

## VIII. MITIGATION ACTIVITIES

Flood Mitigation specifically involves the managing and controlling of flood movement in an effort to prevent and control 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 (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 14: 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 Reconstruction					✓		✓
<i>A detailed description of the funding sources can be found in Section 9 of the Volusia County Local Mitigation Strategy.</i>							

### 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 and mitigation planning, comprehensive land use planning, in addition to the enforcement of zoning and subdivision ordinances and building codes that regulate how land is developed and structures are built. Additionally, it protects environmental, historic and cultural resources in the community. Although some conflicts can arise, these planning initiatives generally present significant opportunities to integrate mitigation principles and best practices into the local decision making process in an effort to manage floodplain development. Table 2 refers to Volusia County and its jurisdictions plans, policies, codes and ordinances.

### 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** – Moving a structure out of the floodplain to higher ground where it will not be exposed to flooding.
- **Elevation** – Raising a structure so that the lowest floor is above the flood level.
- **Flood Insurance** – A specific insurance coverage against property loss from flooding.
- **Wet Flood-proofing** – Making uninhabited portions of the structure resistant to flood damage and allowing water to enter during flooding.
- **Dry Flood-proofing** – Sealing the structure to prevent floodwaters from entering.

### 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
- Watershed management
- Riparian buffers
- Erosion and sediment control
- Wetland preservation and restoration

#### **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. Figure 12 depicts the regional evacuation routes and shelters within Volusia County. Other activities include sandbagging for flood protection and emergency response training and exercises. Volusia County and its municipalities continue to be proactive in emergency response training and exercises. Some examples include participation in the Statewide Tsunami Exercise and the Statewide Tornado Drill.

#### **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:

- Reservoirs
- Channel modifications
- Levees/floodwalls/seawalls
- Beach nourishment
- Diversions
- Storm sewers

#### **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 on-line 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 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 informational 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.

### **G. Action Plan**

The Volusia County Multi-Jurisdictional Local Mitigation Strategy features a mitigation action plan that is maintained through the LMS Working Group as well as the FMP 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 Mitigation Action Plan can be found in Appendix G.

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. Please refer to the table on the next page which justifies the scoring the 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 of the implementation, evaluation and revision criteria and schedule as outlined specifically in the LMS.

**Table 15: Prioritization and Scoring Worksheet**

<i><b>Prioritization Criteria</b></i>	<i><b>Scoring</b></i>			
<u><i><b>Population Benefited</b></i></u>	<b>4 Points:</b> Project will benefit a multi-jurisdictional area	<b>3 Points:</b> Project will benefit a jurisdictional area	<b>2 Points:</b> Project will benefit less than 100% of a jurisdiction.	
<u><i><b>Health and Safety Considerations</b></i></u>	<b>4 Points:</b> Project would benefit 75% or more of the population.	<b>3 Points:</b> Project would benefit 50 -74 % of the population.	<b>2 Points:</b> Project would benefit 25-49% of the population.	<b>1 Point:</b> Project would benefit less than 25% of the population.
<u><i><b>Environmental Impact</b></i></u>	<b>1 Point:</b> Project improves the environment.	<b>0 Point:</b> Risk to the environment is undetermined.	<b>(-1 ) Point:</b> Project poses a risk to the environment.	
<u><i><b>Consistency with other plans and programs</b></i></u>	<b>4 Points:</b> Project is incorporated into the LMS CEMP and Comp Plan and supports the NFIP.	<b>3 Points:</b> Project is incorporated into at least two of these plans.	<b>2 Points:</b> Project is incorporated into at least one of these plans.	<b>1 Point:</b> Project is consistent with other local standards, aside from LMS, CEMP, and Comp Plan.
<u><i><b>Reduces Risk of Future Property Damage</b></i></u>	<b>4 Points:</b> Mitigates a hazard of high frequency or risk.	<b>3 Points:</b> Mitigates a hazard of moderate frequency or risk.	<b>2 Points:</b> Mitigates a hazard of low frequency or risk.	<b>1 Point:</b> Mitigates a hazard of very low frequency or risk.
<u><i><b>Supports Essential or Critical Services</b></i></u>	<b>5 Points:</b> Project will ensure continuity of operations for essential infrastructure or services.	<b>3 Points:</b> Project will support infrastructure or services with loss/damage history	<b>1 Point:</b> Project will support infrastructure or services without loss/damage history.	<b>0 Points:</b> Projects operation will have no impact on community infrastructure or services if disrupted.
<u><i><b>Probability of Receiving Funding for Implementation</b></i></u>	<b>4 Points:</b> Limited funding potential exists.	<b>3 Points:</b> Potential funding sources are other state or federal grants or similar funding sources.	<b>2 Points:</b> Potential funding is readily available through emergency preparedness or mitigation funding sources.	<b>0 Points:</b> Potential funding is readily available through local funding sources.
<u><i><b>Feasibility of Implementation</b></i></u>	<b>4 Points:</b> Project would be relatively easy to implement in one year.	<b>3 Points:</b> Project would be easy to implement in three years.	<b>2 points:</b> Project would be easy to implement in five years.	<b>0 Points:</b> Project would be difficult to implement.
<u><i><b>Community Rating System (CRS)</b></i></u> -public information, mapping - damage reduction -flood preparedness	<b>4 Points:</b> Project supports CRS elements	<b>3 Points:</b> Project supports three CRS elements.	<b>2 Points:</b> Project supports two CRS elements.	<b>1 Point:</b> Project supports one CRS element.
<u><i><b>Repetitive Loss (RL) Mitigation</b></i></u>	<b>4 Points:</b> Project protects 50% or more of the RL structures.	<b>2 Points:</b> Project protects less than 50% of the RL structures.	<b>4 Points:</b> Project does not protect a RL structures.	
<u><i><b>Benefit Cost Ratio (BCR)</b></i></u>	<b>5 Points:</b> Project has a BCR of "1" or higher, using FEMA approved software.	<b>3 Points:</b> Project has a BCR of less than "1" using FEMA approved software.	<b>0 Points:</b> the BCR cannot be determined.	

## **IX. 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. Appendix I 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 responsible party 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.

The LMS Steering Committee and the FMP Planning Committee are generally comprised of the same jurisdictional staff members. However, 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.

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 yearly LMS updates. During the third quarter of the calendar year (July/August/September), the County and the jurisdictions will provide any 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 be provided at the City Halls and libraries. Press releases, radio and TV announcements may also be utilized to inform the public.

Once per year, elected officials will be provided 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. The table below indicates where the jurisdictions will keep a hard copy of the plan for public use

**Table 16: Plan Storage Locations**

City	Hard Copy Location
<b>Main Copy</b>	<b>City Island Library - 105 East Magnolia Avenue, Daytona Beach FL 32114</b>
Daytona Beach	125 Basin Street (Suite 100), Daytona Beach FL 32114
Daytona Beach Shores	2990 S. Atlantic Avenue, Daytona Beach Shores FL 32118
DeBary	<i>Not Specified</i>
DeLand	<i>Not Specified</i>
Deltona	<i>Not Specified</i>
Edgewater	104 N. Riverside Drive, Edgewater FL 32132
Holly Hill	<i>Not Specified</i>
Lake Helen	<i>Not Specified</i>
New Smyrna Beach	<i>Not Specified</i>
Oak Hill	<i>Not Specified</i>
Orange City	<i>Not Specified</i>
Ormond Beach	22 South Beach Street (Room 104), Ormond Beach FL 32174
Pierson	<i>Not Specified</i>
Ponce Inlet	<i>Not Specified</i>
Port Orange	<i>Not Specified</i>
South Daytona	1672 S. Ridgewood Avenue, South Daytona FL 32119

## **APPENDIX A**

### **JURISDICTIONAL FLOODPLAIN MANAGEMENT PLANS**

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# DAYTONA BEACH



# GOALS AND OBJECTIVES: DAYTONA BEACH

## **GOAL – Promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas**

Objective: Maintain the City's Community Rating System Classification

Objective: Provide flood protection information to residents

Objective: Coordinate and implement small and/or large scale projects to help alleviate drainage and flood concerns

Objective: To protect human life, health and to eliminate or minimize property damage;

Objective: require the use of appropriate construction practices in order to prevent or minimize future flood damage;

Objective: 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: 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: To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

Objective: To minimize prolonged business interruptions;

Objective: 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: 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; and

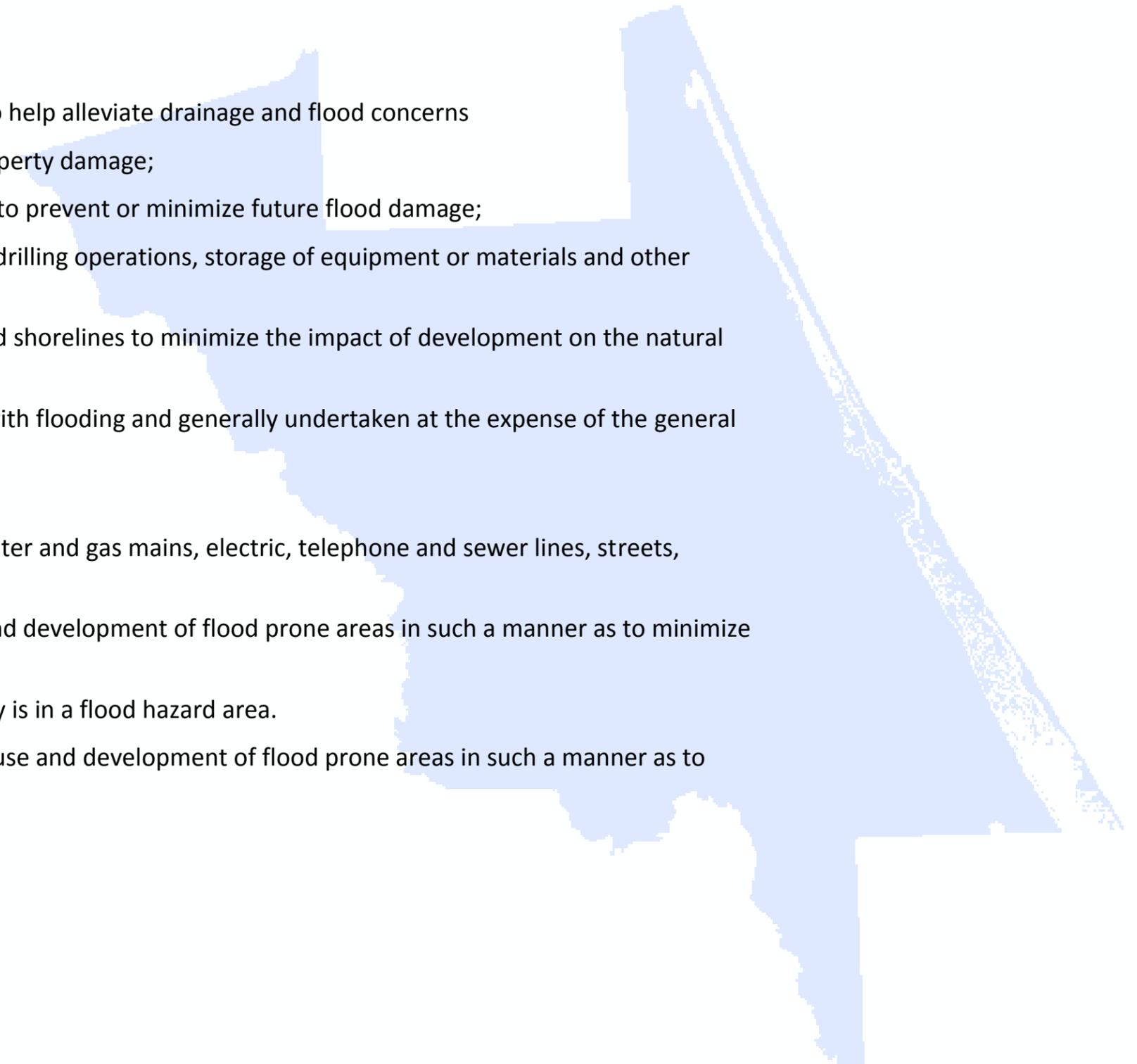
Objective: To ensure that potential homebuyers are notified that property is in a flood hazard area.

Objective: 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, and;

## **GOAL – To create programs to manage the surface water runoff**

Objective: Develop/maintain storm water management plan

Objective: Develop alternative water supply on western city limits



# DAYTONA BEACH

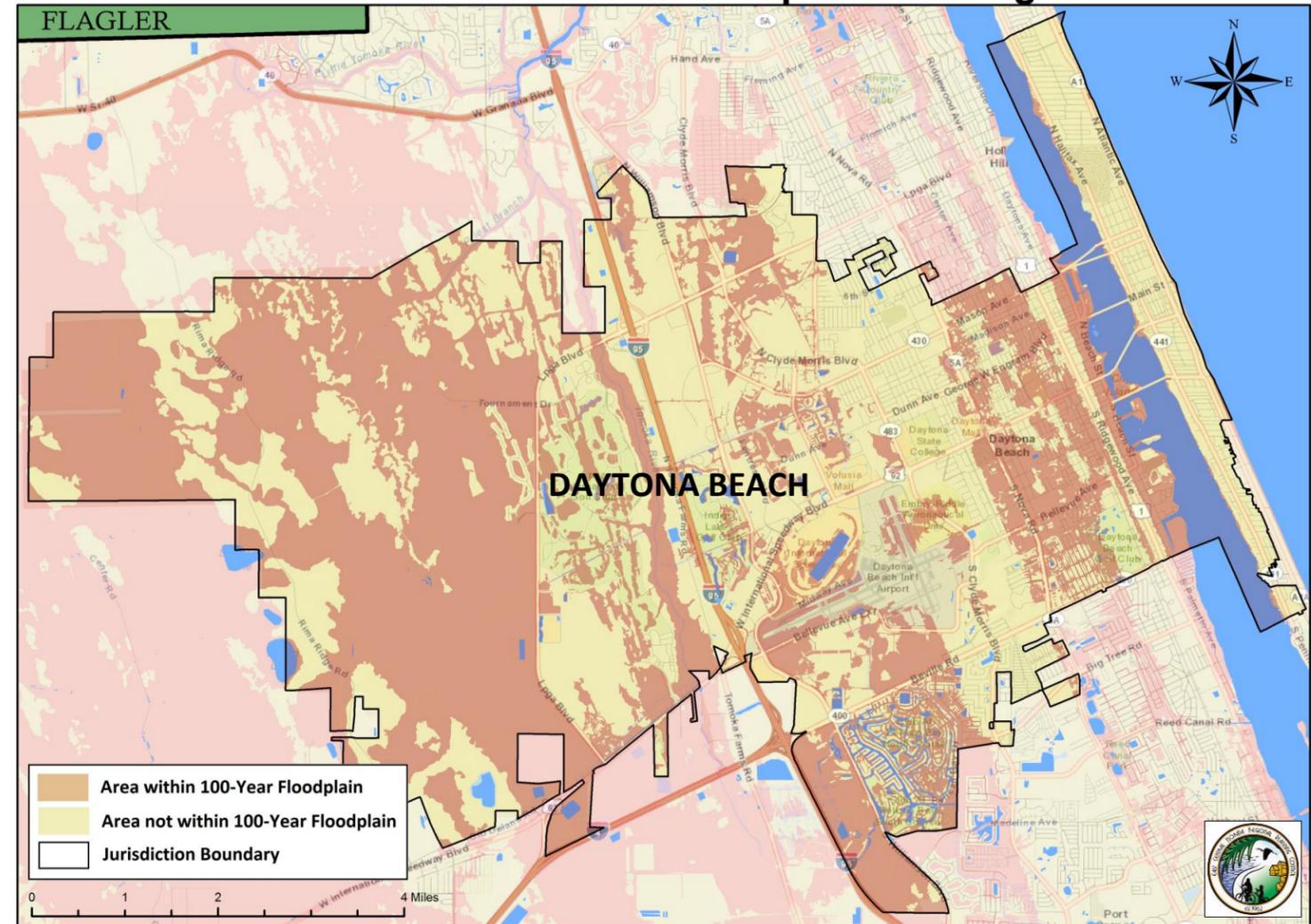
A large geographic portion of the City of Daytona Beach is within the new 100-Year Floodplain (Zones A, AE, AH and VE), a result of the city's adjacency to the inter-coastal waterway and the Atlantic Ocean. The 100-Year Floodplain entirely or partially covers 43.4% of the city's parcels, and 91.5% of those parcels are within zones AE and A.

The parcels within Daytona Beach that are exposed to the 100-Year Floodplain are generally older than those of other jurisdictions in Volusia County. Approximately 33.3% of these exposed parcels were built before 1969. A relatively high 77.6% of the exposed parcels within the city have been developed, compared to the countywide average of 57.2%.

Due to a combination of factors, including development density and geographical context, Daytona Beach is disproportionately exposed to the floodplain compared to other jurisdictions in Volusia County. Approximately \$1,306,286,647 in taxable property value is within the 100-Year Floodplain, compared to the jurisdiction average of \$318,247,047.

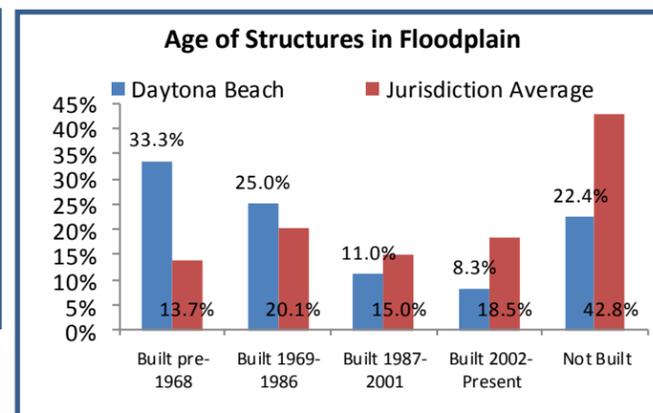
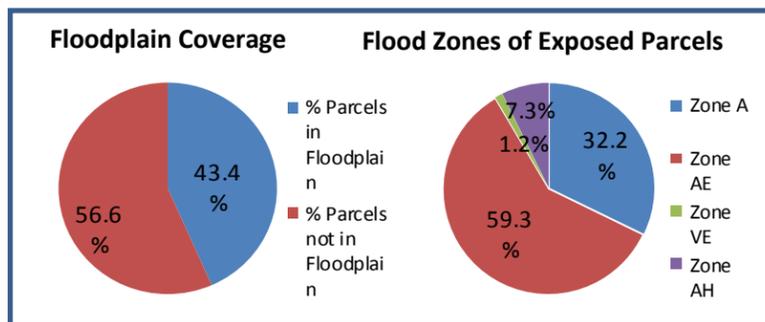
Residential future land use designations encompass 56.8% of the total land coverage of the floodplain within Daytona Beach, excluding conservation areas. This accounts for 7,894 acres, 6,964 of which have a future land use designation of Low Density Residential. After residential uses, commercial (9.2% of total land in floodplain), industrial (8.5%) and mixed use (7.6%) land uses are the most common.

## 2011 DFIRM 100-Year Floodplain Coverage



This map is intended to be used for planning purposes only and is not to be construed as a legal document. Sources: FEMA, Volusia County and Municipalities, 2013

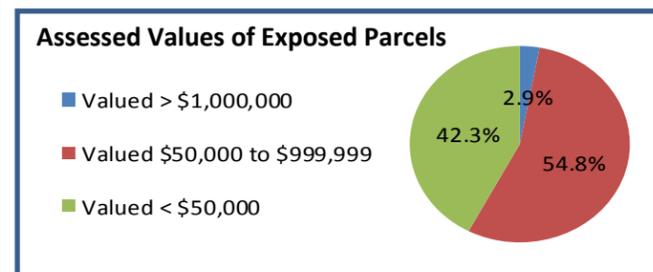
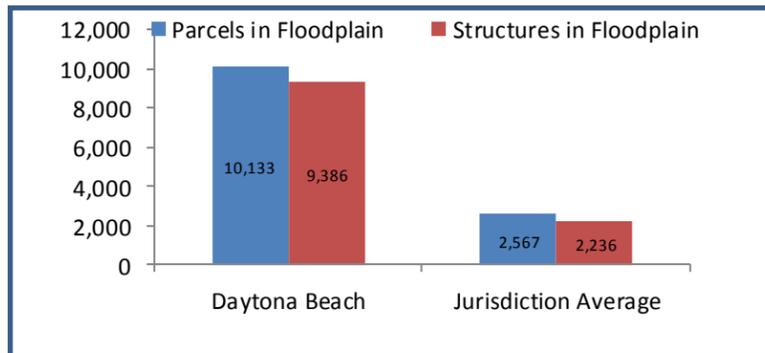
## Daytona Beach Floodplain Profile



Land Use	Acreage	Percent of Exposed Land
Low Density Residential	6,964	56.8%
Med-Hi Den. Residential	930	7.6%
Commercial/Office	1,124	9.2%
Mixed Use	931	7.6%
Institutional/Public	369	3.0%
Industrial	1,050	8.5%
Planned Development	0	0.0%
Agriculture	0	0.0%
Recreation	885	7.2%

*\*Conservation Lands Excluded from this Analysis*

Project	Type
1. Repetitive Loss Property Demolition	Acquisition/Demolition
2. Repetitive Loss Property Demolition	Acquisition/Demolition
3. Repetitive Loss Property Demolition	Acquisition/Demolition
4. Repetitive Loss Property Demolition	Acquisition/Demolition
5. Repetitive Loss Property Demolition	Acquisition/Demolition
6. VOL-0165 Stormwater/Flood Abatement	Flood Mitigation
7. VOL-0166 5-Barrier Peninsula Watershed	Flood Mitigation
8. VOL-0168 Halifax River Drainage	Flood Mitigation/Study
9. VOL-0364 North St. & Mark Ave. Improv.	Flood Mitigation

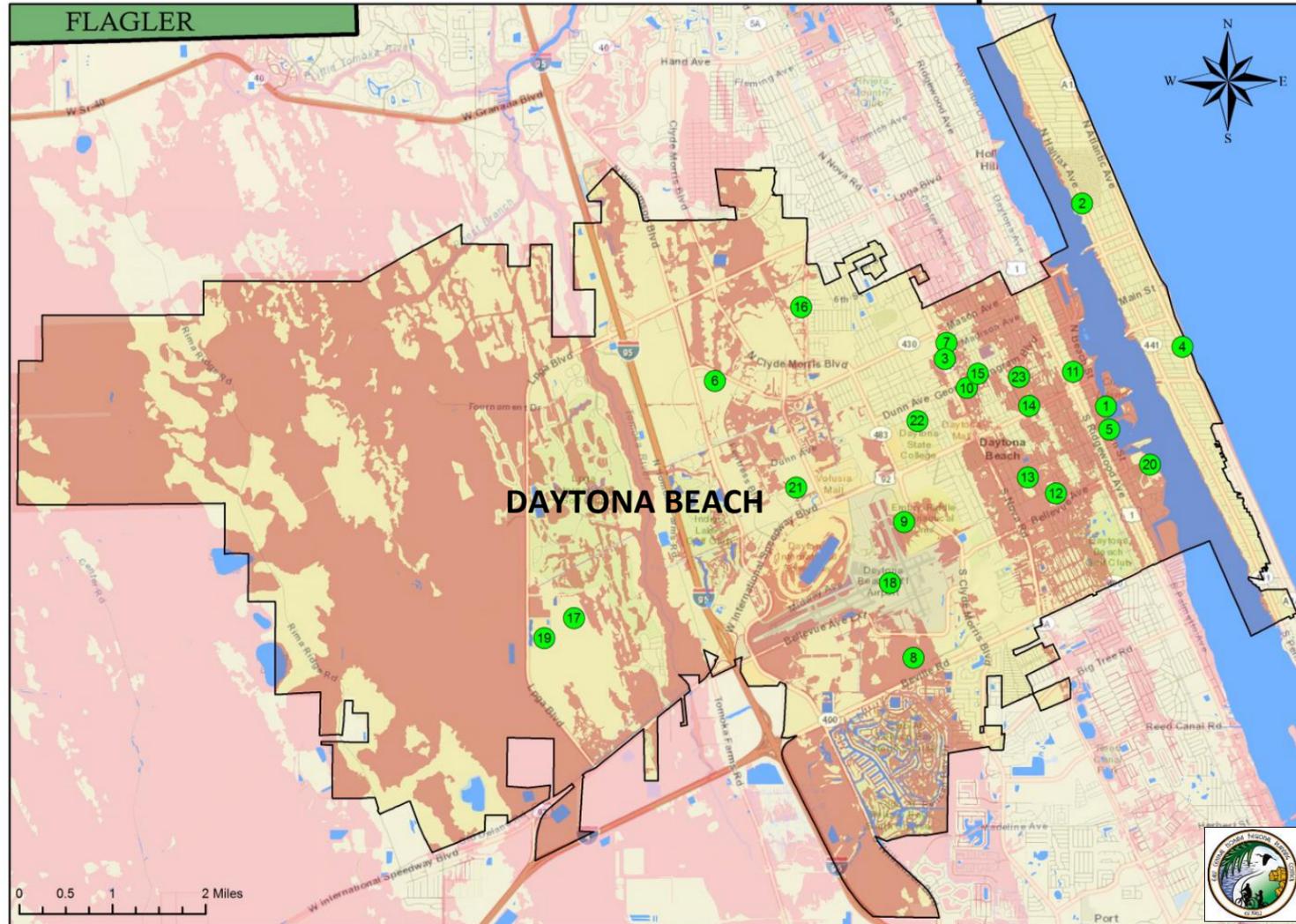


Value	Daytona Beach	Jurisdiction Average
Land Value	\$794,719,997	\$184,533,709
Property Value	\$2,009,330,307	\$419,027,387
Taxable Value	\$1,306,286,647	\$318,247,047
Tax Base Exposure	\$32,655,076	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

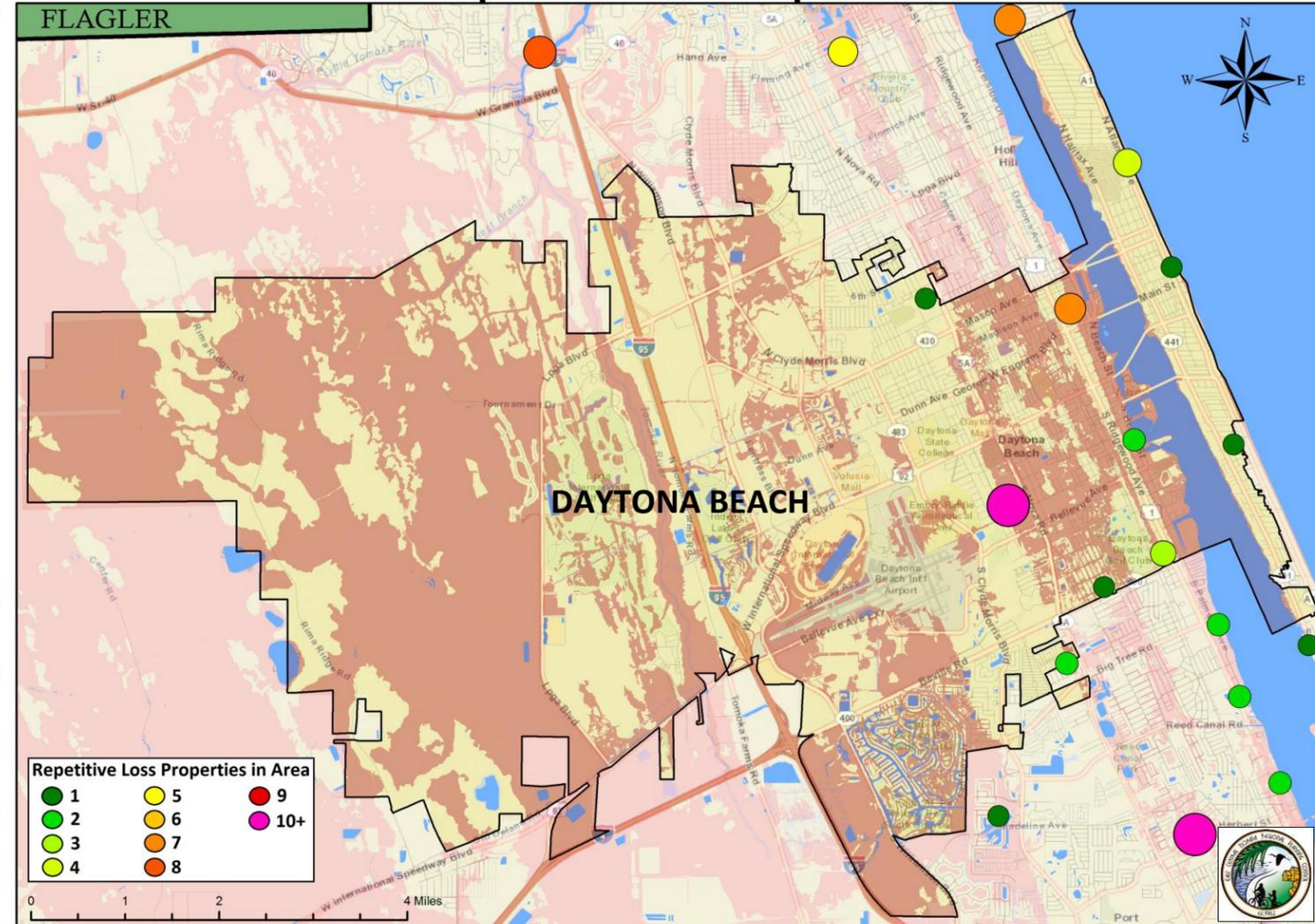
	Nominal Change	Percentage Change	Countywide Change
Parcels	5,280	108.8%	17.4%
Structures	4,076	76.7%	27.9%
Land Value	\$167,471,564	26.7%	7.2%
Property Value	\$533,387,225	26.5%	11.6%
Taxable Value	\$297,235,838	22.8%	9.5%

### Critical Facilities within 100-Year Floodplain



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### Repetitive Loss Properties



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#### Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type	Facility	Type
1. Daytona Beach Fire Station #1	Admin	14. Volusia Avenue School	School
2. Daytona Beach Fire Station #3	Admin	15. Bonner Elementary School	School
3. Daytona Beach Fire Station #5	Admin	16. Westside Elementary School	School
4. Volusia County Beach Patrol	Admin	17. FLA011139 Sewage Treatment Plant	Sewage Treatment
5. Homicide Investigation Unit	Admin	18. Daytona Beach Regional Airport	Transportation
6. Daytona Beach Police Headquarters	Admin	19. Daytona B. Water Treatment Plant	Water Treatment
7. Humana Hospital	Hospital/Clinic	20. Bethune WWTP	Other
8. Aluma Shield of Daytona Beach	Other	21. Halifax Health	Hospital/Clinic
9. Embry Riddle Aeronautical University	School	22. Daytona State College	School
10. Cypress Street School	School	23. Mary Bethune Cookman University	School
11. Mainland High School	School		
12. Turie T. Small Elementary School	School		
13. Campbell Junior High School	School		

#### Repetitive Loss Properties – Summary as of 1/1/2013



#### Repetitive Loss Properties – Financial Summary



#### Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	37.5%
Med/Hi Resid.	34.4%
Commercial	9.4%
Mixed Use	15.6%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	3.1%

#### Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	0.00%
% Not Mitigated	50.00%
% Unknown	50.00%
INSURANCE	
% Insured	28.13%
% Uninsured	25.00%
% Unknown	46.88%

# DAYTONA BEACH SHORES



# GOALS AND OBJECTIVES: DAYTONA BEACH SHORES

**GOAL** – 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 Prevent new development in the floodplain.

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** – 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** – 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** – Reduce the number of repetitive loss properties within Volusia County.

