract Administrator, not less than two (2) weeks prior to the change.

SECTION 6. RESIDENTIAL COLLECTION CONTAINERS

A. Customer-Provided Containers. Within five (5) Work Days of being notified by a Residential Customer or the TOWN that CONTRACTOR or its employees destroyed the customer's non-TOWN supplied Container, CONTRACTOR shall provide the Residential Customer with a Container of comparable size and quality. CONTRACTOR is not responsible for a replacement Container if it can satisfactorily prove to the Contract Administrator that CONTRACTOR or its employees did not damage the customer's Container. Prior to payment or replacement of the Container, the Residential Customer shall give CONTRACTOR their damaged Container for disposal.

B. Purchase and Distribution of Solid Waste Roll Carts.

If during the term of this Agreement, the TOWN chooses to implement carted Collection of Solid Waste at the onset of any five-year renewal of this agreement, and if such carted Collection of Solid Waste is approved by the CONTRACTOR, this section shall apply.

(1) Within one hundred and twenty days of the TOWN'S decision to implement carted Collection of Solid Waste, CONTRACTOR shall deliver one (1) Solid Waste Roll Cart to each Residential Customer within the Service Area. After the roll-out, CONTRACTOR shall deliver Solid Waste Roll Carts within five (5) Work Days of notification of a new Residential Customer. Roll Carts must meet the technical specifications provided in Exhibit 5 and be approved by the Contract Administrator. Roll carts shall be delivered with information attached pursuant to Section 11.C.

(2) The standard Solid Waste Roll Cart shall be ninety-five (95) gallons or similar in size. However, CONTRACTOR shall make sixty-five (65) gallon (or similar in size) Solid Waste Roll Carts available upon request by a Residential Customer. Prior to assembly and distribution of Solid Waste Roll Carts, CONTRACTOR may conduct a survey of Residential Customers to determine which size Solid Waste Roll Cart they prefer. If CONTRACTOR plans to conduct such a survey, the details of such survey shall be included in the Transition Plan and the survey and method of collection of survey data must be approved by the TOWN in advance of its distribution.

(3) Upon request by a Residential Customer, CONTRACTOR shall exchange a Solid Waste Roll Cart with an alternatively-sized Roll Cart within five (5) Work Days of request for such exchange by the customer or TOWN. CONTRACTOR shall provide one (1) Solid Waste Roll Cart exchange per Residential Customer during the initial Contract term at no charge to the customer or the TOWN. Should a Residential Customer request additional exchanges, CONTRACTOR may charge the Residential Customer no more than one hundred dollars ($100) per Roll Cart that is exchanged. CONTRACTOR shall track and report exchanges in the asset management database specified in Subsection E below.

(4) Upon request by a Residential Customer, CONTRACTOR shall provide more than one (1) Solid Waste Roll Cart to accommodate extra materials. CONTRACTOR shall charge Residential Customer for each extra Solid Waste Roll Cart for an additional unit in accordance with Exhibit 1. CONTRACTOR shall provide additional Solid Waste Roll Carts within five (5) Work Days of request by a Residential Customer or the TOWN. CONTRACTOR shall record all extra Solid Waste Roll Carts delivered to Residential Customers in the asset management database and report them monthly to the Contract Administrator. If a Residential Customer desires the Collection of the extra Solid Waste Roll Cart(s), CONTRACTOR shall issue an annual invoice for the Collection that shall be paid directly by the Residential Customer to CONTRACTOR in accordance with the rate schedule provided in Exhibit 1. Such annual invoice shall be prorated based upon the 1st day of the month that Collection commences, and it shall be based upon a calendar year. CONTRACTOR shall send all renewal invoices to the Residential Customers in December of each calendar year. CONTRACTOR shall not be required to collect any extra Solid Waste Roll Cart(s) unless it has been paid to collect same. Residential Customer may cancel its extra Solid Waste Roll Cart(s) Collection at any time, but such cancellation shall only go into effect the next calendar year. Residential Customers who cancel their extra Collection shall not receive a proration for services, nor shall they be able to seek a credit for failure to utilize this service. The TOWN is not liable or responsible for any payment to CONTRACTOR for the failure of payment by a Residential Customer, or for CONTRACTOR's collection of such extra waste.

(5) If the Town elects to transition to carted Collection of Solid Waste, and if CONTRACTOR approves such transition, within thirty (30) days of such election, CONTRACTOR shall provide a transition plan to the Contract Administrator, which is subject to the approval of the Contract Administrator. The transition plan shall include the information specified below:

(a) Cart Procurement: Schedule for purchase and manufacturing of CONTRACTOR-provided Roll Carts for Residential Collection Service including artwork approval by TOWN and prototype delivery. The TOWN retains the right to require acceptable documentation including, but not limited to, purchase orders, delivery schedules, and receipts of payment.

(b) Cart Assembly and Distribution (A&D): Schedule for Roll Cart A&D including cart shipment dates, days and hours of operations, and completion of A&D. All Roll Carts shall be delivered to all customers at least two (2) weeks prior to the Commencement Date. An A&D plan shall also be included two (2) weeks prior to the Commencement date identifying A&D contractor, if applicable, and contact information, staging areas, A&D route schedule, number of crews, expected number of carts delivered per crew per day, method of assigning carts to addresses, data points to be collected at time of A&D, and upload frequency of data into central A&D database. CONTRACTOR shall provide a list matching the serial number of each Roll Cart to the specific address to which each Roll Cart has been assigned. After delivery, residents may affix their names and property address onto their assigned Roll Cart.

(c) Cart Swaps: Schedule for Roll Cart swaps, including plan for receiving swap requests, initiating exchanges, and maintaining asset management database.

C. Purchase and Distribution of Recycling Bins.

(1) Residential Customers shall retain Recycling Bins utilized during the previous collection contract. Prior to the Commencement Date, the CONTRACTOR shall ensure that all Residential Customers desiring Recycling Bins are provided such. Recycling Bins shall be of a similar size and quality as those currently in use, meet the technical specifications provided in Exhibit 5, and be approved by the Contract Administrator. The CONTRACTOR shall purchase and provide Recycling Bins to all new Residential Customers within five (5) Work Days of notification of a new Residential Customer.

(2) Upon request by a Residential Customer, CONTRACTOR shall provide more than one (1) Recycling Bin to accommodate extra recyclable materials. CONTRACTOR shall provide additional Recycling Roll Bins within

five (5) Work Days of request by a Residential Customer or the TOWN. CONTRACTOR shall record all extra Recycling Bins delivered to Residential Customers on the asset management list and report them monthly to the Contract Administrator. Additional Recycling Bins shall be collected at no additional cost to the Residential Customer or the TOWN.

D. Repair and Replacement of Solid Waste and Recycling Bins.

(1) CONTRACTOR shall maintain a sufficient inventory of Solid Waste Roll Carts (if this option is ever selected) and Recycling Bins to be able to deliver new or replacement Roll Carts/Bins of the requested size within five (5) Work Days of receiving request.

(2) CONTRACTOR shall repair or replace a Roll Cart/Bin within five (5) Work Days of receiving notice from the TOWN or customer of the need for repair, or if identified unserviceable by CONTRACTOR.

(3) Any Roll Carts/Bins damaged by the CONTRACTOR, including extra Roll Carts/Bins, shall be replaced by the CONTRACTOR, at the CONTRACTOR's expense, at no cost or inconvenience to the Residential Customer.

(4) The cost of replacing Roll Carts/Bins due to loss, theft (without documented police report), or destruction through no fault of the CONTRACTOR shall be charged by the CONTRACTOR to the Residential Customer for an amount not to exceed the rate schedule set forth in Exhibit 1. This rate may be adjusted by the TOWN if the CONTRACTOR provides sufficient documentation to demonstrate that such adjustment is warranted. This fee may be collected from the Residential Customer by the CONTRACTOR at the time of delivery of the Roll Cart/Bin.

E. Asset Management List.

(1) The TOWN will provide the CONTRACTOR with a list of Residential Customers that includes the parcel folio number, address, and number of Residential Service Units on each parcel. CONTRACTOR shall use this list to develop and maintain an asset management database through which CONTRACTOR shall be responsible for reporting and tracking the movement of all Roll Carts used for Residential Collection Service, including deliveries, removals, exchanges, repairs, warranty recovery, and any other information necessary to manage cart assets, subject to TOWN approval. The database shall also specify the route for each Residential Service Unit and shall be in a format that is searchable by the Contract Administrator. The initial database must be populated and transmitted to the Contract Administrator in accordance with the approved Transition Plan. All database adjustments must be made within forty-eight (48) hours of physical inventory exchange and completion of work order. If a cart is swapped out, data for the cart removed and the cart replaced is to be provided. Data fields shall include, but not be limited to the following:

(a) Work order number, date, and status

(b) Residential Service Unit name/ID and address

(c) Parcel folio number (as provided by the TOWN)

(d) For each Roll Cart at each Residential Service Unit, the type (Solid Waste or Recycling), size, and serial number

(e) Routes on which the Residential Service Unit is serviced

(2) CONTRACTOR shall provide the Contract Administrator with an updated copy of the asset management database monthly, as well as access upon request.

F. Ownership of Roll Carts/Bins. Ownership of Roll Carts/Bins provided by CONTRACTOR shall rest with the CONTRACTOR until expiration or termination of this Contract, at which point ownership and warranty transfer shall rest with the TOWN. Should the Contract be terminated early for convenience, the TOWN shall pay the CONTRACTOR a prorated amount for the purchase price of the Solid Waste Roll Carts based on a five (5) year amortization schedule.

SECTION 7. RESIDENTIAL NON-COLLECTION PROCEDURES

A. In the event Solid Waste contains Exempt Waste, Recyclable Materials are contaminated through commingling with Solid Waste, or other occurrence that would warrant legitimate non-collection by the CONTRACTOR, the CONTRACTOR shall affix a Non-Collection Notice to the Container or waste itself explaining why Collection was not made and explaining proper procedures for setting out Solid Waste, Bulk Waste, and Recyclable Materials. CONTRACTOR shall take digital photographs of the waste or pile to document the reason for non-collection. If the uncollected waste consists of Bulk Waste, CONTRACTOR shall take photographs from at least one (1) side of the pile, at a minimum.

B. The design and content of all Non-Collection Notices must be approved by the Contract Administrator and the cost of printing and delivery of said notices shall be paid for by the CONTRACTOR.

C. By the end of each Work Day or in no event later than noon the next Work Day, the CONTRACTOR shall electronically transmit to the Contract Administrator a list of all Residential Service Units at which Collection was not made that Work Day. This list shall include the reasons for the non-collection and the addresses of such non-collection. The CONTRACTOR shall also electronically transmit all digital photographs of the non-collection to the Contract Administrator.

SECTION 8. RESIDENTIAL BULK WASTE PROCESSING

A. The CONTRACTOR is responsible for the transport, processing, marketing, and final disposal of all Residential Bulk Waste collected by the CONTRACTOR. Bulk Waste must be processed or disposed at a legally permitted and licensed facility(ies) to process such materials, as agreed upon by the TOWN and CONTRACTOR. The Bulk Waste processing facility shall be (name of facility specified by selected vendor to be inserted) or such other facility(ies) approved in writing by the Contract Administrator.

B. To the extent practical, the CONTRACTOR shall recycle any recyclable items collected in the Residential Bulk Trash, including White Goods, and shall mulch, compost, or otherwise recycle Yard Trash. The CONTRACTOR shall record the quantities of Bulk Trash and Yard Trash recycled and the quantities disposed and shall report such quantities to the Contract Administrator for each month and the report shall be given to the Contract Administrator within the month following the report date.

SECTION 9. DESIGNATED FACILITIES

A. Except as set forth below, all Residential Solid Waste collected by the CONTRACTOR shall be transported to, and disposed of, at any facility selected by the Contractor and approved by the TOWN. The designated facility for collected solid waste and bulk waste will be the Volusia County Landfill, 1990 Tomoka Farms Road, Port Orange, Florida 32128-3752.

B. All Residential Recyclable Materials collected by the CONTRACTOR shall be delivered any facility selected by the Contractor and approved by the TOWN. The designated facility for collected recycling material will be the Ormond Beach Transfer Station, 600 North Orchard Street, Ormond Beach, FL 32174.

C. Failure to comply with this provision shall result in the levy of liquidated damages as specified in Section 21 of this Contract and may result in the CONTRACTOR being in default under this Contract.

SECTION 10. ADDITIONAL SERVICES

A. TOWN Services. The CONTRACTOR shall provide, at no cost to the TOWN, Solid Waste and Recyclables Collection services to all Town facilities, including the provision and servicing of Containers. Provided below is a list of services provided at the time of Contract execution. Services to be provided may be adjusted during the term of the Contract based on need.

Locations	Address	Service Frequency	# Garbage Carts	# Recycle Carts	Dumpster Size
Ponce Inlet Police Dept	4301 S. Peninsula Dr.	Once weekly	1 dumpster	1 dumpster 2 toters	6 yards & 4 yards
Ponce Inlet Fire Dept	4680 S. Peninsula Dr.	Once weekly	1 dumpster	1 dumpster 2 toters	8 yards & 6 yards
Ponce Inlet Public Works Facility	4875 S. Peninsula Dr.	Twice weekly	4	2 toters	95 gal
Ponce Inlet Community Center	4670 S. Peninsula Dr.	Once weekly	1 dumpster	-	6 yards
Ponce Inlet Boat Ramp	4985 S. Peninsula Dr.	Once Weekly	2 dumpsters	-	8 yards
Ponce Preserve	4401 S. Peninsula Dr.	Once weekly	Bulk waste		

B. Public Awareness Program. The CONTRACTOR agrees to participate in public outreach events, at no charge to the Town, by providing up to twelve (12) hours per year of an outreach person's time at such public outreach events, provided that notice of at least two weeks is given. If the TOWN'S notice for CONTRACTOR'S cooperation under this Section is less than two weeks, CONTRACTOR, at its sole discretion, may agree to provide the requested outreach person.

SECTION 11. RESIDENTIAL RATES AND BILLING

A. Customer Billing. Except as specifically provided herein, the TOWN shall be responsible for the billing and collection of payments for all Residential Collection Service. The CONTRACTOR shall be responsible for directly billing Residential Customers for providing and servicing extra Roll Carts and for providing special collection service as specified in Section 5.D of this Contract.

B. CONTRACTOR Invoicing. The CONTRACTOR shall invoice the TOWN for Residential Collection Services rendered under this Contract no later than the tenth (10^{th}) calendar day of the month following the month such services were rendered. The TOWN shall review the invoice and pay all undisputed portions of the invoice within twenty (20) days of receipt of the invoice. The TOWN may utilize a check, or ACH for making payments. The monthly invoice from and payment to the CONTRACTOR shall be the Residential Service Unit count times the monthly residential rate as shown in Exhibit 1, attached hereto and included herein.

Residential Service Unit Count. No later than September 1^{st}, 2019, the TOWN will provide the CONTRACTOR with an initial list of Residential Service Units within the Service Area. In the event the CONTRACTOR does not agree with the Residential Service Unit count provided by the TOWN, the CONTRACTOR may request that the TOWN and the CONTRACTOR perform a joint physical count of the Residential Service Units in the Service Area. The Residential Service Unit count may be increased or decreased monthly by the Town based upon those units with an active utility billing account, as defined in this contract. No temporary suspension of collection service may be authorized for any customer with an active utility billing account. The CONTRACTOR may request and the TOWN will subsequently provide a list of active utility billing accounts at any time during the contract, at no cost to the CONTRACTOR. If the CONTRACTOR does not dispute the number of Residential Service Units

provided by the TOWN for a given month within 30 days of receipt of said month's payment, the number of Residential Service Unity shall be deemed to be accepted by the CONTRACTOR and CONTRACTOR waives all rights to recourse for its failure to contest the Residential Service Unit count provided by the TOWN.

C. Service Rates. The TOWN shall initially pay the CONTRACTOR for Residential Collection Service in accordance with the rates and generation factors established in Exhibit 1, attached hereto and included herein. The collection elements and Bulk Waste disposal element of the initial service rate shall not be adjusted through September 30, 2021.

D. Service Rate Adjustments. The rates for Residential Collection Service shall be adjusted October 1, 2021, and annually thereafter each Contract Year, as described herein. Any requested adjustments must be submitted to the Town by July 1st of each year for the following fiscal year, beginning with July 1st, 2021. An example of the calculation of such adjustment is provided in Exhibit 2. All rate adjustments shall be reduced to writing and signed by the CONTRACTOR representative identified in Section 27 and the Town Administrator.

E. Indexes for Adjusting Rates. The following indexes shall be used for calculating rate adjustments pursuant to this Contract. If either of these indexes is discontinued or substantially altered, the TOWN shall select another relevant index published by the United States Government or by a reputable publisher of financial and economic indexes.

(1) The Consumer Price Index (CPI) used for adjusting rates shall be the Consumer Price Index for Series Id: CUUR0000SEHG02, Garbage and trash collection in U.S. city average, all urban consumers, not seasonally adjusted as determined and recorded by the United States Department of Labor, Bureau of Labor Statistics.

(2) The Fuel Index used for adjusting rates shall be the Lower Atlantic (PADD 1C) Ultra Low Sulfur (15 ppm and under) Retail Diesel Prices (Dollars per Gallon) as published by the Energy Information Administration of the United States Department of Energy.

F. Collection Element Adjustment. The collection elements of the Residential Collection Service rates shall be adjusted based on the Consumer Price Index and Fuel Index, as defined in this Section and illustrated in Exhibit 2.

(1) Ninety-five percent (95%) of the collection elements of the Residential service rates shall be adjusted based on one hundred percent (100%) of the percentage change in the CPI for February of the previous year and February of the current year, rounded to the nearest hundredth of a percent.

(2) Five percent (5%) of the collection elements of the Residential service rates shall be adjusted based on the percentage change in the average monthly Fuel Index for the twelve (12) month period ending February of the previous year and the average monthly Fuel Index for the twelve (12) month period ending February of the current year, rounded to the nearest hundredth of a percent.

(3) In no event shall the annual collection element adjustment exceed five percent (5%) of the collection element of the service rate paid by the Town in the previous Contract Year.

G. Solid Waste Disposal Element Adjustment. The Solid Waste disposal element of the Residential service rate shall be adjusted on the effective date of the new rate based on the new tipping fee at the Designated Disposal Facility. The new annual Residential Solid Waste disposal element shall be calculated as follows:

New tipping fee ($/ton)	x	0.764 tons/Residential Service Unit (Solid Waste generation factor)	=	New Residential Solid Waste disposal element ($/Residential Service Unit)

Such changes in rate shall be effective October 1st of the next fiscal year. In no event shall the CONTRACTOR utilize any tipping fee, other than the current approved tipping fee, in the preparation of its monthly invoices to

the TOWN; except that in the event the CONTRACTOR is charged a tipping fee that is less than the current approved tipping fee for the disposal of Residential Solid Waste, such lower tipping fee shall be used in the preparation of the monthly invoice to the TOWN. The TOWN may request from the CONTRACTOR such further information as may be reasonably necessary in making its determination.

H. Bulk Waste Disposal Element Adjustment. The Bulk Waste disposal element of the Residential service rate shall be adjusted based on the new disposal rate at the Designated Disposal. The new annual Residential Bulk and Yard Waste disposal element shall be calculated as follows:

New tipping fee ($/ton)	x	0.623 tons/Residential Service Unit (Bulk Waste generation factor)	=	New Residential Bulk Waste disposal element ($/Residential Service Unit)

I. Generation Factor Adjustments. The generation factors specified in Exhibit 1 that are used to calculate the rates for Solid Waste disposal and Bulk Waste disposal shall be set by July 15, 2021, and shall be adjusted October 1, 2021, and shall then remain constant for the remainder of the Contract term. The generation factors will be adjusted based on the average quantities of Residential Solid Waste and Residential Bulk Waste (not including Bulk Waste that exceeded the 12 cubic yard limit per pickup) collected per Residential Service Unit during the first Contract Year. Regardless of final determination of the average quantities of Residential Solid Waste and Residential Bulk Waste collected per Residential Service Unit during the first Contract Year, the adjusted generation factor for Residential Bulk Waste shall not exceed the FY 2016 level of 4.67 tons per Residential Service Unit per year and the generation factor for Residential Solid Waste shall not exceed the generation factor provided in Exhibit 1 of 1.28 tons per Residential Service Unit per year. The Contractor shall provide monthly documentation demonstrating the accuracy of the tonnage of Residential Solid Waste and Bulk Waste collected in the Town during the first Contract Year. The Solid Waste disposal element and Bulk Waste disposal element shall be calculated based on these adjusted generation factors, as well as the adjustments specified in Sections 12.H and 12.I above. Notwithstanding the CONTRACTOR provided monthly reporting, the TOWN may elect to conduct its own waste management study. The generation factors determined by that study will be the factors used in the CONTRACT.

J. Contract Preparation and Administration Expenses. The TOWN shall assume all expenses regarding contract preparation and general administration of the contract by TOWN employees.

K. Recycling Revenues. The TOWN shall retain any revenue generated from the processing and sale of Residential Recyclable Materials after processing and transportations fees are paid.

SECTION 12. CHANGE IN LAW AND UNUSUAL CHANGES IN THE COST OF DOING BUSINESS

The CONTRACTOR may petition the TOWN for an additional rate adjustment resulting from a change in law or unusual cost of doing business. The CONTRACTOR'S request shall contain substantial proof and justification to support the need for the rate adjustment. The TOWN may request from the CONTRACTOR such further information as may be reasonably necessary in making its determination. Within sixty (60) calendar days of receipt of the request and all other additional information required by the TOWN, the Town Administrator shall make a determination regarding the fairness of the request and shall make a recommendation to the Town Council at a regular meeting. Adjusted Rates shall become effective upon approval by the Town Council.

SECTION 13. CONTRACTOR'S PERSONNEL

A. The CONTRACTOR shall assign a qualified supervisor to oversee the operations within the Service Area and shall provide the name of that person in writing to the Contract Administrator annually and any other time the person in that position changes. The supervisor shall always be available to the TOWN by telecommunications equipment that the CONTRACTOR is providing Residential Collection Service. The supervisor or their

representative shall be available onsite within four (4) hours or before the end of the Work Day if requested by the Contract Administrator.

B. The CONTRACTOR shall employ and assign qualified personnel to perform all services set forth herein. The CONTRACTOR shall be responsible for ensuring that its employees comply with all applicable laws and regulations and meet all federal, state and local requirements related to their employment and position.

C. The TOWN may request the transfer of any employee of the CONTRACTOR who materially violates any provision hereof, or who is wanton, negligent, or discourteous in the performance of his duties.

D. CONTRACTOR'S employees shall be required to wear a clean uniform shirt bearing the CONTRACTOR'S name. CONTRACTOR'S employees, who normally come into direct contact with the public, including drivers, shall bear some means of individual identification such as a name tag or identification card.

E. Each driver of a Collection vehicle shall at all times carry a valid Florida driver's license and all other required licenses for the type of vehicle that is being operated.

F. CONTRACTOR'S employees, officers, and agents shall at no time be allowed to identify themselves or in any way represent themselves as being employees of the TOWN. The CONTRACTOR'S name and office telephone number shall be properly displayed on all Collection vehicles.

SECTION 14. SPILLAGE AND LITTER

A. The CONTRACTOR shall not litter any premises in the process of providing Residential Collection Service. The CONTRACTOR shall exercise all reasonable care and diligence in providing Collection services so as to prevent spilling or dropping of Solid Waste, Bulk Waste, or Recyclable Materials during Collection activity and shall immediately, prior to proceeding to the next customer, if reasonably possible, but in no event prior to the end of that pick up day, clean up such spilled or dropped Solid Waste, Bulk Waste, or Recyclable Materials. The CONTRACTOR shall transport all Solid Waste, Bulk Waste, and Recyclable Materials in such a manner as to prevent the spilling or blowing from the CONTRACTOR'S vehicle.

B. Equipment oil, hydraulic fluids, spilled paint, or any other liquid or debris resulting from the CONTRACTOR'S operations or equipment repair shall be covered immediately with an absorptive material and removed from the street or other surface. When necessary, CONTRACTOR shall apply a suitable cleaning agent to the street surface to provide adequate cleaning or remove contaminated surface soil or material and promptly replace with clean soil or surface material. CONTRACTOR shall provide the TOWN with a daily report of any such leakage, the location of such leakage, the vehicle at issue, and the remediation measures used to correct same.

SECTION 15. COLLECTION EQUIPMENT

A. The CONTRACTOR shall always have on hand, in good working order, such collection equipment as shall permit the CONTRACTOR to adequately and efficiently perform the duties specified in this Contract. Any proposed change in the collection system being used by the CONTRACTOR during the Contract period shall be submitted in writing by the CONTRACTOR to the Contract Administrator.

B. Residential collection vehicles shall be of a type sufficient to efficiently collect all Solid Waste, Bulk Waste, and Recyclable Materials covered by this Contract, and transport such materials to the designated facilities in a manner such that no collected materials can be blown or fall from the vehicle during transport. The CONTRACTOR may utilize open-bed vehicles in the provision of Bulk Waste Collection; however, the vehicles must contain the Bulk Waste so that no material is spilled, leaked, or blown from the vehicle, and the vehicle must be covered with a securely fastened tarp during transport.

C. Each collection vehicle shall always be equipped with: (a) all safety supplies, equipment, and first aid supplies required by applicable laws; (b) a fire extinguisher; (c) a heavy-duty broom, a rake, and a large dustpan or shovel; (d) a spill response kit; (e) an audible back-up warning device; and (f) back-up cameras. The spill response kit shall be suitable and adequate for cleaning up any leaks or spills of oil, hydraulic fluid, or other liquids from CONTRACTOR's collection vehicles.

D. All equipment shall be kept well painted, shall clearly display and shall only display CONTRACTOR's name and telephone number, and shall be maintained in good repair, appearance, and sanitary, clean condition in order to meet community standards of appearance at all times. All collection equipment shall be leak-proof to prevent any liquid from draining onto the ground. The TOWN reserves the right, at its discretion, to require a vehicle be taken out of service for habitual leakage of oil, hydraulic fluid, or other liquids or other maintenance issues. Such vehicle shall not be placed back into service until and unless the TOWN is able to verify that the necessary repairs have been made.

E. The CONTRACTOR shall have available to it, at all times, reserve equipment which can be put into service and operation within two (2) hours of any breakdown. Such reserve equipment shall correspond in size and capacity to the equipment used by the CONTRACTOR to perform the contractual duties.

SECTION 16. OFFICE

A. The CONTRACTOR shall maintain an office where complaints can be received and which provides toll-free telephone access for customers living in the TOWN. Such office shall be equipped with sufficient telephones, shall have responsible persons in charge, and shall be open 8:00 a.m. to 5:00 p.m. Monday through Friday on those days that the CONTRACTOR provides Residential Collection Service. The CONTRACTOR shall provide either a telephone answering service or mechanical device to receive customer inquiries during those times when the office is closed. Messages left on the answering service or mechanical device shall be responded to on the next Work Day.

B. The CONTRACTOR shall provide the Contract Administrator with an emergency phone number where the CONTRACTOR can be reached outside of the required office hours.

SECTION 17. SERVICE INQUIRIES, COMPLAINTS, AND PROPERTY DAMAGE

A. All service inquiries and complaints shall be directed to the CONTRACTOR. A representative of the CONTRACTOR shall be available to receive the complaints during normal business hours. All service complaints shall be handled by the CONTRACTOR in a prompt and efficient manner. In the case of a dispute between a CONTRACTOR and a customer, the matter will be reviewed and a decision made by the Contract Administrator.

B. The CONTRACTOR will maintain a written record of all calls it receives regarding services provided pursuant to this Contract, including but not limited to inquiries, missed Collections, and complaints (Call Log). CONTRACTOR shall use a standard form for the Call Log, as approved by the Contract Administrator, to record the pertinent facts of each call, including but not limited to date and time of call; name, address, and telephone number of person calling; reason for the call; action taken by CONTRACTOR; and date and time any issue was resolved. CONTRACTOR shall keep this Call Log up to date. By the end of each Work Day, the CONTRACTOR shall e-mail to the Contract Administrator the Call Log for all calls received during that Work Day or since the previous Call Log was submitted.

C. For those complaints related to missed Collections, CONTRACTOR shall make every effort to return to the service address and collect the missed materials that same day. For missed Collection complaints that are received by noon on a Work Day, the CONTRACTOR must return to the service address and collect the missed materials that same day. For missed Collection complaints that are received after noon on a Work Day, the

CONTRACTOR must return to the service address and collect the missed materials by noon of the following Work Day.

D. For those complaints related to repair or replacement of Roll Carts, the appropriate subsections of Section 6 of this Contract shall apply.

E. By noon on the first Work Day of each week, the CONTRACTOR shall e-mail to the Contract Administrator a report of those complaints, related to Collection, that were not resolved in the manner set forth in Subsection C above. This weekly report shall include all information specified in Subsection B above, as well as the status of the disposition of the complaint.

F. The CONTRACTOR shall be responsible for the prompt repair or replacement, if repair is not adequate, of any damage to public or private property during the provision of Residential Collection Service, and caused by the CONTRACTOR or the CONTRACTOR'S representative. Within twenty-four (24) hours of occurrence, the CONTRACTOR shall provide the Contract Administrator with a full explanation of the disposition of any complaint involving a claim of damage to public or private property as a result of actions of the CONTRACTOR. The CONTRACTOR shall promptly repair any such legitimate damage claim at its sole expense and within an agreed upon time frame, not to exceed one (1) week, as approved by the Contract Administrator. Upon the request of the CONTRACTOR, the Contract Administrator may grant a time extension. Proof of the need for an extension shall be submitted by the CONTRACTOR.

G. By the end of the first Work Day of each month, the CONTRACTOR shall e-mail to the Contract Administrator a report on any unresolved complaint involving a claim of damage to public or private property as a result of actions of the CONTRACTOR'S employees, agents or subcontractors. This monthly report shall include the name, address and phone number of the complainant, date of occurrence, nature of occurrence and the status of the disposition of the complaint.

H. CONTRACTOR agrees that it is in the best interest of the TOWN that all Residential Collection Service be provided on the scheduled Collection day. Accordingly, missed Collections will normally be collected in accordance with Subsection C above regardless of the reason that the Collection was missed. However, in the event the CONTRACTOR does not address a missed Collection complaint in accordance with Subsection C because it believes such complaint to be without merit, CONTRACTOR shall immediately notify the Contract Administrator in writing. The Contract Administrator will investigate all disputed complaints and render a final and binding decision.

SECTION 18. RECORDKEEPING AND REPORTING

A. The Town is subject to Chapter 119, Florida Statutes, "Public Records Law." CONTRACTOR acknowledges the public shall have access at all reasonable times to all documents and information pertaining to TOWN's contracts, subject to the provisions of Chapter 119, Florida Statutes, and agrees to allow access by the TOWN and the public to all documents subject to disclosures under applicable law.

B. To the extent that CONTRACTOR has been provided access to or has received security sensitive information, as defined by Florida Statutes, Section 119.071 and/or has executed a Confidential Information Acknowledgement and Agreement as part of this Contract, CONTRACTOR shall keep and maintain the security sensitive information as confidential and exempt from public disclosures as required by Florida Statutes.

C. CONTRACTOR agrees to keep and maintain public records required by the TOWN to perform the service in CONTRACTOR's possession or control in connection with CONTRACTOR's performance under this Contract and, upon the request from the TOWN's custodian of public records, to provide the TOWN with a copy of the requested records or allow the records to be inspected or copied within a reasonable amount of time at a cost that does not exceed the cost provided in Chapter 119 or as otherwise provided by law. CONTRACTOR shall ensure that public records that are exempt or confidential and exempt from public records disclosure

requirements are not disclosed except as authorized by law for the duration of the Contract term and following completion of the Contract if the CONTRACTOR does not transfer the records to the TOWN.

D. Upon completion of the Contract, CONTRACTOR agrees, at no cost to TOWN, to transfer to the TOWN all public records in possession of the CONTRACTOR or keep and maintain public records required by the TOWN to perform the service. If the CONTRACTOR transfers all public records to the TOWN upon completion of the Contract, the CONTRACTOR shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the CONTRACTOR keeps and maintains public records upon completion of the Contract, the CONTRACTOR shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the TOWN, upon request from the TOWN's custodian of public records, in a format that is compatible with the information technology system of the TOWN.

E. CONTRACTOR's failure or refusal to comply with the provisions of this section shall result in the immediate termination for cause of the Contract by TOWN.

F. The CONTRACTOR shall keep records of the amounts of Residential Solid Waste, Bulk Trash, and Yard Trash disposed; Residential Bulk Trash, Yard Trash, and Recyclable Materials recycled. Such records shall be kept separate and apart from all other records maintained by the CONTRACTOR.

G. The CONTRACTOR shall file and keep current with the TOWN all documents and reports required by this Contract. All documents and reports submitted to the TOWN by the CONTRACTOR shall be fully transparent. CONTRACTOR shall provide additional information as requested by the Contract Administrator to comply with such requirement for transparency.

H. By the date specified in the TOWN-approved Transition Plan, CONTRACTOR shall electronically transmit to the Contract Administrator the completed and current Residential Customer list that has been revised to incorporate the Roll Cart asset management database meeting the requirements of Section 6.E. At a minimum, the database shall include all information initially provided by the TOWN, (parcel folio number, address, and number of Residential Service Units on the parcel) and all information specified in Section 6.E (routes on which customer is serviced; size and serial number of Solid Waste (if applicable) and Recycling Roll Carts; size and serial number of all extra Solid Waste and Recycling Roll Carts; work order number, date, status, and any extra service fees billed by the CONTRACTOR for any deliveries, removals, exchanges, repairs, warranty recovery, and any other information necessary to manage cart assets).

I. At the end of each Work Day or in no event later than noon the next Work Day, the CONTRACTOR shall electronically submit the following to the Contract Administrator, in a format approved by the Contract Administrator:

(1) Call Log for all calls received since the previous report, including how such calls were resolved.

(2) Record of Residential Customers that placed more than the twelve (12) cubic yard limit of Bulk Waste curbside for Collection during that Work Day.

(3) Record of any other non-collection occurrences during that Work Day, the reasons for the non-collection, and the addresses of such non-collection.

(4) Full explanation of any complaint involving a claim of damage to public or private property as a result of actions of the CONTRACTOR that occurred within the last twenty-four (24) hours.

(5) Full explanation of any occurrences of leakage of fluids from a collection vehicle within the last twenty-four (24) hours, including the location of such leakage, the vehicle at issue, and the remediation measures used to correct same.

J. By noon on the first Work Day of each week, the CONTRACTOR shall e-mail to the Contract Administrator a report of Collection complaints that were not resolved as required by Section 19.E.

K. Prior to the fifteenth (15th) calendar day of each month during the term of this Contract, the CONTRACTOR shall submit a report electronically to the Contract Administrator, in a format approved by the Contract Administrator. The report shall contain the following information:

(1) Tonnage of Residential Solid Waste, Residential Bulk Trash and Residential Yard Trash disposed during the previous month. At the Contract Administrator's request, CONTRACTOR shall provide documentation, in the form of scale house tickets, of the tonnage of Residential Solid Waste and Residential Bulk Waste that is disposed each month.

(2) Tonnage of Residential Bulk Trash, Residential Yard Trash, and Residential Recyclable Materials recycled during the previous month.

(3) List of all Residential Customers charged for special waste collection, including Bulk Waste in excess of twelve (12) cubic yards per set-out, during the previous month. The list shall include the customer's name and address, date service was provided, service that was provided, and fee that was charged.

(4) Updated Roll Cart asset management database, as well as the number of new, replacement, or additional Solid Waste Roll Carts and Recycling Roll Carts distributed during the previous month, the date each was requested, and the date each Roll Cart was delivered.

(5) Documentation of payment to the Designated Disposal Facility for disposal of Solid Waste during the previous month.

L. Prior to September 15th of each year during the term of this Contract, the CONTRACTOR shall ensure and certify to the TOWN that all required documents are current and on file with the TOWN. Such documents include, but are not limited to, certificates of insurance, performance bond, route schedules and maps.

M. In addition to any other requirements of this Contract, the CONTRACTOR shall be required to provide statistical and other pertinent information pertaining to Residential Collection Service as may be requested by the TOWN to monitor compliance with this Contract or to comply with the provisions of Section 403, F.S., as amended, other pertinent laws and regulations, or any interlocal agreements the TOWN has or may enter into during the term of this Contract.

N. The CONTRACTOR shall mark any information it considers confidential, proprietary, or privileged as such and the TOWN will treat such information accordingly as provided for in Chapter 119, Florida Statutes. If the CONTRACTOR has questions regarding the application of Chapter 119, Florida Statutes, to the CONTRACTOR's duty to provide public records relating to this Contract, CONTRACTOR shall contact the TOWN's custodian of public records, Russell Muniz, at (954) 434-0008.

SECTION 19. LIQUIDATED DAMAGES

A. It is the intent of the TOWN to ensure that the CONTRACTOR provides a quality level of Residential Collection Service. The TOWN and CONTRACTOR acknowledge and agree that it is impossible to precisely determine the amount of damages that would be incurred by the TOWN due to service failures or circumstances described in this Section for which the CONTRACTOR would otherwise be liable. Accordingly, the TOWN has determined terms and amounts of liquidated damages set forth herein, and the parties agree that the liquidated damages are reasonable under the circumstances. Therefore, the following shall constitute liquidated damages, not penalties, that the TOWN may assess against the CONTRACTOR for failing to comply with requirements of this Contract, time being of the essence. It is hereby agreed that the TOWN may deduct from any monies due, or which may become due to the CONTRACTOR, such assessed liquidated damages in the following amounts:

(1)	Failure to submit a Transition Plan within thirty (30) days of Contract execution or to revise the Transition Plan within five (5) Work Days of notification by the Contract Administrator without prior approval of the Contract Administrator for such delay in submittal (§4.A)	$100.00 per day past the due date
(2)	Failure to meet the schedule outlined in the TOWN-approved Transition Plan without prior approval of the Contract Administrator for such delay (§4.A)	$100.00 per incident per day past the due date
(3)	Failure or neglect to resolve each valid complaint, including missed Collection, in the timeframe specified (§19)	$100.00 per each unresolved
(4)	Failure to repair damage to public or private property determined caused by the CONTRACTOR or its personnel within the timeframe approved by the Contract Administrator (§19.F)	$100.00 per incident after the timeframe approved in writing by Contract Administrator
(5)	Mixing of materials in violation of §5.E	$100.00 per occurrence
(6)	Failure to comply with hours and days of operation (§5.G and §9.D)	$250.00 per occurrence per vehicle
(7)	Changing Collection routes without proper notification (§5.L)	$1,000.00 per incident per day
(8)	Failure to distribute Solid Waste Roll Carts by date specified in Transition Plan unless otherwise approved by the Contract Administrator (§6B(1))	$100.00 per Roll Cart per day past due date
(9)	Failure to repair, replace, exchange, or deliver a Roll Cart within the required timeframe (§6)	$100.00 per Roll Cart
(10)	Failure to provide a completed Roll Cart asset management database and to keep such database up to date as specified (§6.E)	$100.00
(11)	Failure to leave a Non-Collection Notice explaining why all material was not collection (§7)	$100.00 per occurrence
(12)	Failure to collect and process Bulk Waste in a manner that enables, at a minimum, recycling of Yard Trash and White Goods (§5.B and §8)	$100.00 per Residential Service Unit
(13)	Failure to deliver all Residential Solid Waste to the Designated Disposal Facility (§10.A)	$100.00 per incident
(14)	Failure to deliver all Residential Recyclable Materials to the Designated MRF (§10.B)	$100.00 per incident
(15)	Failure to prepare and distribute TOWN-approved public education materials in the timeframe specified (§11.C)	$100.00 per incident

(16)	Failure to have a vehicle operator properly licensed (§15.E)	$100.00 per vehicle per day
(17)	Failure to clean up spillage, leakage, or excessive blowing debris with the timeframe specified after notification by Town (§16.B)	$100.00 per incident per day
(18)	Failure to assign scheduled vehicles and equipment on a route day (§17)	$100.00 per vehicle per day
(19)	Failure to submit to the TOWN all plans, reports, records, or other documents in the time required under the provisions of this Contract, including §20, unless otherwise approved by the Contract Administrator	$250.00 per month
(20)	Failure or neglect to complete more than 95 percent of a route (number of missed pickups must be less than 5 percent of total customers on that daily route to be considered more than 95 percent complete) on the regularly scheduled Collection day without justifiable cause (cause that is beyond the control of the CONTRACTOR) or prior approval by the Contract Administrator	$250.00 per incident

B. The Contract Administrator may assess liquidated damages pursuant to this Section at any time during the term of this Contract. The Contractor Administrator shall notify the CONTRACTOR in writing of the liquidated damages assessed and the basis for each assessment. In the event the CONTRACTOR wishes to contest such assessment, within ten (10) Work Days of receipt of written notice, CONTRACTOR shall request in writing a meeting with the Contract Administrator to resolve the issue. The TOWN shall notify the CONTRACTOR in writing of any action taken with respect to CONTRACTOR'S claims within five (10) Work Days of such meeting. The Town Administrator's decision shall be final and conclusive unless determined by a court of competent jurisdiction to be fraudulent, capricious, arbitrary, so grossly erroneous as to necessarily imply bad faith, or not supported by competent evidence. Any liquidated damages assessed by the Town Administrator shall be deducted from the TOWN's next monthly payment to the CONTRACTOR.

SECTION 20. EMERGENCY SERVICE PROVISIONS

A. In the event of a hurricane, tornado, major storm, natural disaster, or other such event, the Contract Administrator may grant the CONTRACTOR a variance from regular routes and schedules. Such variance from regular routes and schedule to ensure the safety of the CONTRACTOR's employees and members of the community shall not be unreasonably denied by the TOWN. However, CONTRACTOR shall make its best effort to resume regular Collection service as soon as possible. As soon as practicable after such event, the CONTRACTOR shall advise the Contract Administrator when it is anticipated that normal routes and schedules can be resumed. The Contract Administrator shall make an effort through the local news media to inform the public when regular Collection services may be resumed.