**GOAL** – 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 those areas of the City that have experienced significant flooding problems.

# DAYTONA BEACH SHORES

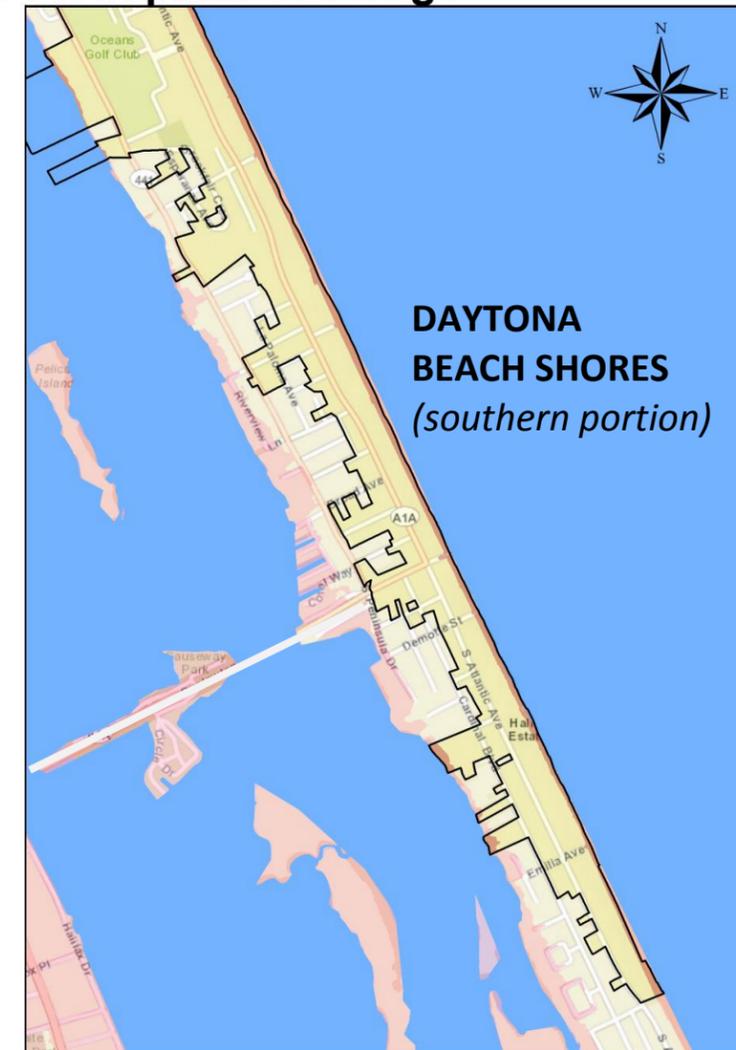
Overall, a large portion of the waterfront parcels within the city of Daytona Beach Shores are within Floodplain Zones AE and VE (Storm Surge). The 100-Year Floodplain entirely or partially covers 23.8% of the city's parcels, affecting 174 structures.

The parcels within Daytona Beach Shores that are exposed to the 100-Year Floodplain are generally older than those of other jurisdictions in Volusia County. Approximately 32.2% of these exposed parcels were built before 1969, compared to the countywide average of 13.7%. Approximately 70.3% of the exposed parcels within the city have been developed, compared to the countywide average of 57.2%.

There is approximately \$129,317,945 in taxable property value within the 100-Year Floodplain in Daytona Beach Shores, compared to the jurisdiction average of \$318,247,047. It is important to note that the city is below the jurisdiction average due to the small size of the city, and that, all things being equal, the city of Daytona Beach shores is one of the more at risk communities within Volusia County despite its comparison to county averages.

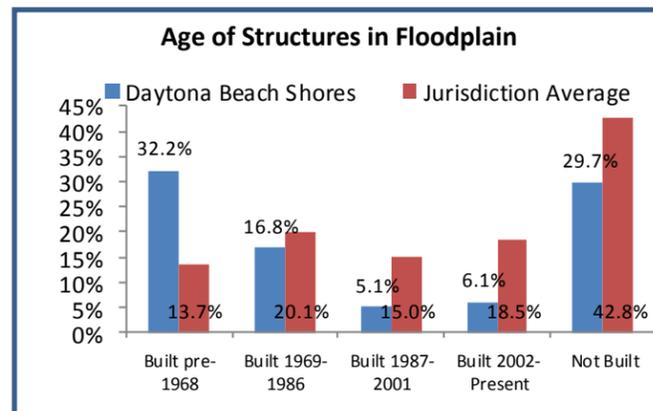
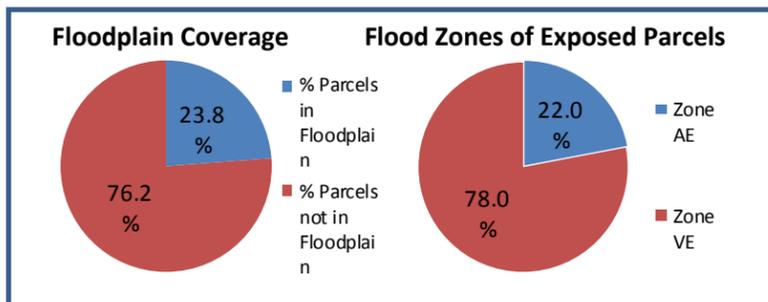
Driving the financial exposure of Daytona Beach Shores up is the large proportion of 'high value' properties within the city. Approximately 13.6% of the parcels within the 100-Year Floodplain are valued over one-million dollars, compared to the countywide percentage of 1.2%.

## 2011 DFIRM 100-Year Floodplain Coverage



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## Daytona Beach Shores Floodplain Profile

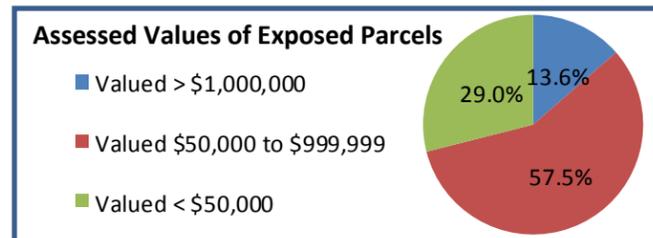
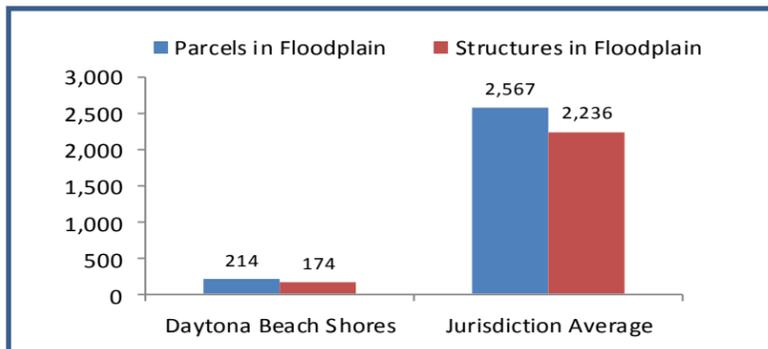


Land Use	Acreage	Percent of Exposed Land
Low Density Residential	11.1	94.9%
Med-Hi Den. Residential	0.6	5.0%
Commercial/Office	0	0.0%
Mixed Use	0	0.0%
Institutional/Public	< 0.1	0.0%
Industrial	0	0.0%
Planned Development	0	0.0%
Agriculture	0	0.0%
Recreation	0	0.0%

\*Conservation Lands Excluded from this Analysis

Project	Type
1. VOL-0411 City Hall Improvements	Replace Roof

Green = Project Complete

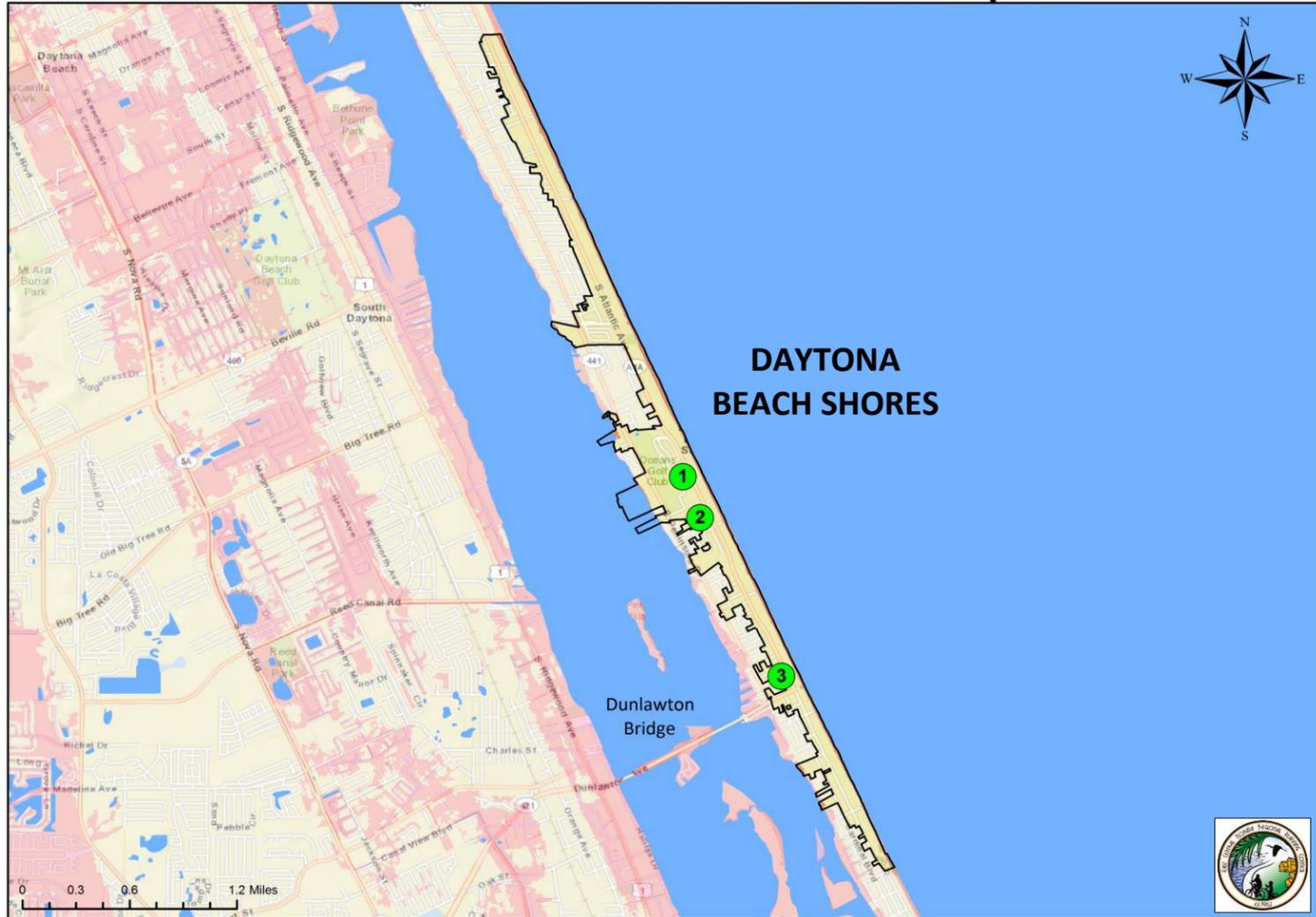


Value	Daytona B. Shores	Jurisdiction Average
Land Value	\$87,978,797	\$184,533,709
Property Value	\$133,736,380	\$419,027,387
Taxable Value	\$129,317,945	\$318,247,047
Tax Base Exposure	\$3,355,645	\$7,570,866

\*Tax base exposure utilizes city millage rate

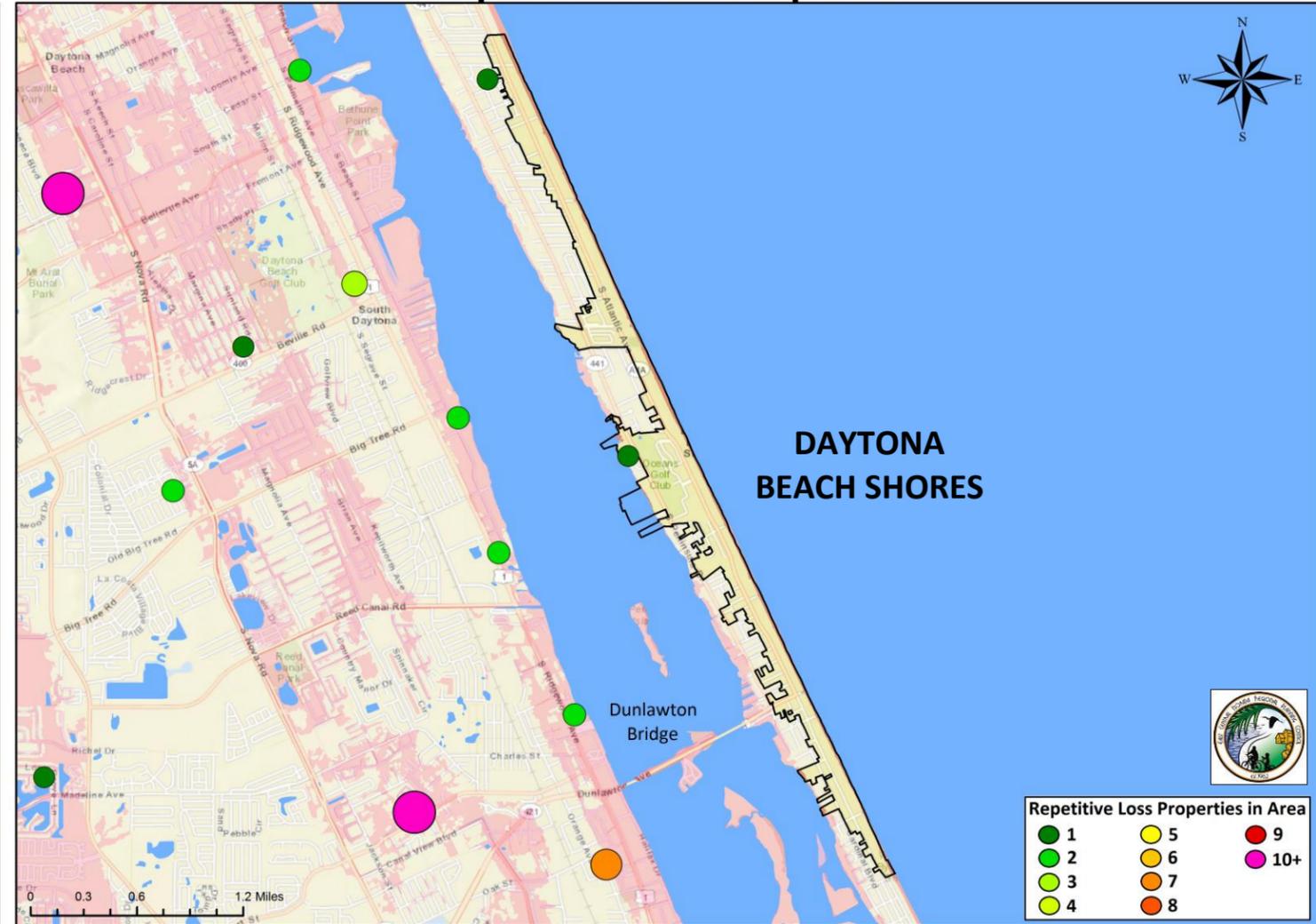
	Nominal Change	Percentage Change	Countywide Change
Parcels	34	18.8%	17.4%
Structures	24	13.8%	27.9%
Land Value	\$12,732,045	16.9%	7.2%
Property Value	\$17,527,104	13.1%	11.6%
Taxable Value	\$17,251,104	15.4%	9.5%

## Critical Facilities within 100-Year Floodplain



This map is intended to be used for planning purposes only and is not to be construed as a legal document.  
Sources: FEMA, Volusia County and Municipalities, 2013

## Repetitive Loss Properties



This map is intended to be used for planning purposes only and is not to be construed as a legal document.  
Sources: FEMA, Volusia County and Municipalities, 2013

### Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type	Area
1. City Hall	Administrative	Storm Surge Risk
2. Public Safety Complex	Administrative	Storm Surge Risk
3. Master Lift Station	Administrative	Storm Surge Risk

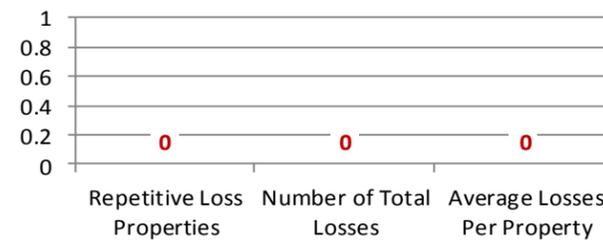
#### Notes

- \*\* Although not mapped, all lift stations within Daytona Beach Shores are considered 'critical facilities' by City staff.
- \*\* The Dunlawton Bridge (within the City of Port Orange) is considered critical to Daytona Beach Shores residents.

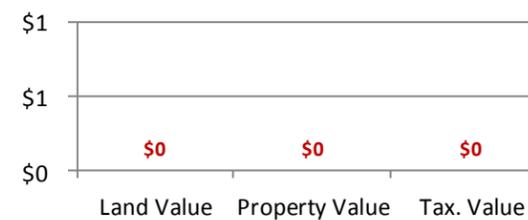


**Photo:** The Daytona Beach Shores City Hall building is at risk for storm-surge damage

### Repetitive Loss Properties – Summary as of 1/1/2013



### Repetitive Loss Properties – Financial Summary



### Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	0.0%
Med/Hi Resid.	0.0%
Commercial	0.0%
Mixed Use	0.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	0.0%

### Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	0.00%
% Not Mitigated	0.00%
% Unknown	0.00%
INSURANCE	
% Insured	0.00%
% Uninsured	0.00%
% Unknown	0.00%

# DEBARY



# GOALS AND OBJECTIVES: DEBARY

## **GOAL – Manage storm water runoff and the preservation of water resources.**

Objective: Alleviate downstream flood hazards

Objective: Prevent significant loss of life and property due to runoff from any foreseeable rainfall event

Objective: Reduce the capital expenditure associated with flood-proofing and the installation and maintenance of storm drainage systems.

## **GOAL – Promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas.**

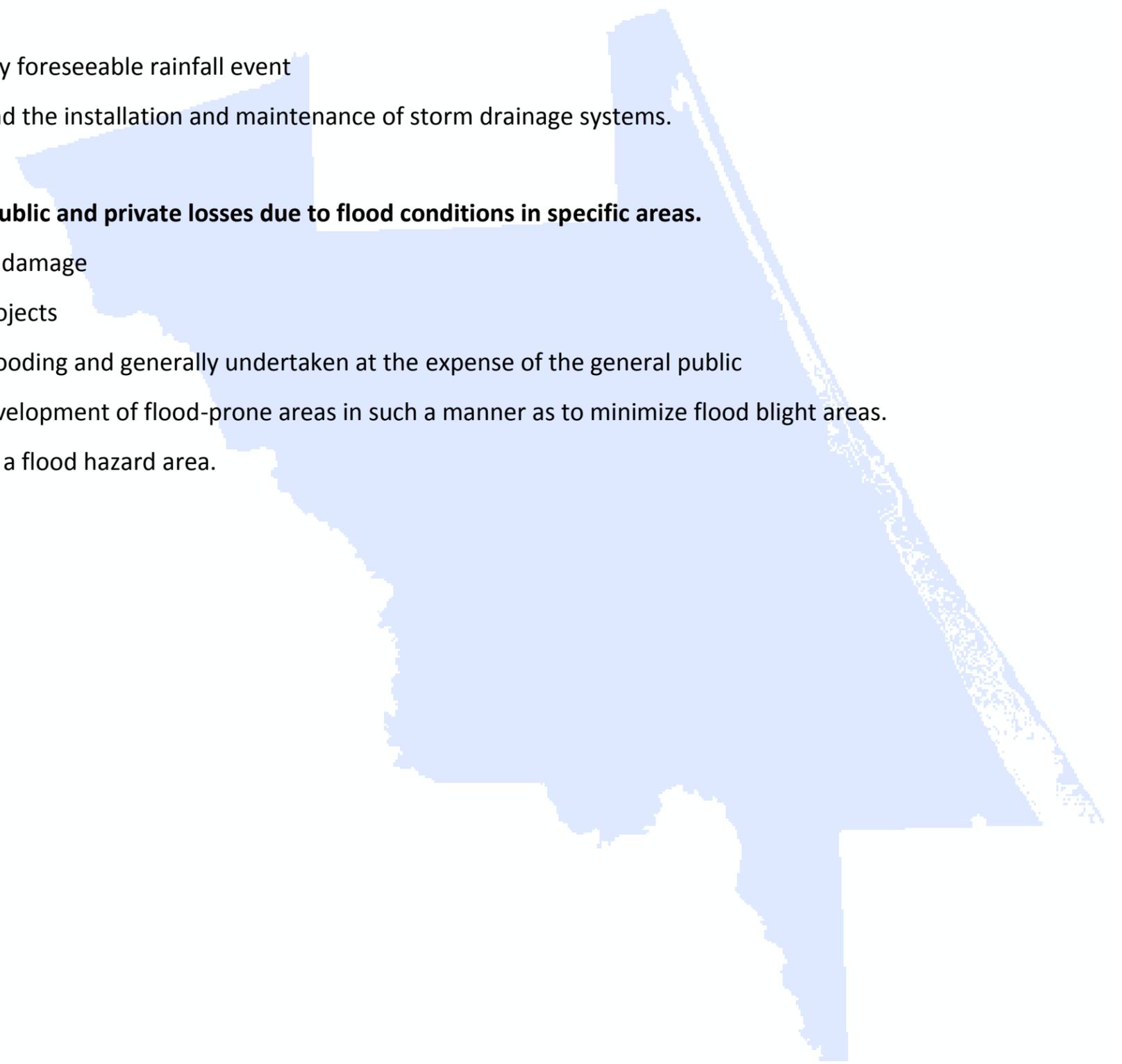
Objective: Protect human life, health and to eliminate or minimize property damage

Objective: Minimize expenditure of public money for costly flood control projects

Objective: Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public

Objective: 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: Ensure that potential homebuyers are notified that property is in a flood hazard area.



# DEBARY

Although inland, the city of DeBary is exposed to large and small lakes, and 13.0% of the city's parcels are partially or entirely within Floodplain Zones A and AE. This amounts to 1,310 parcels and 1,081 buildings within the floodplain, well-below the jurisdiction averages of 2,567 and 2,236, respectively.

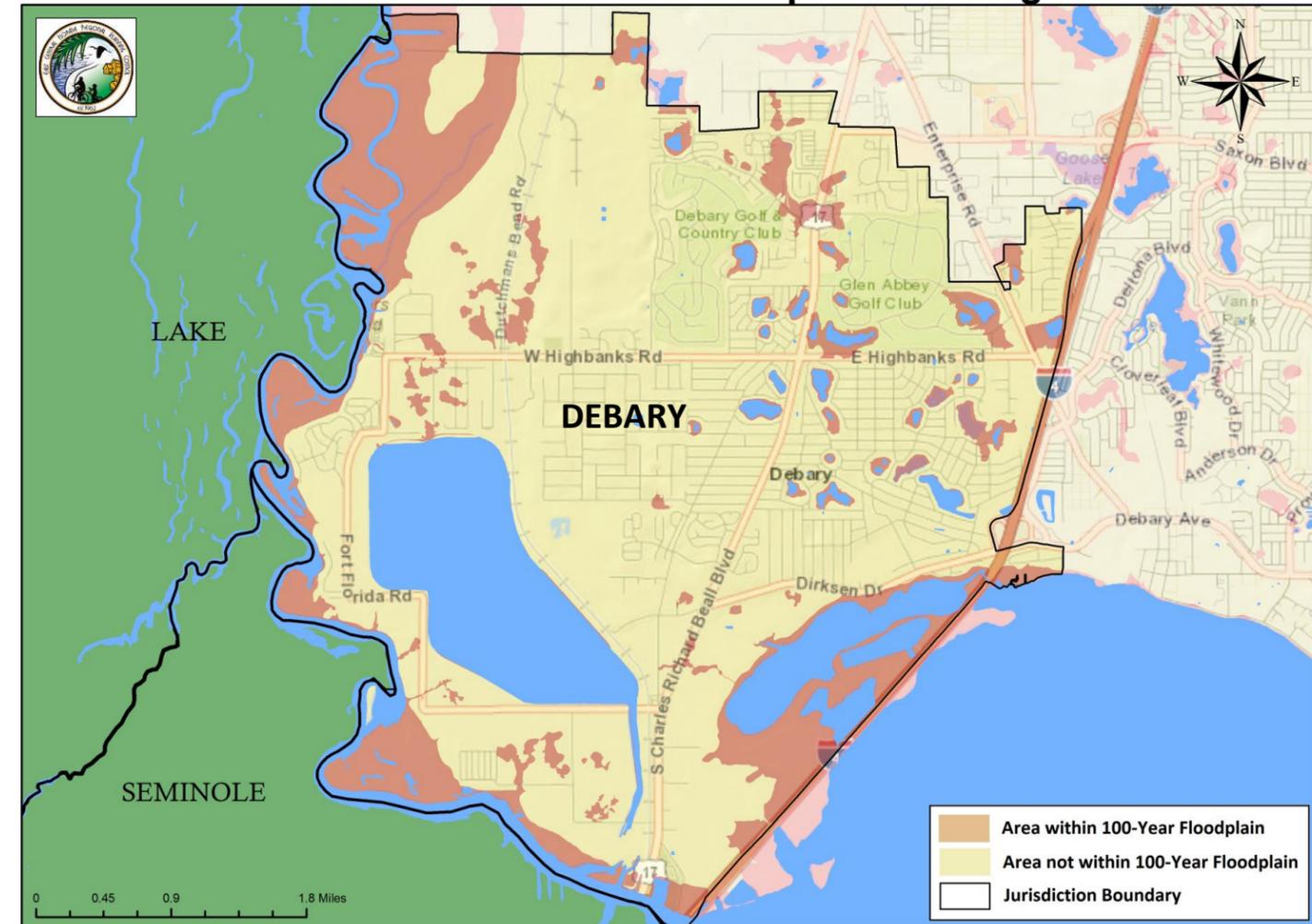
The parcels within DeBary that are exposed to the 100-Year Floodplain are generally newer than those of other jurisdictions in Volusia County, with 39.5% of the city's development occurring between 1987 and 2001. Since the city of DeBary developed rather consistently with the county in all other time periods, a relatively high percentage of the city's parcels are developed (86.3%).

There is approximately \$143,484,583 in taxable property value within the 100-Year Floodplain in DeBary, a low number compared to the countywide jurisdiction average of \$318,247,047.

The future land use designations of parcels exposed to the 100-Year Floodplain vary widely within DeBary. Residential, commercial, industrial, institutional, mixed use and recreational designations are most common.