B. The clean-up from some events may require that the CONTRACTOR hire additional equipment, employ additional personnel, dispose of additional solid waste and bulk waste or work existing personnel on overtime hours to clean debris resulting from the event. The CONTRACTOR shall receive additional compensation, above the normal compensation contained in this Contract, to cover documented costs provided the CONTRACTOR has first secured written authorization and approval from the TOWN through the Contract Administrator. The

CONTRACTOR shall substantiate such additional costs for labor, equipment, transportation, and/or disposal in writing. The TOWN shall have the right to audit such costs. The CONTRACTOR shall provide the TOWN with a separate disaster cleanup agreement with specified rates at the commencement of each Contract Year.

C. In the event of a declared disaster, the rate paid to the CONTRACTOR shall be the rate in the Disaster Cleanup Agreement, attached hereto as Exhibit 4. The TOWN reserves the right to hire additional hauling contractors for debris removal operations after it is determined by the Contract Administrator that additional services are needed and after notice to the CONTRACTOR.

SECTION 21. PERFORMANCE BOND

Prior to commencing services, the CONTRACTOR shall furnish to the TOWN, and keep current for the full duration of the Contract and any renewal, a Performance Bond for the faithful performance of this Contract and all obligations arising hereunder in the amount of three hundred thousand dollars ($300,000.00). It shall be executed by a surety company licensed to do business in the State of Florida; having an "A-" or better rating by A. M. Best or Standard and Poors; included on the list of surety companies approved by the Treasurer of the United States; and in a form acceptable to the TOWN.

SECTION 22. INSURANCE

A. The CONTRACTOR shall provide, pay for, and always maintain in force during the term of this Contract, such insurance, including Worker's Compensation Insurance and comprehensive general liability insurance as stated below. The CONTRACTOR shall also name the TOWN as an additional insured to CONTRACTOR'S comprehensive general liability insurance policy, and shall provide the TOWN with annual Accords documenting both insurance coverages and that the TOWN has been named as an additional insured on the comprehensive general liability insurance policy and as a certificate holder for all other forms of insurance and setting forth the minimum insurance standards set forth below:

(1) Worker's Compensation Insurance to apply for all employees in compliance with the "Workers' Compensation Law" of the State of Florida and all applicable federal laws, for the benefit of the CONTRACTOR'S employees.

(2) Comprehensive General Liability Insurance, including contractual, with minimum limits of Two Million Dollars ($2,000,000.00) per occurrence, combined single limit for bodily injury liability and property damage liability. The TOWN is to be included and named as an "additional insured" with respect to any claims arising out of this Contract.

(3) Business Automobile Liability Insurance with minimum limits of one million dollars ($1,000,000) per occurrence, combined single limits bodily injury liability and property damage. The policy must be no more restrictive than the latest edition of the business automobile liability policy without restrictive endorsements, as filed by the Insurance Services Office, and must include all owned vehicles and all hired or non-owned vehicles.

B. UPON EXECUTION OF THIS CONTRACT, CONTRACTOR SHALL SUBMIT TO TOWN COPIES OF ITS CERTIFICATE(S) OF INSURANCE EVIDENCING THE REQUIRED COVERAGES REQUIRED HEREIN AND SPECIFICALLY PROVIDING THE ENDORSEMENT TO THE POLICIES THAT SHOWS THE TOWN OF PONCE INLET IS AN ADDITIONAL NAMED INSURED CERTIFICATE HOLDER, AS APPLICABLE, WITH RESPECT TO THE REQUIRED COVERAGES AND CONTRACTOR'S WORK UNDER THIS CONTRACT.

C. The CONTRACTOR shall not commence operations, and/or labor to complete any of the work pursuant to this Contract until certification or proof of insurance issued directly by the insurance company underwriting department or insurance agent, detailing terms and provisions of coverage has been received and approved by the Town.

D. Insurance policies and coverages shall not be affected by any other policy of insurance which the TOWN may carry in its own name.

E. CONTRACTOR's insurance policies shall be endorsed to provide the TOWN with at least thirty (30) calendar days' prior written notice of cancellation, non-renewal, restrictions, or reduction in coverages or limits. Notice shall be sent to:

Jeaneen Witt, Town Manager
Town of Ponce Inlet
4300 South Peninsula Drive
Ponce Inlet, Florida 32127

F. All required insurance policies shall preclude any insurer's or underwriter's rights of recovery or subrogation against TOWN with the express intention of the parties being that the required insurance coverages protect both parties as the primary coverages for any and all losses covered by the above-described insurance.

G. CONTRACTOR shall ensure that any companies issuing insurance to cover the requirements contained in this Contract agree that they shall have no recourse against TOWN for payment or assessments in any form on any policy of insurance.

H. The clauses 'Other Insurance Provisions' and 'Insured Duties in the Event of an Occurrence, Claim or Suit' as it appears in any policy of insurance in which TOWN is named as an additional insured shall not apply to TOWN. TOWN shall use its best efforts to provide written notice of occurrence within thirty (30) working days after TOWN's actual notice of such event.

I. If any of CONTRACTOR's initial insurance expires prior to the completion of the term of this Contract, renewal copies of policies shall be furnished to TOWN at least thirty (30) days prior to the date of their expiration, and TOWN shall be an additional named insured by endorsement on all of CONTRACTOR's renewal policies.

J. The official title of the owner is Town of Ponce Inlet. This official title shall be used in all insurance policies and documentation.

K. Notwithstanding any other provisions of this Contract, CONTRACTOR's obligation to maintain all required insurance as specified in this Section of the Contract shall survive the expiration or earlier termination of this Contract.

SECTION 23. INDEMNIFICATION OF TOWN

A. CONTRACTOR shall indemnify, defend, and hold harmless TOWN, TOWN'S contractors, and the public officials, officers, directors, employees, agents and other contractors of each of them, from and against any and all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals as well as all Court or other dispute resolution costs), liabilities, expenditures or causes of action of any kind (including negligent, reckless, willful or intentional acts or omissions of the CONTRACTOR, any subcontractor, any supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any services or anyone for whose acts any of them may be liable), caused by the breach of this Contract, violation of applicable law, and the negligent acts or omissions of the CONTRACTOR in the performance of this Contract. This indemnity includes but is not limited to claims attributable to bodily injury, sickness, disease or death and to injury or destruction of tangible property.

B. CONTRACTOR further agrees to indemnify, defend, save and hold harmless the TOWN, its officers, agents and employees, from all damages, liabilities, losses, claims, fines and fees, and from any and all suits and actions of every name and description that may be brought against TOWN, its officers, agents and employees, on account

of any claims, fees, royalties, or costs for any invention or patent rights or for the infringement of any and all copyrights or patent claimed by any person, firm or corporation.

C. CONTRACTOR agrees, at CONTRACTOR'S expense, after written notice from the TOWN, to defend any action against the TOWN that falls within the scope of this indemnity as set forth above in Subsections A and B, or the TOWN, at the TOWN'S option, may elect not to tender such defense and may elect instead to secure its own attorneys to defend any such action and the reasonable costs and expenses of such attorneys incurred in defending such action shall be payable by CONTRACTOR. Additionally, if CONTRACTOR, after receipt of written notice from the TOWN, fails to make any payment due under this Contract to the TOWN or fails to perform any obligation required by this Contract, CONTRACTOR shall pay any reasonable attorneys' fees and costs incurred by the TOWN in securing any such payment from CONTRACTOR, or any reasonable attorneys' fees and costs incurred in the enforcement of this indemnity, or both. Payment of any amount due pursuant to the foregoing indemnity shall, after receipt of written notice by CONTRACTOR from the TOWN that such amount is due, be made by CONTRACTOR prior to the TOWN being required to pay same, or in the alternative, the TOWN, at the TOWN'S option, may make payment of an amount so due and CONTRACTOR shall promptly reimburse the TOWN for same, together with interest thereon at the rate of twelve percent (12%) per annum simple interest from the date of receipt by CONTRACTOR of written notice from the TOWN that such payment is past due at least twenty (20) days.

D. It is specifically understood and agreed that the consideration inuring to the CONTRACTOR for the execution of this Contract consists of the promises, payments, covenants, rights and responsibilities contained in this Contract.

E. The execution of this Contract by the CONTRACTOR shall obligate the CONTRACTOR to comply with the foregoing indemnification provision; however, the collateral obligation of providing insurance must be also complied with as set forth in Section 24.

F. The CONTRACTOR shall require all subcontractors to enter into a contract containing the provisions set forth in the preceding subsections in which contract the subcontractor fully indemnifies the TOWN in accordance with this Contract.

SECTION 24. POINT OF CONTACT

The day-to-day dealings between the CONTRACTOR and the TOWN shall be between the CONTRACTOR and the Town Administrator or designee.

SECTION 25. NOTICE

Except as provided herein, whenever either party desires to give notice to the other, it must be given by written notice, sent by certified U.S. mail, with return receipt requested, addressed to the party for whom it is intended, at the place last specified and to the place for giving of notice in compliance with the provisions of this paragraph. For the present, the parties designate the following as the respective persons and places for giving of notice:

As to the TOWN:

Jeaneen Witt, Town Manager Town of Ponce Inlet 4300 South Peninsula Drive Ponce Inlet, Florida 32127	and	Kim McColl, Finance Manager Town of Ponce Inlet 4300 South Peninsula Drive Ponce Inlet, Florida 32127

As to the CONTRACTOR:

Waste Pro of Florida, Inc. Ken DeForest, Division Manager 925 South Clyde Morris Blvd. Daytona Beach, Florida 32114	and	Waste Pro of Florida, Inc. Tim Dolan, Region Vice-President 3750 St Johns Parkway Sanford, Florida 32771

Notices shall be effective when received at the address as specified above. Changes in the respective addresses to which such notice is to be directed may be made from time-to-time by written notice. Electronic transmission is acceptable notice, effective when received; however, electronic transmissions received (i.e. printed) after 4:30 p.m. or on weekends or holidays, will be deemed received on the next business day. The original of items that are transmitted electronically must also be mailed as required herein.

SECTION 26. TERMINATION OF CONTRACT

A. Termination for Cause. The TOWN may cancel this Contract, except as otherwise provided below in this Section, by giving the CONTRACTOR thirty (30) days' advance written notice, to be served as provided in Section 25, upon the happening of any one of the following events:

(1) The CONTRACTOR shall take the benefit of any present or future insolvency statute, or shall make a general assignment for the benefit of creditors or file a voluntary petition in bankruptcy (court) or a petition or answer seeking an arrangement for its reorganization or the readjustment of its indebtedness under the Federal bankruptcy laws or under any other law or statute of the United States or any state thereof or consent to the appointment of a receiver, trustee or liquidator of all or substantially all of its property; or

(2) By order or decree of a Court, the CONTRACTOR shall be adjudged bankrupt or an order shall be made approving a petition filed by any of its creditors or by any of the stockholders of the CONTRACTOR, seeking its reorganization or the readjustment of its indebtedness under the Federal bankruptcy laws or under any law or statute of the United States or of any state thereof, provided that if any such judgment or order is stayed or vacated within sixty (60) days after the entry thereof, any notice of default shall be and become null, void and of no effect; unless such stayed judgment or order is reinstated, in which case, said default shall be deemed immediate; or

(3) By, or pursuant to or under the authority of any legislative act, resolution or rule or any order or decree of any Court or governmental board, agency or officer having jurisdiction, a receiver trustee or liquidator shall take possession or control of all or substantially all of the property of the CONTRACTOR, and such possession or control shall continue in effect for a period of sixty (60) days; or

(4) The CONTRACTOR has defaulted by failing or refusing to pay in a timely manner the administrative charges or other monies due the TOWN and said default is not cured within thirty (30) days of receipt of written notice by TOWN to do so; or

(5) The CONTRACTOR has defaulted by allowing any final judgment for the payment of money to stand against it unsatisfied and said default is not cured within thirty (30) days of receipt of written notice by TOWN to do so; or

(6) In the event that the monies due the TOWN under subsection (4) above or an unsatisfied final judgment under subsection (5) above is the subject of a judicial proceeding, the CONTRACTOR shall not be in default if the sum of money is bonded. All bonds shall be in the form acceptable to the Town Attorney; or

(7) The CONTRACTOR has defaulted, by failing or refusing to perform or observe the terms, conditions or covenants in this Contract or any of the rules and regulations promulgated by the TOWN pursuant thereto or has wrongfully failed or refused to comply with the instructions of the Contract Administrator relative thereto and said default is not cured within thirty (30) days of receipt of written notice by the TOWN to do so, or if by reason of the nature of such default, the same cannot be remedied within thirty (30) days following receipt by the CONTRACTOR of written demand from the TOWN to do so, the CONTRACTOR fails to commence the remedy of such default within said thirty (30) days following such written notice or having so commenced shall fail thereafter to continue with diligence the curing thereof (with the CONTRACTOR having the burden of proof to demonstrate (a) that the default cannot be cured within thirty (30) days, and (b) that it is proceeding with diligence to cure said default, and such default will be cured within a reasonable period of time). However, notwithstanding anything contained herein to the contrary, for the failure of the CONTRACTOR to provide Collection for a period of three (3) consecutive Work Days, the TOWN may secure the CONTRACTOR'S billing records on the fourth (4th) Work Day in order to provide interim Contract Collection until such time as the matter is resolved and the CONTRACTOR is again able to perform pursuant to this Contract; provided, however, if the CONTRACTOR is unable for any reason or cause to resume performance at the end of thirty (30) Work Days all liability of the TOWN under this Contract to the CONTRACTOR shall cease and this Contract may be deemed terminated by the TOWN, except to the extent the failure to provide Collection services is the result of the occurrence of an event of force majeure.

B. Habitual Violations. Notwithstanding the foregoing and as supplemental and additional means of termination of this Contract under this Section, in the event that the CONTRACTOR'S record of performance shows that the CONTRACTOR has frequently, regularly or repetitively defaulted in the performance of any of the covenants and conditions required herein to be kept and performed by the CONTRACTOR, in the opinion of the TOWN, and regardless of whether the CONTRACTOR has corrected each individual condition of default, the CONTRACTOR shall be deemed a "habitual violator," shall be deemed to have waived the right to any further notice or grace period to correct, and all of said defaults shall be considered cumulative and collectively and shall constitute a condition of irredeemable default. The TOWN shall thereupon issue the CONTRACTOR a final warning citing the circumstances therefore, and any single default by the CONTRACTOR of whatever nature, subsequent to the occurrence of the last of said cumulative defaults, shall be grounds for immediate termination of the Contract. In the event of any such subsequent default, the TOWN may terminate this Contract upon giving of written final notice to the CONTRACTOR, such cancellation to be effective upon the date specified in the TOWN'S written notice to the CONTRACTOR, and all contractual fees due hereunder plus any and all charges and interest shall be payable to said date, and the CONTRACTOR shall have no further rights hereunder. Immediately upon the specified date in such final notice the CONTRACTOR shall cease any further performance under this Contract.

C. Effective Date of Termination. In the event of the aforesaid events specified in subsections A and B above and except as otherwise provided in said subsections, termination shall be effective upon the date specified in the TOWN'S written notice to the CONTRACTOR and upon said date this Contract shall be deemed immediately terminated and upon such termination all liability of the TOWN under this Contract to the CONTRACTOR shall cease, and the TOWN shall have the right to call the performance bond and shall be free to negotiate with other contractors for the operation of the herein specified services. The CONTRACTOR, for failure to perform, shall reimburse the TOWN all direct and indirect costs of providing interim Residential Solid Waste, Recyclables, and Bulk Waste Collection.

SECTION 27. MODIFICATIONS TO THE CONTRACT

The TOWN and the CONTRACTOR understand and agree that the Florida Legislature has the authority to make changes in Solid Waste Management legislation and that changes in law may mandate certain changes to this Contract. Should such changes materially alter the obligations of the CONTRACTOR, then the Collection charges established in the Exhibits to this Contract shall be adjusted accordingly. When such modifications are made to this Contract, the TOWN and the

CONTRACTOR shall negotiate in good faith a reasonable and appropriate compensation adjustment for any increase or decrease in the services or other obligations required. In addition, TOWN and the CONTRACTOR may approve other changes upon mutual agreement to address any other amendments to this contract. If an agreement cannot be reached, this Contract shall terminate upon one hundred and eighty (180) days of a declared impasse by either party.

SECTION 28. PERMITS AND LICENSES

The CONTRACTOR shall obtain, at its own expense, all permits and licenses required by law or ordinance and maintain same in full force and effect, and shall, prior to execution of the Contract, provide copies of those permits and licenses to the TOWN, and within fifteen (15) days of receipt, all renewals thereof.

SECTION 29. INDEPENDENCE OF CONTRACT

It is understood and agreed that nothing herein contained is intended or should be construed as in any way establishing the relationship of co-partners or a joint venture between the parties hereto or as constituting the CONTRACTOR as an agent, representative or employee of the TOWN for any purpose whatsoever. The CONTRACTOR is to be, and shall remain, an independent contractor with respect to all services performed under this Contract.

SECTION 30. FORCE MAJEURE

If either party is prevented from or delayed in performing its duties under this Contract by circumstances beyond its control, whether or not foreseeable, including, without limitation, fires, hurricanes, severe weather, floods, pandemics, quarantines, war, civil disturbances, acts of terrorism, labor disputes, acts of God, or significant threats of such circumstances, or any future laws, rules, regulations, orders, or acts of any local, state, or federal government ("Force Majeure"), then the affected party shall be excused from performance hereunder during the period of such disability. The party claiming Force Majeure shall promptly notify the other party in writing when it learns of the existence of a Force Majeure condition and when the Force Majeure condition has terminated. Notwithstanding anything in this Contract to the contrary, the term "Force Majeure" does not include, and a party shall not be excused from performance under this Contract for, events relating to increased costs, including, without limitation, increased costs of fuel, labor, insurance, or other expenses of performing the services hereunder.

SECTION 31. EMPLOYEE STATUS

Persons employed by the CONTRACTOR in the performance of services and functions pursuant to this Contract shall have no claim to pension, workers' compensation, unemployment compensation, civil service or other employee rights or privileges granted to the TOWN'S officers and employees either by operation of law or by the TOWN.

SECTION 32. EQUAL OPPORTUNITY EMPLOYMENT

CONTRACTOR shall not discriminate against any employee or applicant for employment because of race, religion, age, color, sex or national origin, or physical or mental handicap, or marital status. CONTRACTOR shall take affirmative action to ensure that applicants are employed, and that employees are treated during their employment without regard to their race, religion, age, color, sex or national origin, or physical or mental handicap, or marital status. Such actions shall include, but not be limited to the following: employment, upgrading, demotion, or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship.

CONTRACTOR agrees to post in conspicuous places available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. CONTRACTOR further agrees that he/she will ensure that subcontractors, if any, will be made aware of and will comply with this nondiscrimination clause.

CONTRACTOR shall comply with all federal, state and TOWN laws applicable to the CONTRACTOR services and specifically those covering Equal Opportunity Employment, the Americans with Disabilities Act ("ADA") and the South Florida Building Code, The CONTRACTOR is expected to fully comply with all provisions of all laws and the TOWN reserves the right to verify the CONTRACTOR'S compliance with them. Failure to comply with any laws will be grounds for termination of the Contract for cause.

SECTION 33. MEDIATION

In addition to any other remedy provided by law, the TOWN may agree to use arbitration or mediation to resolve any controversy or claim arising out of or relating to this Contract. Any controversy or claim arising out of or relating to this Contract, or breach thereof, may be settled by arbitration in accordance with the rules of the American Arbitration Association and judgment upon the award rendered by the arbitrators may be entered in any court having jurisdiction thereof. In the event arbitration is agreed to by both parties in writing, such controversy or claim shall be submitted to arbitrators selected from the National Panel of The American Arbitration Association.

SECTION 34. RIGHT TO REQUIRE PERFORMANCE

The failure of the TOWN at any time to require performance by the CONTRACTOR of any provision hereof shall in no way affect the right of the TOWN thereafter to enforce same, nor shall waiver by the TOWN of any breach of any provision hereof be taken or held to be a waiver of any succeeding breach of such provision or as a waiver of any provision itself.

SECTION 35. GOVERNING LAW

The parties agree that this Contract shall be construed in accordance with and governed by the laws of the State of Florida.

SECTION 36. CONSENT TO JURISDICTION

The parties agree that the jurisdiction for any legal action arising out of or pertaining to this Contract shall be with the State Courts of Florida, and specifically, the County or Circuit Court for the Seventh Judicial Circuit in and for Volusia County, depending upon the respective jurisdictional limit. Each party further agrees that venue for any action to enforce this Contract shall be in Volusia County, Florida.

SECTION 37. LITIGATION

In the event of any litigation which arises out of, pertains to, or relates to this Contract, or the breach of it, including, but not limited to, the standard of performance required in it, the prevailing party shall be entitled to recover its reasonable attorneys' fees from the non-prevailing party, at both trial and appellate levels.

SECTION 38. COMPLIANCE WITH LAWS

The CONTRACTOR shall conduct its operations under this Contract in compliance with all applicable Federal, State, and local laws and regulations.

SECTION 39. SEVERABILITY

If any provision of this Contract or the application of it to any person or situation shall to any extent be held invalid or unenforceable, the remainder of this Contract and the application of such provisions to persons or situations other than those as to which it shall have been held invalid or unenforceable, shall not be affected, shall continue in full force and effect, and shall be enforced to the fullest extent permitted by law.

SECTION 40. ASSIGNMENT AND SUBCONTRACTING

A. Assignment. No assignment of this Contract or any right occurring under this Contract shall be made in whole or in part by the CONTRACTOR without the express written consent of the Town Council. The TOWN shall have full discretion to approve or deny, with or without cause, any proposed or actual assignment by the CONTRACTOR. Any assignment of this Contract made by the CONTRACTOR without the express written consent of the Town Council shall be null and void and shall be grounds for the TOWN to declare a default of this Contract and immediately terminate this Contract by giving written notice to the CONTRACTOR, and upon the date of such notice this Contract shall be deemed immediately terminated, and upon such termination all liability of the TOWN under this Contract to the CONTRACTOR shall cease, and the TOWN shall have the right to call the performance bond and shall be free to negotiate with other contractors, the CONTRACTOR, or any other person or company for the service which is the subject of this Contract. In the event of any assignment, the assignee shall fully assume all the liabilities of the CONTRACTOR.

B. Subcontracting. CONTRACTOR shall not employ subcontractors without the advance written permission of the TOWN. CONTRACTOR shall be fully responsible for the services and work provided by a subcontractor under the terms of this Contract. CONTRACTOR agrees that any employee or agent of the CONTRACTOR and any agent/employee of a subcontractor to the CONTRACTOR shall be removed from the TOWN jobsite or TOWN premises upon request by the Town Administrator or designee. Such request will only be issued to remove a person if the Town Administrator or designee has a reasonable basis (as determined in his or her discretion) that the presence of such person on TOWN property or at a TOWN jobsite is not in the best interest of the TOWN, or its employees, guests, visitors or citizens.

C. CONTRACTOR shall not be permitted to alter its contracted name, create a dba, or transfer more than fifty percent (50%) interest in its company without the specific written approval of the TOWN.

SECTION 41. MODIFICATIONS

This Contract constitutes the entire Contract and understanding between the parties hereto, and it shall not be considered modified, altered, changed or amended in any respect unless in writing and signed by the parties hereto.

SECTION 42. LEGAL REPRESENTATION

It is acknowledged that each party was, or had the opportunity to be, represented by counsel in the preparation of and contributed equally to the terms and conditions of this Contract and, accordingly, the rule that a contract shall be interpreted strictly against the party preparing the same shall not apply herein due to the joint contributions of both parties.

SECTION 43. FUND APPROPRIATION

The CONTRACTOR understands and agrees that the TOWN, during any fiscal year, is not authorized to expend money, incur any liability or enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year and that any contract, verbal or written, made in violation of this subsection is null and void and that consequently, no money may be paid on such contract beyond such limits. Nothing contained in this Contract shall prevent the making of contracts for periods exceeding one (1) year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years. CONTRACTOR shall not proceed with services under this Contract without TOWN'S written verification that the funds necessary for CONTRACTOR'S compensation and other necessary expenditures are budgeted as available within the appropriate fiscal year budget. The TOWN does not represent that said budget item will be adopted, said determination being the determination of the Town Council at the time of the adoption of the budget.

SECTION 44. PUBLIC ENTITY CRIME

CONTRACTOR understands that a person or affiliate as defined in Section 287.133, Florida Statutes, who has been placed on the convicted vendor list maintained by the Florida Department of Management Services following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to the TOWN and may not transact business with the TOWN in an amount set forth in Section 287.017, Florida Statutes, for Category Two for a period of thirty-six (36) months from the date of being placed on the convicted vendor list. CONTRACTOR herein certifies that it is qualified under Section 287.133, Florida Statutes, to provide the services set forth in this Contract for Residential Collection Service.

SECTION 45. FINANCIAL INTEREST

CONTRACTOR warrants and represents that no elected official, officer, agent, or employee of the TOWN has a financial interest, directly or indirectly, in this Contract or the compensation to be paid under it and, further, that no person who acts in the TOWN as a "purchasing agent" as defined in Chapter 112, Florida Statutes, nor any elected or appointed officer of the TOWN, nor any spouse or child of such purchasing agent, employee or elected or appointed officer, is a partner, officer, director, or proprietor of the CONTRACTOR and, further, that no such person, purchasing agent, TOWN elected or appointed officer, or the spouse or child of any of them, alone or in combination, has a material interest in the CONTRACTOR. Material interest means direct or indirect ownership of more than five percent (5%) of the total assets or capital stock of the CONTRACTOR.

SECTION 46. ALL PRIOR AGREEMENTS SUPERSEDED

This document incorporates and includes all prior negotiations, correspondence, conversations, agreements and understandings applicable to the matters contained in this Contract and the parties agree that there are no commitments, agreements or understandings concerning the subject matter of this Contract that are not contained in this document. Accordingly, it is agreed that no deviation from the terms of this Contract shall be predicated upon any prior representations or agreements, whether oral or written.

SECTION 47. HEADINGS

Headings in this document are for convenience of reference only and are not to be considered in any interpretation of this Contract.

SECTION 48. EXHIBITS

Each exhibit referred to in this Contract forms an essential part of this Contract. Each such exhibit is a part of this Contract and each is incorporated by this reference.

SECTION 49. MOST FAVORED NATIONS PROVISION AND COOPERATIVE PURCHASING

Upon Contractor's execution of a new contract with a neighboring municipality for the provisions of the same terms and conditions provided in this Agreement and the Agreement provides more favorable fees or rates than those provided herein, Contractor will reduce the fees and rates charged to the City herein so as to be equal to or lower than the rates charged the neighboring municipality's Agreement.

Other Towns and Cities if similar size and scope of services may contract for the services provided to the Town of Ponce Inlet under the terms of this Agreement, if the other Town or City determines that the Agreement's use is cost-effective and in the best interest of that Municipality. Upon such request, the Contractor may, at its discretion, provide such services, upon the terms and conditions contained herein.

SECTION 50. AGREEMENT FOR SOLID WASTE DISPOSAL AND RECYCLABLES PROCESSING SERVICES

The parties recognize and agree the tremendous economies of scale and cost savings that could be achieved by having one vendor provide both collection and disposal services. As a direct result of the fact that the TOWN's current waste disposal and recyclables processing services agreement is about to expire, the TOWN has elected to enter into a backup agreement with CONTRACTOR to provide such services. In the event that the TOWN elects to terminate its agreement with its current waste disposal and recyclables processing services provider for cause, or in the event the TOWN or its current waste disposal and recyclables processing services provider elects not to extend its term, CONTRACTOR has agreed to provide such services in accordance with Exhibit "6", which will be executed herewith and which will commence upon thirty (30) days written notice from the TOWN. The TOWN specifically finds CONTRACTOR to be a sole source provider, and it waives any and all procurement code requirements to the contrary.

SECTION 51. MODIFICATION OF TERMS

At any time after the first year of the term of this Agreement, upon the application of the Contractor, or on the initiative of the Town, the Town and the Contractor may negotiate changes in the type, level and method of delivery of services provided by the Contractor under this Agreement, whether in connection with rate adjustments or otherwise. Such negotiations and modifications may include, but shall not be limited to, innovative proposals to improve the quality of service, decrease the rates for service or both; take advantage of new equipment and procedures available in the industry; make reasonable modifications in the terms and provisions of the Agreement to assist in cost containment to the customers; or otherwise modify the terms and provisions of this Agreement in such manner as Contractor and Town may agree, City does not hereby commit itself to agree to any requested or proposed modification in terms and specifications, but reserves the right to make such modifications and amendments to this Agreement as the City may determine from time to time to be in the best interest of the Town, its residents and customers of the Contractor. Contractor specifically acknowledges the reserved right of the City to negotiate modifications to this Agreement once executed. All modifications of this Agreement shall be in writing. No modifications shall be binding upon the Town until such modification shall have been authorized by resolution of the Town Council. Moreover, no modification of this Agreement shall be binding and valid as to surety without the consent of the surety.

IN WITNESS WHEREOF, the TOWN and the CONTRACTOR have executed this Contract on the respective date(s) below each signature.

TOWN OF PONCE INLET, FLORIDA
A municipal corporation

ATTEST:

By:

Jeaneen Witt, Town Manager/Town Clerk

Gary L. Smith, Mayor

Date: 8/26/19

Date: 8/26/19

Approved as to form and correctness:

Clifford B. Shepard
TOWN ATTORNEY

Date: 8-27-19

WITNESSES:

WASTE PRO OF FLORIDA, INC.

By:

Print Name: Brandy H Bramer

Print Name & Title: Tom Donato EVP

Date: 9/10/19

Print Name: Dawne Williams

EXHIBIT 1
RESIDENTIAL COLLECTION AND DISPOSAL SERVICE RATES

These rates shall be in effect from October 1, 2019, through September 30, 2021. Rates shall be adjusted starting October 1st of each Contract Year thereafter in accordance with Section 12 herein. An example rate adjustment calculation is provided in Exhibit 3.

Table 1 – Residential Collection Service Rate for Manual Solid Waste Collection

IF TOWN RETAINS MANUAL SOLID WASTE COLLECTION	Generation Factor (tons/unit/ year)	Disposal Fee ($/ton)	Monthly Fee per Service Unit
Solid Waste Collection (2x/week, manual, unlimited)	NA	NA	$ 16.08
Recycling Collection (1x/week in bins)	NA	NA	$ 5.09
Bulk Waste Collection (1x/week, 12 cy limit)	NA	NA	$ 5.74
Monthly Total per Residential Service Unit			$ 26.91

Bulk Waste Collection in excess of the 12 cubic yard limit shall be invoiced directly to the Customer by the Contractor at $25 per cubic yard.

Table 2 – Residential Collection Service Rate if TOWN Ever Elects to Transition to Carted Solid Waste Collection

IF TOWN SELECTS CARTED SOLID WASTE COLLECTION	Generation Factor (tons/unit/ year)	Disposal Fee ($/ton)	Monthly Fee per Service Unit
Solid Waste Collection (2x/week in Contractor-provided Roll Cart)	NA	NA	$ 17.98
Recycling Collection (1x/week in Bin)	NA	NA	$ 5.09
Bulk Waste Collection (1x/week, 12 cy limit)	NA	NA	$ 5.74
Monthly Total per Residential Service Unit			$ 28.81

Bulk Waste Collection in excess of the 12 cubic yard limit shall be invoiced directly to the Customer by the Contractor at $25 per cubic yard.

EXHIBIT 2
SAMPLE CALCULATION OF ANNUAL RATE ADJUSTMENTS

Service rates are adjusted as defined and described in Sections 12 and 13 of this Contract and as illustrated in this Exhibit. All assumptions are for demonstration purposes only.

Assumptions (for demonstration purposes only):

- CPI February 2020 = 243.283
  CPI February 2021 = 247.126
  100% of percentage change in CPI = 100% x ((247.126-243.283)/243.283) = 0.01264 = 1.26%
- Average of monthly Fuel Index prices for March 2016-February 2017 = 2.56375
  Average of monthly Fuel Index prices for March 2017-February 2018 = 2.65231
  Percentage change in Fuel Index = (2.65231-2.56375)/2.56375 = 0.034543 = 3.45%

Residential Service Rate	a	b	c	d	e	f	g	h	i
	Rates for Demonstration Purposes Only ($/unit/month)	95% of Collection Element	CPI (80% of % Change)	5% of Collection Element	Fuel Index (% Change)	New Rate ($/unit/month)	Formula	5% Cap	Exceeds 5% Cap?
COLLECTION ELEMENTS	$/unit/month					$/unit/month			
Solid Waste Collection	$12.94	$12.29	1.26%	$0.65	3.45%	$13.12	f = a + (b*c) + (d*e)	$13.59	No
Bulk Waste Collection	$11.83	$11.24	1.26%	$0.59	3.45%	$11.99	f = a + (b*c) + (d*e)	$12.42	No
Recycling Collection	$3.32	$3.15	1.26%	$0.17	3.45%	$3.37	f = a + (b*c) + (d*e)	$3.49	No
	$28.09					$28.47			
DISPSOAL ELEMENTS	See Calculations Below ($/unit/month)					$/unit/month			
Bulk Waste Disposal	$12.12	na	1.26%	na	na	$12.27	f = a + (b*c)	$12.73	No
Solid Waste Disposal	$4.77	Adjusted only when actual tip fee changes				$4.77	na	na	
TOTAL	$44.98					$45.51			

Residential Disposal Rates	a	b	c	d
	Tip Fees for Demonstration Purposes Only ($/ton)	Generation Factor (tons/unit/ year)	Rates ($/unit/ month)	Formula
Bulk Waste Disposal	$39.00	3.73	$12.12	c = (a*b)/12 months
Solid Waste Disposal	$44.69	1.28	$4.77	c = (a*b)/12 months

EXHIBIT 3
TECHNICAL SPECIFICATIONS FOR ROLL CARTS

Following are minimum requirements for Solid Waste and Recyclables Roll Carts as required within the scope of this Contract. CONTRACTOR must provide a prototype of each of the TOWN's program-sized Roll Carts (Solid Waste and Recycling) that meet the following technical specifications for TOWN approval prior to ordering the TOWN's Roll Carts. The TOWN reserves the right to waive the requirement of a prototype.

Construction and Design	• Must meet ANSI Standards Z245.30 and AZ245.60 "Type B/G" containers, all rules, regulations, and laws pertaining to this product. • Roll Carts must be produced by a major manufacturer. • The upper lift point shall be permanently molded into the Roll Cart and the lower must be a 1" diameter galvanized free floating metal bar or composite equivalent, securely attached to prevent failure or loss. Molded bars are unacceptable. • The Roll Cart must be manufactured with a narrow width design to fit through a 30" door opening.
Size (Capacity)	• Two different sized Roll Carts are required with the following capacities: o Large = 94-96 gallon o Medium = 64-66 gallon
Materials	• Must be rotationally or injection molded using medium to high density 100% recyclable polyethylene. • Minimum resin weight of unassembled Roll Cart, including cart body and lid, must be: o 30 pounds or greater for large Roll Cart o 22 pounds or greater for medium Roll Cart • Resin used in the manufacturing process must contain a minimum of 25% post-consumer recycled material. • All plastic parts must be stabilized against ultraviolet light deterioration with a UV stabilizer additive.
Body	• The body of the Roll Cart must be one piece. • The Roll Cart wall and bottom thickness must be a minimum of .150 inches. • The body of the Roll Cart must be designed with a drag rail on the container bottom and reinforced in the area that contacts the ground with a molded-in bottom wear strip. • The top of the body must be molded with a reinforced rim to add structural strength and stability to the container and to provide a flat surface for lid closure. This reinforced rim must have a raised inner perimeter. The rim of the Roll Cart must not be designed to have an inward radius to obstruct free flow emptying the material out of the container.
Lid	• Lids must be of a configuration that the lid will not warp, bend, slump, or distort to such an extent that it no longer fits the body property or becomes otherwise unserviceable.

	• The lid must be one-piece construction and securely attached to the rear of the wheeled section of the Roll Cart using a rustproof, weather-resistant fastener system. • The lid must be hinged to open to a position of 270 degrees from the closed position and hang open without stressing the lid, body, or tipping over the Roll Cart. • Lids must be designed to be easily removed in the event of damage or failure. Lid latches are not acceptable.
Handle	• Each Roll Cart must have a horizontal handle(s) to provide comfortable gripping areas for pushing or pulling the Roll Cart. • The handle shall be integrally molded into the body or lid, and only plastic surfaces shall be exposed to the hands of the user.
Wheels/Axle	• Roll Carts must be equipped with two (2) plastic molded or rubber wheels making the cart capable of being easily moved and maneuvered. • Wheels shall be snap-on or attached in a way that prevents unintended detachment. • Wheels must be a minimum of 10 inches in diameter for large and medium Roll Carts. • Each Roll Cart shall be furnished with a minimum 5/8 inch diameter axle with a corrosion-resistant coating that must be securely attached to the body by molded axle retainers. • The wheels and axle must be rated to meet the maximum load requirements of 3.5 pounds per gallon.
Stability	• Roll Carts must be able to remain stable and upright in winds up to 30 miles per hour when empty.
Color	• Color must not be streaked in the finished product and must be colorfast so that the color does not alter significantly with normal use. Painted Roll Carts are unacceptable. • Colors will be specified by the Town. • The final color selection must be approved by the TOWN prior to manufacturing.

Markings	• The TOWN must approve all markings.
	• Sequential serial numbers must be molded, branded, or hot stamped into the front of the body with white color. Such number shall be assigned to a specific property within the TOWN.
	• An eight to ten (8-10) alpha/numeric serial number shall be used as determined by the TOWN.
	• A Southwest Ranches logo must be clearly molded, inscribed, or hot-stamped into both sides of the body with the following wording in 1 inch lettering on the lid:
	  ○ Property of the Town of Ponce Inlet.
	  ○ Instructions for which side of the Roll Cart must face the street for collection.
	  ○ ANSI and regulatory labeling required.

	• Recycling Roll Carts must also have the following markings:
	  ○ Recycling logo on both sides of the Roll Cart.
	  ○ In-mold label on the cart lid with program instructions as determined by the TOWN.

Warranty	• Roll Carts must be fully (100%) warranted against defects in materials and workmanship for a minimum period of ten (10) years from the date of delivery and be transferrable to the TOWN at the expiration of this Contract.
	• The warranty must be unconditional and non-prorated providing the TOWN with assurance of full Roll Cart replacement. The warranty must survive the termination of any contract for the manufacture and/or A&D of Roll Carts.
	• Warranty is understood to include the following coverage:
	  ○ Failure of the lid to prevent rainwater from entering the Roll Cart when the lid is closed on the body.
	  ○ Damage to the body, the lid, or any component parts through opening or closing the lid.
	  ○ Failure of the lid hinge to remain fully functional and continually hold lid in the originally-designed and intended positions when either opened or closed.
	  ○ Failure of the body and lid to maintain its original shape.
	  ○ Wear through of Roll Cart bottom so that it leaks liquid.
	  ○ Failure of the wheels to provide continuous, easy mobility, as originally designed.
	  ○ Failure of any part to conform to minimum standards as specified.

Asset Management	• A manufacturing database must be maintained that includes each Roll Cart's serial number, date of manufacture, location of manufacturer, Roll Cart type, color, and size. • At the time and point of delivery, the date, time, and latitude/longitude of the Roll Cart's delivery must be captured and associated with the manufacturing database and the residential physical address to which the Roll Cart is assigned. • The asset management database, including manufacturing information and A&D information, shall be completed and submitted to the Contract Administrator prior to the Commencement Date and maintained throughout the term of this Contract. • At the termination of this Contract, the asset management database shall be transmitted to the TOWN in an acceptable format.

Exhibit 4

Disaster Cleanup Agreement

Storm Operations

Pre-Storm

- On an annual basis Waste Pro will be available to meet with the City, prior to the traditional hurricane season to discuss readiness plans.
- Waste Pro subscribes to the Volusia County Emergency Management notification system. The VCEM provides information on all potentially hazardous/severe weather events. If the City, Volusia County, the State of Florida or the United States Federal government declare an impending or actual emergency, Waste Pro will contact the City to coordinate any needed services.

During Storm – Normal collection operations will be suspended upon direction of governmental officials or when sustained winds have forced the closure of any bridges to the Town. During the actual storm, operations will cease and will only resume when it is safe to operate.

Post Storm - Operational hours during the first 72 hours after a storm or disaster event will be up to 12 hours per day and work will commence as soon as it is safe to deploy work crews and at the Town's direction. The scope of service available in the first 72 hours will be dependent on personnel and equipment availability.

Additional work – Any work over and above normal activity is likely to affect collection services. The Contractor will be compensated for any additional labor and disposal expenses incurred as a result of performing the additional work. Hours to be paid will be any additional hours worked over normal route time. Normal route time is defined as the average number of hours the Contractor runs over the same calendar month, over a 3-year period, not to include any period affected by a storm event. In the event there is not 3 years of operational data available the Town and Contractor will develop an estimate of operations time to be used to determine any extra work. The Town recognizes that operations may be performed on the normal solid waste and yard waste collection days or throughout the normal work week if equipment and personnel are available.

Pricing

Post Storm Operations – Waste Pro Fleet

- Charges will be:
    - Rear load truck and (1) man crew $225.00 per hour
        - Additional laborers $ 45.00 per hour
    - Grapple truck and (1) driver $180.00 per hour
    - Roll off truck/container with (1) driver $180.00 per hour

- Waste Pro will cooperate with the City's monitoring contractor to provide documentation of all work activities.
- Billing for storm debris removal service will be on a weekly basis with payment within 30 days of invoice date.
- Disposal charges will be billed to the City.

Post Storm Operations - Extraordinary Services

- In the event the City needs additional storm debris removal assistance, Waste Pro will cooperate with the City to locate and provide sub-contracted storm debris removal services.
- Pricing will be obtained at the time of the event and Waste Pro will cooperate with the City to secure the lowest available pricing possible.
- Billing for Extraordinary Services will be on a weekly basis with payment within 30 days of invoice date.
- Disposal charges will be billed to the City.

May 27, 2025

Mike Disher, Town Manager
Kim McColl, Finance Manager
Town of Ponce Inlet
4300 South Peninsula Drive
Ponce Inlet, Florida 32127

Dear Mike and Kim,

As you know, the Solid Waste, Recyclables, and Bulk Waste Collection and Disposal Agreement, Section 11. Residential Rate and Billing, D. Service Rate Adjustment requires Waste Pro to submit to the Town by July 1st of each year a request for adjustment with an effective date of October 1st of each year.