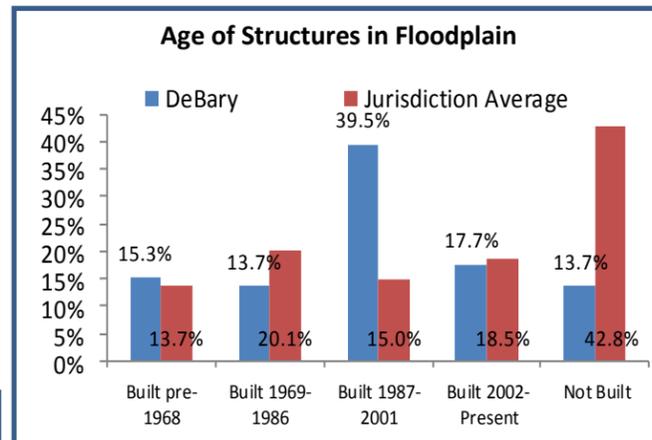
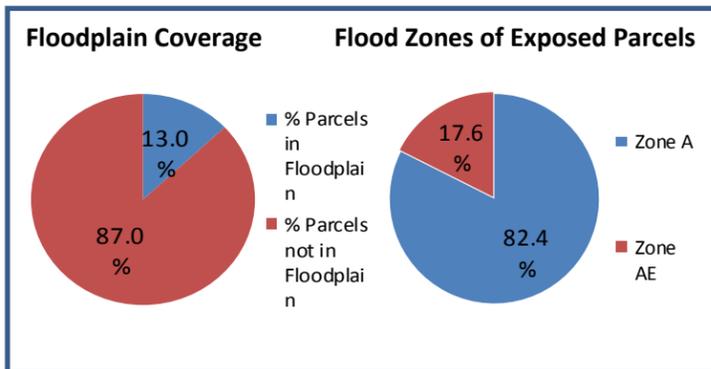
The 2007 DFIRM to 2011 DFIRM floodplain change has affected the city of DeBary to some degree. Approximately 13.6% more structures in the city are now within the 100-Year Floodplain.

## 2011 DFIRM 100-Year Floodplain Coverage



This map is intended to be used for planning purposes only and is not to be construed as a legal document. Sources: FEMA, Volusia County and Municipalities, 2013

## DeBary Floodplain Profile



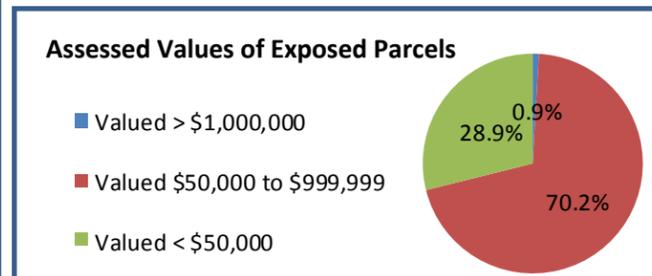
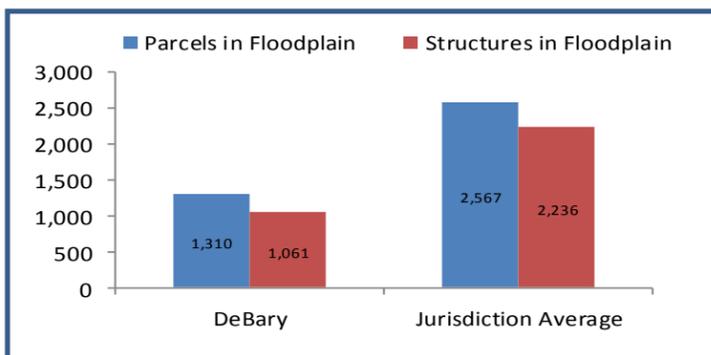
### Future Land Use Designation of Exposed Parcels

Land Use	Acreage	Percent of Exposed Land
Low Density Residential	215	28.3%
Med-Hi Den. Residential	56	7.4%
Commercial/Office	60	7.9%
Mixed Use	72	9.5%
Institutional/Public	65	8.6%
Industrial	147	19.4%
Planned Development	1	0.1%
Agriculture	144	19.0%
Recreation	1	0.1%

*\*Conservation Lands Excluded from this Analysis*

### Priority Mitigation/Improvement Projects

Project	Type
1. VOL-0288 Emergency Outfall System	Capital Improvement
2. VOL-0403 Gravity Overflow Systems	Capital Improvement
3. VOL-0404 East Side Flood Mgmt. Upgrade	Capital Improvement
4. VOL-0341 Sheriff's Office Hurricane Imp.	Flood Mitigation
5. VOL-0390 Community Information (EAS)	Public Outreach
6. VOL-0347 Trailers/Message Boards	Capital Improvement



### Total Financial Values of Exposed Parcels

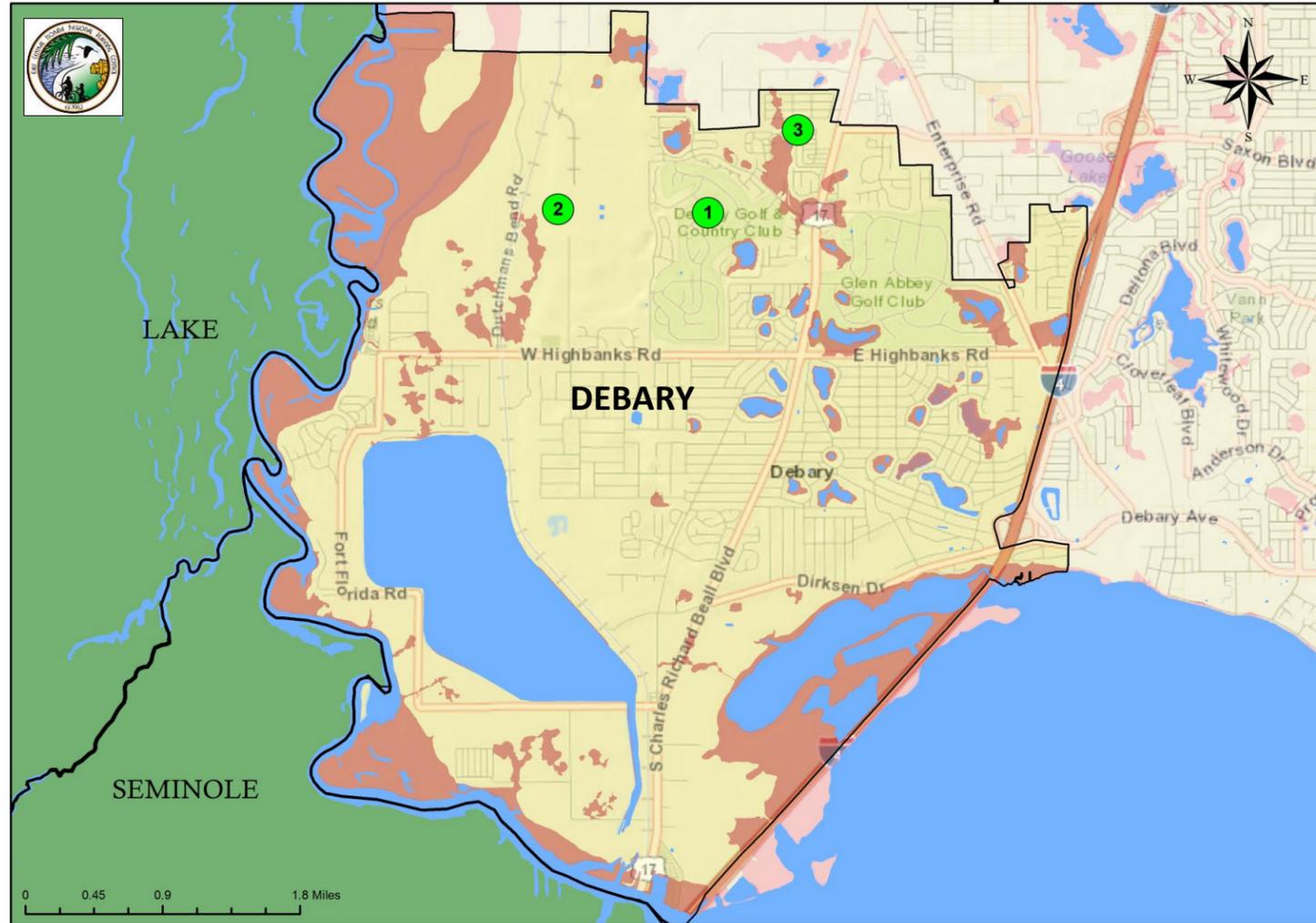
Value	DeBary	Jurisdiction Average
Land Value	\$79,180,679	\$184,533,709
Property Value	\$169,939,656	\$419,027,387
Taxable Value	\$143,484,583	\$318,247,047
Tax Base Exposure	\$2,953,314	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

### Floodplain Change – 2007 DFIRM to 2011 DFIRM

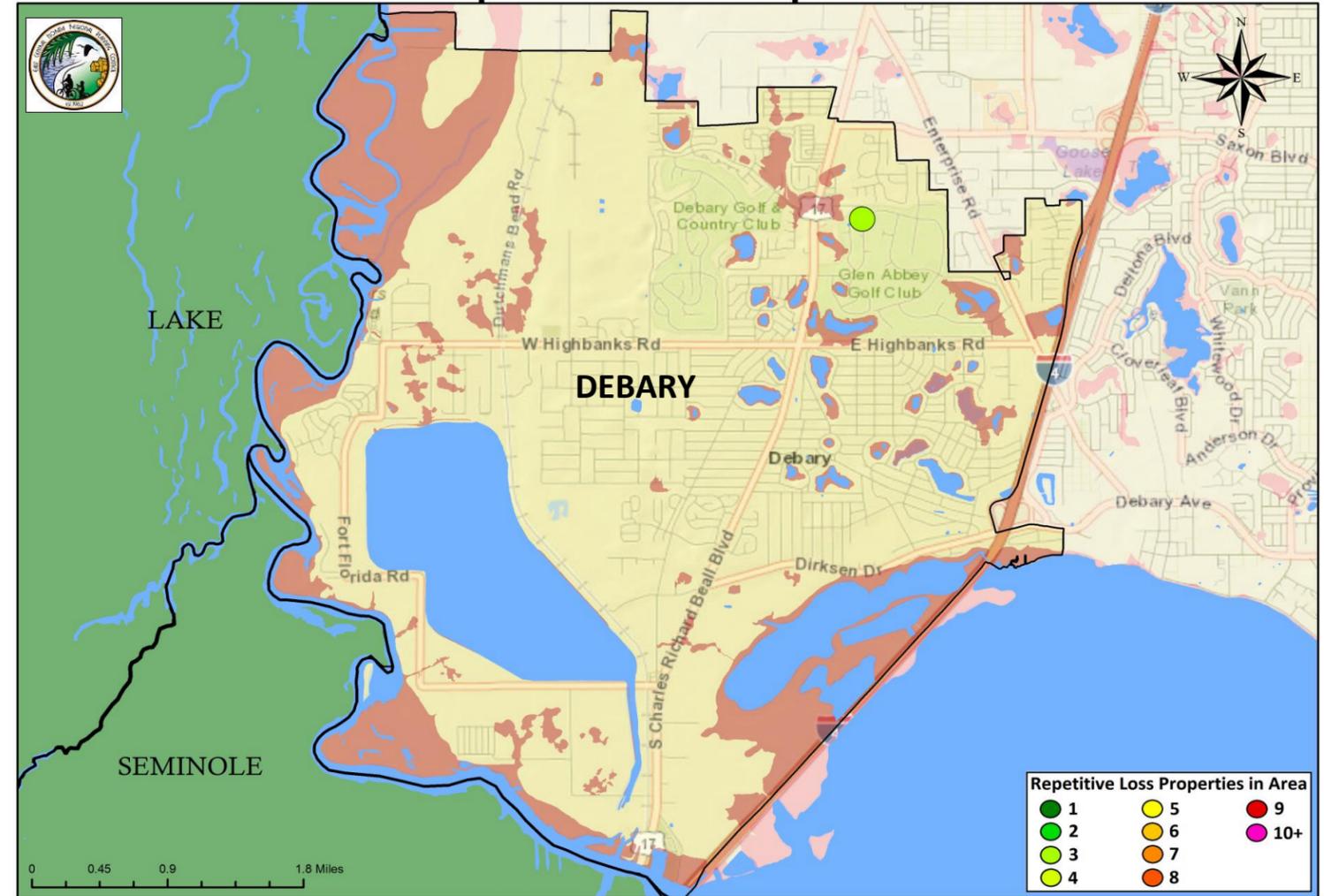
	Nominal Change	Percentage Change	Countywide Change
Parcels	161	14.0%	17.4%
Structures	127	13.6%	27.9%
Land Value	\$9,506,051	13.6%	7.2%
Property Value	\$21,391,537	14.4%	11.6%
Taxable Value	\$19,460,235	15.7%	9.5%

### Critical Facilities within 100-Year Floodplain



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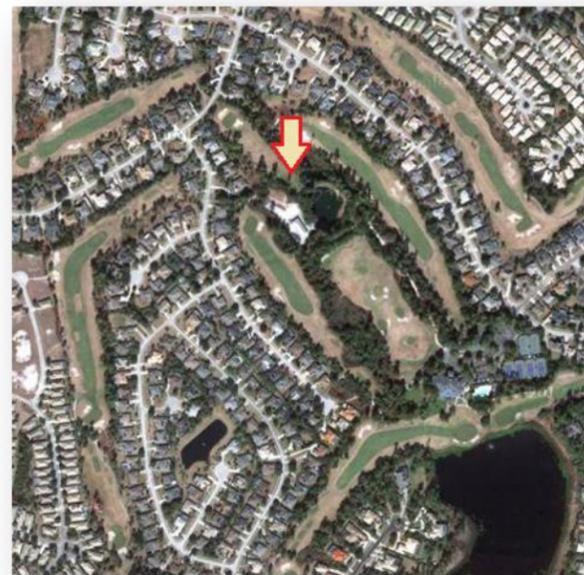
### Repetitive Loss Properties



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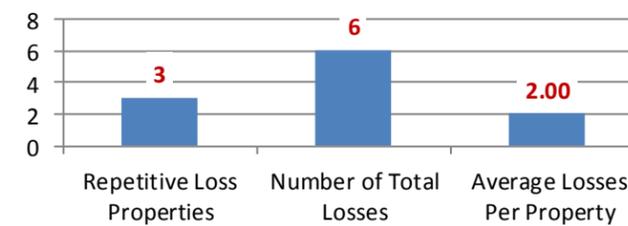
#### Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type
1. DeBary Plantation Club	Recreation
2. Florida Power: DeBary Plant	Utility
3. West Volusia Interco	Water Treatment



**Photo:** DeBary Plantation Club, within the DeBary Golf and Country Club, is located within the 100-year floodplain

#### Repetitive Loss Properties – Summary as of 1/1/2013



#### Repetitive Loss Properties – Financial Summary



#### Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	100.0%
Med/Hi Resid.	0.0%
Commercial	0.0%
Mixed Use	0.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	0.0%

#### Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	0.00%
% Not Mitigated	0.00%
% Unknown	100.0%

INSURANCE	
% Insured	100.0%
% Uninsured	0.00%
% Unknown	0.00%

# DELAND



# GOALS AND OBJECTIVES: DELAND

## **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 the 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 the existing system.**

Objective 2.1: Obtain revenue from all storm water system users by collection of utility fees assessed 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.



# DELAND

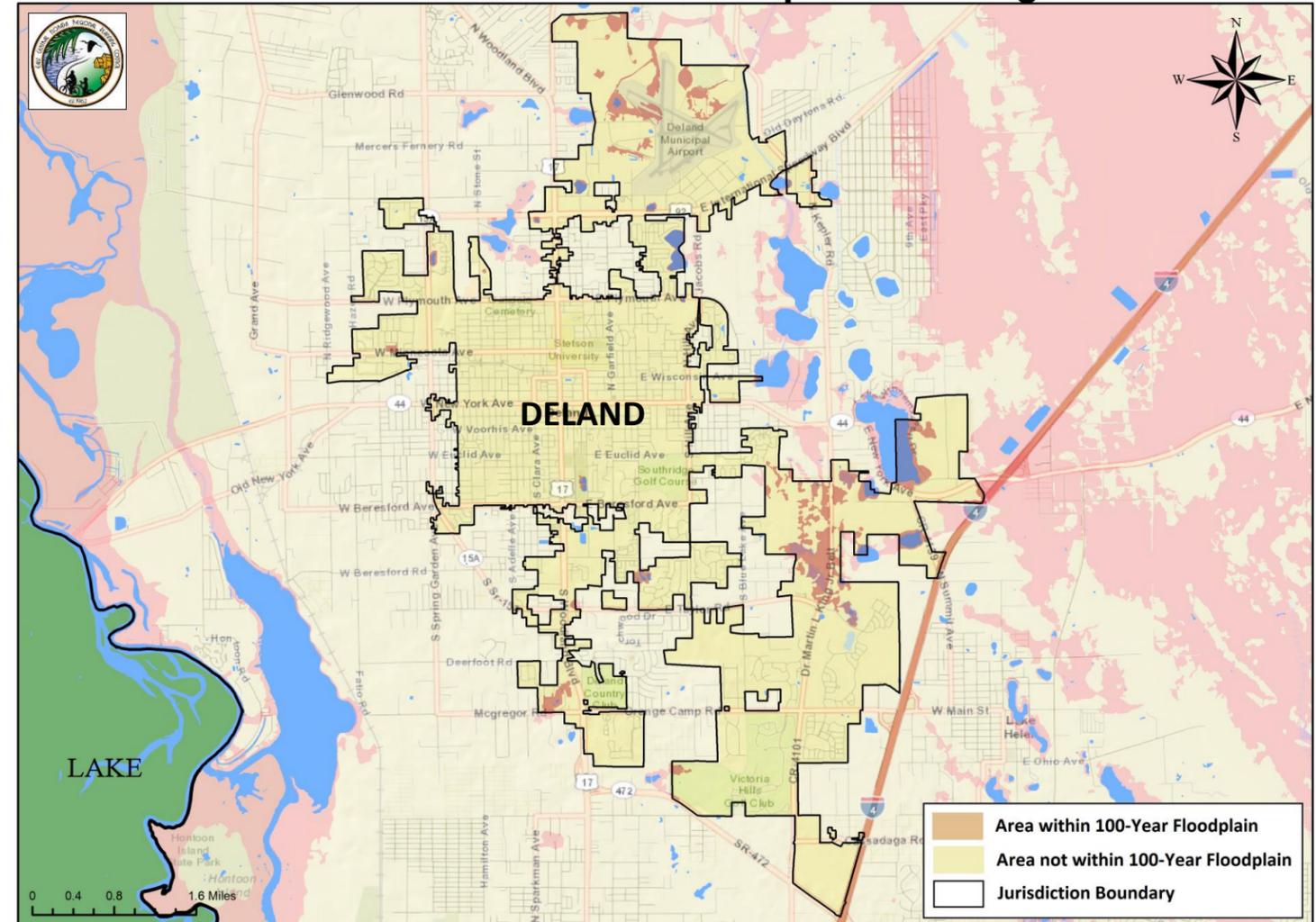
Overall, the city of DeLand is minimally exposed to the 100-Year Floodplain. Approximately 1.7% of the city's parcels are within Flood Zone A, while 98.3% of parcels are statistically not at risk for a 100-year storm.

The parcels within DeLand that are exposed to the 100-Year Floodplain are generally newer than those of other jurisdictions in Volusia County. Approximately 36.6% of exposed parcels within the floodplain were built after the year 2001, almost doubling the countywide average of 18.5% during this time span. Lowering the risk further for the city of DeLand is the development rate of exposed parcels at 58.0%. This almost mirrors the countywide development average of 57.2%.

There is approximately \$49,583,914 in taxable property value within the 100-Year Floodplain in DeLand, compared to the countywide jurisdiction average of \$318,247,047. This low number can be attributed to the city's low overall floodplain coverage, the number of exposed parcels that are undeveloped, and the shrinking in exposure for the city from the 2007 DFIRM to 2011 DFIRM Floodplain maps.

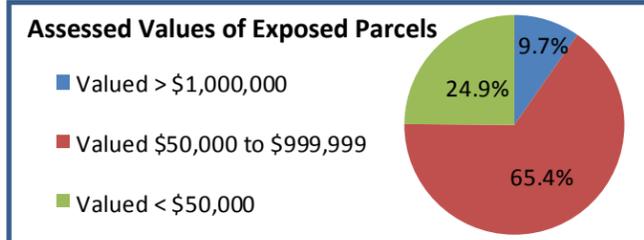
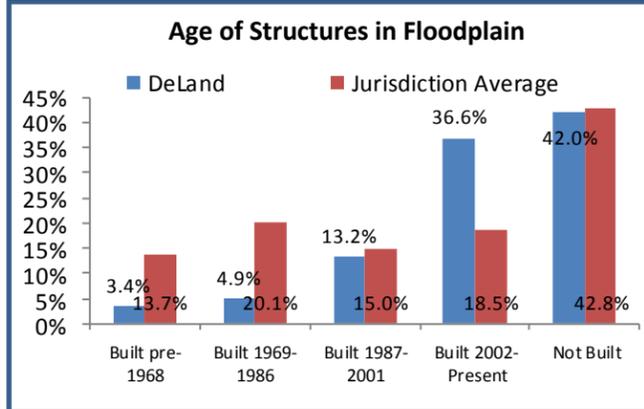
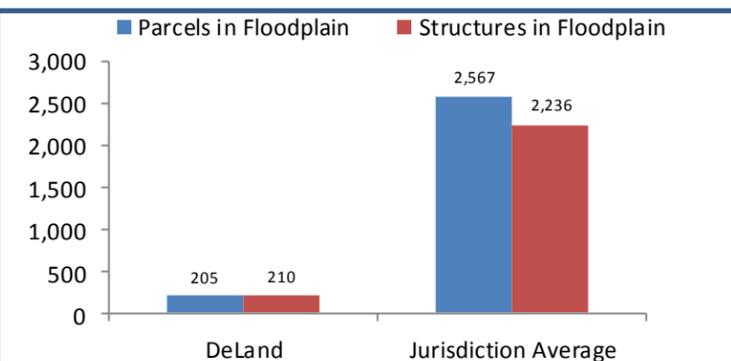
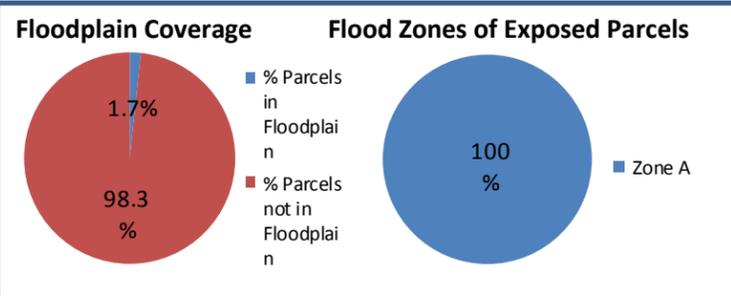
Low Density Residential (48.0%), Industrial (33.6%) and Mixed Use (17.9%) future land use designations encompass 99.5% of the land covered by the 100-Year Floodplain within the city.

## 2011 DFIRM 100-Year Floodplain Coverage



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## DeLand Floodplain Profile



Future Land Use Designation of Exposed Parcels		
Land Use	Acreage	Percent of Exposed Land
Low Density Residential	300	48.0%
Med-Hi Den. Residential	2	0.3%
Commercial/Office	0	0.0%
Mixed Use	112	17.9%
Institutional/Public	1	0.3%
Industrial	210	33.6%
Planned Development	0	0.0%
Agriculture	0	0.0%
Recreation	0	0.0%

*\*Conservation Lands Excluded from this Analysis*

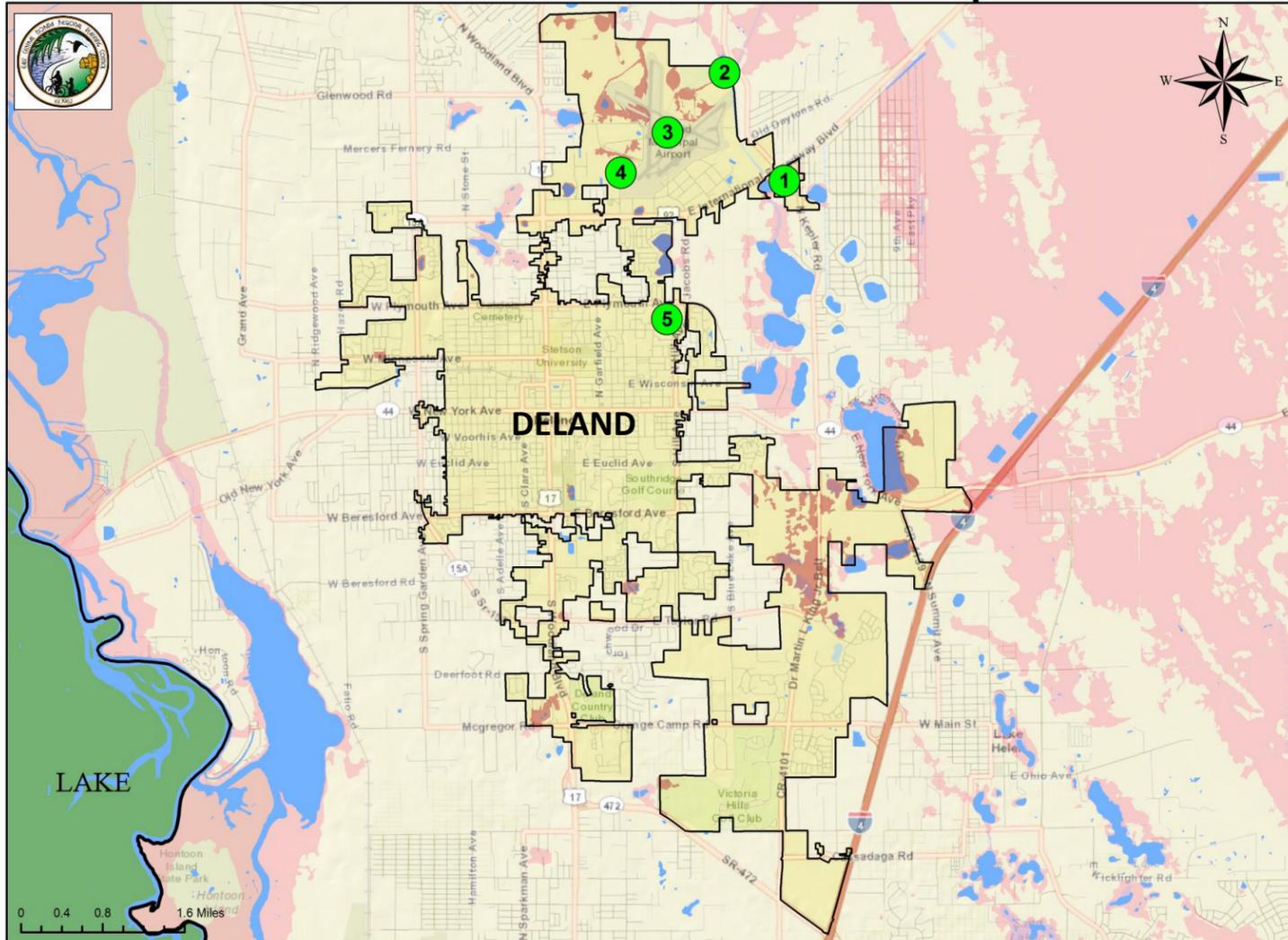
Total Financial Values of Exposed Parcels		
Value	DeLand	Jurisdiction Average
Land Value	\$39,736,180	\$184,533,709
Property Value	\$94,713,480	\$419,027,387
Taxable Value	\$49,583,914	\$318,247,047
Tax Base Exposure	\$1,217,300	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

Priority Mitigation/Improvement Projects		
Project	Type	
1. VOL-0349 DeLand MS S.W. Expansion	Flood Mitigation	
2. VOL-0350 Harden City Hall	Flood Mitigation	
3. VOL-0351 New Hampshire @ Amelia Ave.	Acquire Property	
4. VOL-0054 Pistol Range Rd. Generator	Capital Improvements	
5. VOL-0241 Acquisition/Expand S.W. Ponds	Flood Mitigation	
6. VOL-0242 Raise head works/pump station	Capital Improvements	
7. VOL-0002 S.W. Pump Station/Force Main	Capital Improvements	