October 1st Adjustment

If Town Retains Manual Solid Waste Collection	a Rates ($/unit/month)	b 95% of Collection Element	c CPI (100% of % Change) or 5% Cap	d 5% of Collection Element	e Fuel Index (% Change)	f **New Rate ($/unit/month)**	g Formula	h 5% Cap	i Exceeds 5% Cap?
COLLECTION ELEMENTS	$/unit/month					$/unit/month			
Solid Waste Collection	$20.05	$19.05	5.00%	$1.00	-8.78%	**$20.91**	f = a + (b*c) + (d*e)	$21.05	No
Bulk Waste Collection	$6.35	$6.03	5.00%	$0.32	-8.78%	**$6.62**	f = a + (b*c) + (c*e)	$6.67	No
Recycling Collection	$6.99	$6.64	5.00%	$0.35	-8.78%	**$7.29**	f = a + (b*c) + (c*e)	$7.34	No
	$33.39					**$34.82**			

If Town Selects Carted Solid Waste Collection	a Rates for Demonstration Purposes Only ($/unit/month)	b 95% of Collection Element	c CPI (100% of % Change) or 5% Cap	d 5% of Collection Element	e Fuel Index (% Change)	f **New Rate ($/unit/month)**	g Formula	h 5% Cap	i Exceeds 5% Cap?
COLLECTION ELEMENTS	$/unit/month					$/unit/month			
Solid Waste Collection	$22.36	$21.24	5.00%	$1.12	-8.78%	**$23.32**	f = a + (b*c) + (d*e)	$23.48	No
Bulk Waste Collection	$6.35	$6.03	5.00%	$0.32	-8.78%	**$6.62**	f = a + (b*c) + (c*e)	$6.67	No
Recycling Collection	$6.99	$6.64	5.00%	$0.35	-8.78%	**$7.29**	f = a + (b*c) + (c*e)	$7.34	No
	$35.70					**$37.23**			

As you know, the Solid Waste, Recyclables, and Bulk Waste Collection and Disposal Agreement, Section 11. Residential Rate and Billing, G. Solid Waste Disposal Element Adjustment, and H. Bulk Waste Disposal Element Adjustment, allows Waste Pro to request disposal adjustment based on new tipping fee at the designated disposal facility. Volusia County has provided notice of resolution amending landfill disposal

fees. The solid waste per ton fee will increase $1.78, and the yard waste per ton fee will increase $1.44 effective October 1, 2025.

Waste Pro has used the previous twelve months of tonnage and the average number of households being serviced to determine the generation rate based on type of service. The generation rate was multiplied by the dollar value of the increase amount to calculate adjustment amount.

Residential Solid Waste

	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	
SW Tons:	86.65	80.12	72.77	84.45	69.75	77.05	97.99	77.75	85.90	84.10	72.51	83.75	**972.79**
House Count:	1,158	1,157	1,152	1,161	1,162	1,160	1,158	1,167	1,169	1,167	1,165	1,170	**1,162.17**

Solid Waste

Gen Rate = TONS / Unit Count

0.84 = 972.79 / 1,162

W Adjustment = Gen Rate * Increase / 12 Months

$0.13 = $1.50 / 12

$0.13 SW Adjustment

New Rate SW	$38.78
Current Rate SW	$37.00
Increase	$ 1.78

Residential Yard Waste

	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	
SW Tons:	32.42	35.65	24.93	31.56	37.51	38.61	60.24	37.27	19.45	22.39	24.74	32.13	**396.90**
House Count:	1,158	1,157	1,152	1,161	1,162	1,160	1,158	1,167	1,169	1,167	1,165	1,170	**1,162.17**

Yard Waste

Gen Rate = TONS / Unit Count

0.34 = 396.90 / 1,162

YW Adjustment = Gen Rate * Increase / 12 Months

$0.04 = $0.49 / 12

New Rate YW	$31.44
Current Rate YW	$30.00
Increase	$1.44

$0.13	SW Adjustment
$0.04	YW Adjustment
$0.17	**Total Adjustment**

Bulk Solid Waste

	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	
Bulk SW Tons:	3.73	0	8.29	0	4.86	0	5.60	0	4.12	0	4.92	8.28	**39.80**
House Count:	1,158	1,157	1,152	1,161	1,162	1,160	1,158	1,167	1,169	1,167	1,165	1,170	**1,162.17**

Bulk Solid Waste

Gen Rate = TONS / Unit Count

0.03 = 39.80 / 1,162

SW Adjustment = Gen Rate * Increase / 12 Months

$0.00 = $0.05 / 12

New Rate YW	$38.78
Current Rate YW	$37.00
Increase	$ 1.78

$0.00 Bulk Solid Waste Adjustment

Bulk Yard Waste

	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	
Bulk YW Tons:	19.63	21.18	30.08	21.56	18.79	20.37	20.58	16.31	16.57	12.77	22.04	29.50	**249.38**
House Count:	1,158	1,157	1,152	1,161	1,162	1,160	1,158	1,167	1,169	1,167	1,165	1,170	**1,162.17**

Bulk Yard Waste

Gen Rate = TONS / Unit Count

0.21 = 249.38 / 1,162

YW Adjustment = Gen Rate * Increase / 12 Months

$0.03 = $0.30 / 12

New Rate YW	$31.44
Current Rate YW	$30.00
Increase	$1.44

$0.03 Bulk Yard Waste Adjustment

$0.00	Bulk SW Adjustment
$0.03	Bulk YW Adjustment
$0.03	**Total Bulk Adjustment**

Waste Pro respectfully requests the below disposal adjustment, effective October 1, 2025.

f	f
Oct 2025 Rate ($/unit/month) Before Disposal Adj	**New Rate with Disp Adj ($/unit/month)**
$/unit/month	$/unit/month
$20.91	$21.08
$6.62	$6.65
$7.29	$7.29
$34.82	**$35.02**

$0.13 SW Adjustment	$0.00 Bulk SW Adjustment
$0.04 YW Adjustment	$0.03 Bulk YW Adjustment
$0.17 Total Adjustment	**$0.03 Total Adjustment**

f	f
Oct 2025 Rate ($/unit/month) Before Disposal Adj	**New Rate with Disp Adj ($/unit/month)**
$/unit/month	$/unit/month
$23.32	$23.49
$6.62	$6.65
$7.29	$7.29
$37.23	**$37.43**

$0.13 SW Adjustment	$0.00 Bulk SW Adjustment
$0.04 YW Adjustment	$0.03 Bulk YW Adjustment
$0.17 Total Adjustment	**$0.03 Total Adjustment**

Please review this request and contact me if you have any questions.

Sincerely,

Steve Cameron
Division Manager
Waste Pro – Daytona Beach
scameron@wasteprousa.com
Cell: 386-527-2148

RESOLUTION NO. 2025-11

A RESOLUTION OF THE TOWN OF PONCE INLET, FLORIDA AMENDING RATES IN APPENDIX A OF THE TOWN CODE OF ORDINANCES, PART XIII (GARBAGE COLLECTION); PROVIDING FOR CODIFICATION; PROVIDING FOR CONFILICTING RESOLUTIONS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, on August 22, 2019, the Town entered into a five-year Agreement with Waste Pro of Florida, Inc. to provide solid waste, recycling, and bulk waste collection services; and

WHEREAS, on August 22, 2024, the Town Council approved a renewal of the Agreement for an additional five-year term; and

WHEREAS, pursuant to the Agreement, the rates for residential collection service charged to the Town by Waste Pro of Florida, Inc. shall be adjusted based on the Consumer Price Index (CPI), USDOE Fuel Index, the Solid Waste Disposal Element Adjustment, and the Bulk Waste Disposal Element Adjustment beginning on October 1, 2021, and annually thereafter each contract year; and

WHEREAS, the Town of Ponce Inlet last updated its fees for solid waste, recycling, and bulk waste collection via the adoption of Resolution 2023-08; and

WHEREAS, the Town of Ponce Inlet must increase its fees for solid waste, recycling and bulk waste collection, to reflect the increased cost of providing such services.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF PONCE INLET, FLORIDA AS FOLLOWS:

SECTION 1. AMENDING XIII OF APPENDIX A OF THE TOWN OF PONCE INLET CODE OF ORDINANCES

Part XIII of Appendix A of the town of Ponce Inlet Code of Ordinances is hereby amended to provide as follows:

PART XIII – SOLID WASTE, RECYCLING, AND BULK WASTE COLLECTION

Single-Family residences:

Monthly Charge, per single-family residence……~~$35.00~~ $37.50

SECTION 2. PROVIDING FOR CODIFICATION

It is the intent of the Town Council of the Town of Ponce Inlet that the provisions of this Resolution shall be codified. The codifier is granted broad and liberal authority in codifying the

provisions of this Resolution.

SECTION 3. CONFLICTING RESOLUTIONS

All resolutions in conflict herewith are hereby repealed to the extent of such conflict.

SECTION 4. SEVERABILITY

If any section, sentence, clause, or phrase of this Resolution is held to be invalid or unconstitutional by any court of competent jurisdiction, that holding in no way affects the remaining portions(s) of this Resolution.

SECTION 5. EFFECTIVE DATE

This resolution shall become effective for all bills rendered after October 1, 2025.

It was moved by _____ and seconded by _____ that said Resolution be adopted. A roll call vote of the Town Council on said motion resulted as follows:

Mayor Paritsky, Seat #1	_____
Councilmember Milano, Seat #2	_____
Councilmember White, Seat #3	_____
Councilmember Villanella, Seat #4	_____
Vice Mayor Smith, Seat #5	_____

Passed this ___ day of _____, 2025.

Town of Ponce Inlet, Florida

_____
Lois A. Paritsky, Mayor

ATTEST:

_____
Kim Cherbano
Town Clerk

Meeting Date: 8/21/2025

Agenda Item: 13-A

Report to Town Council

Topic: RFP 2025-08 – Selection of emergency debris removal vendors.

Summary: RFP 2025-08 was issued to solicit proposals from qualified contractors to assist with emergency debris removal following hurricanes or other natural disasters. Selection of pre-authorized vendors ensures the Town can begin debris removal sooner, accelerate recovery, and maximize the likelihood of meeting FEMA reimbursement requirements. Please see the attached report for more information.

Suggested motion: Approval of Ceres Environmental Services, Phillips & Jordan, and TFR Enterprises for emergency debris removal services for a three-year period, and authorize the Town Manager to execute all contracts subject to their review by the Town Attorney for legal form and content.

Requested by: Chief Scales, Public Safety Director

Approved by: Mr. Disher, Town Manager

MEMORANDUM

Office of the Public Safety Director

The Town of Ponce Inlet staff shall be professional, caring and fair in delivering community excellence while ensuring Ponce Inlet citizens obtain the greatest value for their tax dollar.

To: Michael E. Disher, AICP, Town Manager

From: Dan Scales, Public Safety Director

Date: August 5, 2024

Subject: RFP 2025-08 - Approval of Emergency Debris Removal Vendors

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Requested Action:
Staff recommends approval of the top three vendors in response to RFP 2025-08 for Emergency Debris Removal and Disposal Services. These vendors will be pre-authorized for assignment based on the nature and severity of future storm events.

Background:
The Town issued RFP 2025-08 to solicit proposals from qualified contractors to assist with emergency debris removal following hurricanes or other natural disasters. Following last year's experience with Hurricane Milton, it became evident that relying on a single debris removal contractor was not sufficient to meet the Town's needs. The contractor did not begin work until nearly three weeks after the storm had passed, which delayed recovery efforts, created access and safety concerns, and caused frustration among residents. The delay was due, in part, to the contractor being committed to multiple jurisdictions simultaneously. This experience highlighted the need to have multiple pre-qualified contractors available to ensure timely response following future events. By having several contractors ready to mobilize, the Town can begin debris removal sooner, accelerate recovery, and improve the likelihood of meeting FEMA reimbursement requirements. The solicitation was developed in compliance with FEMA guidelines and the Town's procurement policy to ensure eligibility for federal reimbursement. A total of nine bids was received; the Town's previous contractor did not submit a bid.

Evaluation Methodology:
Proposals were evaluated using a standardized grading sheet with the following weighted criteria:

- Compliance with RFP Minimum Requirements (20%)
- Experience with Similar Debris Removal Projects (15%)
- Availability and Response Time (15%)
- Equipment and Resources Available (10%)
- Cost per Cubic Yard (Vegetative) (10%)
- Cost per Cubic Yard (C&D) (10%)
- Past Performance / References (10%)

- Proximity / Local Presence (5%)
- Compliance with FEMA Requirements (5%)

Each vendor was scored on a 1–10 scale for each criterion. Scores were multiplied by the criterion weight to determine a total score. In addition to the numerical evaluation, input was collected from department directors and senior staff familiar with local response needs.

Evaluation Summary:
The total weighted evaluation scores for all submitting vendors are summarized below:

- **Ceres Environmental Services** – 9.6
- **Phillips & Jordan** – 9.5
- **TFR Enterprises** – 9.3
- **Bergeron Emergency Services** – 9.1
- **DRC Emergency Services** – 8.85
- **Disaster Program & Operations** – 8.5
- **Gaston Tree Debris Recycling** – 8.45
- **CTC Disaster Response** – 8.45
- **Looks Great Services** – 7.6

Each vendor demonstrated minimum qualifications and the ability to perform the requested services. Scoring was based on detailed review of each proposal against the published criteria, supplemented by input from departmental leadership.

Several staff members, representing Public Works, Finance, and Planning, expressed a strong preference for Ceres Environmental based on its ability to provide a pre-storm project manager in Ponce Inlet, demonstrated bonding capacity of $2 billion, and a commitment to deploy within 12 hours of storm landfall. Ceres also earned positive feedback for its experience in similar coastal communities and strong reference letters from cities in Volusia County.

Fiscal Impact:
There is no immediate fiscal impact associated with this action. Funding for debris removal will be allocated at the time of an emergency event and will be subject to FEMA reimbursement processes.

Staff Recommendation:
Approve the selection of Ceres Environmental Services, Phillips & Jordan and TFR Enterprises, for emergency debris removal for a three-year period, and authorize the Town Manager to execute all contracts subject to their review by the Town Attorney for legal form and content.

Meeting Date: 8/21/2025

Agenda Item: 13-B

Report to Town Council

Topic: Discussion – Design of Public Works New Building "B".

Summary: The Public Works Building "B" has been demolished, and staff has identified a general framework for how the site might be redeveloped. Staff is requesting direction and input from the Town Council and public on the proposed scope of work, design parameters, and community concerns for the building and site. Please see the attached staff report and supporting documentation for more information.

Suggested motion: As determined by Council.

Requested by: Mr. Wargo, Public Works Director

Approved by: Mr. Disher, Town Manager

MEMORANDUM

TOWN OF PONCE INLET, PUBLIC WORKS DEPARTMENT

The Town of Ponce Inlet staff shall be professional, caring and fair in delivering community excellence while ensuring Ponce Inlet residents obtain the greatest value for their tax dollar.

To: Michael E. Disher, AICP, Town Manager

From: Steven Wargo, Public Works Director

Date: August 7, 2025

Subject: Discussion – Design of Public Works New Building "B"

MEETING DATE: August 21, 2025

Introduction

This document is intended to provide background and contextual information to support Council discussion regarding the replacement of Building B. The building has been demolished, and staff has identified a general framework for how the site might be redeveloped. However, no defined scope exists at this time. Before initiating the design process, Staff is requesting direction and input from the Council and public on the proposed scope of work, design parameters, and community concerns for the building and site.

The next step following this meeting will be the development of a task order for architectural and engineering services, incorporating the input and direction provided by Council in response to this agenda item. The task order and fully defined project scope will be brought back to the Town Council for consideration, after which the formal design phase will be initiated.

Background

The Town's Public Works compound previously consisted of two main structures: Building A (constructed in the early 2000s) and Building B (built in 1968 as part of the former water works system). After the Town's water works operation was decommissioned, Building B, approximately 1,800 square feet, was used for storage. However, it had severely deteriorated over time and was ultimately declared structurally unsafe last year. It has since been demolished, and the items stored within it have been relocated to other town facilities and temporary on-site containers.

The process to fund, design, and construct a replacement for this building began last year under the former Public Works Director. His initial concept was for a simple metal structure to be used primarily for storage. Other ideas to improve the Public Works facility, such as new locker room and generator, were at first proposed separately, then later merged into the concept for how

Building B could be developed and used. These ideas were proposed (and funded) based solely on quotes from the building and equipment manufacturers.

Since then, the Town has hired a new Public Works Director, who has brought fresh ideas for the future design and use of the building. He has overseen the installation of the replacement generator and corresponding electrical service, as shown on the attached site layout illustration.

With the understanding that opportunities to significantly improve the Town's public facilities do not occur very often, and that projects of this magnitude should be undertaken deliberately and with public input, Staff is now recommending to hire an architect and engineer for the design process. This process will consist of a site/building needs assessment, followed by the creation of architectural and engineering design plans for permitting and construction. Construction will be funded based on the cost estimates, potential phasing, and available funding. These considerations are discussed in greater detail below.

Feasibility Considerations

The construction of a replacement Public Works facility will be evaluated using principles consistent with those applied in other essential service feasibility studies. This includes an assessment of site suitability, functional need, long-term service capacity, and fiscal responsibility.

The location of the former Building B provides a logical and cost-effective site for redevelopment. It is centrally located within the Public Works facility property, is already served by utilities, and requires no major changes to zoning or land use.

The functional need is well-established. Current operations exceed the physical capacity of Building A, and no remaining functional space is available to meet expanding service needs. Items previously stored in Building B have been temporarily moved to other locations, but ultimately need to be returned to a permanent easily accessible location. The proposed replacement facility addresses both current deficiencies and provides flexibility for future needs.

From a construction perspective, the use of durable, low-maintenance materials ensures a long service life while containing operating costs. The proposed metal frame structure with practical interior and exterior finishes reflects a fiscally responsible design approach appropriate for municipal infrastructure. The proposed structure will match the existing architectural style of Building A for visual consistency.

In addition, staff is evaluating the potential use of the southern lot for stormwater retention as part of site development. The new layout will also include improved parking configuration to better support fleet and staff access. As a whole, the proposed facility will be also consistent with the Town's Comprehensive Plan, particularly in relation to storm resiliency, essential services continuity, and critical infrastructure investment. The inclusion of site improvements, such as additional parking and stormwater retention, further supports the long-term viability of this investment.

Proposed Building Components *(For Planning Purposes Only)*

- **New Building Area Size** – 3,120 sq. ft., total

    - Inventory warehouse / Water utility equipment storage – 2,100 sq. ft.
    - Locker room with showers – 384 sq. ft.
    - Training room – 324 sq. ft.
    - Assistant Director's office – 216 sq. ft.
- **Construction Type** – Metal frame with metal siding (durable and low-maintenance)
- **Interior Finishes** – Cost-effective, long-lasting materials to reduce operating expenses
- **Exterior Cladding/Finishes** – Intended to match appearance and character of existing building.

The above elements represent anticipated needs and are presented to support Council's discussion. These are not finalized design decisions. Final space allocation and configuration will be determined through the design process.

Proposed Site Improvements

Even before Building B was condemned and demolished, plans had been proposed to expand the parking and stormwater retention of the existing facility onto the abutting Town-owned property to the south. These improvements could be constructed at the same time as the new Building B or phased in separately.

- **Parking Reconfiguration** – Reorganized and expanded parking to support daily operations and fleet logistics
- **Drainage Improvements** – Proposal to convert the adjacent corner parcel into a retention pond, reducing stormwater impacts along Beach Street and supporting expanded site use.

Architect's Scope of Work

The architectural firm selected for this project would complete the following tasks:

<u>Kickoff & Data Collection</u>

- Meet with Public Works staff to understand current operations, space needs, workflows, and equipment.
- Review existing site constraints, stormwater conditions, and adjacent property data.
- Confirm regulatory or permitting requirements.

<u>Site Feasibility & Layout</u>

- Prepare conceptual site layouts for the new facility within the current Public Works compound.
- Assess internal circulation, equipment staging, staff parking, and space allocation.
- Identify site constraints (utilities, drainage, access).

<u>Existing Site Evaluation</u>

- Work with the design team's civil engineers to assess foundation conditions, drainage patterns, and surface improvements.
- Provide options for improvements to support the new building, including stormwater retention or resiliency upgrades.
- Develop retrofit or partial reuse strategies for the existing building if warranted.

<u>Preliminary Cost Estimates</u>

- Provide budget-level cost estimates for building construction, site work, utilities, and required site improvements.
- Include cost ranges for modular or temporary facilities during construction.
- Identify options for reducing long-term maintenance or lifecycle costs.

Funding Strategy

- Summarize available grants and infrastructure funding sources.
- Align proposed phases or components with likely funding cycles.

Final Report & Presentation

- Prepare a comprehensive report summarizing findings, conceptual layouts, comparative costs, and recommended next steps.
- Present findings and recommendations to Town Council for input and direction.

Temporary Accommodations

To maintain operations during design and construction, and to address current space shortfalls, staff is proposing to lease a temporary 10'x40' trailer to house essential functions and personnel, especially as the department anticipates on-boarding two additional employees in the second half of next fiscal year.