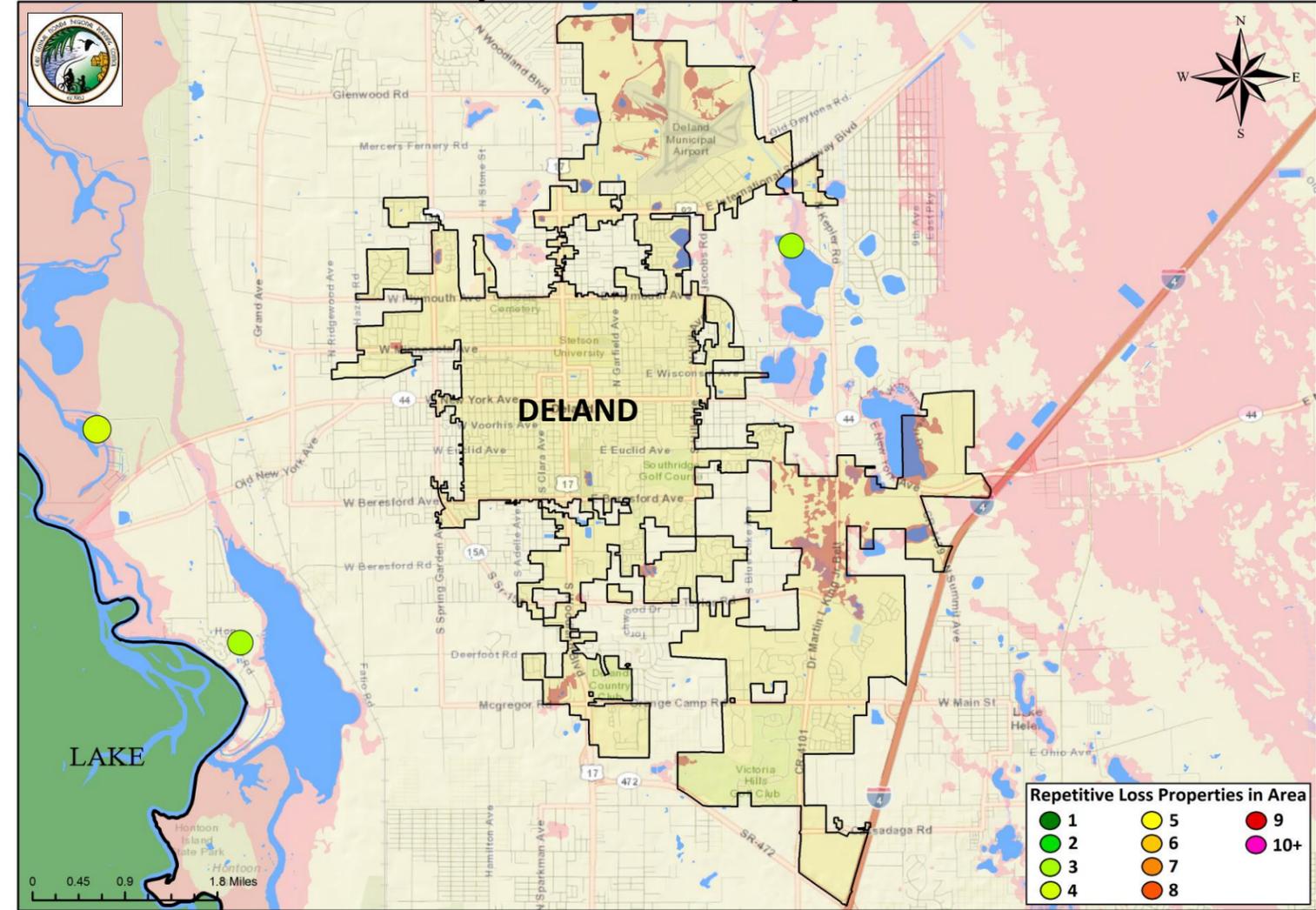
Floodplain Change – 2007 DFIRM to 2011 DFIRM			
	Nominal Change	Percentage Change	Countywide Change
Parcels	(-32)	-13.5%	17.4%
Structures	(-49)	-18.9%	27.9%
Land Value	(\$2,359,372)	-5.6%	7.2%
Property Value	(\$13,075,379)	-12.1%	11.6%
Taxable Value	(\$3,439,580)	-6.5%	9.5%

## Critical Facilities within 100-Year Floodplain



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Sources: FEMA, Volusia County and Municipalities, 2013

## Repetitive Loss Properties



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Sources: FEMA, Volusia County and Municipalities, 2013

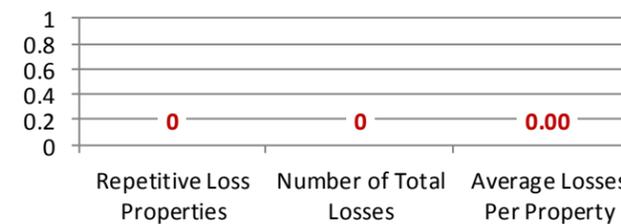
### Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type
1. Sherwood Medical (Location 1 of 2)	Hospital/Clinic
1. Sherwood Medical (Location 2 of 2)	Hospital/Clinic
2. DeLand Airport Trash Site	Landfill
3. DeLand Municipal Airport	Transportation
3. Aluma Shield of DeLand	Other
4. Memtec America	Other
4. Technetics	Other
4. Intellitec	Other
5. DeLand High School	School

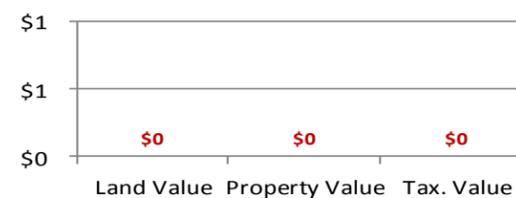


**Photo:** DeLand Municipal Airport is located within the 100-Year Floodplain in Volusia County

### Repetitive Loss Properties – Summary as of 1/1/2013



### Repetitive Loss Properties – Financial Summary



### Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	0.0%
Med/Hi Resid.	0.0%
Commercial	0.0%
Mixed Use	0.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	0.0%

### Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	0.00%
% Not Mitigated	0.00%
% Unknown	0.0%
INSURANCE	
% Insured	0.00%
% Uninsured	0.00%
% Unknown	0.00%

# DELTONA



# GOALS AND OBJECTIVES: DELTONA

## **GOAL – Protect and appropriately utilize the physical and ecological functions of natural drainage ways and related drainage patterns.**

Objective: The City shall discourage development within any known flood plains as identified by the best available data, such as FEMA flood maps.

Objective: 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 a no loss in of existing 100 year floodplain storage and function.

Objective: 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: 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 – The City of Deltona shall continue to implement the comprehensive surface and groundwater watershed management plan. 9J-5.011(2)(c)(4,5)**

Objective: On-site sewage disposal systems and associated drain fields shall be discouraged within the flood plain of surface water bodies as provided for in land development regulations, to the extent that such systems are designed and located so as to not contribute to the degradation of ambient water quality as consistent with applicable State regulations.

Objective: Undisturbed segments of flood plains shall be protected through public acquisition, land use controls, conservation easements, or other methods as appropriate.

Objective: 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 fill in the floodplains and flood prone areas shall be considered both sites specifically and cumulatively. 9J-5.013(2)(c)(9)

Objective: 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 – Protect and appropriately utilize the physical and ecological functions of natural drainage ways and related drainage patterns.**

# DELTONA

The city of Deltona has many lake and river systems running through patches of dense residential development, but overall, a high proportion of developed parcels within the city are not within the 100-Year Floodplain.

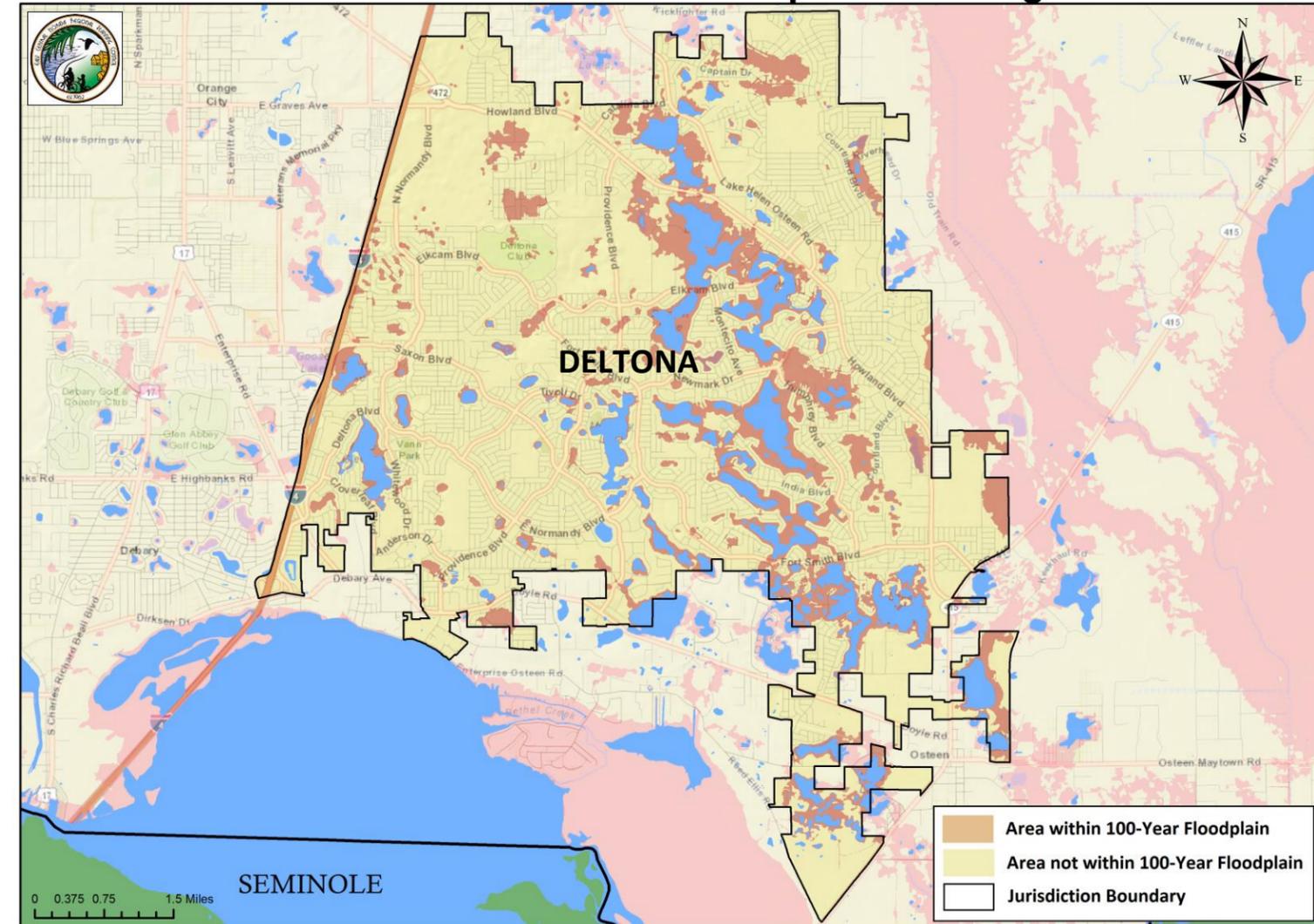
Approximately 14.8% of the city's parcels are within the 100-Year Floodplain (all within Zone A), totaling 5,684 parcels and 4,429 structures. Although both are above jurisdiction averages countywide, the city is at a much lower risk level than many cities within the County.

A majority of the development within the city of Deltona occurred between 1987 and 2001, and 34.2% of the city's exposed parcels were developed during that time.

There is approximately \$291,195,134 in taxable property value within the 100-Year Floodplain in Deltona, compared to the jurisdiction average of \$318,247,047. This low number can be attributed to the fact that 33.1% of the city's exposed parcels are valued below \$50,000, with less than 0.1% of the city's exposed parcels valued above \$1,000,000.

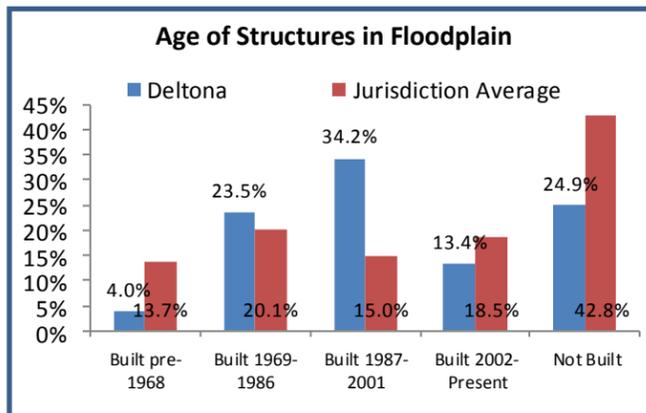
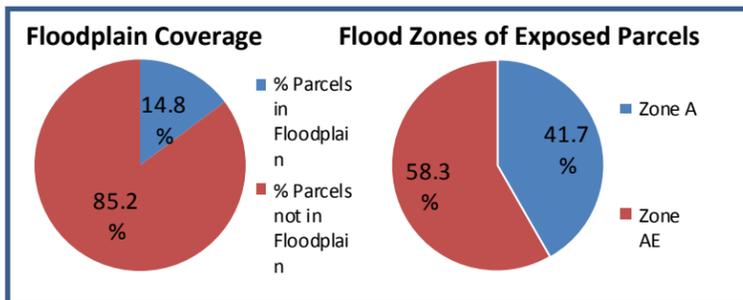
The city was adversely affected by the 2011 DFIRM updates, as the number of parcels and structures within the 100-Year Floodplain doubled since the 2007 DFIRM maps were released. However, the city is at an overall lower risk level than other jurisdictions in Volusia County.

## 2011 DFIRM 100-Year Floodplain Coverage



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## Deltona Floodplain Profile

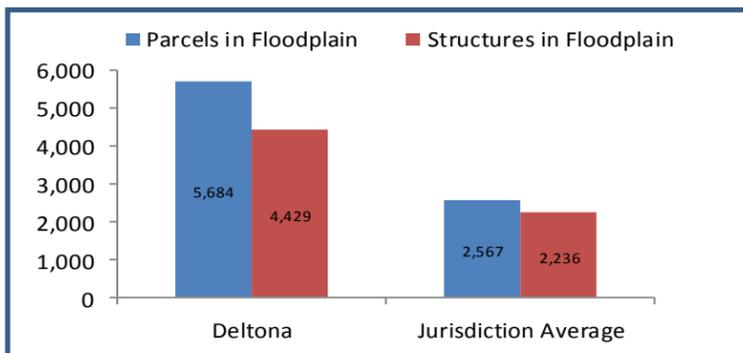


Land Use	Acreage	Percent of Exposed Land
Low Density Residential	916	22.0%
Med-Hi Den. Residential	2,616	62.7%
Commercial/Office	105	2.5%
Mixed Use	65	1.6%
Institutional/Public	371	8.9%
Industrial	0	0.0%
Planned Development	0	0.0%
Agriculture	154	3.7%
Recreation	97	2.3%

*\*Conservation Lands Excluded from this Analysis*

Project	Type
1. VOL-0376 Public Education Specialist	Internal Improvements
2. VOL-0085 Outfall Improv. (Pioneer Lake)	Capital Improvements
3. VOL-0086 Outfall Improv. (Castle Lake)	Capital Improvements
4. VOL-0406 Lake Lapanocia Pump Station	Capital Improvements
5. VOL-0407 Piedmont Pump Station	Capital Improvements
6. VOL-0408 Kingsway/Lehigh Culvert	Capital Improvements
7. VOL-0409 Tivoli & Wheeling Pump	Capital Improvements

**Green = Project Complete**

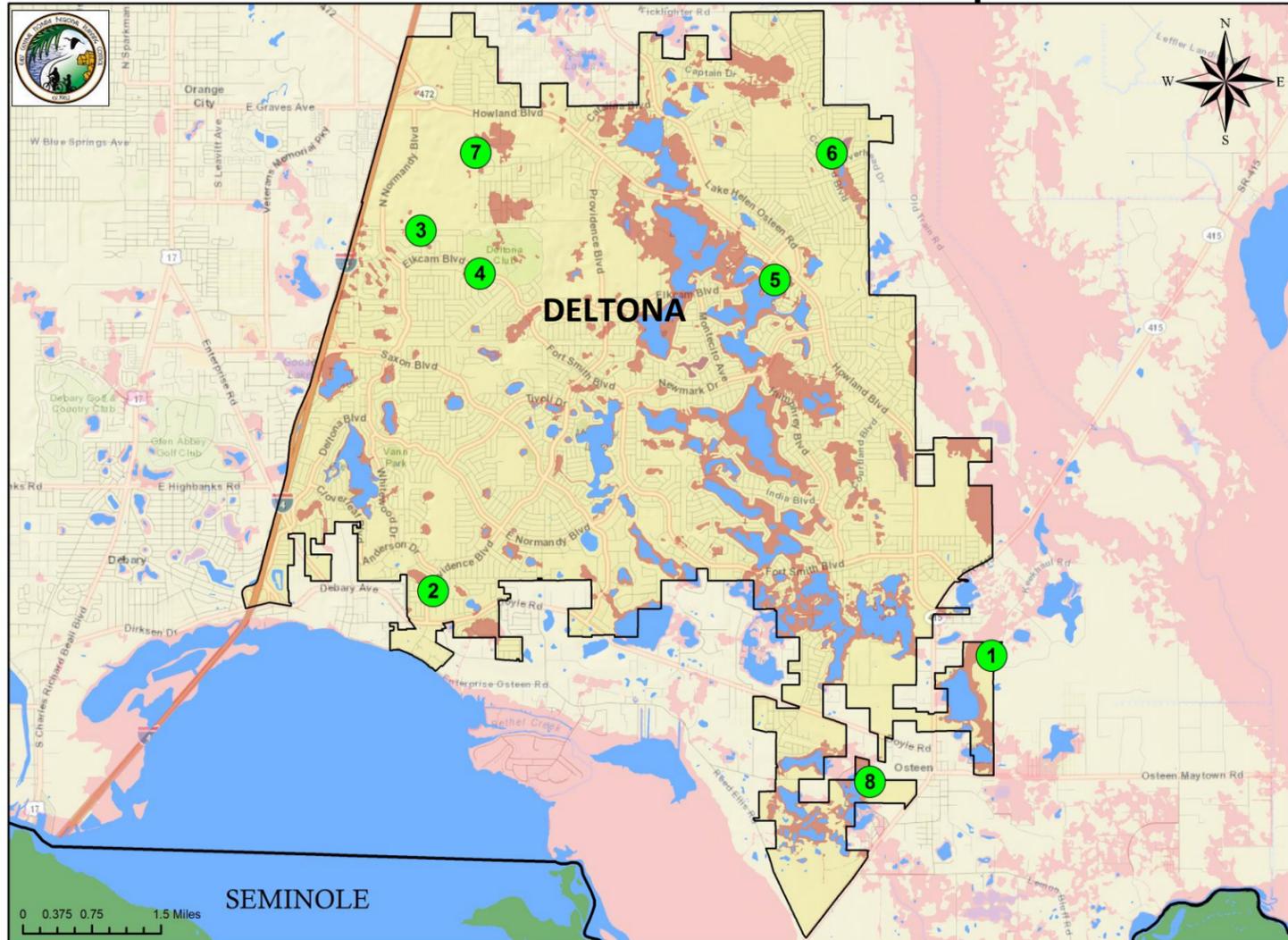


Value	Deltona	Jurisdiction Average
Land Value	\$127,916,206	\$184,533,709
Property Value	\$433,277,839	\$419,027,387
Taxable Value	\$291,195,134	\$318,247,047
Tax Base Exposure	\$7,539,712	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

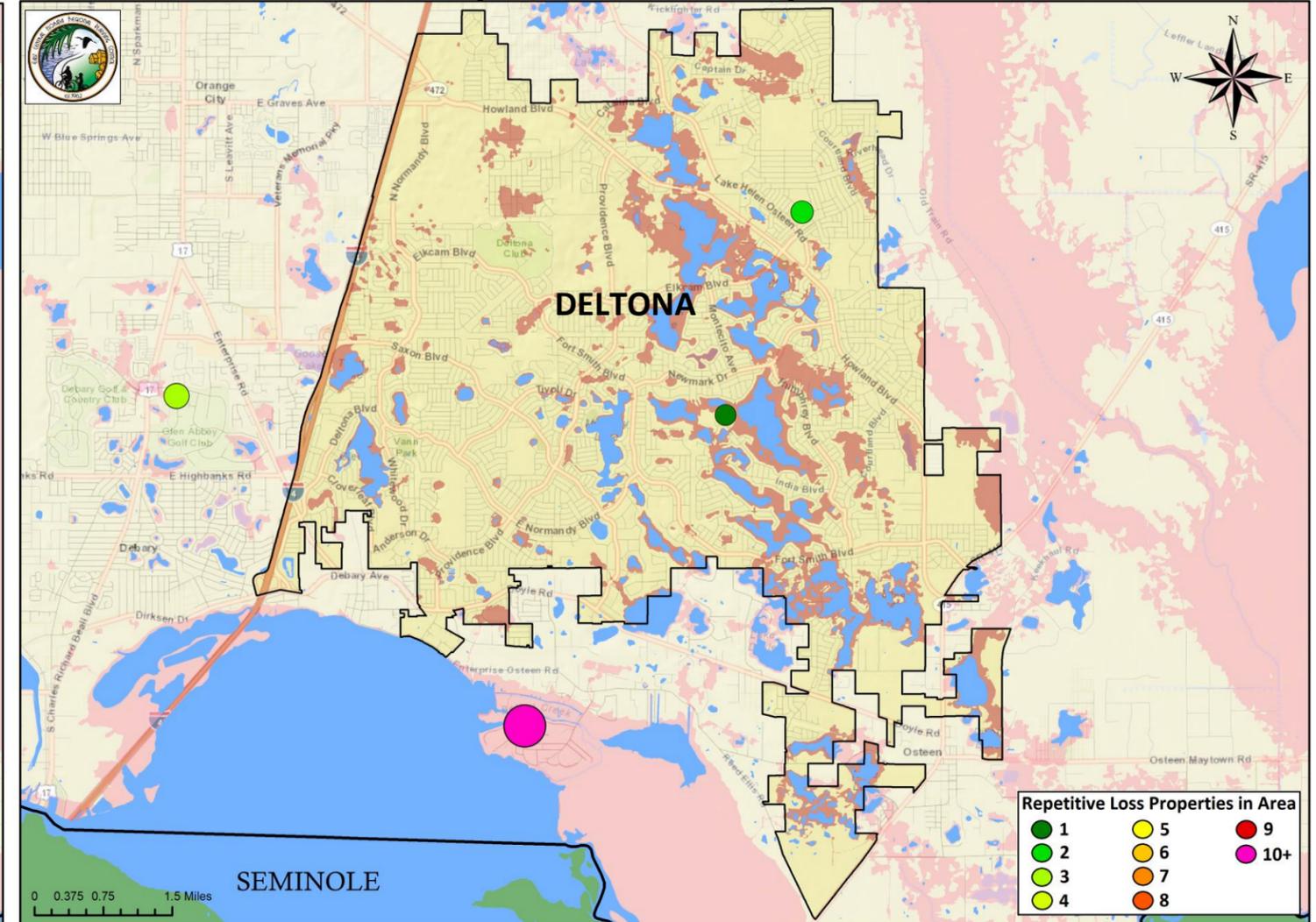
	Nominal Change	Percentage Change	Countywide Change
Parcels	3,451	154.5%	17.4%
Structures	2,803	172.4%	27.9%
Land Value	\$76,045,998	146.6%	7.2%
Property Value	\$280,419,016	183.4%	11.6%
Taxable Value	\$176,685,095	154.3%	9.5%

## Critical Facilities within 100-Year Floodplain



This map is intended to be used for planning purposes only and is not to be construed as a legal document.  
Sources: FEMA, Volusia County and Municipalities, 2013

## Repetitive Loss Properties



This map is intended to be used for planning purposes only and is not to be construed as a legal document.  
Sources: FEMA, Volusia County and Municipalities, 2013

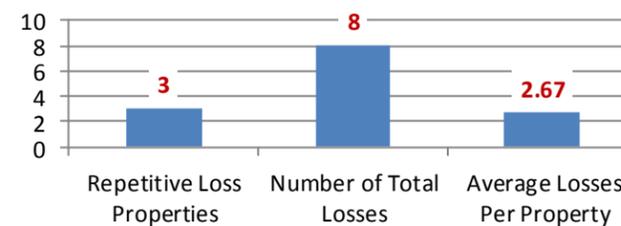
### Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type
1. Osteen C&D Disposal Facility	Landfill
2. FL002456 Sewage Treatment Plant	Sewage Treatment
3. Southern States Utilities (Location 1)	Water Treatment
4. Southern States Utilities (Location 2)	Water Treatment
5. Southern States Utilities (Location 3)	Water Treatment
6. Southern States Utilities (Location 4)	Water Treatment
7. Deltona North Water Facility	Water Treatment
8. Kova Estates Water Facility	Water Treatment



**Photo:** The Osteen C&D Disposal Facility, one of eight critical facilities within the floodplain in Deltona, is located near the southern terminus of Howland Boulevard in a rural portion of Volusia County.

### Repetitive Loss Properties – Summary as of 1/1/2013



### Repetitive Loss Properties – Financial Summary



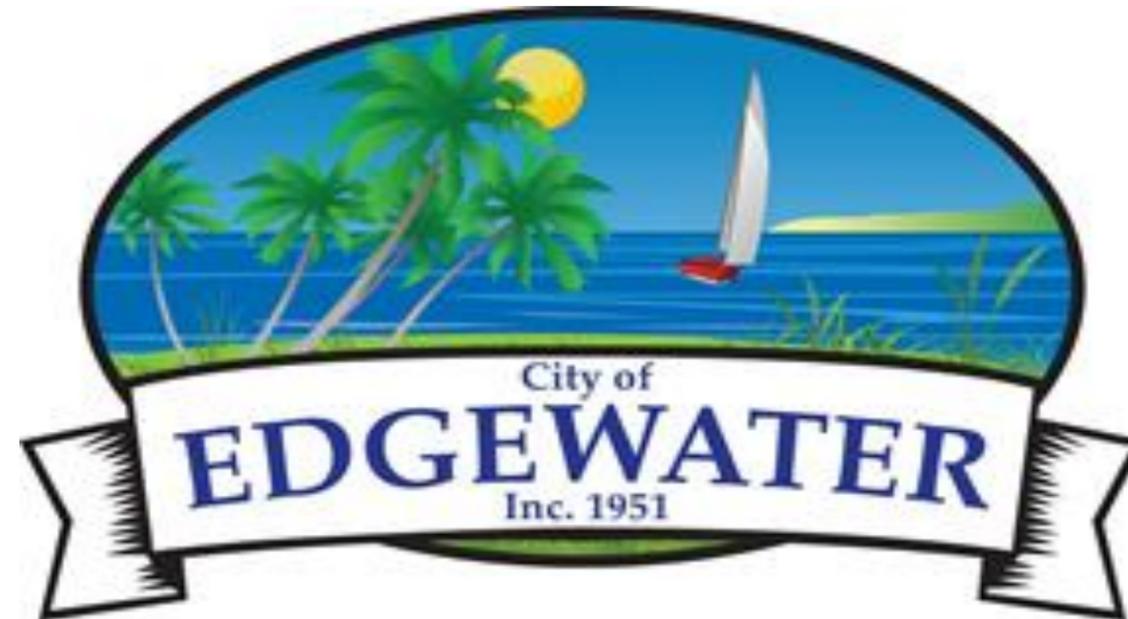
### Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	0.0%
Med/Hi Resid.	100.0%
Commercial	0.0%
Mixed Use	0.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	0.0%

### Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	0.00%
% Not Mitigated	0.00%
% Unknown	100.0%
INSURANCE	
% Insured	66.67%
% Uninsured	33.33%
% Unknown	0.00%

# EDGEWATER



# GOALS AND OBJECTIVES: EDGEWATER

**GOAL** – Continue to maintain a floodplain management ordinance, which includes the development standards required for participation in the National Flood Insurance Program.

Objective: 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: 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** – 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: Encroachments within the published flood way will not be approved under any circumstances.

Objective: Compensatory storage for 100-year flood plain encroachments shall be provided in accordance with the City requirements.

Objective: 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** – Protect the natural function and values of the 100-year floodplain.

Objective: 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: Development within the 100 Year Floodplain shall provide necessary mitigation to maintain the natural storm water flow regime.

Objective: 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** – Limit development in the Coastal High Hazard Area and direct population concentrations away from this area.

Objective: 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: 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: No future land use amendments shall be approved within the Coastal High Hazard Area which will increase the previously permitted density.