The temporary structure, which would look similar to a construction-site project trailer, would house relocated operational supplies and provide much-needed locker space at the back of the property close to the existing round storage building. Currently, only one computer workstation is available for field staff, and a second workstation is needed. With two additional employees expected next fiscal year, this trailer would provide the necessary flexibility on a temporary basis. Staff estimates the monthly cost for a temporary trailer to be approximately $1,200–$1,500, depending on configuration, to be paid from Land Acquisition funds being carried forward to FY 25/26.

Preliminary Timeline & Milestones (Subject to Council Direction)

- Council input & design direction – August–September 2025
- Architect Task Assignment executed – Fall 2025
- Design kickoff and concept approval– Fall 2025
- Preliminary design & budget estimates– Winter 2025
- Site plan approvals – Early 2026
- Final construction documents– Spring 2026
- Bid & Contract Award– Summer 2026
- Permitting – Summer 2026
- Construction begins – Summer 2026
- Construction Completion– Early 2027

Additional Council Considerations

- Should staff seek alternate funding for the project (e.g. legislative appropriations, grants)?
- Are there design elements Council would like to see included or excluded?

Conclusion

The removal of the deteriorated Building B has created a critical opportunity to invest in long-overdue improvements to the Public Works facility. While the specific building design will be shaped through the formal task order process, the operational need and logistical justification are already well established.

This project aligns with the Town's broader efforts to modernize infrastructure and improve operational resilience. Council's feedback will help shape the project's direction and ensure alignment with organizational goals and community expectations.

Attachment

- Site layout illustration

INLET POINT BLVD.

EXISTING BUILDING

EXISTING STORMWATER SYSTEM

40ft

84ft

Proposed New Building

54ft

15ft

New Generator

EXISTING BUILDING

New Electrical Service

32ft

20ft

Separate parcel under Town ownership

OAK TREE TO BE REMOVED

New Fence

Shaded area for new parking, fence, and stormwater retention may be constructed in a future phase

LIMITS OF SHELL PARKING

OAK TREE TO BE REMOVED

PROPOSED STORMWATER TREATMENT AREA

EXISTING LIFT STATION

EXISTING FENCE

LANDSCAPE BUFFER TYP.

BEACH ST.

S. PENINSULA DR.

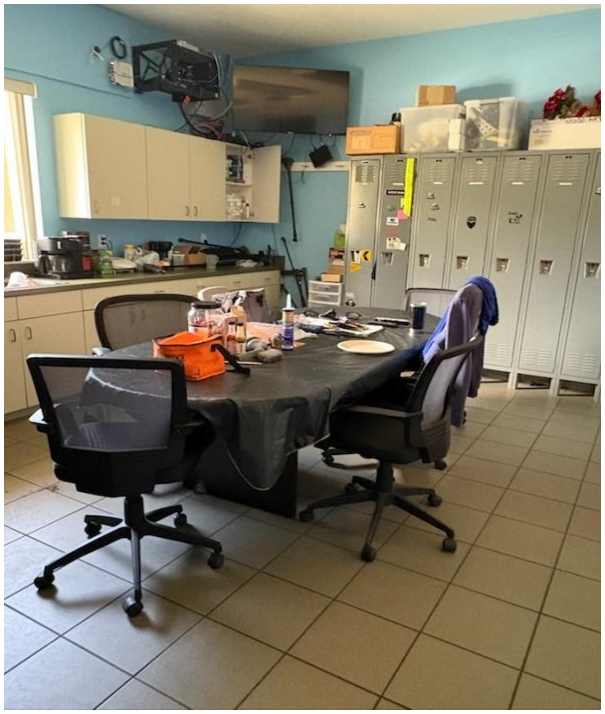
CONCEPTUAL PLAN NOTES:

0 10 20 30 40

SCALE : 1" = 20'

Public Works Building A

Breakroom/Lockeroom/Assistant Manager's Office



Public Works Garage

Storage

Meeting Date: 8/21/2025

Agenda Item: 13-C

Report to Town Council

Topic: Discussion – Letter of Support requested by County Council regarding SB 180.

Summary: Senate Bill 180, known as "Emergency Preparedness and Response," became effective July 1, 2025. Application of this law in Ponce Inlet will impede local resilience initiatives. Volusia County Chair Brower has requested that all Volusia County municipalities submit letters of support for the County Council's approach regarding SB 180. Please see the attached staff report and supporting documentation for more information.

Suggested motion: As determined by Council.

Requested by: Mayor Paritsky

Approved by: Mr. Disher, Town Manager

MEMORANDUM

Town of Ponce Inlet

The Town of Ponce Inlet staff shall be professional, caring and fair in delivering community excellence while ensuring Ponce Inlet citizens obtain the greatest value for their tax dollar.

To: Vice-Mayor Smith and Councilmembers

From: Lois A. Paritsky, Mayor

Date: August 13, 2025

Subject: Letter of Support requested by County Council regarding SB 180

On July 17, 2025, Town Attorney Cliff Shephard provided the Town Council with an overview of Senate Bill 180, known as "Emergency Preparedness and Response," which became effective July 1, 2025. Local governments across Florida have raised significant concerns regarding SB 180, prompting many municipalities to consider various responses to its most burdensome provisions that include advocacy meetings with legislators and potential legal challenges.

The principal criticism of SB 180 centers on its impact on home rule; specifically, its limitations on local government authority over land use, building codes, and post-disaster development decisions. Application of this law in Ponce Inlet will impede local resilience initiatives, as the Town's ability to enact and revise land use plans and building codes to better withstand hurricanes and flooding is curtailed by state mandate. Consequently, we are required to adhere to existing development standards, which have proven in many instances insufficient to protect property, and are barred from implementing timely improvements in the aftermath of disasters.

Key problematic provisions include:

- Local governments are prohibited from adopting ordinances that create land use or development regulations that are more "restrictive or burdensome" than current standards, and any such ordinance adopted between August 1, 2024, and October 1, 2027, will be nullified.

- Moratoriums on construction or redevelopment of hurricane-damaged properties are banned during the designated periods, and enforcement of stricter building standards by local governments is deferred for at least two years following a declared storm event.

Town Manager Mike Disher, Public Safety Director Dan Scales, and I have scheduled meetings with Senator Wright and Representative Tramont to address SB 180. We intend to outline the specific challenges SB 180 poses to Ponce Inlet, detail its adverse effects on our long-term resiliency efforts, and propose legislative modifications to mitigate these burdens. The Town has

already invested significant resources in vulnerability assessments, adaptation plans, and watershed master planning in pursuit of improved resilience. Unfortunately, SB 180 restricts our ability to implement many of these initiatives. A list of these initiatives is included here as **Attachment A**.

Both the Florida League of Cities and the Volusia League of Cities have called on municipalities to document and report real-world examples of the law's burdens and adverse impacts, to support advocacy for reform.

I have also received correspondence from Volusia County Chair Jeff Brower, outlining the County Council's intended approach regarding SB 180.

Excerpts from County Chair Brower's email: **Attachment B**:

> "As you probably know the Volusia County Council passed item 17 with unanimous vote to proceed with our proposed amendment to stop the damage done to local control by SB 180. We are taking a path that does not include litigation with our partners in Tallahassee but instead works with their stated intent to protect property owners who need to rebuild after hurricane damage. We agree with them on that goal. However, SB 180 is far too broad and goes well beyond damage properties suffered in our recent hurricanes and all future hurricanes. County Manager Michael Dyer and his staff have already made clear and concise amendments to the bill which protects property owners and local control. A copy of that presentation to the Council is attached. Our proposed amendments to SB 180 are in blue."

The PowerPoint referenced in this email that was presented at County Council is provided as **Attachment C.**

The email further states that Chair Brower will be going to Tallahassee, "…to visit legislators when the session starts, or sooner if necessary. Before then I am asking our Volusia Delegation and Governor DeSantis to **consider a short special session** to deal with this now (***emphasis added***)."

Chair Brower has requested that all Volusia County municipalities submit letters of support for the County Council's approach, with copies to County Attorney Michael Dyer. This request for endorsement may be considered by our Town Council, but it is essential to clarify precisely what aspects we intend to support. Since meetings are already scheduled with our legislative representatives, our support could be aligned specifically with the County's advocacy for legislative amendments.

To ensure a prudent and informed response, the proposed amendments outlined in the County's presentation should be reviewed by our Town Attorney to assess their implications and alignment with Ponce Inlet's interests.

Several questions for our consideration should be discussed before a letter is transmitted to the County:

1. Are we in agreement to request a Special Legislative Session?
2. Do we concur with each of the proposed amendments drafted by the County Attorney?

Our Town Attorney will be receiving a copy of this email and power point prior to our Council meeting for review and comment. I will be reaching out to Mike Dyer, County Attorney, for the County's proposed letter of support for our review at the time of our meeting.

I request that the Council determine whether it is appropriate to prepare a letter of support to the County and, if so, to define the scope and conditions of such support.

Respectfully submitted,

Lois A. Paritsky, Mayor

ATTACHMENT "A"

Watershed Master Plan Recommendations	
Chapter 18, Article IX. Excavation and Grading Code Sec. 18-241 - Adoption Sec 18-247 - Retention of sand, soil, and construction debris Sec. 18-248 - Stabilization and protection of land during development and construction	**Example modifications:** 1. Require a Stormwater Pollution Protection Plan (SWPPP) for all construction activities disturbing more than a min. threshold (e.g. 1,000 sf or a single lot), incorporating concepts from the SWPPP template. 2. Mandate specific erosion and sediment control Best Management Practices (BMPs), such as those specified by Orlando. 3. Add periodic and post-rainfall inspection requirements for erosion and sediment controls, with documentation and immediate corrective action. 4. Require standard erosion control detail sheets to be included in permit submittals, using FDOT and Orlando example.
Chapter 66, Stormwater and Conservation Sec. 66-5 - General Requirements	**Example modifications:** 1. Incorporate performance standards for stormwater discharges. 2. Require maintenance plans for all the structural and non-structural controls during construction. 3. Increase required on-site stormwater retention capacity from 1 inch to 2.5 inches for new development and redevelopment.
Sec. 66-5 - General Requirements (Stormwater Manual)	Create a stormwater manual that includes such topics as: 1. Required/acceptable hydrologic and hydraulic analysis techniques 2. Minimum pipe diameters and material 3. Minimum pipe slopes 4. Minimum pipe cover requirements 5. Acceptable distances between access points (manholes or similar) to facilitate cleaning and maintenance 6. Required design storms frequency as well as associated rainfall depth, distribution, and duration 7. Peak discharge requirements 8. Storage and treatment requirements 9. Acceptable low impact development features 10. Level of Service requirements (10-year storm for local roads, 100-year storm for structures and evacuation routes for example). 11. Data delivery standards 12. Technical guidance may be provided as well for design approach and hydrologic and hydraulic parameters.

ATTACHMENT "A"

Chapter 66 - Stormwater and Conservation, Art. III - Illicit connections and discharge to the Town's MS4 Sec. 66-53 - Definitions and exemptions Sec. 66-55 - Discharge to MS4 Sec. 66-56 - Compliance monitoring	**Example modifications:** 1. Mandate BMPs not only for pollution prevention but also for flow attenuation and offsite sediment control, with performance criteria. 2. Require SWPPP submittal and approval for all construction sites, with proof of compliance prior to any land disturbance. 3. Formalize inspection and enforcement protocols: specify inspection frequency (e.g. weekly and after specified rain events), documentation, and enforcement actions for noncompliance.
Chapter 70 - Streets, Sidewalks and other public Places, Art. III Excavations, Construction and Landscaping	**Example modifications:** 1. Require SWPPP and BMPs for all work in public ROWs. 2. Mandate restoration and cleanup standards to include erosion and sediment control measures.
Part III - LUDC, Article 4 Development Standards Sec. 4.3 - Excavation and grading Sec. 4.9 - Stormwater Management Permit Sec. 4.12 - Construction Practices and Procedures	**Example modifications:** <u>Sec. 4.3</u> 1. Expand grading and fill requirements to include protection of historic drainage patterns during construction and limit grade changes at property line. 2. Require submittal of cross sections and topographic mapping extending offsite to demonstrate no adverse drainage impacts. <u>Sec. 4-9</u> 1. Require SWPPP and detailed erosion/sediment control plan for stormwater management permits. 2. Expand permit submittal req. to include stormwater management reports, geotechnical reports, and detailed grading/drainage plans. <u>Sec. 4-12</u> 1. Add requirement for perimeter controls beyond silt fences (e.g. temp. diversion berms, sediment basins). 2. Set time limits for land exposure and standards for stockpiling fill material. 3. Require covering of construction materials to prevent pollutant runoff.
Training & Certifications	Add new section requiring or incentivizing contractor training/certification in stormwater BMPs
Low Impact Development	Require/encourage the use of low impact development (LID) techniques in new development and redevelopment.

ATTACHMENT "A"

Green Streets Program	Initiate a Green Streets program to require/encourage: 1. Bioretention (rain gardens) 2. Bio-swales 3. Stormwater curb extensions 4. Stormwater planters 5. Street trees 6. Exfiltration trench 7. Subsurface infiltration and detention 8. Permeable pavement
Seawalls & Other Shoreline Protection	***Seawalls - Oceanside*** 1. Develop a standard approach to seawall repair and replacement for ocean fronting properties 2. Develop design standards for replacement seawalls that will both protect the natural features of the dunes while also providing protection from hurricanes. ***Seawalls – Riverside specific design standards*** 1. Placement of the seawalls in relation to the river's edge, seawalls on abutting properties, and future sea level rise. 2. Requiring seawall construction to minimize impacts to the river ecology and wetlands 3. Require/encourage the use of "living shorelines" as described by Florida Living Shorelines (www.floridalivingshorelines.com) which use living plants and oyster reefs to minimize erosion and protect natural resources and property, consistent with the Town's Comprehensive Plan Policy 1.2.2 Wetland Buffer
Better Site Design program	1. Preserving natural areas 2. Disconnecting and distributing runoff: a) Disconnecting impervious areas so that stormwater runoff must flow over pervious areas prior to entering a collection point. b) Rooftop disconnection – prohibit roof drains from connecting to a stormwater system without first flowing over pervious areas. c) Stormwater landscaping, such as rain gardens, that accept and filter runoff. 3. Reducing impervious area: a) Narrower streets b) Slimmer sidewalks c) Smaller cul-de-sacs d) Shorter driveways e) Smaller parking lots f) Use of pervious paving

ATTACHMENT "A"

Vulnerability Assessment Policy Recommendations and Comprehensive Plan - Peril of Flood Amendments	
Coastal Management Element	*Policy 1.4.3: Development Management Techniques.* The Town shall **apply regulatory and management techniques in the LUDC**, as needed, for proposed development in the CHHA to mitigate the threat to human life and property. Such techniques shall include, but not be limited to: A. **Requirements to reinforce buildings** to withstand impacts of wind loads that meet or exceed requirements of the Florida Building Code; B. **Requirements to set the minimum finished floor elevation at least one foot above the maximum design flood elevation (100-year flood level)** per the Residential Building Code and the National Flood Insurance Program (NFIP); *Policy 1.4.4: Coastal Area Redevelopment.* The Town shall **guide redevelopment** in a manner that eliminates inappropriate and unsafe development in the coastal areas as opportunities arise. Specifically, the Town will: A. Continue to **utilize the LUDC and the Code of Ordinances to implement principles, strategies, and engineering solutions** that reduce the flood risk in coastal areas resulting from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea-level rise. Such strategies include but are not limited to: 1) Low-impact development (LID)/redevelopment practices; 2) Green/Nature-based infrastructure; 3) Dune protection. B. **Apply best practices, principles, strategies, and engineering solutions** that will result in the removal of coastal property from Federal Emergency Management Agency (FEMA) flood zone designations. Such strategies include but are not limited to acquiring repetitive-loss properties for mitigation purposes and requiring the elevation of new and reconstructed structures to be elevated at least one foot above the current base flood elevation to account for projected sea level rise over their structural lifespan. C. **Implement Low-Impact Development (LID) site design techniques and best practices** that reduce losses due to flooding and claims made under flood insurance policies issued in the state of Florida. LID site design techniques and nature-based best practices include but are not limited to; rain gardens, pervious pavement, living shorelines, enhanced vegetated buffers, bio-swales, elevating electrical boxes and equipment above anticipated future flood levels,

	and breakaway walls on the first floor for flood water attenuation. D. **Be consistent with, or more stringent than, the flood-resistant construction requirements** in the Florida Building Code and applicable flood plain management regulations set forth in Title 44 Code of Federal Regulation part 60 (Flood Plain Management). E. **Require that any construction activities seaward of the FDEP coastal construction control lines be consistent with F.S. 161** (Beach and Shore Preservation). *Policy 1.4.5: Ocean Dune System.* The Town shall **regulate development that could impact the ocean dune systems** by requiring development applications to provide a plan that avoids disturbance to dunes, if possible, and provides dune protection and stabilization measures that protects natural, living shorelines to the greatest extent possible. Where living shorelines by themselves are not likely to provide adequate protection and sea walls are necessary, living shorelines shall be required to be installed, where possible, and maintained seaward of the wall and vegetative buffer landward. Specific requirements for development adjacent to any ocean dunes shall be maintained within the LUDC. *Policy 1.4.17: Shoreline Armoring—Halifax River*. The Town shall reduce water inundation from the Halifax River into public and private properties caused by storm events and king tides by **creating and maintaining shoreline armoring regulations** in the LUDC. *Objective 2.1: Ocean Dune Management.* The Town will continue to support the comprehensive ocean dune management programs of Volusia County and FDEP for the purpose of preserving and enhancing the existing dunes and stabilizing vegetation. Additionally, the Town shall continue to **enforce construction regulations on adjacent uplands concerning erosion control, gopher tortoise protection, and landscaping**. *Policy 2.1.1: Sand Trapping Methods.* The Town shall require oceanfront development to use dune fencing, re-vegetation, and other sand trapping methods during construction to minimize erosion of the natural dune system. Sand trapping for dune maintenance and renourishment shall continue to be encouraged for all properties along the oceanfront to preserve the natural dune topography, as permitted by FDEP and Volusia County. *Policy 2.2.3: Managed Relocation.* The Town's long-term post-disaster planning efforts shall include the gradual relocation of residential units away from flood-prone areas.

ATTACHMENT "A"

	Examples of relocation include **increased setbacks, freeboard elevation, ocean dune stabilization or restoration, or acquisition of repetitive-loss properties.**
Future Land Use Element	*Policy 1.1.4:* d) Development in the CHHA shall be guided by the policies under Coastal Management Element Objective 1.4. Additionally, per Policy 1.4.4 of the Coastal Management Element, the Town recognizes that sea-level rise will impact an increasing number of properties over time. In order to minimize these impacts the Town, on advice of the communities' desire, will **encourage the implementation of low impact development strategies** such as living shorelines and dune restoration. *Policy 1.3.2:* A nonconforming structure may not be reconstructed if the cost to reconstruct such structure would exceed 65 percent of the structure's value as assessed by the Volusia County Property Appraiser, except that lawfully established residential nonconforming structures damaged by terrorist acts, accidental fires or natural disasters may be rebuilt to their original condition if damages exceed 65 percent of the structure's assessed value, subject to current building and life-safety codes, federal flood regulations, and build back standards **that restrict the density and intensity of reconstruction to pre-disaster conditions.** Such structures will remain nonconforming and must be reconstructed in compliance with the Town Charter.

ATTACHMENT "B"

-------- Forwarded Message --------
Subject:SB180
Date: Thu, 7 Aug 2025 22:26:34 +0000
From: Jeff Brower <JBrower@volusia.org>
To:PI 5 - Paritsky, Lois <lparitsky@ponce-inlet.org>

Good evening, Mayor Parisky. As you probably know the Volusia County Council passed item 17 with a unanimous vote to proceed with our proposed amendment to stop the damage done to local control by SB 180. We are taking a path that does not include litigation with our partners in Tallahassee but instead works with their stated intent to protect property owners who need to rebuild after hurricane damage. We agree with them on that goal. However, SB 180 is far too broad and goes well beyond damage properties suffered in our recent hurricanes and all future hurricanes. County Manager Michael Dyer and his staff have already made clear and concise amendments to the bill which protects property owners and local control. A copy of that presentation to the Council is attached. Our proposed amendments to SB 180 are in blue.

Now we need to get these amendments passed by the Florida Legislature, preferably in a special session, or in the upcoming regular session. Volusia County has already been negatively affected by requiring the Council to void stormwater management rules we put in place early this year. These measures were proposed by qualified staff to help reduce flooding during storms. I have heard from other cities who also feel an immediate need to amend this bill so they can make decisions at the local level to protect their residents. We will work with our State Lobbyist and John Booker to reach our Volusia Delegation as well as the Republican Leadership in Tallahassee. By now Florida Legislators are surely hearing the concerns from municipalities and counties all over the State. We want to work with our friends in the Legislature to amend this bill so that it does exactly what they intended without restricting local government's ability to address the critical needs we are confronted with daily. That is consistent with the intent of the Florida Legislature.

We need your help to get this done. Please consider taking my request to your council and ask them to send a letter of support for this approach to the Volusia County Council and County Attorney Michael Dyer. We are not opposing those governments who have or plan to file legal challenges, we are just taking a different approach we believe will bring a timelier resolution. Considering the potential lawsuits which would likely be expensive and protracted, we believe our approach is the best way local and State government should cooperate. We all want what's best for our constituents. I will be going to Tallahassee to visit legislators when the session starts, or sooner if necessary. Before then I am asking our Volusia Delegation and Governor DeSantis to consider a short special session to deal with this now. The public would be well served and appreciate that kind of attention to their concerns.

Please feel free to call me or Michael Dyer with any questions. We can be successful in this effort when Volusia County and all our municipalities stand united. I look forward to having Ponce Inlet join our effort to protect our residents.

Best regards,

Jeff Brower
Volusia County Chair

CS/CS/SB 180 – Emergencies
Chapter 2025-190, Laws of Florida

ATTACHMENT "C"

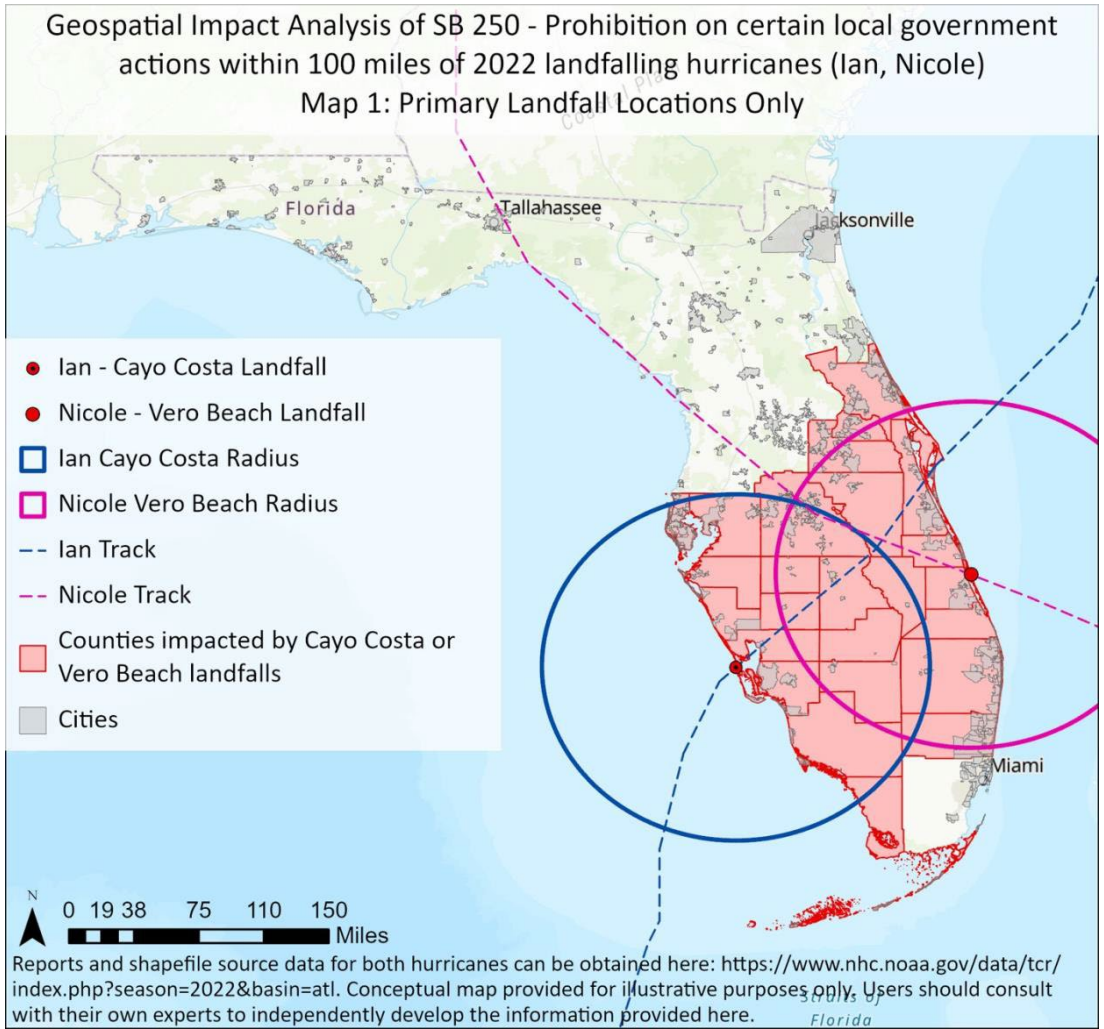
Volusia County
FLORIDA

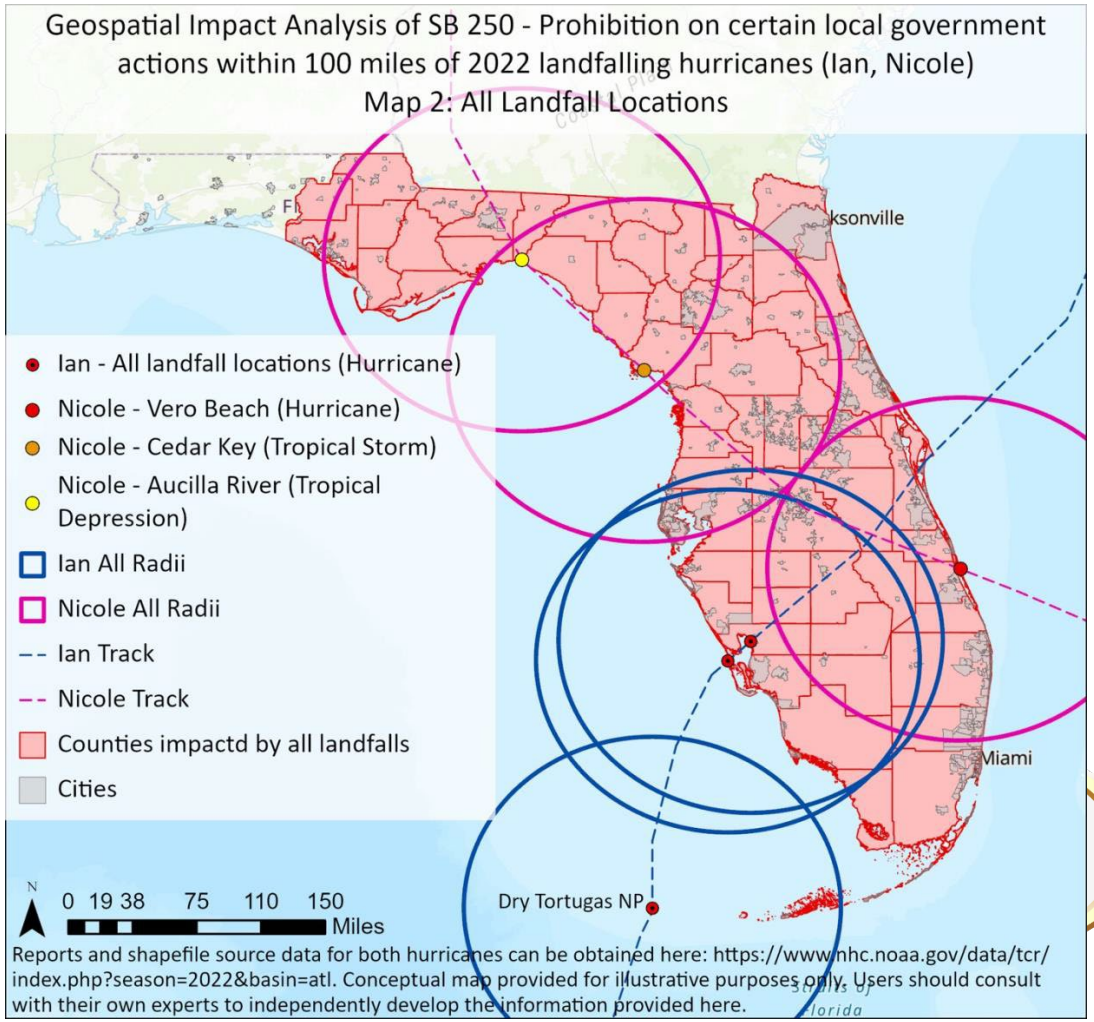
SB 180 – Emergencies

- Future Hurricanes
  - Section 18 creates section 252.422, F.S. It pre-empts more restrictive or burdensome land regulations or processes for one year after a hurricane makes landfall for a county and its municipalities 1) listed in a federal disaster declaration, and 2) located within 100 miles of the track of a categorized hurricane.

SB 180 – Emergencies

- Examples from SB 250 – 100 mile - Landfall vs Track

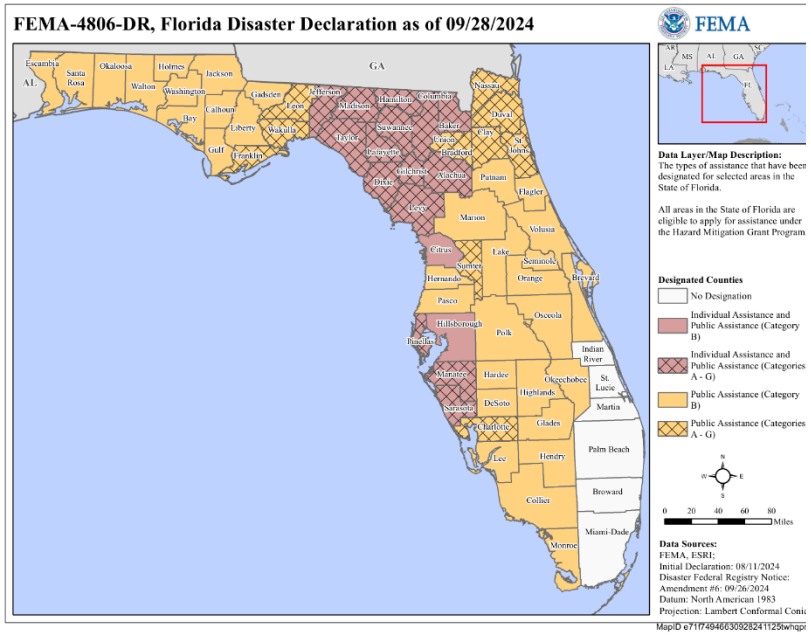


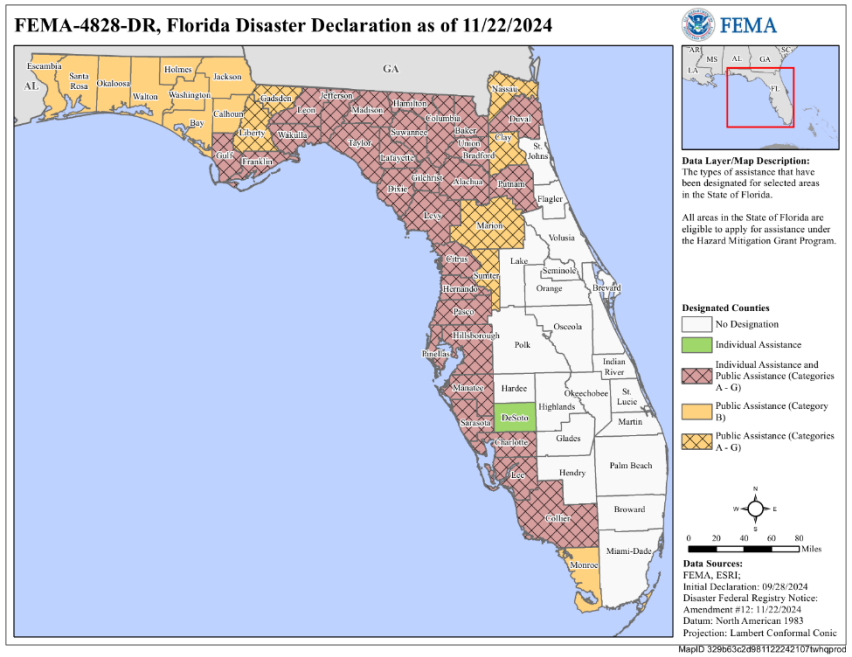


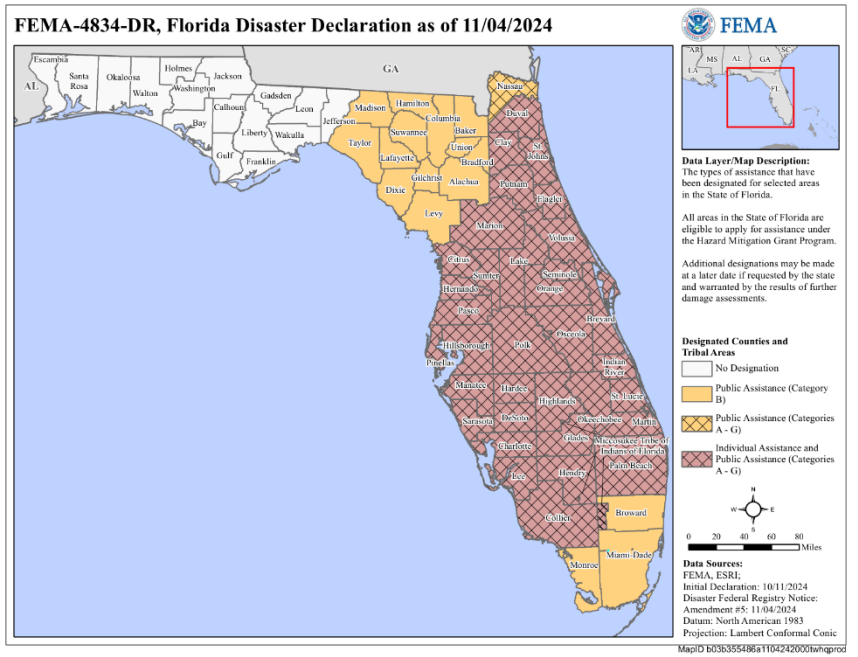
SB 180 - Emergencies

- Section 28 – Retroactive preemption
  - (1) Each county listed in the Federal Disaster Declaration for Hurricane Debby (DR–4806), Hurricane Helene (DR–4828), or Hurricane Milton (DR–4834), and each municipality within one of those counties, may not propose or adopt any moratorium on construction, reconstruction, or redevelopment of any property damaged by such hurricanes; propose or adopt more restrictive or burdensome amendments to its comprehensive plan or land development regulations; or propose or adopt more restrictive or burdensome procedures concerning review, approval, or issuance of a site plan, development permit, or development order, to the extent that those terms are defined by s. 163.3164, Florida Statutes, before October 1, 2027, and any such moratorium or restrictive or burdensome comprehensive plan amendment, land development regulation, or procedure shall be null and void ab initio. This subsection applies retroactively to August 1, 2024.

Declarations – Debbie, Helene, Milton







Volusia County
FLORIDA

Potential issues with challenges to SB 180

- Standing
  - The Public Official Standing Doctrine generally bars public officials from challenging the constitutionality of state statutes.
    - Exceptions: 1) ministerial official required to disburse public funds; 2) individual injured in personal capacity.
    - Disagreement with a constitutional or statutory duty, or the means by which it is to be carried out, does not create a justiciable controversy.
- Home Rule
  - Home rule is the authority of a local government to legislate without a direct grant of express authority by the state legislature.
    - "Counties operating under county charters shall have all power of local self-government not inconsistent with general law…"
  - Home rule is not a grant of authority to act in areas that the legislature has preempted. We are subordinate to state rule.

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FLORIDA

Direction from Council

- On July 22, 2025, County Council directed staff to bring back an agenda item to discuss seeking an amendment to SB 180.

Proposed amendments (DRAFT)

- Proposed Section 18 changes

252.422. Restrictions on county or municipal regulations after a hurricane

(1) As used in this section, the term "impacted local government" means a county listed in a federal disaster declaration located entirely or partially within 100 miles of the track of a storm declared to be a hurricane by the National Hurricane Center while the storm was categorized as a hurricane or a municipality located within such a county.

(2) For 1 year after a hurricane makes landfall, an impacted local government may not enforce ~~propose or adopt~~:

(a) A moratorium on construction, reconstruction, or redevelopment of any property damaged by such hurricane.

(b) A more restrictive or burdensome amendment to its comprehensive plan or land development regulations on any property damaged by such hurricane.

(c) A more restrictive or burdensome procedure concerning review, approval, or issuance of a site plan, development permit, or development order, to the extent that those terms are defined in s. 163.3164 on any property damaged by such hurricane.

Volusia County
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Proposed amendments (DRAFT)

- Proposed Section 28 changes
  - (1) Each county listed in the Federal Disaster Declaration for Hurricane Debby (DR–4806), Hurricane Helene (DR–4828), or Hurricane Milton (DR–4834), and each municipality within one of those counties, may not enforce ~~propose or adopt~~ any moratorium on construction, reconstruction, or redevelopment of any property damaged by such hurricanes; enforce ~~propose or adopt~~ more restrictive or burdensome amendments to its comprehensive plan or land development regulations on any property damaged by such hurricanes; or enforce ~~propose or adopt~~ more restrictive or burdensome procedures concerning review, approval, or issuance of a site plan, development permit, or development order, to the extent that those terms are defined by s. 163.3164, Florida Statutes, on any property damaged by such hurricanes before October 1, 2027, and any such moratorium or restrictive or burdensome comprehensive plan amendment, land development regulation, or procedure shall not be effective against property damaged by such hurricanes ~~be null and void ab initio~~. This subsection applies retroactively to August 1, 2024.

Volusia County
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Questions?

- Contact Information

Paolo Soria
Senior Assistant County Attorney
psoria@volusia.org
386-736-5950

Meeting Date: 8/21/2025

Agenda Item: 13-D

Report to Town Council

Topic: Alignment of Ordinances with the Town's Visioning Statement.

Summary: The Town's Vision Statement sets the foundation by which proposed amendments to existing ordinances are evaluated. Discussions over the last year have provided opportunities to consider business hours of operation, commercial activity restrictions, and decibel level standards as they relate to the Vision Statement. Please see the attached staff report and supporting documentation for more information.

Suggested motion: As determined by Council.

Requested by: Mayor Paritsky

Approved by: Mr. Disher, Town Manager

MEMORANDUM

Town of Ponce Inlet

The Town of Ponce Inlet staff shall be professional, caring and fair in delivering community excellence while ensuring Ponce Inlet citizens obtain the greatest value for their tax dollar.

To: Town Council

From: Lois A. Paritsky, Mayor

Date: August 13, 2025

Subject: Alignment of Ordinances with Town's Visioning Statement

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The shaping of Ponce Inlet's community identity and unique character has been directed by our residents through a visioning process that began in 2002. This process culminated in a report, reflected in Ponce Inlet's Comprehensive Plan, Chapter II – Future Land Use Element (2017) (see Attachment A). Relevant sections of **Attachment A** are excerpted below.

The vision statement and community values developed through this process are the foundation for proposing amendments to existing ordinances that currently do not reflect our established vision and values.

The Vision Statement:

> *Ponce Inlet is and will be a residential haven for those persons who value nature, quiet and privacy. It offers a small-town lifestyle where people feel safe and should have easy access to small-scale businesses serving their needs. The community will continue to be particularly distinguished by its natural beauty and its access to nature. It has ensured that its built environment is of high quality and appropriate scale while protecting historic features. The community will be recognized for the professionalism and integrity of its government and the high level of citizen involvement and participation in the life of the community.*

In response to a questionnaire distributed to Town residents as part of the community visioning process, and pertinent to Council's discussion of this agenda item, the following community values were identified as most important.

- Quiet and privacy.
- The small-town character of the community.
- Create neighborhood-based residential development policies and regulations that fit the house to the property and respect the character of the community and neighborhood.
- The development of small scale, quiet businesses that serve residents.

In addition to the Town's Vision Statement and community values, on **Attachment B** is Council Item 13-A from the July 18, 2024 agenda, which was presented in response to a resident's request for Council to consider the following question: **Does permitting businesses to operate 24 hours a day align with the Town's Vision Statement**?

Recently, the Town also received an email from another resident proposing an ordinance that would prohibit businesses from operating between 12:00 midnight and 6:00 a.m. The rationale for this request, as outlined in **Attachment C**, is to help preserve the community's ambiance and the lifestyle of Ponce Inlet.

In addition to business operating hours, the Council's July 18, 2024 meeting included discussion regarding the Town's noise regulations, decibel limits for both residential and commercial uses, and established hours for specific types of commercial activities. See **Attachment D**.

I would like to revisit an option for Council on page 3 of the July 11, 2024 staff report (Attachment B) and request that staff and the Town Attorney return with proposed ordinance amendments addressing business hours of operation, commercial activity restrictions, and decibel level standards.

Prospectively, I believe it would be beneficial in future ordinances and modifications to existing ordinances, that we integrate the vision statement into the legislative intent of the ordinance (Whereas Clauses) and explicitly reference the community values identified during the visioning process. These should highlight our commitment to quiet, nature, privacy, and a high-quality environment as articulated in our vision statement.

I am confident that, through these efforts, we can achieve a thoughtful balance between the needs of residents, small-scale businesses, and visitors, in a manner consistent with our vision of a serene, nature-focused residential community.

Respectfully submitted,

Lois A. Paritsky

Lois A. Paritsky, Mayor
Town of Ponce Inlet

Chapter II FUTURE LAND USE ELEMENT - 2017

GOALS, OBJECTIVES AND POLICES

INTRODUCTION

This chapter stipulates goals, objectives and policies for the Future Land Use Element pursuant to F.S. § 163.3177(6)(a) and the Community Planning Act (2011) F.S. § 163.3161 et seq. through the year 2027. Besides the goals, objectives and policies, key components of this Future Land Use Element are the visioning process (discussed below) and the 2017-2027 Future Land Use Map, Figure II-1, located at the end of this chapter. The text and the map should be taken together as a whole when evaluating the appropriateness of any land use proposal or regulation.