# EDGEWATER

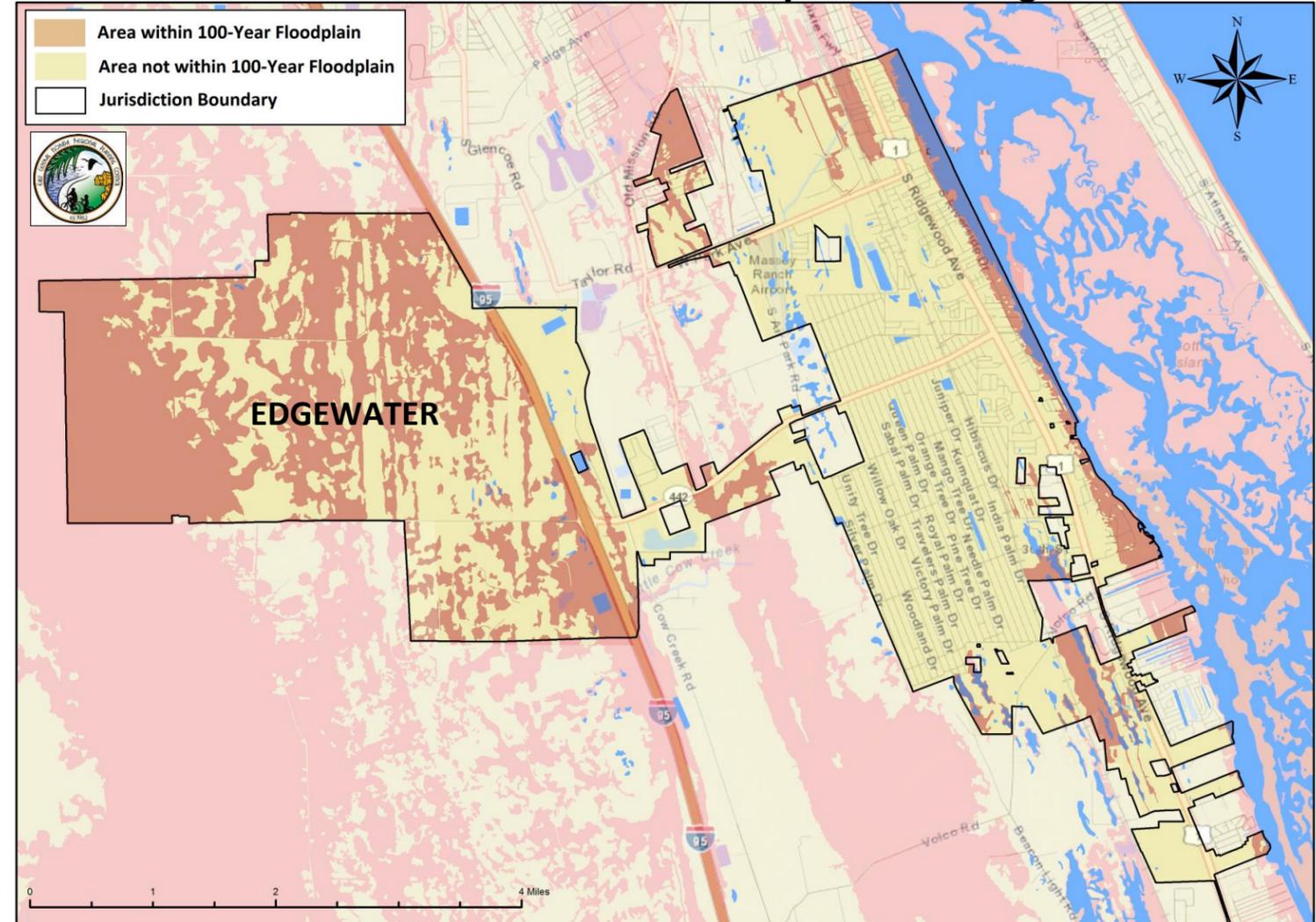
The City of Edgewater sits along the inter-coastal water way, and a large proportion of the city's floodplain-exposed parcels are within a block of this flooding source. Approximately 10.4% of the city's parcels are within the floodplain – a lower-than-usual number for a city on the east side of Volusia County – and all of those parcels are within Flood Zone AE (82.4% of total) or Flood Zone A (17.6% of total).

The parcels within the city of Edgewater that are exposed to the 100-Year Floodplain are generally older than those of other jurisdictions in Volusia County. Approximately 31.5% of the city's floodplain-exposed parcels were built between 1987 and 2001, continuing a development trend seen in many other county jurisdictions.

As stated previously, the city of Edgewater is at a lower risk relative to other east Volusia County cities, with approximately \$128,656,191 in taxable property value exposed to the 100-Year Floodplain (as compared to the jurisdiction average of \$318,247,047).

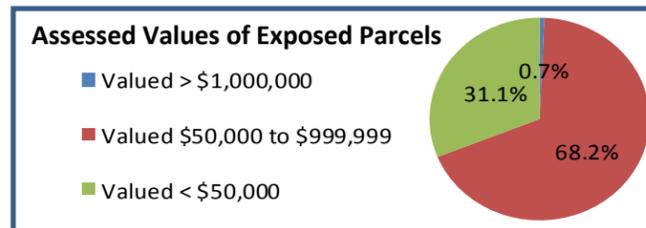
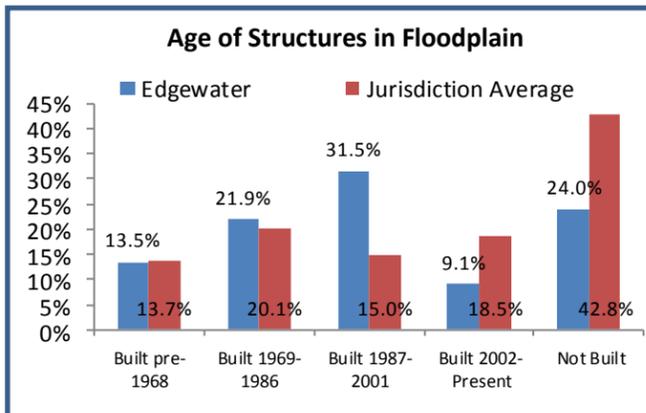
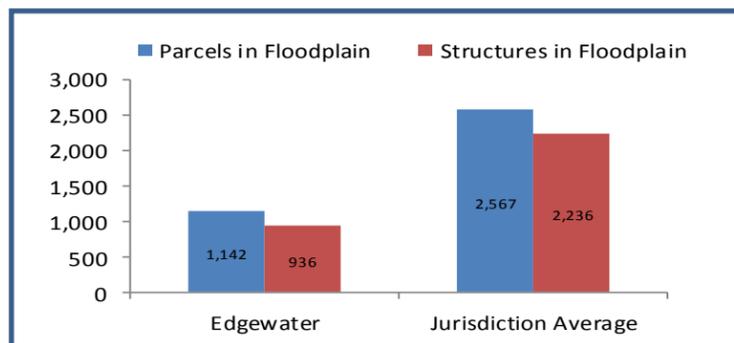
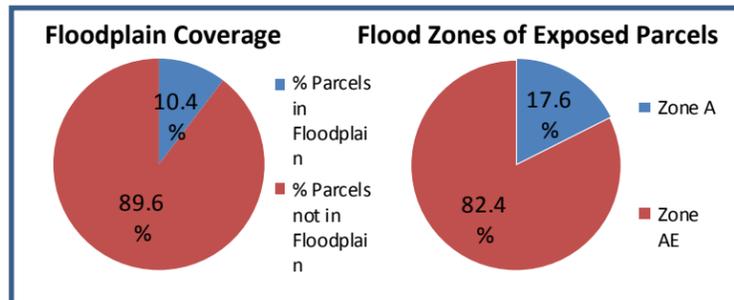
Dominating the future land use designation acreage covered by the flood zone is the 'Mixed Use' designation, encompassing 74.3% of the total land covered by the floodplain within the city. Residential uses total 19.7%, while industrial and institutional designations total 2.4% and 2.3%, respectively.

## 2011 DFIRM 100-Year Floodplain Coverage



This map is intended to be used for planning purposes only and is not to be construed as a legal document. Sources: FEMA, Volusia County and Municipalities, 2013

## Edgewater Floodplain Profile



Future Land Use Designation of Exposed Parcels		
Land Use	Acreage	Percent of Exposed Land
Low Density Residential	324	12.1%
Med-Hi Den. Residential	202	7.6%
Commercial/Office	15	0.6%
Mixed Use	1,984	74.3%
Institutional/Public	61	2.3%
Industrial	63	2.4%
Planned Development	0	0.0%
Agriculture	0	0.0%
Recreation	20	0.7%

*\*Conservation Lands Excluded from this Analysis*

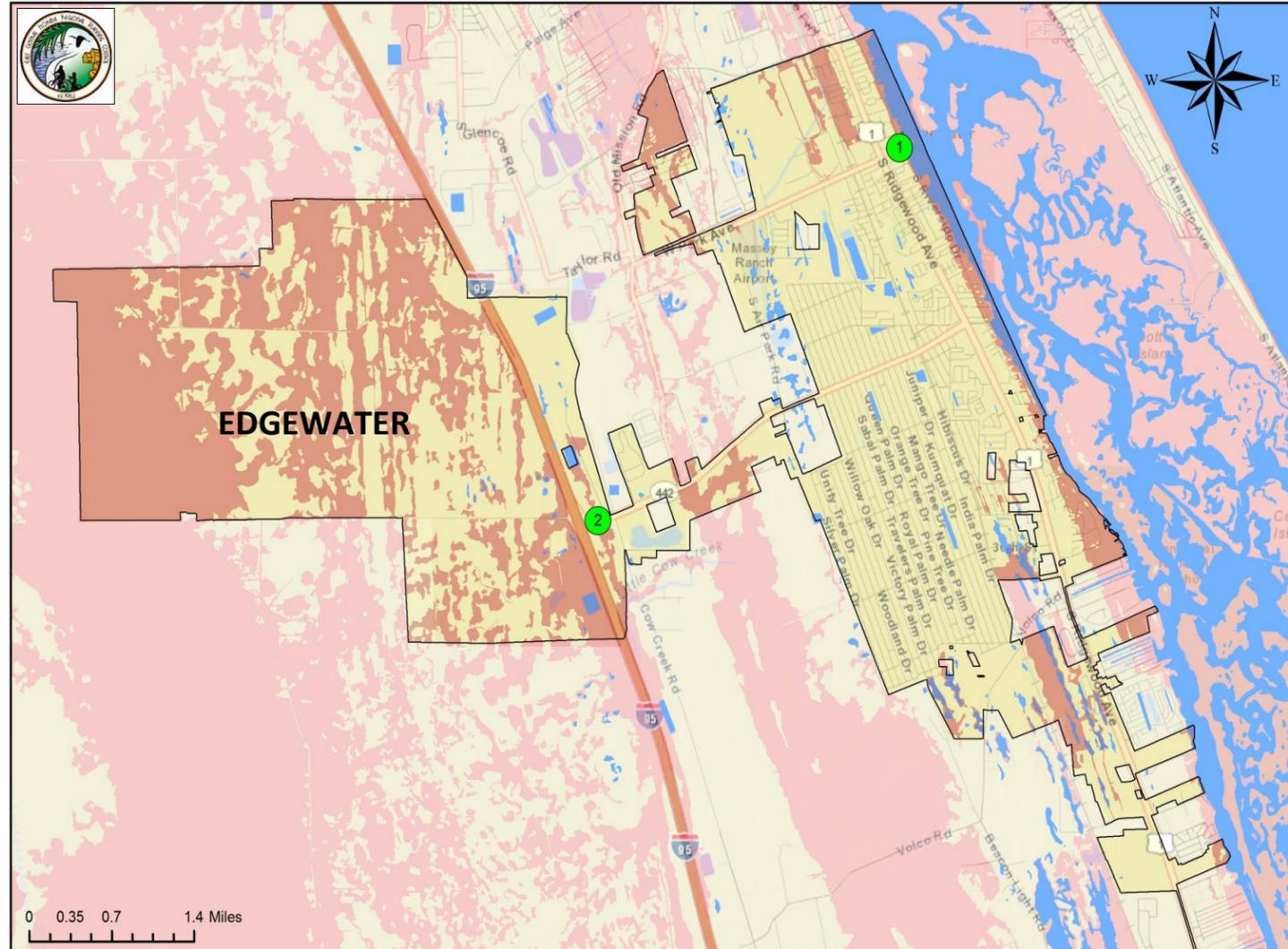
Priority Mitigation/Improvement Projects		
Project	Type	
1. VOL-0070 YMCA/Shelter Generator	Capital Improvements	
2. VOL-0334R Repetitive Loss Acquisition	Acquisition	

Total Financial Values of Exposed Parcels		
Value	Edgewater	Jurisdiction Average
Land Value	\$108,075,088	\$184,533,709
Property Value	\$159,482,952	\$419,027,387
Taxable Value	\$128,656,191	\$318,247,047
Tax Base Exposure	\$3,260,238	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

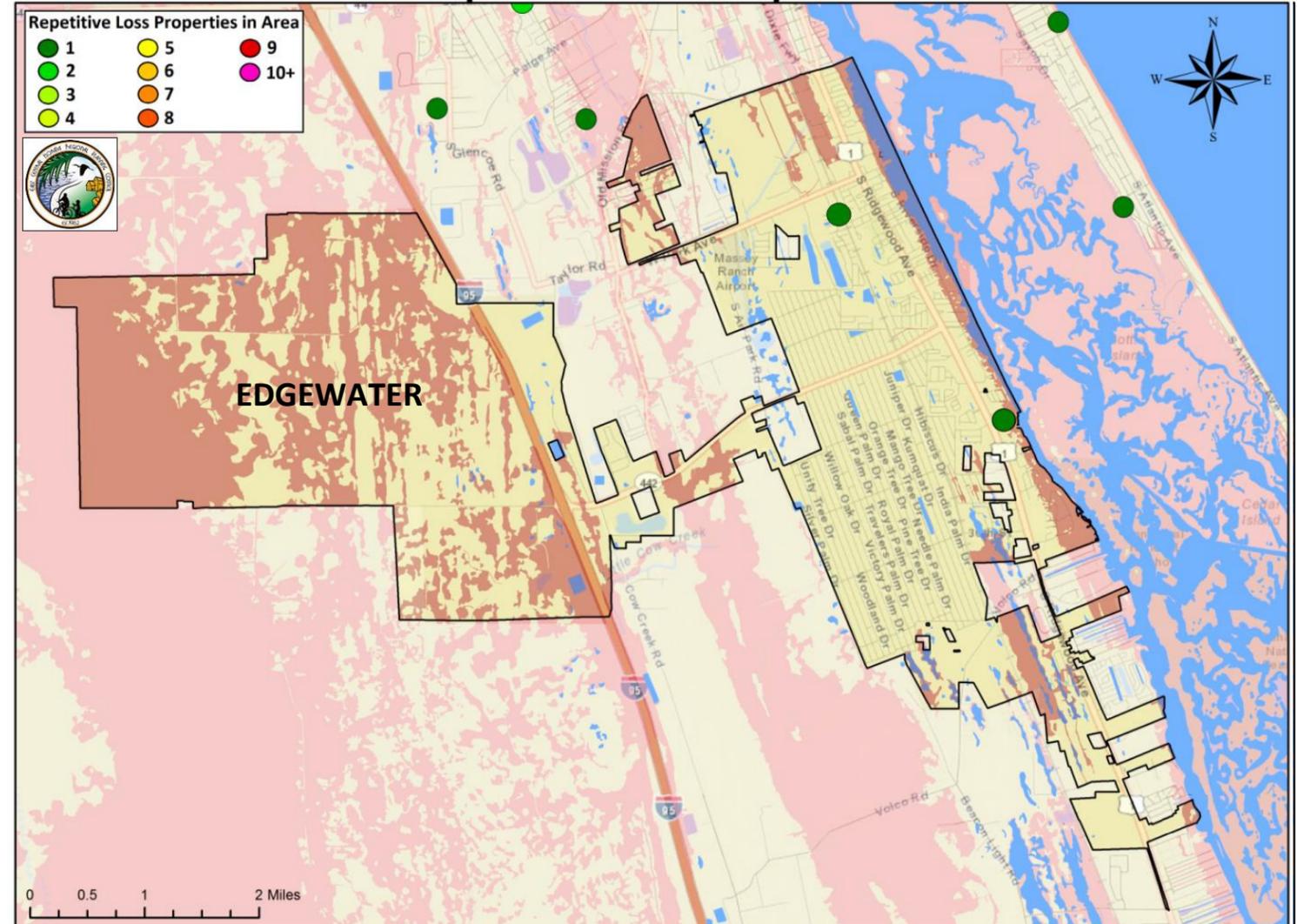
Floodplain Change – 2007 DFIRM to 2011 DFIRM			
	Nominal Change	Percentage Change	Countywide Change
Parcels	(-162)	-12.4%	17.4%
Structures	(-152)	-13.9%	27.9%
Land Value	(\$1,538,385)	-1.4%	7.2%
Property Value	(\$14,879,226)	-8.5%	11.6%
Taxable Value	(\$12,421,223)	-8.8%	9.5%

# Critical Facilities within 100-Year Floodplain



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# Repetitive Loss Properties



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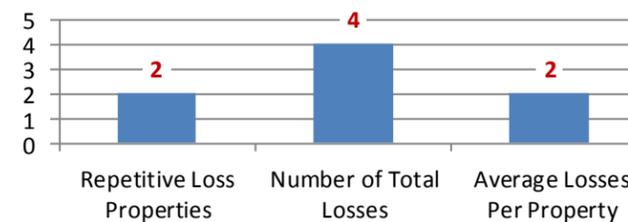
## Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type
1. Edgewater Police Headquarters	Admin
1. City Hall Facilities	Admin
2. Edgewater Water Treatment Plant	Water Treatment



**Photo:** Edgewater's City Hall Building is partially located within the 100-Year Floodplain

## Repetitive Loss Properties – Summary as of 1/1/2013



## Repetitive Loss Properties – Financial Summary



## Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	100.0%
Med/Hi Resid.	0.0%
Commercial	0.0%
Mixed Use	0.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	0.0%

## Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	0.00%
% Not Mitigated	50.0%
% Unknown	50.0%

INSURANCE	
% Insured	0.00%
% Uninsured	50.0%
% Unknown	50.0%

# HOLLY HILL



# GOALS AND OBJECTIVES: HOLLY HILL

**GOAL** – 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: Minimize unnecessary disruption of commerce, access and public service during times of flooding

Objective: require the use of appropriate construction practices in order to prevent or minimize future flood damage

Objective: 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: 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: Minimize damage to public and private facilities and utilities

Objective: Help maintain a stable tax base by providing for the sound use and development of flood hazard areas

Objective: Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events

Objective: 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



# HOLLY HILL

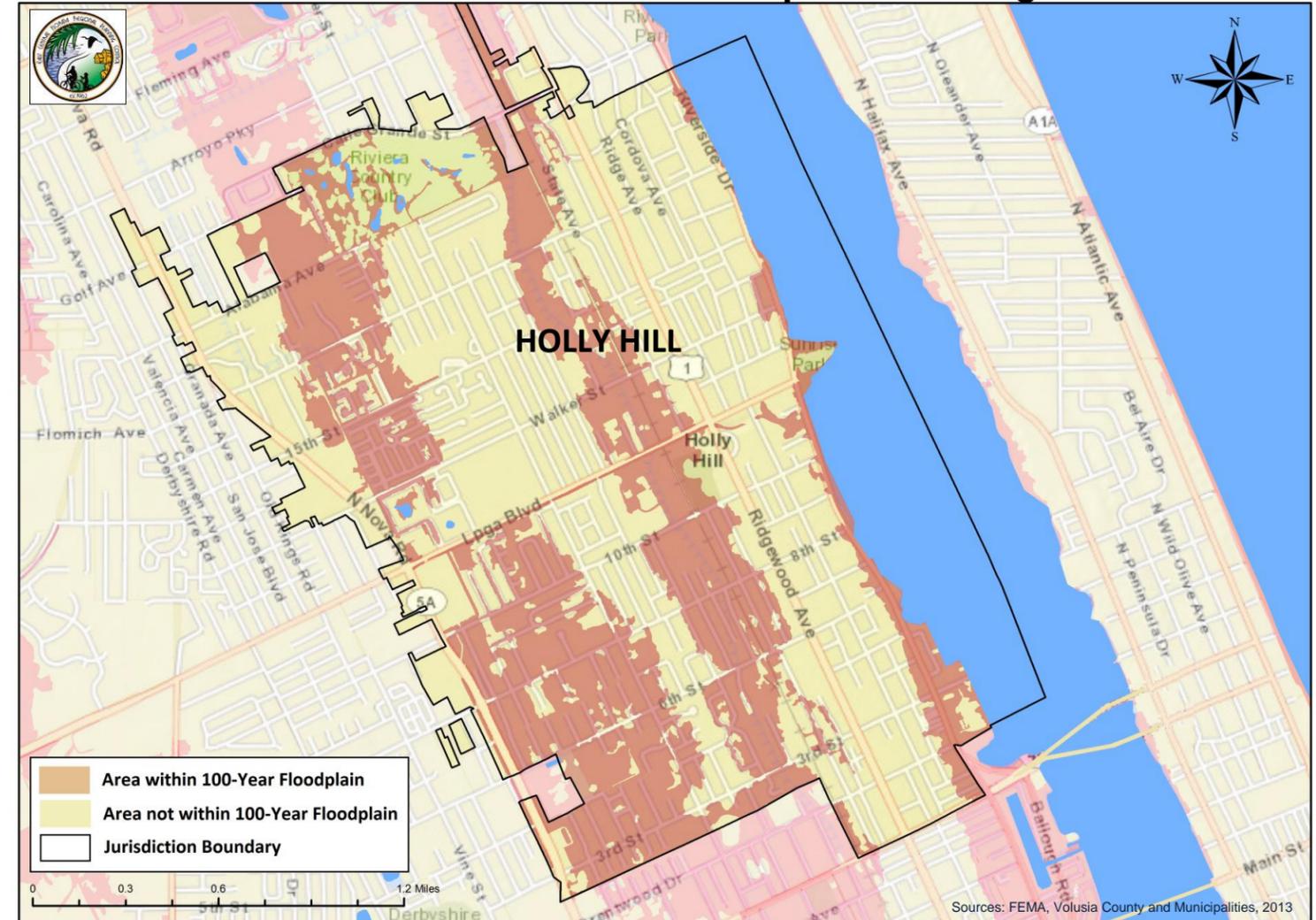
Holly Hill is positioned adjacent to the inter-coastal waterway in east Volusia County and, compared to other cities within the county, is at a higher level of flooding risk. Approximately 46.2% of the city's parcels are within the 100-Year Floodplain, with 57.1% of those within Flood Zone AE and 42.9% within Flood Zone A.

The development within Holly Hill is also much older than other jurisdiction averages, heightening the concern for property damage in the case of a 100-Year storm. Approximately 41.7% of the city's floodplain-exposed parcels were built before 1969, - the highest of any jurisdiction countywide – and 69.6% of the city's exposed parcels were built before 1987.

Holly Hill was also the second-most affected city in terms of floodplain growth from 2007 DFIRM to 2011 DFIRM, heightening the probability of a large flooding event. Approximately \$191,851,481 in taxable property value is located within the floodplain in Holly Hill, which is one of the highest values of the smaller cities within the county.

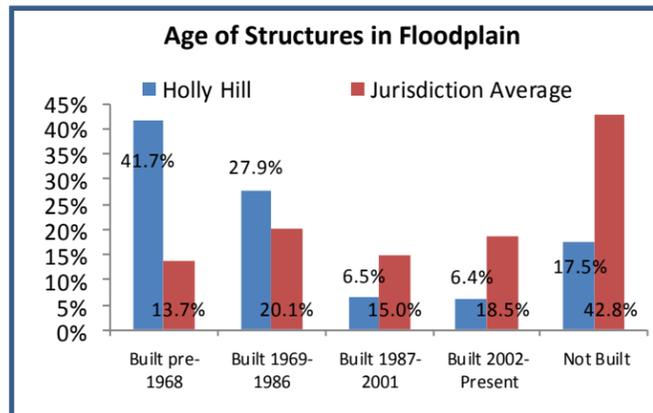
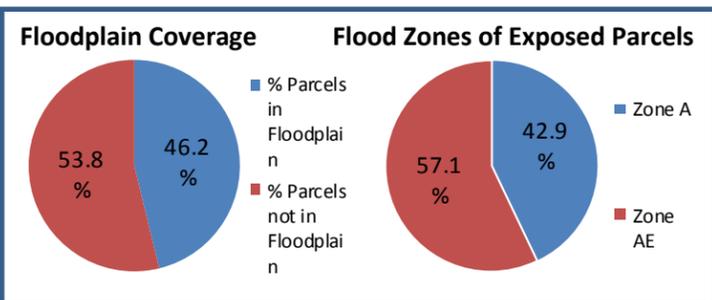
Approximately 63.1% of floodplain-exposed land is designated to residential future land uses, with industrial uses coming in second at 19.1% and recreational uses coming in third at 11.7%.

## 2011 DFIRM 100-Year Floodplain Coverage



This map is intended to be used for planning purposes only and is not to be construed as a legal document.

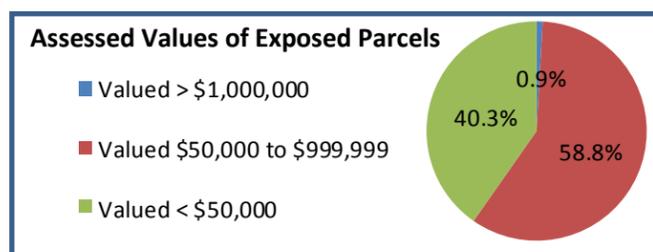
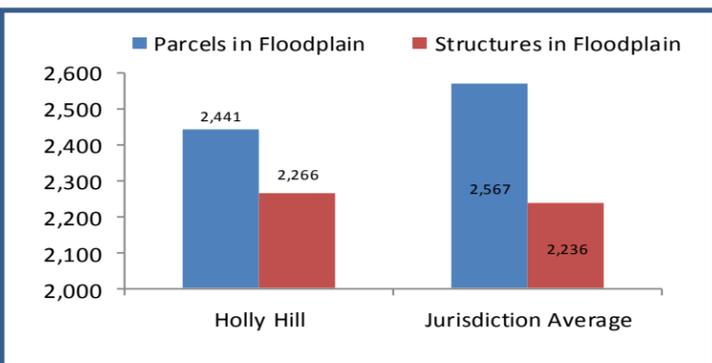
## Holly Hill Floodplain Profile



Future Land Use Designation of Exposed Parcels		
Land Use	Acreage	Percent of Exposed Land
Low Density Residential	431	58.1%
Med-Hi Den. Residential	37	5.0%
Commercial/Office	23	3.1%
Mixed Use	12	0.2%
Institutional/Public	10	0.1%
Industrial	142	19.1%
Planned Development	0	0.0%
Agriculture	0	0.0%
Recreation	87	11.7%

*\*Conservation Lands Excluded from this Analysis*

Priority Mitigation/Improvement Projects		
Project	Type	
1. VOL-0278 Trailer Emergency Pumps	Capital Improvements	
2. VOL-0357 Cave Ave. Structure Purchase	Acquisition	
3. VOL-0279 State Ave. Dept. Stormwater	Capital Improvements	
4. VOL-0280 Tuscaloosa St. Drainage	Capital Improvements	
5. VOL-0281 Eagle/Peacock Drainage	Capital Improvements	
6. VOL-0282 Espanola Ave. Drainage	Capital Improvements	
7. VOL-0183 Passenger Van/ Traffic Control	Capital Improvements	

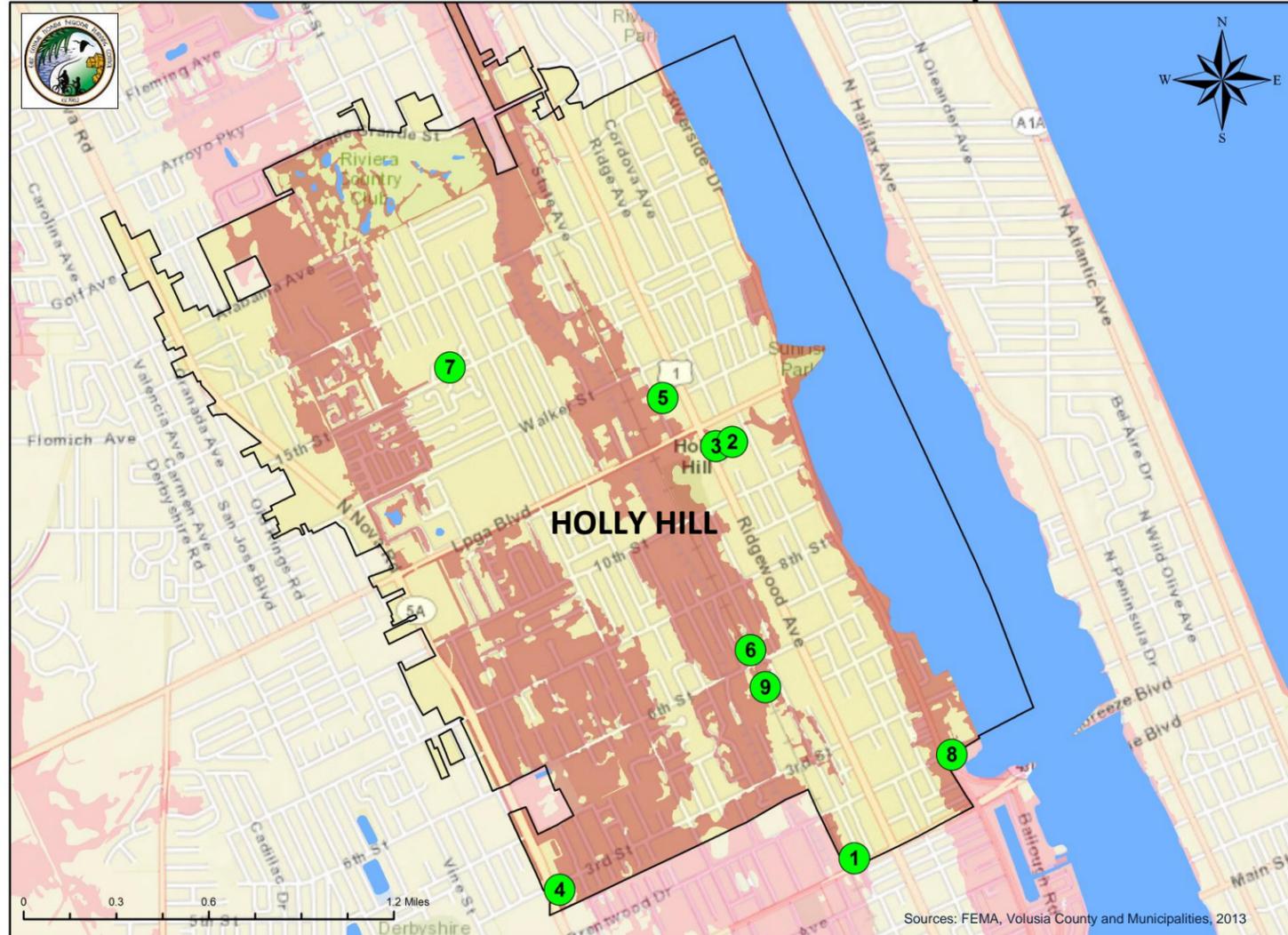


Total Financial Values of Exposed Parcels		
Value	Holly Hill	Jurisdiction Average
Land Value	\$90,329,062	\$184,533,709
Property Value	\$250,707,196	\$419,027,387
Taxable Value	\$191,851,481	\$318,247,047
Tax Base Exposure	\$4,644,494	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