(Ord. No. 2017-01, § 2, 1-19-2017)

VISIONING PROCESS

In early 2002 the Town of Ponce Inlet embarked on a visioning process that resulted in the establishment of a number of goals which were intended to provide the basis for future development. The vision statement that came out of this process was as follows:

> *Ponce Inlet is and will be a residential haven for those persons who value nature, quiet and privacy. It offers a small town lifestyle where people feel safe and should have easy access to small scale businesses serving their needs. The community will continue to be particularly distinguished by its natural beauty and its access to nature. It has ensured that its built environment is of high quality and appropriate scale while protecting historic features. The community will be recognized for the professionalism and integrity of its government and the high level of citizen involvement and participation in the life of the community.*

Responding to a questionnaire that was sent out to the Town's residents, the following community values emerged as being the most important:

- Quiet and privacy.
- Safety.
- Access to nature and open space through parks, bike paths and sidewalks.
- The small town character of the community.
- The Town's history.

This, in turn, led to a series of recommendations that were established by the visioning committee. These are:

- Continue to provide the current high level of public safety services that the community values. Government officials should specifically ensure that:
  - Response times are maintained.
  - A highly visible police force is provided.
  - Investment is made to provide new public safety technologies.
  - EMT/ALS services are provided.

- Create neighborhood-based residential development policies and regulations that fit the house to the property and respect the character of the community and neighborhood.
- Update and consistently apply all code enforcement policies. Specific policies must be developed and enforced that ensure that Ponce Inlet will not become a rental community characterized by a high turnover in residential areas.
- Review and update commercial land development regulations to encourage:
    - The development of small scale, quiet businesses that serve residents.
    - The creation of a historic overlay district for appropriate commercial and residential areas.
- Establish an open space acquisition program to include:
    - An oversight committee.
    - A site prioritization system.
    - A financing mechanism.
- Create a sidewalk and bikepath network master plan that will provide adequate capacity and ease of access from anywhere in the community.
- Establish a public education and communication program regarding the water supply master plan.
- Establish a historic preservation program to include:
    - The development of a historic preservation plan that includes community involvement.
    - The identification and pursuit of funding sources.
    - Strategies to use historic preservation as a growth management tool.

(Ord. No. 2017-01, § 2, 1-19-2017)

Attachment B

Meeting Date: 7/18/2024

Agenda Item: 13-A

Report to Town Council

Topic: Ponce Inlet Business Hours and Vision Statement

Summary: At its June 20, 2024 meeting, the Town Council reviewed and briefly discussed an email received from a resident regarding the Town's regulations for commercial business hours in relation to the adopted Vision Statement. Please see the attached staff report for more information.

Suggested motion: At Council's discretion.

Requested by: Mr. Disher, Town Manager

Approved by: Mr. Disher, Town Manager

MEMORANDUM
OFFICE OF THE TOWN MANAGER

The Town of Ponce Inlet staff shall be professional, caring, and fair in delivering community excellence while ensuring Ponce Inlet citizens obtain the greatest value for their tax dollar.

TO: Town Council

FROM: Michael E. Disher, AICP, Town Manager

DATE: July 11, 2024

SUBJECT: Discussion – Ponce Inlet Business Hours and Vision Statement

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MEETING DATE: July 18, 2024

Introduction

At its June 20, 2024 meeting, the Town Council reviewed and briefly discussed an email received from a resident regarding the Town's regulations for commercial business hours in relation to the adopted Vision Statement (**Attachment 1**). Specifically, the e-mail questions whether allowing most businesses to remain open 24 hours each day and seven days a week is consistent with the Town's Vision statement to maintain a safe, quiet, residential atmosphere. The e-mail goes on to suggest the Town reach of to all residents to ascertain what their vision is for Ponce Inlet. Following discussion, the Town Council directed Staff to bring back additional information on this topic at a future meeting.

Discussion

The Town's Vision Statement was created in 2002, the product of a town-wide visioning process with extensive public engagement. The Vision Statement reads as follows:

> *Ponce Inlet is and will be a residential haven for those persons who value nature, quiet and privacy. It offers a small town lifestyle where people feel safe and should have easy access to small scale businesses serving their needs. The community will continue to be particularly distinguished by its natural beauty and its access to nature. It has ensured that its built environment is of high quality and appropriate scale while protecting historic features. The community will be recognized for the professionalism and integrity of its government and the high level of citizen involvement and participation in the life of the community.*

In addition to the Vision Statement, the visioning process yielded a set of recommendations which have since been incorporated into the Town's Comprehensive Plan (**Attachment 2**). The visioning recommendations were used to develop policies and requirements found throughout

the Town's comprehensive plan and Land Use and Development Code (LUDC). These policies and regulations limit the type and scale of new commercial developments, prohibit tourist-oriented uses, require landscape buffers between residential and commercial uses, protect existing trees, and preserve the character of historic areas.

The Town's Code of Ordinances (CoO) and LUDC do not place limits on normal business hours of operation across the board. However, they do restrict the hours of specific types of businesses, as follows:

Business Type	Hours	Code reference
Farmers Markets	7:00 am – 9:00 pm	LUDC Ch. 3, Sec. 3.20.3
Mobile Food Vendors	8 hrs. btwn. 7:00 am – 11:00 pm	LUDC Ch. 3, Sec. 3.34.E
Pain Management Clinics	7:00 am – 9:00 pm, Mon-Sat	CoO Ch 22, Art. III, Sec. 22-124
Rave clubs • juvenile • adult	 4:00 pm – 11:00 pm, Sun-Thu 4:00 pm – 12:01 am, Fri 1:00 pm – 12:01 am, Sat 1:00 pm – 2:00 am	CoO Ch. 42, Art. V, Div. 1, Sec. 42-217

The Code also limits the hours of certain kinds of commercial activities:

Activity	Hours	Code reference
Construction • Non-holiday weekdays • Saturdays • Sundays • Official Town holidays • National holidays	 7:00 am – 6:00 pm 8:30 am – 5:00 pm Maintenance and repair only 8:30 – 5:00 pm, no grading None	CoO Ch. 18, Art. 1, Sec. 18-7
Display of boats for sale in residential areas	8:00 am – 7:00 pm	CoO Ch. 14, Art. IV, Div. 2, Sec. 14-254
Sale of alcohol • on-premise consumption • off-premise consumption	 8:00 am – 2:00 am 6:00 am – 2:00 am	CoO Ch. 6, Sec. 6-2
Sales, deliveries, and services in a PWD zoning district within 100' of residential property	8:00 am – 9:00 pm	LUDC Art. 2, Sec. 2.15.F.1
Soliciting, peddling, or canvasing	9:00 am – 6:00 pm, Mon-Sat	CoO, Ch. 50, Art. II, Div. 2, Sec. 50-55

Also mentioned in the resident's e-mail was a related concern about music and outdoor festivals. The Town's noise regulations are found under CoO Ch 34, Art. IV. Section 34-93 of this article establishes decibel limits for residential and commercial (non-residential) uses during the daytime and evening, as follows:

Use Occupancy Category	Time	Sound Level Limit
Residential	7:00 a.m. to 10:00 p.m.	60 dB
	After 10:00 p.m. to 7:00 a.m.	55 dB
Commercial	7:00 a.m. to 10:00 p.m.	70 dB
	After 10:00 p.m. to 7:00 a.m.	65 dB

These regulations prohibit the creation of a noise disturbance except as permitted by this code. The regulations further prohibit unreasonable sounding of vehicle horns; excessive volume of music; pets that disturb the peace of their neighbors; any noise disturbance that can be heard 100 feet away from the property line; and low-frequency bass causing vibration that can be felt beyond the property line.

Businesses with bands or other live entertainment outdoors must apply for annual sound amplification permit, per Sec. 34-97. Permit application is typically done at the same time the business renews its annual Business Tax Receipt at the start of the Town's fiscal year. Outside sound amplification is allowed only between 11:00 am – 11:00 pm, except during certain national holidays and area-wide special events, in which case it may continue until 12:00 or 12:30 am.

Violators of the noise regulations are first given a written warning. Repeat violators are subject to fines and arrest. Violators of sound amplification permits are also given written warnings. If the permit holder accumulates three written warnings for violation during a 30-day period, the code enforcement board shall suspend the permit holder's permit for 30 days. Repeat violations after that are subject to further suspension for 180 days. Violations while under suspension result in the permit being revoked for 365 days.

Conclusion

The resident's suggestion for the Town to contact all of its e-mail subscribers is one of several ways to reach Ponce Inlet residents about potential changes to the code or Vision Statement. Other options include posting surveys on its social media platforms and holding public workshops. If the Council wishes to proceed, it may wish to first consider whether changes to existing ordinances would address the issues raised, rather than revisiting the entire Vision Statement.

The Town's Vision Statement was the result of months of work by the Town Council, board members, staff, consultants, and the public, and has served the Town well for the past 22 years. To be effective and meaningful, any update to the Vision Statement needs to have the same broad level of support from all stakeholders in the community. Depending on whether the Council wishes to simply update the existing statement or start over, it may also warrant the use of professional facilitators, the cost for which must be budgeted.

Attachments:

1. E-mail from resident, June 13, 2024
2. Vision Statement and recommendations

ATTACHMENT 1

From: JUDY DICARLO <jjkorky47@gmail.com>
Sent: Thursday, June 13, 2024 1:39 PM
To: Mike Disher <mdisher@ponce-inlet.org>
Subject: Vision Statement vs. Town regulations

Dear Mike,

Thank you for all you and all your town staff & council does for our little town… you all are much appreciated - We are blessed!

If you could, please forward this email to Town Council for us:

We have been surprised to learn that all businesses in Ponce Inlet can be open 24/7, which seems to us that there are no residential protections in place for any business operation hours. Is our understanding incorrect?

According to The Vision Statement…This is a residential community with small businesses serving the needs of the residents. (Do residents really want the possibility for businesses to be open 24 hours a day?)

Over the years we've, personally, heard complaints from many families living near Jerry's about how Outdoor Festivals with music & outdoor activities till 2am is disrupting their residential tranquility ,yet they continue.

Now we also learn Outdoor Farmers Markets can be open till 9pm and Outdoor Food Trucks till 11pm? (and we are hearing from many that this idea isn't popular) Is this really what the majority of our residents want - or is it for only the few who express their opinions at Council Meetings?

Is this in line with our Vision Statement?

We believe people move to Ponce Inlet for the quiet, safe, residential atmosphere. A place to raise their families, walk around their neighborhoods and town areas, enjoy the parks and beach - quietly.

Now that the town has more internet capabilities with a large residential email list, we would like to suggest to Town Council that it might be time to reach out to all residents to find out what their vision & wishes really are for the future of our little town.

Thank you for your evaluation & consideration.

Judy & Joe DiCarlo
32 Caribbean Way

ATTACHMENT 2

From the Future Land Use Element of the Ponce Inlet Comprehensive Plan

VISIONING PROCESS

In early 2002 the Town of Ponce Inlet embarked on a visioning process that resulted in the establishment of a number of goals which were intended to provide the basis for future development. The vision statement that came out of this process was as follows:

Ponce Inlet is and will be a residential haven for those persons who value nature, quiet and privacy. It offers a small town lifestyle where people feel safe and should have easy access to small scale businesses serving their needs. The community will continue to be particularly distinguished by its natural beauty and its access to nature. It has ensured that its built environment is of high quality and appropriate scale while protecting historic features. The community will be recognized for the professionalism and integrity of its government and the high level of citizen involvement and participation in the life of the community.

Responding to a questionnaire that was sent out to the Town's residents, the following community values emerged as being the most important:

- Quiet and privacy.
- Safety.
- Access to nature and open space through parks, bike paths and sidewalks.
- The small town character of the community.
- The Town's history.

This, in turn, led to a series of recommendations that were established by the visioning committee. These are:

- Continue to provide the current high level of public safety services that the community values. Government officials should specifically ensure that:
    - Response times are maintained.
    - A highly visible police force is provided.
    - Investment is made to provide new public safety technologies.
    - EMT/ALS services are provided.
- Create neighborhood-based residential development policies and regulations that fit the house to the property and respect the character of the community and neighborhood.
- Update and consistently apply all code enforcement policies. Specific policies must be developed and enforced that ensure that Ponce Inlet will not become a rental community characterized by a high turnover in residential areas.
- Review and update commercial land development regulations to encourage:
    - The development of small scale, quiet businesses that serve residents.
    - The creation of a historic overlay district for appropriate commercial and residential areas.
- Establish an open space acquisition program to include:
    - An oversight committee.
    - A site prioritization system.

    - A financing mechanism.
- Create a sidewalk and bikepath network master plan that will provide adequate capacity and ease of access from anywhere in the community.
- Establish a public education and communication program regarding the water supply master plan.
- Establish a historic preservation program to include:
    - The development of a historic preservation plan that includes community involvement.
    - The identification and pursuit of funding sources.
    - Strategies to use historic preservation as a growth management tool.

Mike Disher
Town Manager
Ponce Inlet, FL

I'd like to introduce myself. My name is Ranraj Singh. Our family has been a resident since 2011 and a business owner in Ponce Inlet since 2012. We have seen the city grow and prosper over the years and are impressed with the path the growth has taken. It is a quiet, clean and safe place to live.

As I am sure you are aware that according to the 2020 census the median age in the city is 66.3 years old compared to 57 in the 2000 census. Currently 52.8% of the population is 65 years or older. Over the years the community has become attractive to retirees due to the low crime and conditions of the city.

To help maintain the ambience of the community we would like to propose an ordinance to be considered that we believe would help preserve the status of the city and help maintain a safe environment. Considering the demographics of the city we propose that an ordinance be put in place, barring any business within city limits from being open between the hours of 12 midnight and 6 am. Businesses open late, or 24 hours can draw an element not conducive to the area. We are close enough to the Daytona Beach area that any need that might arise by a resident can be fulfilled.

We would like to thank you and all the city staff, including the police and fire departments, for maintaining the lifestyle in Ponce Inlet. We believe that the proposed ordinance would assist in maintaining the lifestyle.

Thank You for your consideration
Ranraj Singh and Family

Mayor Paritsky opened public participation – hearing none, public participation was closed.

Councilmember Milano moved to approve the piggy-back contract with Sunrise Consulting Group at the $3,000 monthly rate, effective immediately; seconded by Councilmember Villanella. The motion PASSED 5-0, consensus.

13. NEW BUSINESS:

A. Discussion – Ponce Inlet Business Hours and Vision Statement. – Mr. Disher stated an email was received prior to last month's Council meeting by a resident who questioned whether the current business hour restrictions supported the town's vision statement, or if a new vision statement is needed. The Council had directed staff to research and bring back additional information on this topic for the next meeting. Mr. Disher explained the Council could decide to revisit the restrictions or could revisit the entire vision statement, noting that no funds for such an endeavor are currently available or proposed. Mayor Paritsky questioned if some of the ordinances presented are consistent with the values and needs of residents. She stated it may be time to look further into updating these outdated ordinances. Vice-Mayor Smith said it is always good to review periodically, unless this is a response to a specific concern. The rest of Council concurred it would be good to review.

Mayor Paritsky opened public participation – Jair Kessler, 81 Buschman Drive, reviewed her own history with the business hours restrictions concerning the Farmers Market; she asked Council to consider the opportunity to host a market in the morning and evening when reviewing this ordinance. Public participation was closed.

Council directed staff and the Planning Board to review the Town's regulations for business operating hours, activities, and noise levels for consistency with the adopted Vision Statement.

B. Discussion – Code enforcement hearing process through a Special Magistrate. Mr. Hooker, Code Compliance Manager, presented this item. He provided a history of the Local Code Enforcement Board Act as well as the use of Special Magistrates in Volusia County and around the state. He detailed a Special Magistrate's duty and how it compares to the Code Enforcement Board. After a survey conducted in October 2019, it was determined that out of 214 municipalities statewide, 62.1% used a Special Magistrate exclusively and 23.8% used a Code Enforcement Board. In June 2024, a survey of agencies in Volusia County was conducted - of the respondents, the Town of Ponce Inlet was the only municipality to use a Code Enforcement Board exclusively. Mayor Paritsky extended her gratitude to all volunteers that sit on a board, emphasizing the Council's gratitude for the Code Enforcement Board. Attorney Shepard explained that while the duty of Special Magistrates and Code Enforcement Board are similar, the difference lies in the execution and the efficiency of the execution.

Mayor Paritsky opened public comment – Karen Rij, Ponce Inlet resident, explained that as a member of the Code Enforcement Board, she would like to know what was wrong with the current process and what the cost would be to the town. Mayor Paritsky clarified that nothing was wrong, but it would be a more elevated process for the town. Attorney Shepard explained how the cost could be negotiated, e.g. hourly as needed or flat monthly rate. Sharone Lemieux, 4590 South

Meeting Date: 8/21/2025

Agenda Item: 15

Report to Town Council

Topic: From the Town Manager

Summary: Please see attached report.

Requested by: Mr. Disher, Town Manager

Approved by: Mr. Disher, Town Manager

MEMORANDUM

OFFICE OF THE TOWN MANAGER

The Town of Ponce Inlet staff shall be professional, caring and fair in delivering community excellence while ensuring Ponce Inlet citizens obtain the greatest value for their tax dollar.

To: Town Council

From: Michael E. Disher, AICP, Town Manager

Date: August 14, 2025

Subject: Town Manager's Report

MEETING DATE: August 21, 2025

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1. Volusia County Council meeting on 07-22-25:
   - Item FF - Resolution delegating authority for CDBG-DR/Transform386 homeowner buyout and infrastructure property acquisition projects. This is the County version of the resolution adopted by the Town Council to participated in this program.
   - Item-JJ – Resolution recognizing Ordinance 2025-06 relating to enhanced stormwater development and construction standards is void pursuant to SB 180.
   - Item 04 – Proposed Budget presentation.
   - Item 06 - Appropriation of the federal Community Development Block Grant - Disaster Recovery (CDBG-DR) Grant ($133,515,000) for Hurricane Milton Recovery.
2. Volusia County Council meeting on 08-05-25:
   - Item C - Resolution adopting a revised Local Mitigation Strategy Plan (LMS). The LMS coordinates the disaster mitigation plans from all participating local governments in Volusia County. The plan is required for future federal funding availability for pre-disaster mitigation, hazard mitigation, and flood mitigation assistance grant programs. This item will be on the Town Council's August 21, 2025 agenda.
   - Item J - Interlocal Agreement between the Town of Ponce Inlet and the County of Volusia for Storm Debris Management on CR 4075/S Atlantic Ave. in the Town of Ponce Inlet. The Town Council approved this agreement on June 19, 2025.
   - Item 17 - Discussion and direction on seeking amendment to SB 180 (2025). At Council direction, County staff have prepared proposed amendments to this law, which preempts county and city land use powers retroactive to August 1, 2024 and going forward until September 30, 2027. The proposed amendment would apply to the *enforcement* of new rules, not their adoption, and would further limit the preemption to only properties

impacted by a hurricane, not all properties in the county. See also supplemental PowerPoint presentation. The Council directed the County lobbyist to provide the recommended changes to the County's legislative delegation.

3. County Council meeting on 08-19-25:
   - Item N - Budget Resolution - Ponce de Leon Inlet Management Plan Grant Agreement for monitoring of the inlet and adjacent beaches, in accordance with the 2020 Inlet Management Plan.
   - Item O - Resolution of support for application to the State of Florida, Beach Management Funding Assistance Program for Fiscal Year 2026-2027.
   - Item 9 - Discussion to Allow Horseback Riding on the Beach. The proposed location includes a 9-mile long corridor from Granada Blvd. to the Flagler County line.
4. Upcoming Swale Maintenance – Starting the first week in August, Volusia County Road & Bridge will begin working to improve the swales along S. Atlantic Avenue. The locations are based on recommendations from the Town's Watershed Master Plan, which Public Works shared with County staff. These include the two blocks north of Beach Street, the intersection at Jana Drive, and others.
5. The Town's podcast, *Inside Ponce Inlet*, has released its fourth episode titled **"Resilient Ponce Inlet: Planning for the Future."** In this episode, Planning and Development staff members Darren Lear and Patty Rippey discuss the Town's efforts to address future flooding and sea-level rise, with a focus on the new Watershed Master Plan and upcoming resiliency initiatives. The episode aims to keep residents informed and engaged in these important planning efforts. The fifth episode, with Volusia County Coastal Division Director Jessica Fentress, will be released on Tuesday, August 19th.
6. The next "Sandbag Saturday" will be held on August 16th, from 8 am – 12 pm at the Public Works facility. Sand and sandbags are provided for Ponce Inlet residents only. This is self-serve, so residents will need to bring their own shovel along with ID for proof of residency.
7. The Women's Self-Defense Class hosted by the Ponce Inlet Police Dept. was another huge uccess. A total of 18 residents participated in the class, and the police officers received very positive feedback from the participants.
8. Building permit activity:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Avg
Permit applications	123	122	137	164	147	150	110						953	136
Permits issued	90	111	133	149	144	132	101						860	123
Plan reviews	93	113	125	149	138	161	123						902	129
Inspections	246	236	252	313	270	285	248						1,850	264