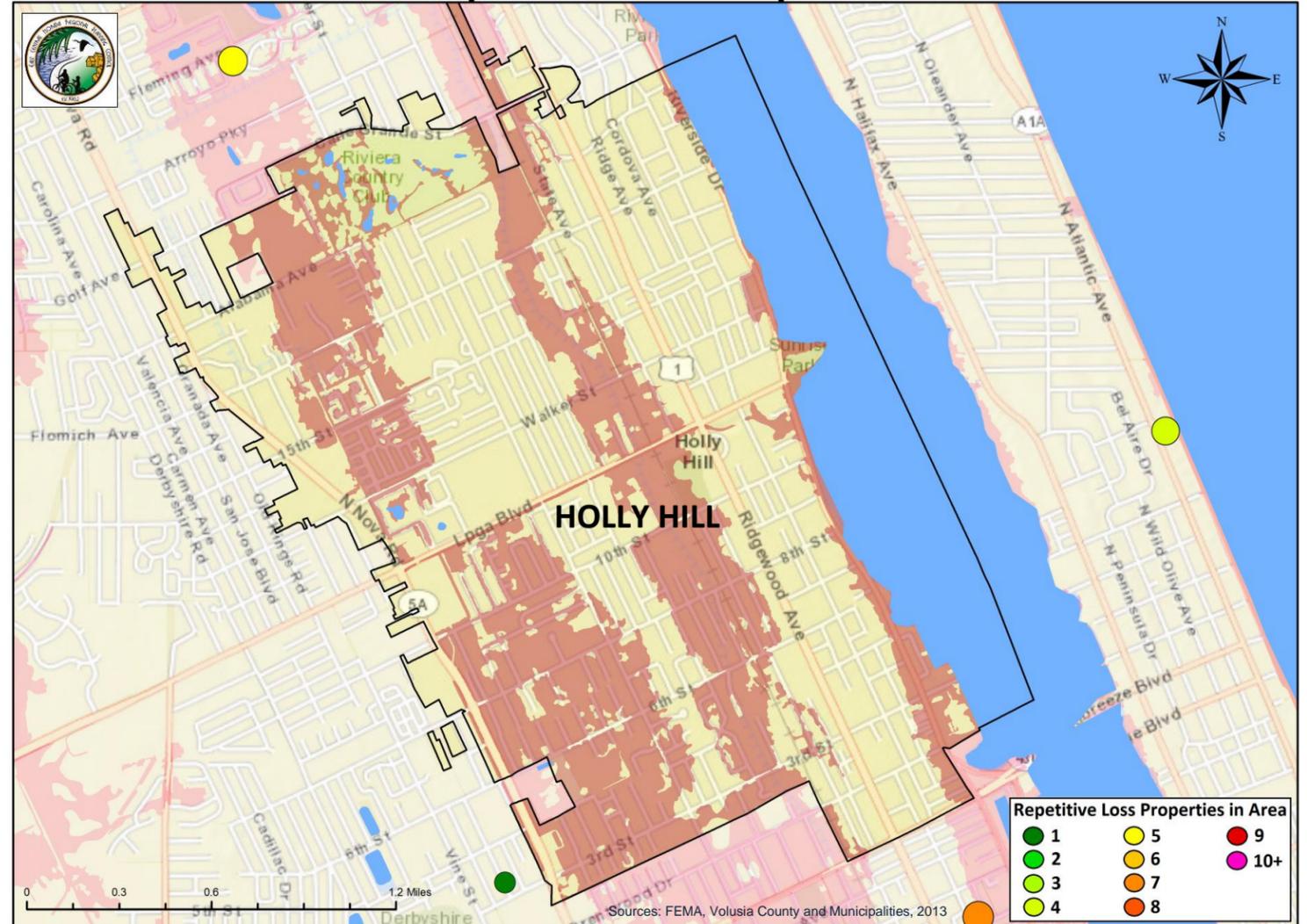
Floodplain Change – 2007 DFIRM to 2011 DFIRM			
	Nominal Change	Percentage Change	Countywide Change
Parcels	1,774	265.9%	17.4%
Structures	1,617	249.2%	27.9%
Land Value	\$49,405,149	120.7%	7.2%
Property Value	\$167,980,674	203.1%	11.6%
Taxable Value	\$128,426,118	202.5%	9.5%

## Critical Facilities within 100-Year Floodplain



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## Repetitive Loss Properties



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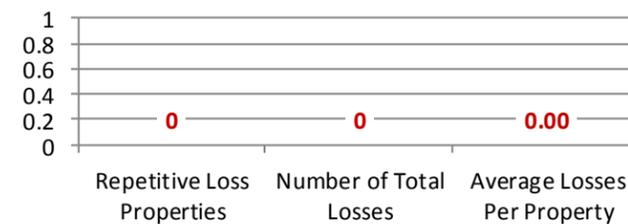
### Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type
1. SVC P01 Evacuation Ambulance	Admin
2. Holly Hill Emergency Operations Center	Admin
3. Holly Hill Police Headquarters	Admin
4. Volusia County Sheriff District 3	Admin
5. Daytona Beach General Hospital	Hospital/Clinic
6. Widmaier Oil	Material Storage
7. Holly Hill Elementary School	School
8. Smokey's Heliport	Transportation
9. AT&T Cellular Holly Hill	Utility

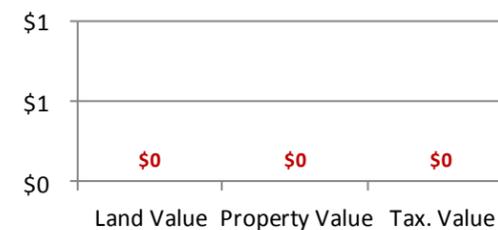
**Photo:** Holly Hill Elementary School is located within the 100-year floodplain



### Repetitive Loss Properties – Summary as of 1/1/2013



### Repetitive Loss Properties – Financial Summary



### Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	0.0%
Med/Hi Resid.	0.0%
Commercial	0.0%
Mixed Use	0.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	0.0%

### Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	0.00%
% Not Mitigated	0.00%
% Unknown	0.00%
INSURANCE	
% Insured	0.00%
% Uninsured	0.00%
% Unknown	0.00%

# LAKE HELEN



# GOALS AND OBJECTIVES: LAKE HELEN

THERE ARE NO ADDITIONAL GOALS TO THE COUNTYWIDE GOALS STATED IN THE REPORT



# LAKE HELEN

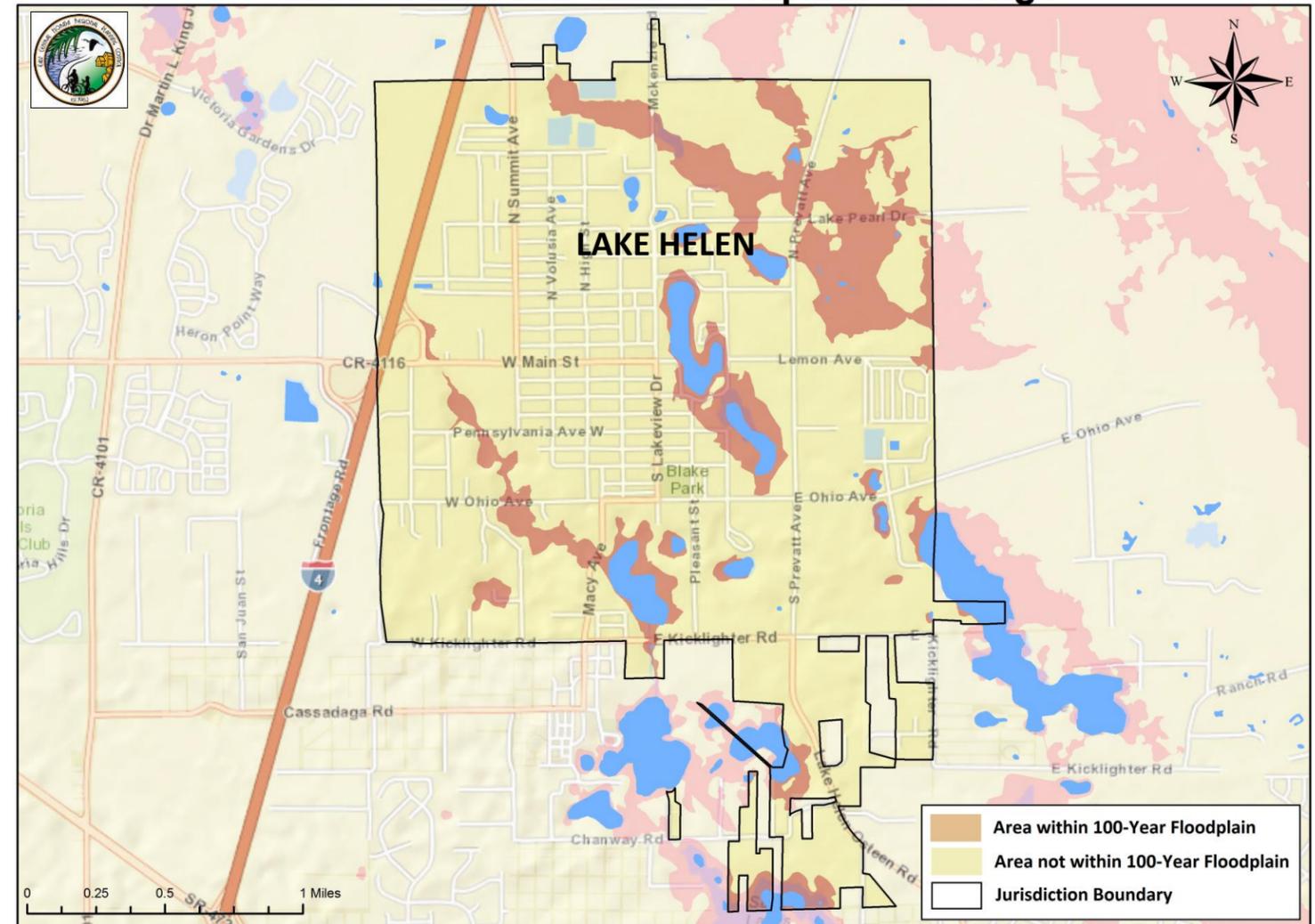
Although Lake Helen is located inland, 17.1% of the city's parcels are exposed to the 100-Year Floodplain, totaling 291 parcels and 163 structures all within Flood Zone A.

Approximately 22.7% of the floodplain-exposed parcels in the city were built before 1969 when federally-backed flood insurance became available, making the development within the city older than county averages. However, 53.6% of the floodplain-exposed parcels are undeveloped, the third-highest of all Volusia County jurisdictions. Due to the large number of parcels undeveloped, approximately 51.9% of the city's exposed parcels are valued below \$50,000.

Overall, the city is at a lower risk of flooding compared to other jurisdictions in Volusia County. There is approximately \$19,305,611 in taxable property value within the 100-Year Floodplain in Lake Helen, which is well below the jurisdiction average of \$318,247,047. Again, this low number is due to the low overall floodplain coverage and the large number of exposed parcels left undeveloped.

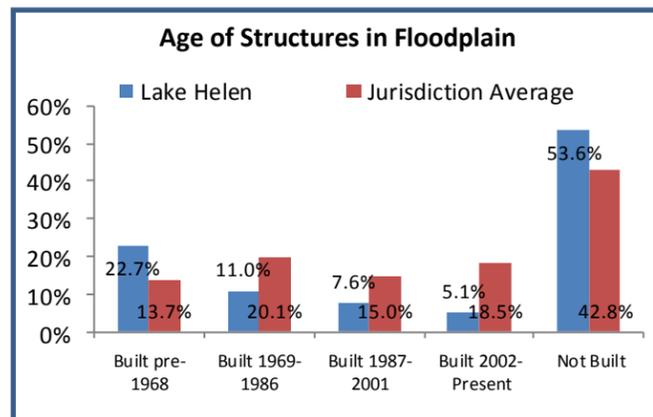
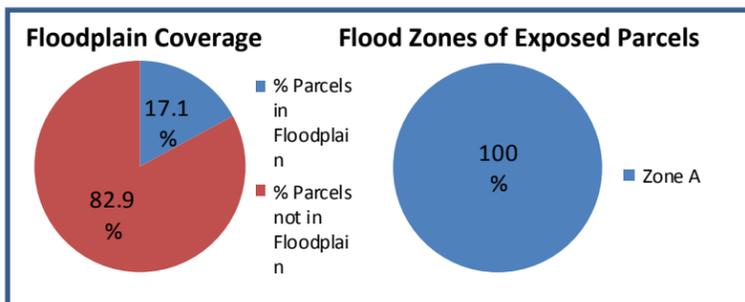
The 'Low Density Residential' future land use designation accounts for 92.7% of the total land exposed to the 100-Year Floodplain within Lake Helen, which is well above county averages for any type of land use.

## 2011 DFIRM 100-Year Floodplain Coverage



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Sources: FEMA, Volusia County and Municipalities, 2013

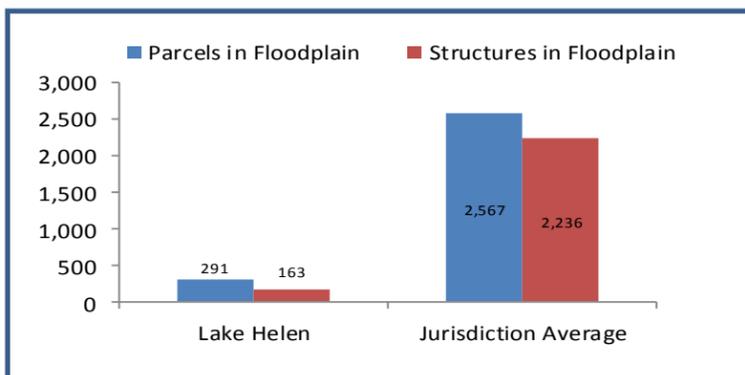
## Lake Helen Floodplain Profile



Future Land Use Designation of Exposed Parcels		
Land Use	Acreage	Percent of Exposed Land
Low Density Residential	204	92.7%
Med-Hi Den. Residential	0	0.0%
Commercial/Office	0	0.0%
Mixed Use	9	4.1%
Institutional/Public	5	2.3%
Industrial	2	0.9%
Planned Development	0	0.0%
Agriculture	0	0.0%
Recreation	0	0.0%

*\*Conservation Lands Excluded from this Analysis*

Priority Mitigation/Improvement Projects		
Project	Type	
1. VOL-0051 Renovate/Harden Police Bldg.	Flood Mitigation	
2. VOL-0216 Storm Shutters (Police/EOC)	Flood Mitigation	

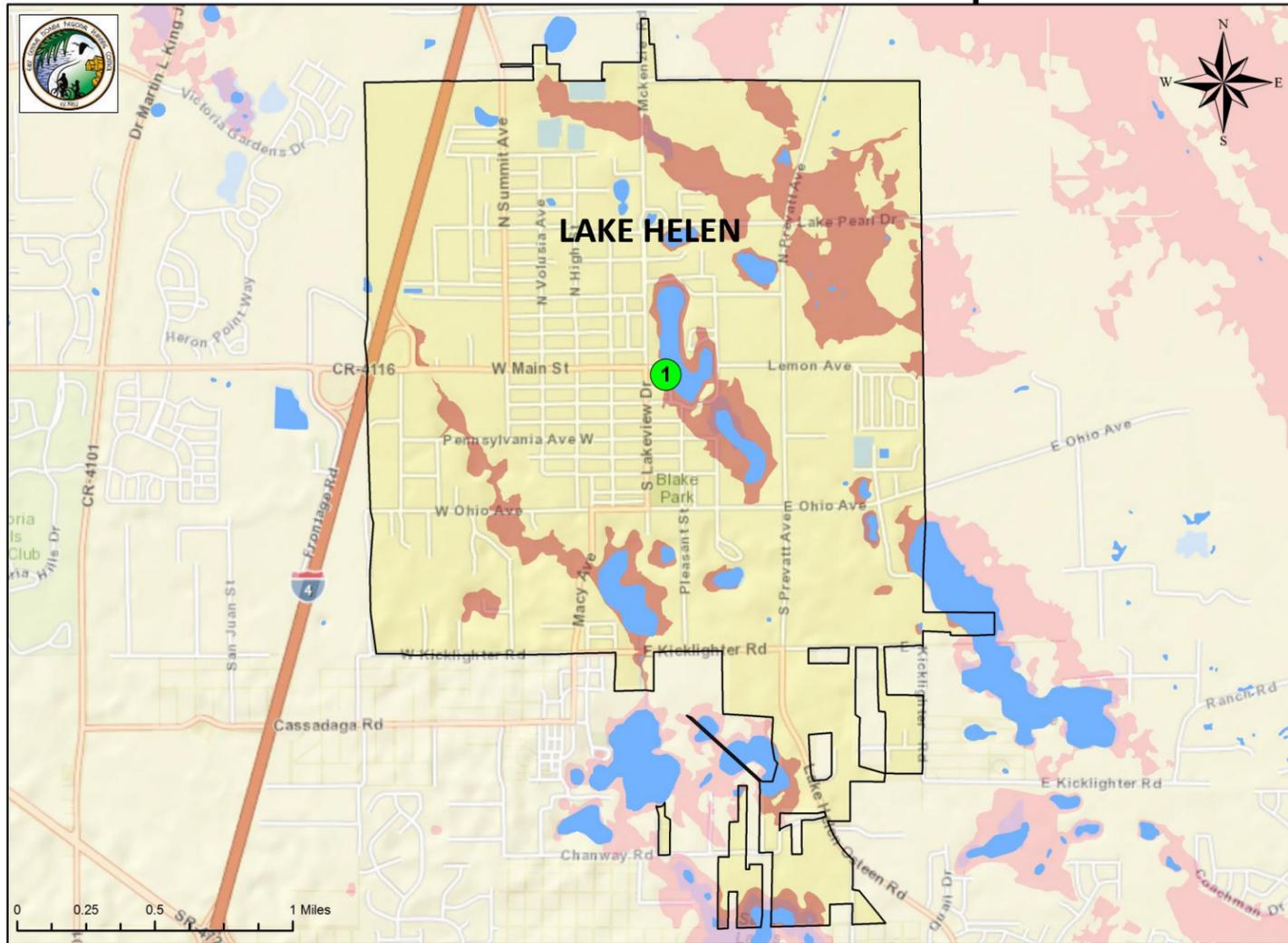


Total Financial Values of Exposed Parcels		
Value	Lake Helen	Jurisdiction Average
Land Value	\$13,518,929	\$184,533,709
Property Value	\$25,849,726	\$419,027,387
Taxable Value	\$19,305,611	\$318,247,047
Tax Base Exposure	\$525,331	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

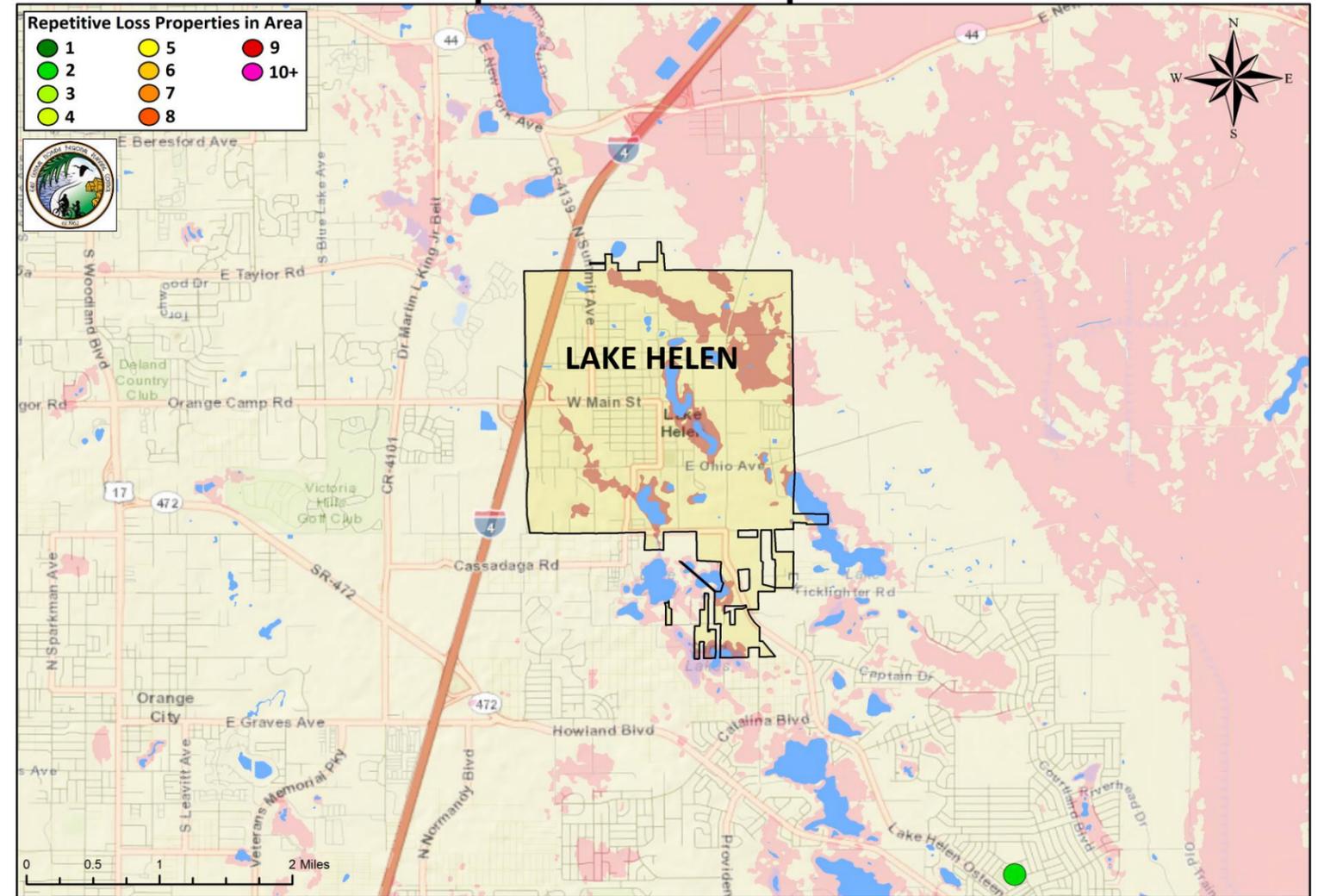
Floodplain Change – 2007 DFIRM to 2011 DFIRM			
	Nominal Change	Percentage Change	Countywide Change
Parcels	(-8)	-2.7%	17.4%
Structures	(-6)	-3.6%	27.9%
Land Value	(\$2,992,843)	-28.4%	7.2%
Property Value	(\$3,541,574)	-15.9%	11.6%
Taxable Value	(\$3,980,989)	-26.0%	9.5%

## Critical Facilities within 100-Year Floodplain



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Sources: FEMA, Volusia County and Municipalities, 2013

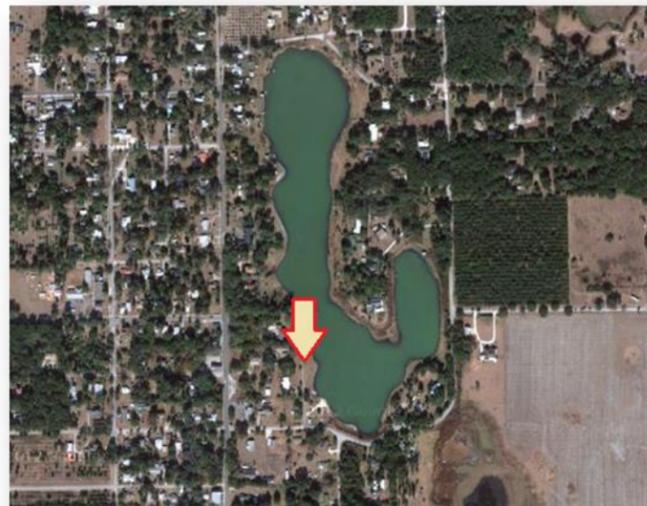
## Repetitive Loss Properties



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Sources: FEMA, Volusia County and Municipalities, 2013

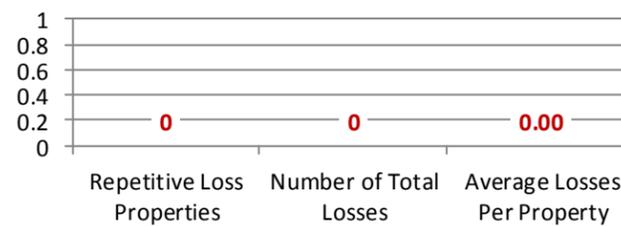
### Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type
1. Lake Helen Well #3	Water Treatment

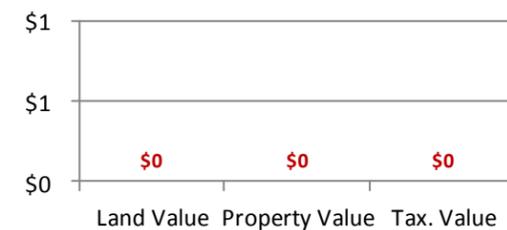


**Photo:** This well is located adjacent to Lake Helen

### Repetitive Loss Properties – Summary as of 1/1/2013



### Repetitive Loss Properties – Financial Summary



### Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	0.0%
Med/Hi Resid.	0.0%
Commercial	0.0%
Mixed Use	0.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	0.0%

### Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	0.00%
% Not Mitigated	0.00%
% Unknown	0.00%
INSURANCE	
% Insured	0.00%
% Uninsured	0.00%
% Unknown	0.00%

# NEW SMYRNA BEACH



# GOALS AND OBJECTIVES: NEW SMYRNA BEACH

**GOAL** – Promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas.

Objective: Maintain the City’s Community Rating System Classification;

Objective: Provide flood protection information to residents;

Objective: Coordinate and implement small and/or large scale projects to help alleviate drainage and flood concerns;

Objective: To protect human life, health and to eliminate or minimize property damage;

Objective: require the use of appropriate construction practices in order to prevent or minimize future flood damage;

Objective: 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: 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: To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

Objective: To minimize prolonged business interruptions;

Objective: 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: 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: To endeavor that potential homebuyers are notified that property is in a flood hazard area;

Objective: 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** – Create programs to manage the surface water runoff

Objective: Develop/maintain storm water management plan

Objective: Develop alternative water supply on western city limits



# NEW SMYRNA BEACH

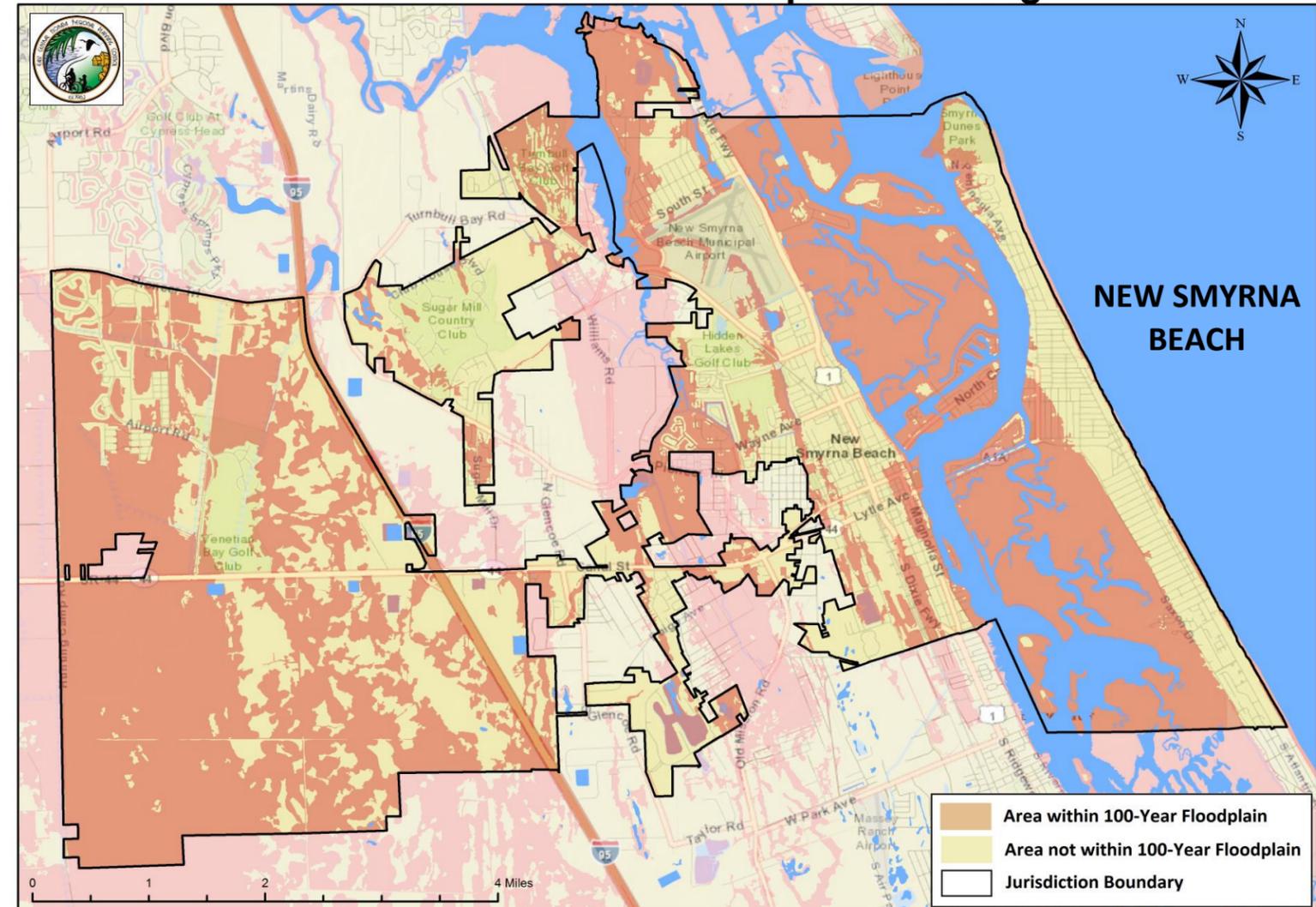
The city of New Smyrna Beach is located on the Atlantic Ocean and features an inlet (Ponce Inlet) as well as the inter-coastal waterway. Geographically, a large percentage of the city's land is located within the 100-Year Floodplain.

Approximately 39.1% of the city's parcels are within the floodplain, with 78.0% in Zone AE, 18.8% in Zone A and 3.2% in Zone VE (Storm Surge). Also, compared to county averages, New Smyrna Beach has a large number of parcels (5,667) and structures (4,480) located within the 100-Year Floodplain.

The city of New Smyrna Beach has developed fairly consistently with countywide averages, with a slightly larger percentage of its growth occurring between 1969 and 1986 (37.5% as compared to 33.8%).

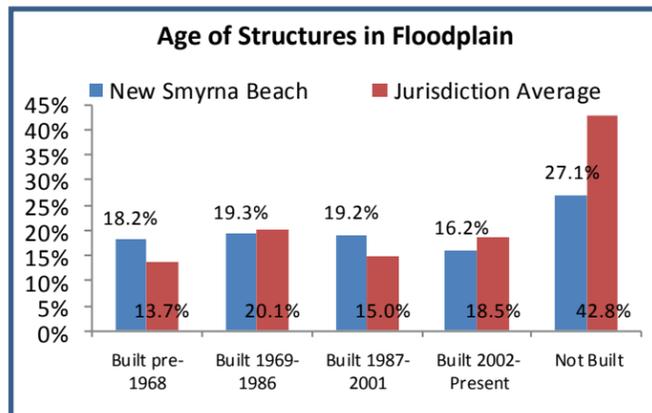
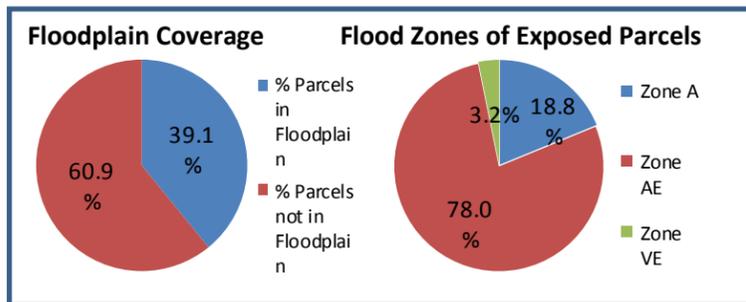
There is approximately \$842,345,780 in taxable property value within the 100-Year Floodplain in the city of New Smyrna Beach, which is well above the jurisdiction average of \$318,247,047. However, New Smyrna Beach is one of only a few cities in Volusia County to have decreased from the 2007 DFIRM to 2011 DFIRM update. The taxable value exposure city-wide decreased approximately 11.6% since the 2007 DFIRM maps were released.

## 2011 DFIRM 100-Year Floodplain Coverage



This map is intended to be used for planning purposes only and is not to be construed as a legal document. Sources: FEMA, Volusia County and Municipalities, 2013

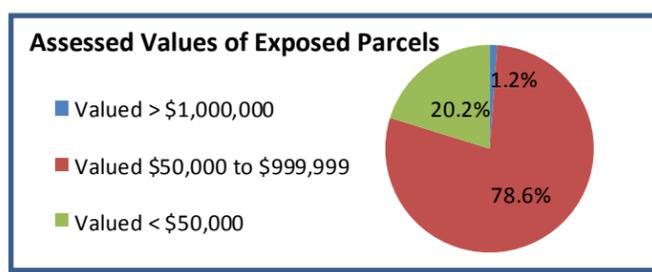
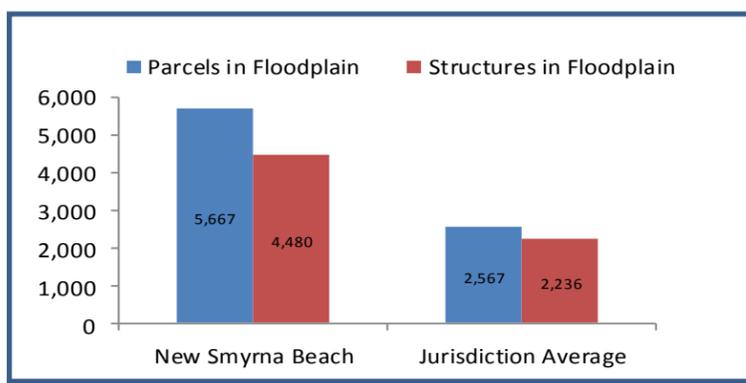
## New Smyrna Beach Floodplain Profile



Land Use	Acreage	Percent of Exposed Land
Low Density Residential	1,247	19.3%
Med-Hi Den. Residential	587	9.1%
Commercial/Office	244	3.8%
Mixed Use	166	2.6%
Institutional/Public	47	0.7%
Industrial	185	2.9%
Planned Development	1,970	30.5%
Agriculture	1,858	28.8%
Recreation	147	2.2%

*\*Conservation Lands Excluded from this Analysis*

Project	Type
1. VOL-0386 Central Beachside Phase II	Flood Mitigation
2. VOL-0410 Central Beachside S.W. Mgmt.	Study
3. VOL-0103R Relocate Fire Station #50	Relocation
4. VOL-0385 Fire Station #50 Impact Glass	Flood Mitigation
5. VOL-0394 City Gym Impact Windows	Flood Mitigation
6. VOL-384 Wind Resistance Measures	Capital Improvements

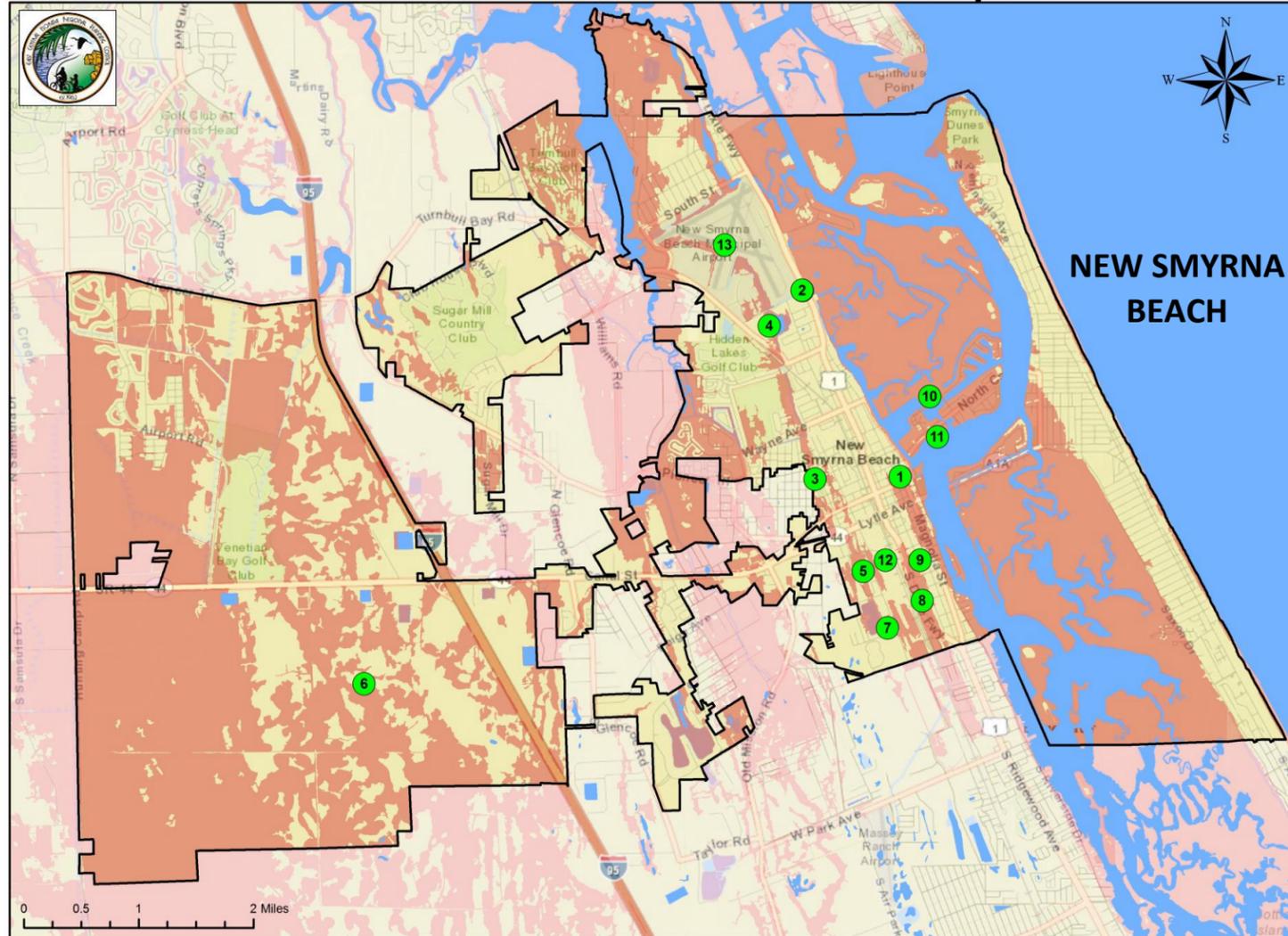


Value	New Smyrna B.	Jurisdiction Average
Land Value	\$505,308,724	\$184,533,709
Property Value	\$1,015,362,846	\$419,027,387
Taxable Value	\$842,345,780	\$318,247,047
Tax Base Exposure	\$19,299,321	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

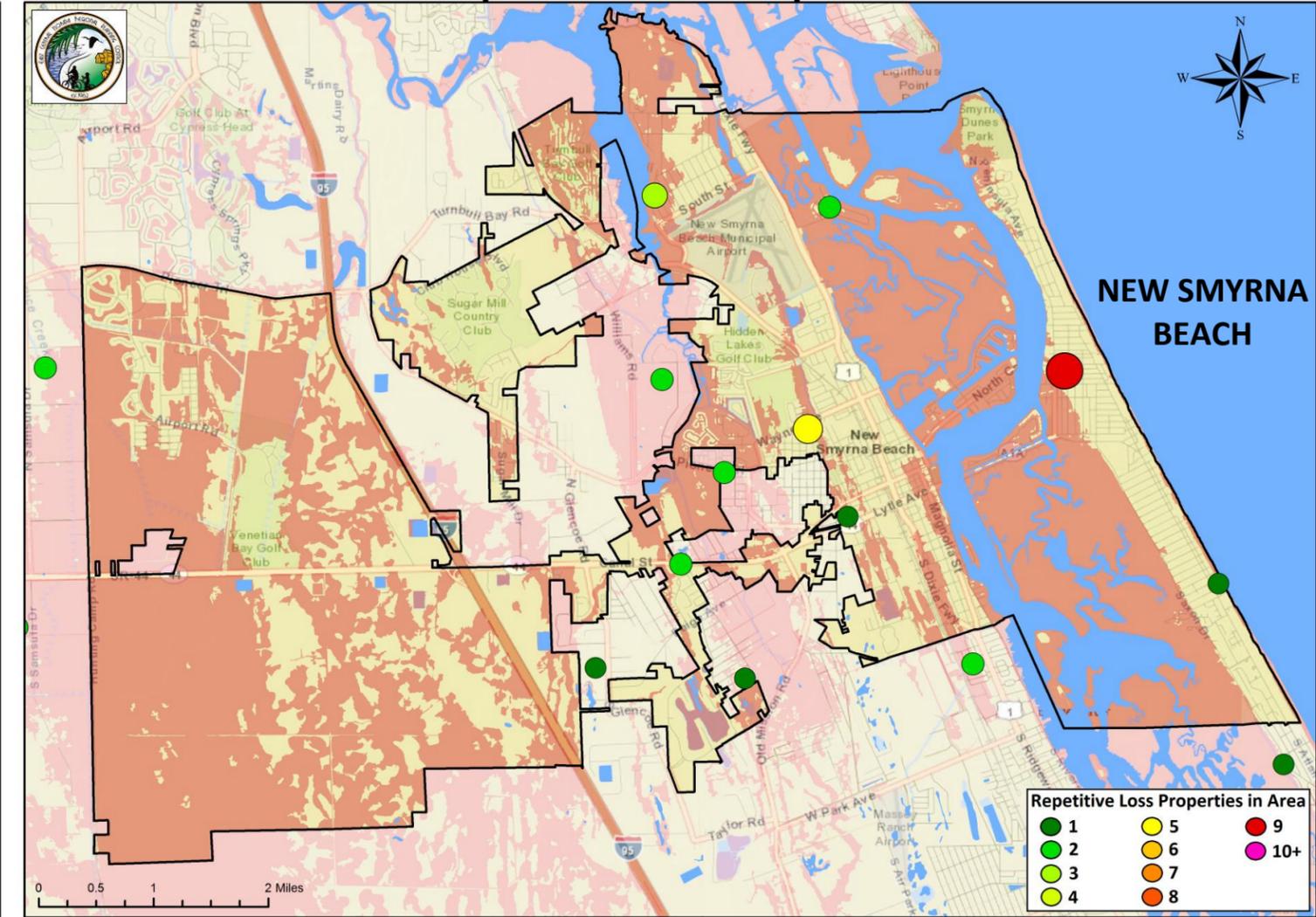
	Nominal Change	Percentage Change	Countywide Change
Parcels	-1,284	-18.5%	17.4%
Structures	(-1104)	-19.8%	27.9%
Land Value	(-\$26,109,361)	-4.9%	7.2%
Property Value	(-\$127,598,044)	-11.2%	11.6%
Taxable Value	(-\$110,210,114)	-11.6%	9.5%

## Critical Facilities within 100-Year Floodplain



This map is intended to be used for planning purposes only and is not to be construed as a legal document.  
Sources: FEMA, Volusia County and Municipalities, 2013

## Repetitive Loss Properties



This map is intended to be used for planning purposes only and is not to be construed as a legal document.  
Sources: FEMA, Volusia County and Municipalities, 2013

### Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type
1. New Smyrna Beach Fire Station #51	Admin
2. New Smyrna Beach Fire Station #53	Admin
2. New Smyrna Beach Police Headquarters	Admin
3. New Smyrna Beach Fire Station #54	Admin
4. New Smyrna Beach Transfer Station	Landfill
5. Rinker Materials	Material Storage
6. Petrolane Gas Service	Material Storage
7. New Smyrna Beach Jr. High School	School
8. Read-Patillo Elementary School	School
9. Samsula Elementary School	School
10. New Smyrna Beach High School	School
11. FL0020133 Sewage Treatment Plant	Sewage Treatment
12. Florida East Coast Railway	Transportation
13. New Smyrna Beach Municipal Airport	Transportation



Photo: The New Smyrna Beach Municipal Airport

### Repetitive Loss Properties – Summary as of 1/1/2013



### Repetitive Loss Properties – Financial Summary



### Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	63.3%
Med/Hi Resid.	30.0%
Commercial	6.7%
Mixed Use	0.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	0.0%

### Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	16.67%
% Not Mitigated	83.33%
% Unknown	0.00%
INSURANCE	
% Insured	76.67%
% Uninsured	23.33%
% Unknown	0.00%

# OAK HILL



# GOALS AND OBJECTIVES: **OAK HILL**

THERE ARE NO ADDITIONAL GOALS TO THE COUNTYWIDE GOALS STATED IN THE REPORT



# OAK HILL

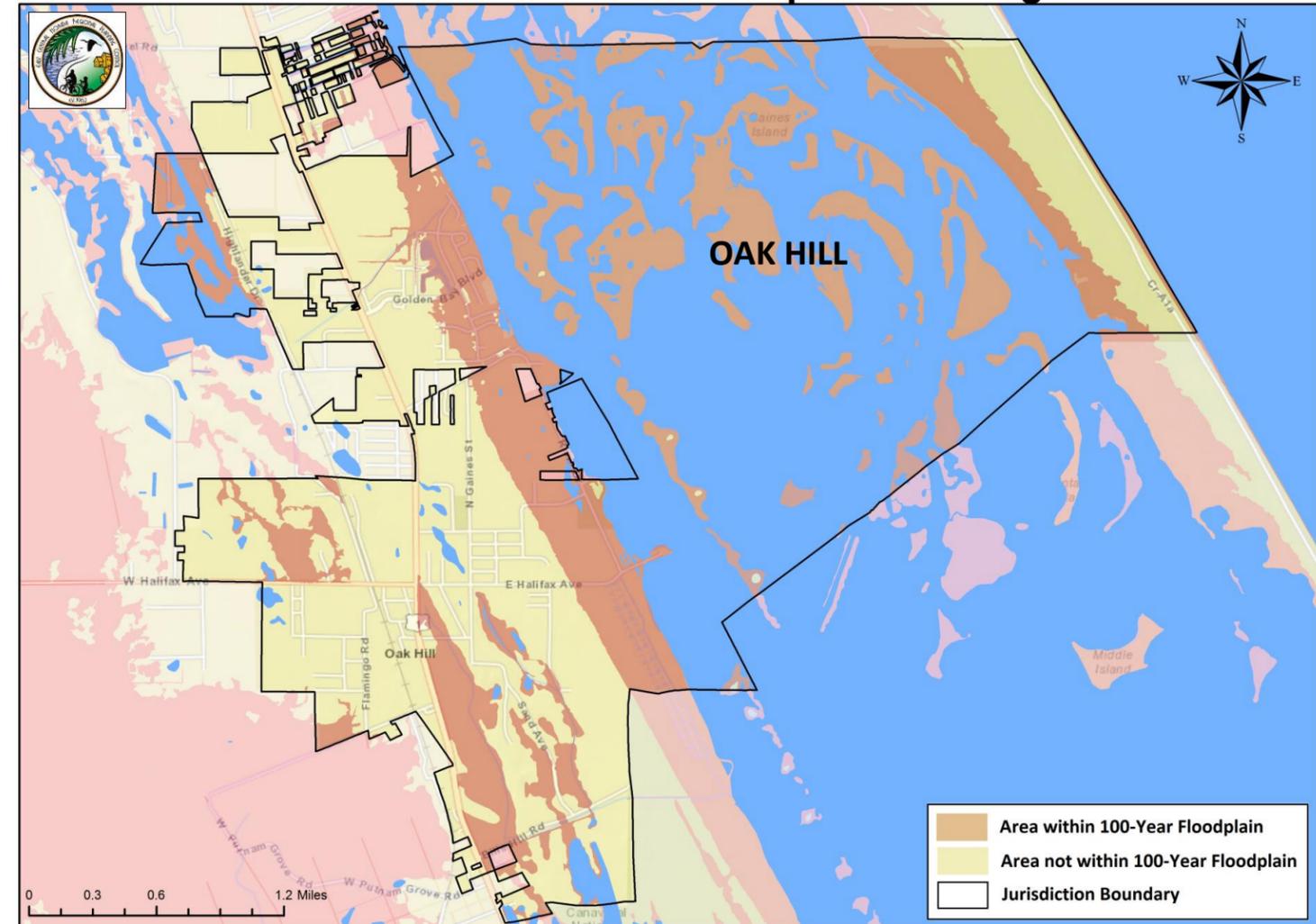
Oak Hill is located on both the Atlantic Ocean and the inter-coastal water way, and is one of the more-exposed cities in terms of flood coverage in Volusia County. Approximately 48.1% of the cities parcels are located within the 100-Year Floodplain, with 83.7% within Flood Zone AE, 16.0% within Flood Zone A and 0.3% within Flood Zone VE. This encompasses 768 parcels and 492 buildings.

Development patterns in Oak Hill are somewhat independent of the countywide trend. Development in Oak Hill picked up in the 1970's and has been somewhat consistent since that time. The largest period for growth in terms of parcels covered by the 100-Year Floodplain was between 1969 and 1986, when 25.1% of those parcels were developed.

There is approximately \$52,758,547 in taxable property value within the 100-Year Floodplain in Oak Hill, compared to the jurisdiction average of \$318,247,047. This lower-than-average number, in comparison to the floodplain coverage of 48.1% of parcels, is likely due to the fact that 37.5% of floodplain-exposed parcels within the city are valued below \$50,000.

The future land use designations of the areas covered by the floodplain are somewhat diverse. 48.7% of the floodplain's land coverage is residential, while 20.7% is mixed use, 13.6% is agricultural and 8.6% is institutional.

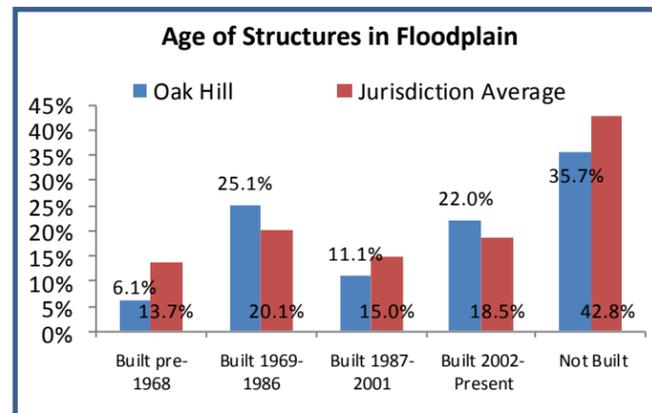
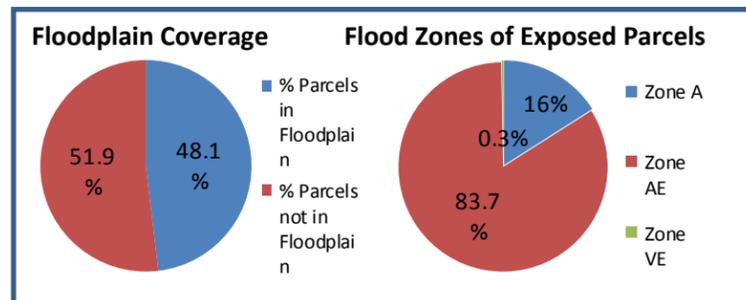
## 2011 DFIRM 100-Year Floodplain Coverage



This map is intended to be used for planning purposes only and is not to be construed as a legal document.

Sources: FEMA, Volusia County and Municipalities, 2013

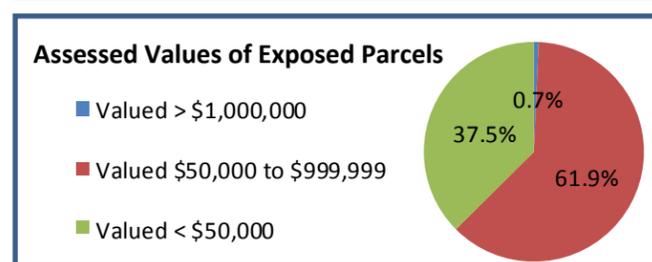
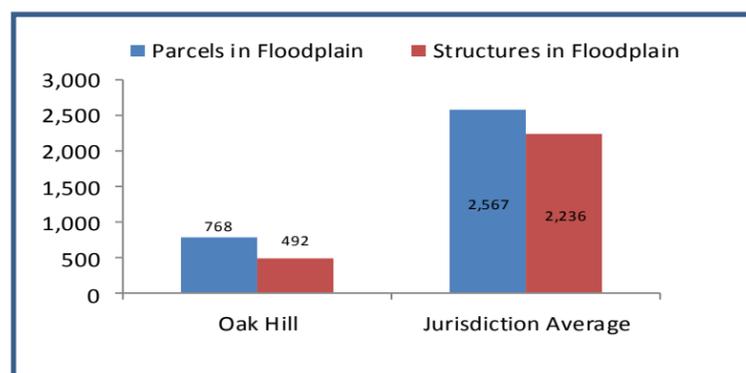
## Oak Hill Floodplain Profile



Land Use	Acreage	Percent of Exposed Land
Low Density Residential	246	27.1%
Med-Hi Den. Residential	205	21.7%
Commercial/Office	41	4.3%
Mixed Use	195	20.7%
Institutional/Public	81	8.6%
Industrial	9	0.9%
Planned Development	0	0.0%
Agriculture	128	13.6%
Recreation	28	3.0%

*\*Conservation Lands Excluded from this Analysis*

Project	Type
1. VOL-0217 Harden City Hall/Police	Capital Improvements

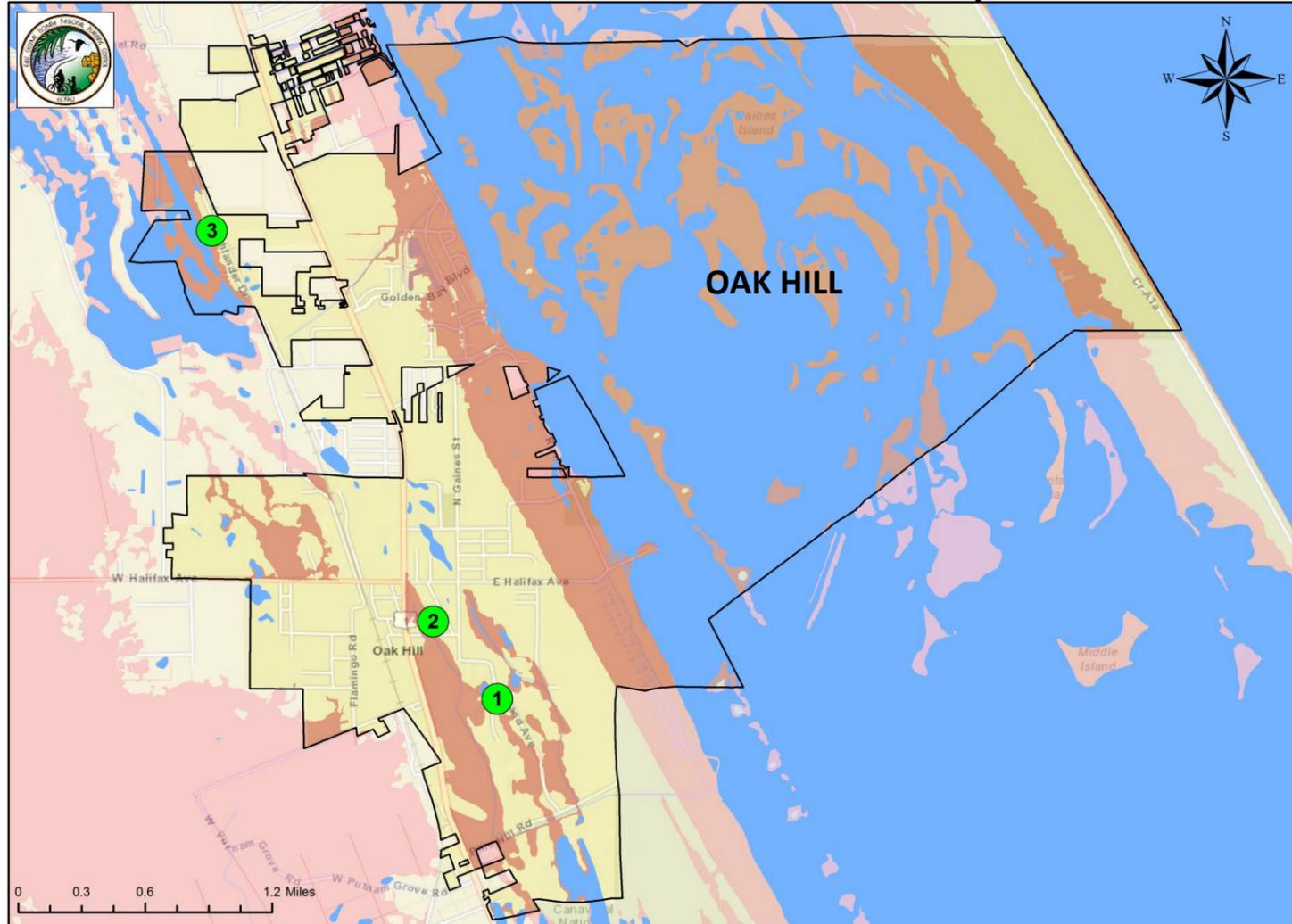


Value	Oak Hill	Jurisdiction Average
Land Value	\$53,241,155	\$184,533,709
Property Value	\$78,420,568	\$419,027,387
Taxable Value	\$52,758,547	\$318,247,047
Tax Base Exposure	\$1,521,266	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

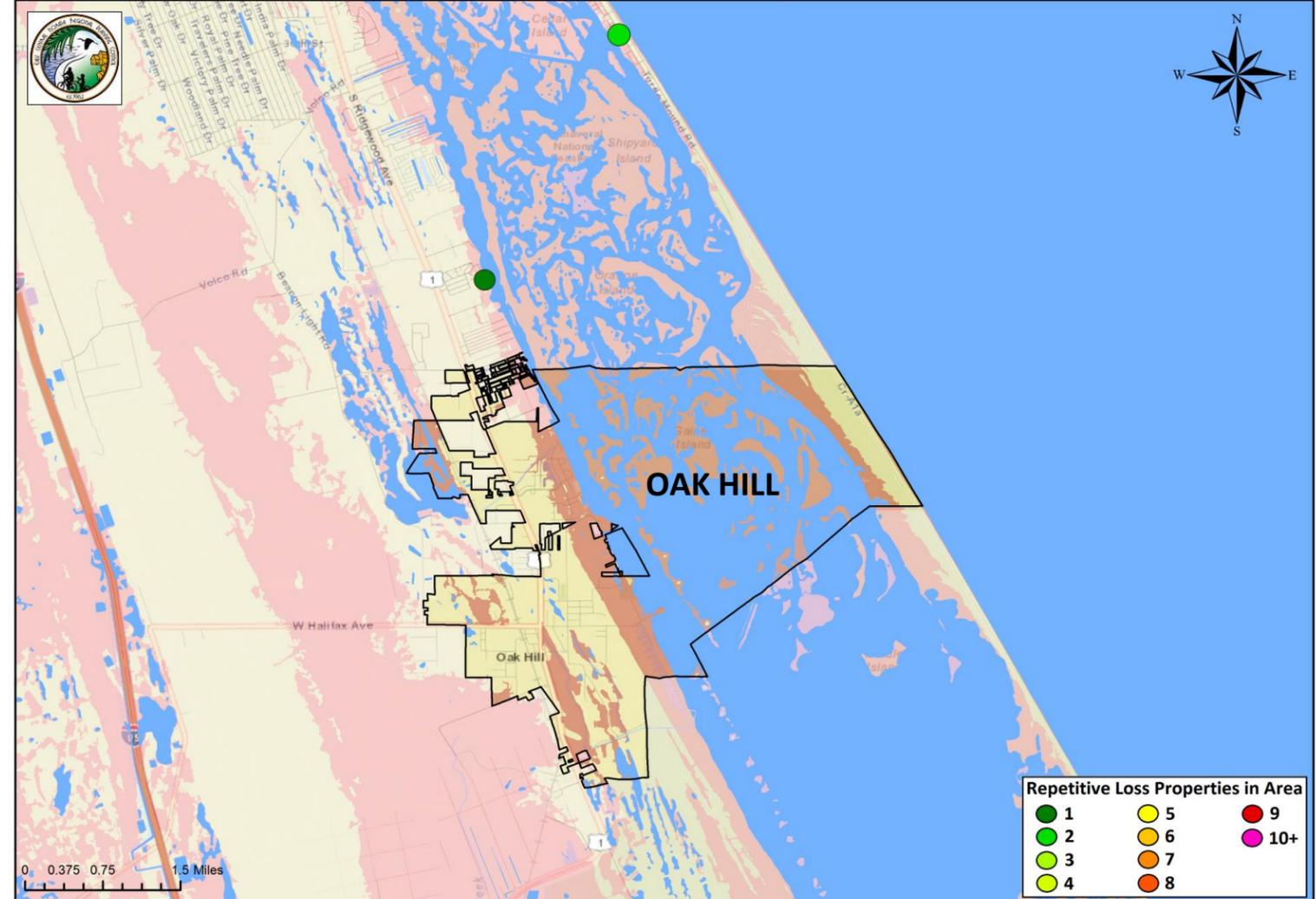
	Nominal Change	Percentage Change	Countywide Change
Parcels	115	17.6%	17.4%
Structures	120	32.2%	27.9%
Land Value	\$6,152,901	13.1%	7.2%
Property Value	\$11,763,670	17.6%	11.6%
Taxable Value	\$9,831,081	22.9%	9.5%

### Critical Facilities within 100-Year Floodplain



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Sources: FEMA, Volusia County and Municipalities,

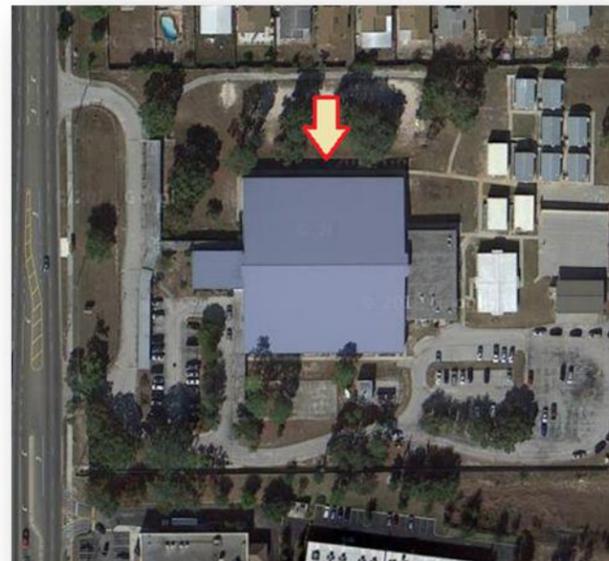
### Repetitive Loss Properties



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Sources: FEMA, Volusia County and Municipalities,

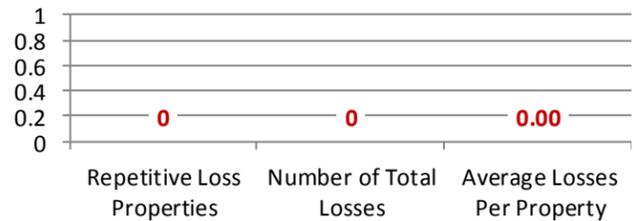
#### Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type
1. Oak Hill Landfill	Landfill
2. Oak Hill Elementary School	School
3. Dalphonse Ranch Airport	Transportation



**Photo:** Oak Hill Elementary School is located within the 100-Year Floodplain in Volusia County.

#### Repetitive Loss Properties – Summary as of 1/1/2013



#### Repetitive Loss Properties – Financial Summary



#### Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	0.0%
Med/Hi Resid.	0.0%
Commercial	0.0%
Mixed Use	0.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	0.0%

#### Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	0.00%
% Not Mitigated	0.00%
% Unknown	0.00%
INSURANCE	
% Insured	0.00%
% Uninsured	0.00%
% Unknown	0.00%

# ORANGE CITY



# GOALS AND OBJECTIVES: **ORANGE CITY**

THERE ARE NO ADDITIONAL GOALS TO THE COUNTYWIDE GOALS STATED IN THE REPORT



# ORANGE CITY

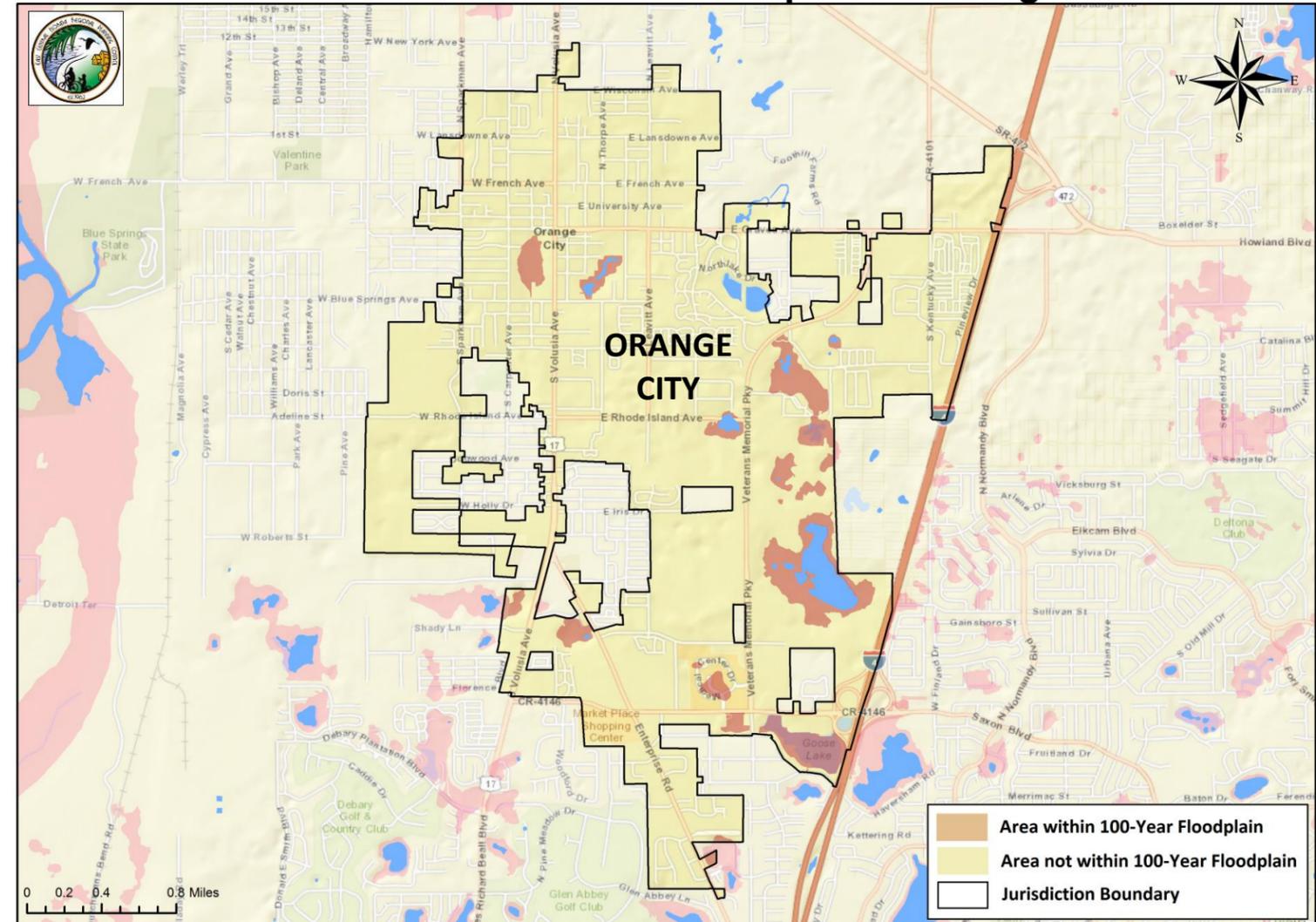
Orange City is located in western Volusia County and is one of the lowest-risk areas in terms of possible flood damage. Only 2.0% of the parcels within the city are within the 100-Year Floodplain (all within Flood Zone A), amounting to just 71 parcels and 90 structures.

Compared to other jurisdictions, Orange City developed much later and its structures are newer as a result. Lowering the flood risk even further is the fact that 56.4% of floodplain-exposed parcels have not been developed, resulting in the second highest total out of all jurisdictions in Volusia County.

There is approximately \$51,921,162 in taxable property value within the 100-Year Floodplain in Orange City, which comes in well below the jurisdiction average of \$318,247,047. However, it is important to note that despite Orange City's low coverage numbers, 12.7% of floodplain-exposed parcels are valued over \$1,000,000, bringing the total financial liability for the city upward.

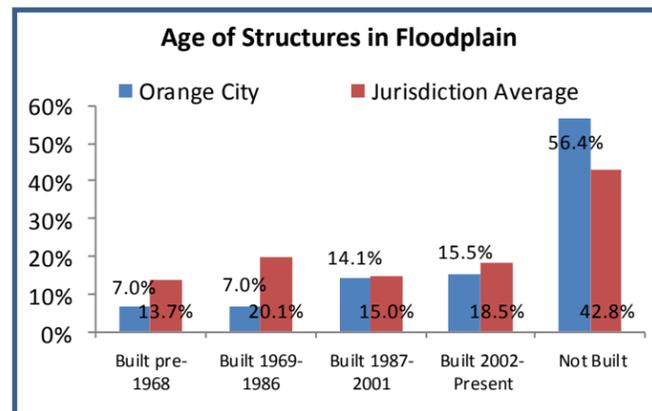
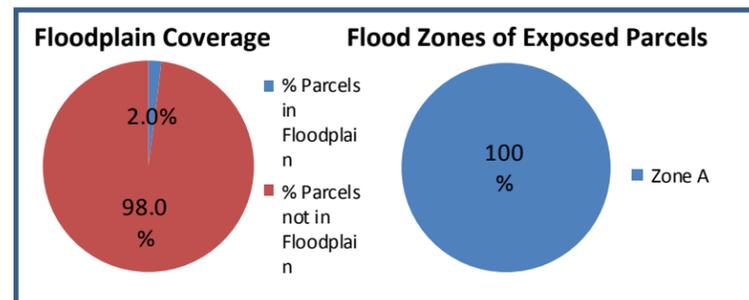
The future land use designations of exposed areas are quite diverse. Topping the list is mixed use at 39.1%, then institutional uses at 32.2% and commercial uses at 21.7%.

## 2011 DFIRM 100-Year Floodplain Coverage



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Sources: FEMA, Volusia County and Municipalities, 2013

## Orange City Floodplain Profile



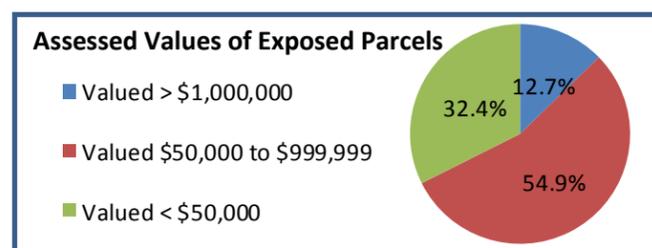
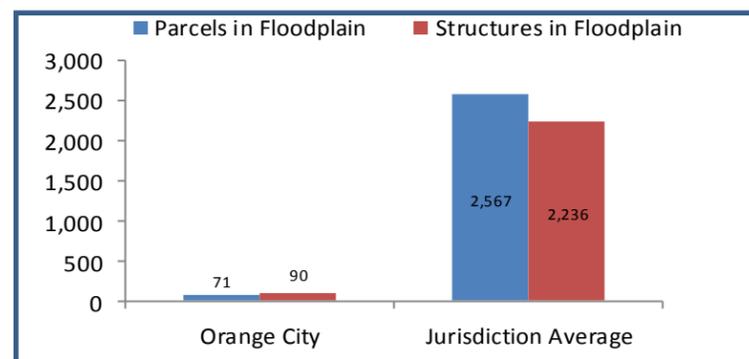
### Future Land Use Designation of Exposed Parcels

Land Use	Acreage	Percent of Exposed Land
Low Density Residential	6	5.2%
Med-Hi Den. Residential	1	0.1%
Commercial/Office	25	21.7%
Mixed Use	45	39.1%
Institutional/Public	37	32.2%
Industrial	1	0.1%
Planned Development	0	0.0%
Agriculture	0	0.0%
Recreation	0	0.0%

*\*Conservation Lands Excluded from this Analysis*

### Priority Mitigation/Improvement Projects

Project	Type
1. VOL-0398 Fawn Ridge Subdivision	Development
2. VOL-0399 Treemont Drainage Project	Capital Improvements



### Total Financial Values of Exposed Parcels

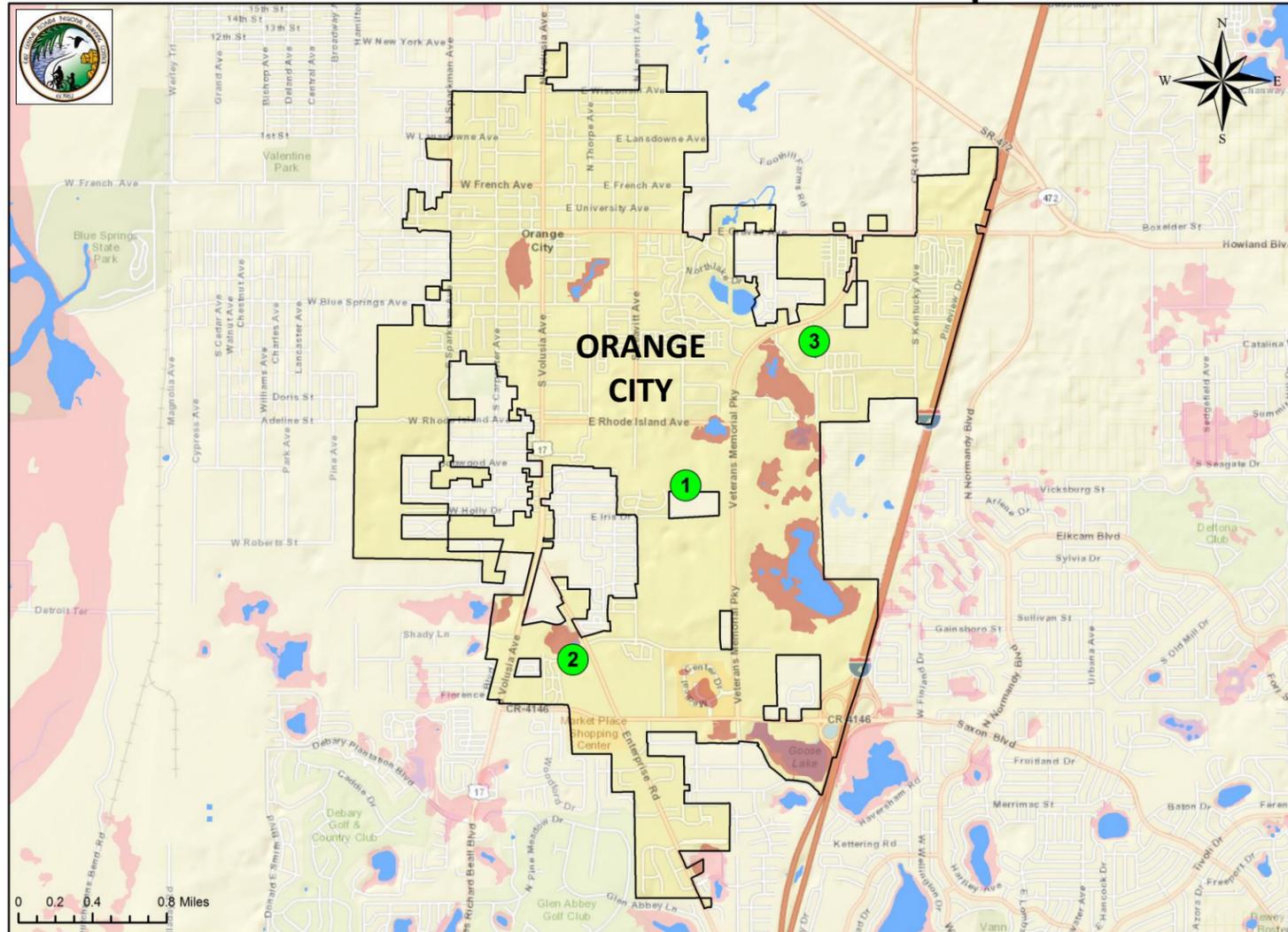
Value	Orange City	Jurisdiction Average
Land Value	\$24,947,089	\$184,533,709
Property Value	\$84,362,909	\$419,027,387
Taxable Value	\$51,921,162	\$318,247,047
Tax Base Exposure	\$1,280,817	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

### Floodplain Change – 2007 DFIRM to 2011 DFIRM

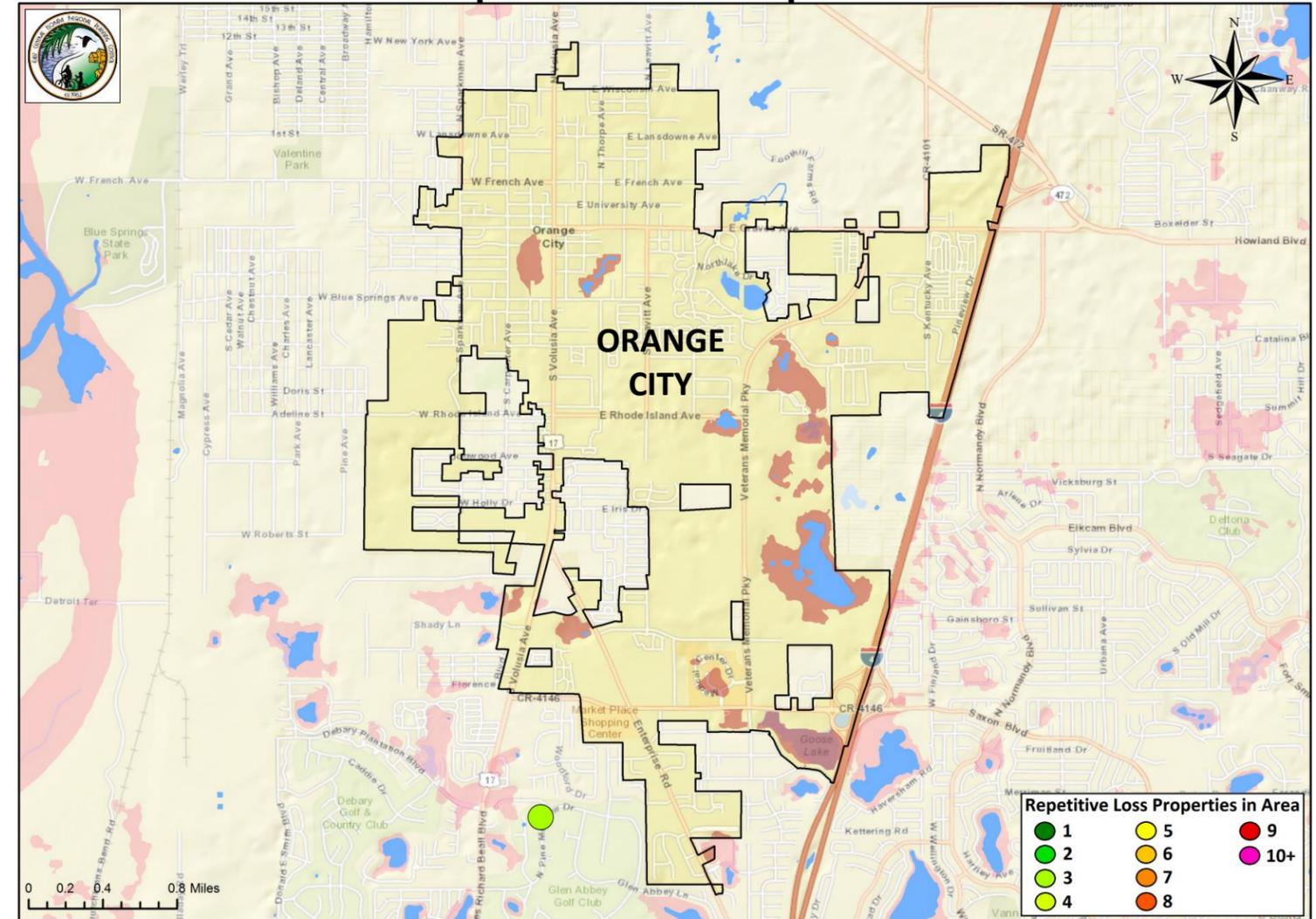
	Nominal Change	Percentage Change	Countywide Change
Parcels	7	10.9%	17.4%
Structures	7	8.4%	27.9%
Land Value	(\$1,832,428)	-6.9%	7.2%
Property Value	(\$807,105)	-0.9%	11.6%
Taxable Value	(\$494,840)	-0.9%	9.5%

## Critical Facilities within 100-Year Floodplain



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Sources: FEMA, Volusia County and Municipalities, 2013

## Repetitive Loss Properties



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Sources: FEMA, Volusia County and Municipalities, 2013

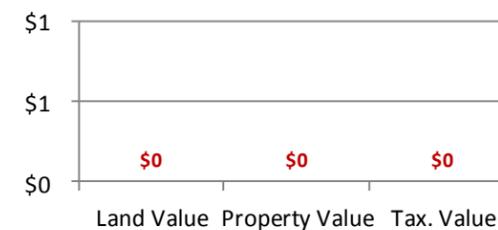
### Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type
1. FL011118 Sewage Treatment Plant	Sewage Treatment
2. West Volusia Interco	Water Treatment
3. Orange City Utilities – Water Plant	Water Treatment

### Repetitive Loss Properties – Summary as of 1/1/2013



### Repetitive Loss Properties – Financial Summary



### Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	0.0%
Med/Hi Resid.	0.0%
Commercial	0.0%
Mixed Use	0.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	0.0%

### Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	0.00%
% Not Mitigated	0.00%
% Unknown	0.00%
INSURANCE	
% Insured	0.00%
% Uninsured	0.00%
% Unknown	0.00%

# ORMOND BEACH



# GOALS AND OBJECTIVES: ORMOND BEACH

**GOAL** – 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: Protect human life and health;

Objective: Minimize or eliminate property damage;

Objective: Minimize the need for future expenditure of public money for costly flood control projects and response to and recovery from flood events;

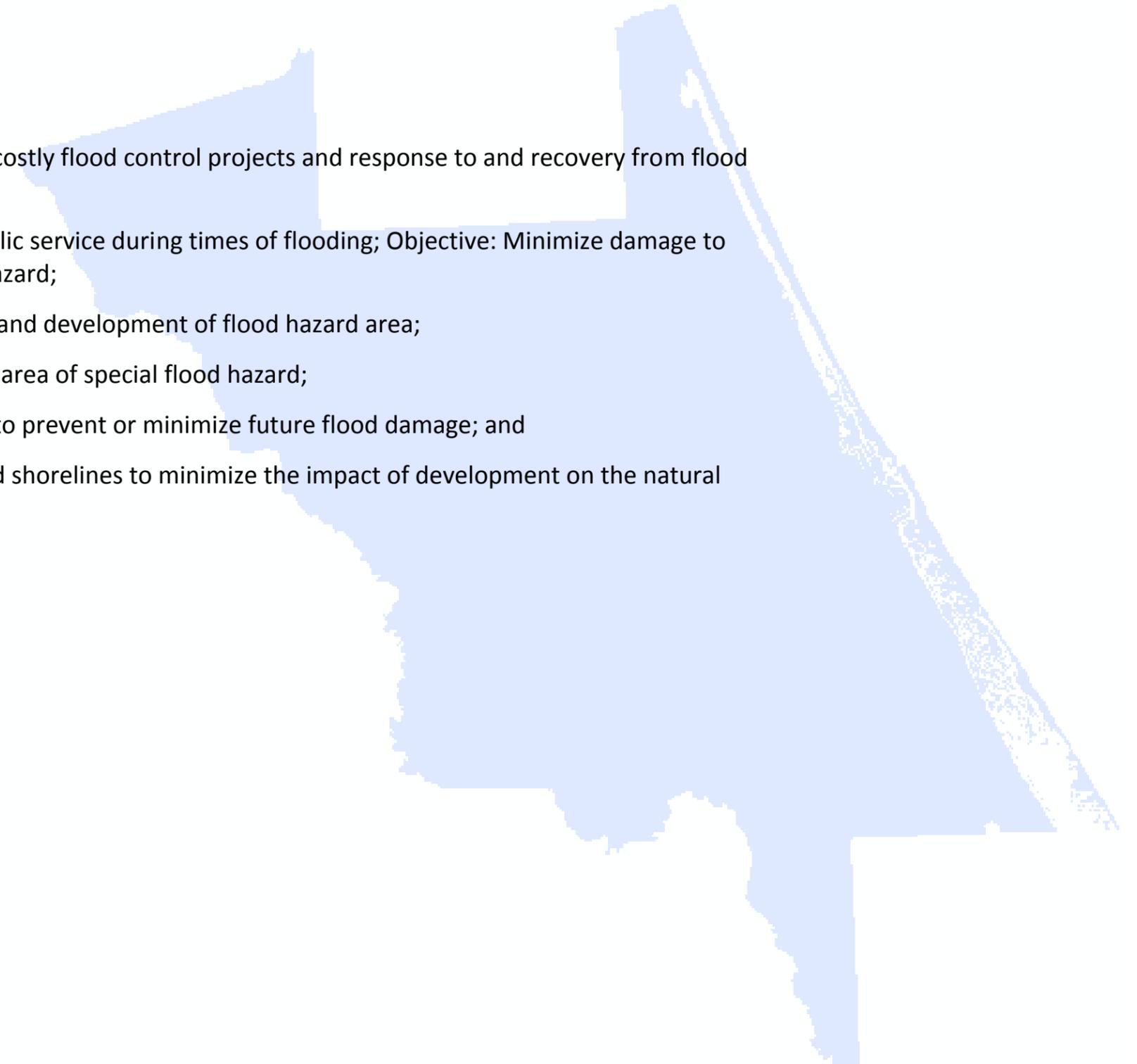
Objective: Minimize unnecessary disruption of commerce, access and public service during times of flooding; Objective: Minimize damage to public and private facilities and utilities located in areas of special flood hazard;

Objective: Help maintain a stable tax base by providing for the sound use and development of flood hazard area;

Objective: Ensure that potential buyers are notified that property is in an area of special flood hazard;

Objective: Require the use of appropriate construction practices in order to prevent or minimize future flood damage; and

Objective: 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;



# ORMOND BEACH

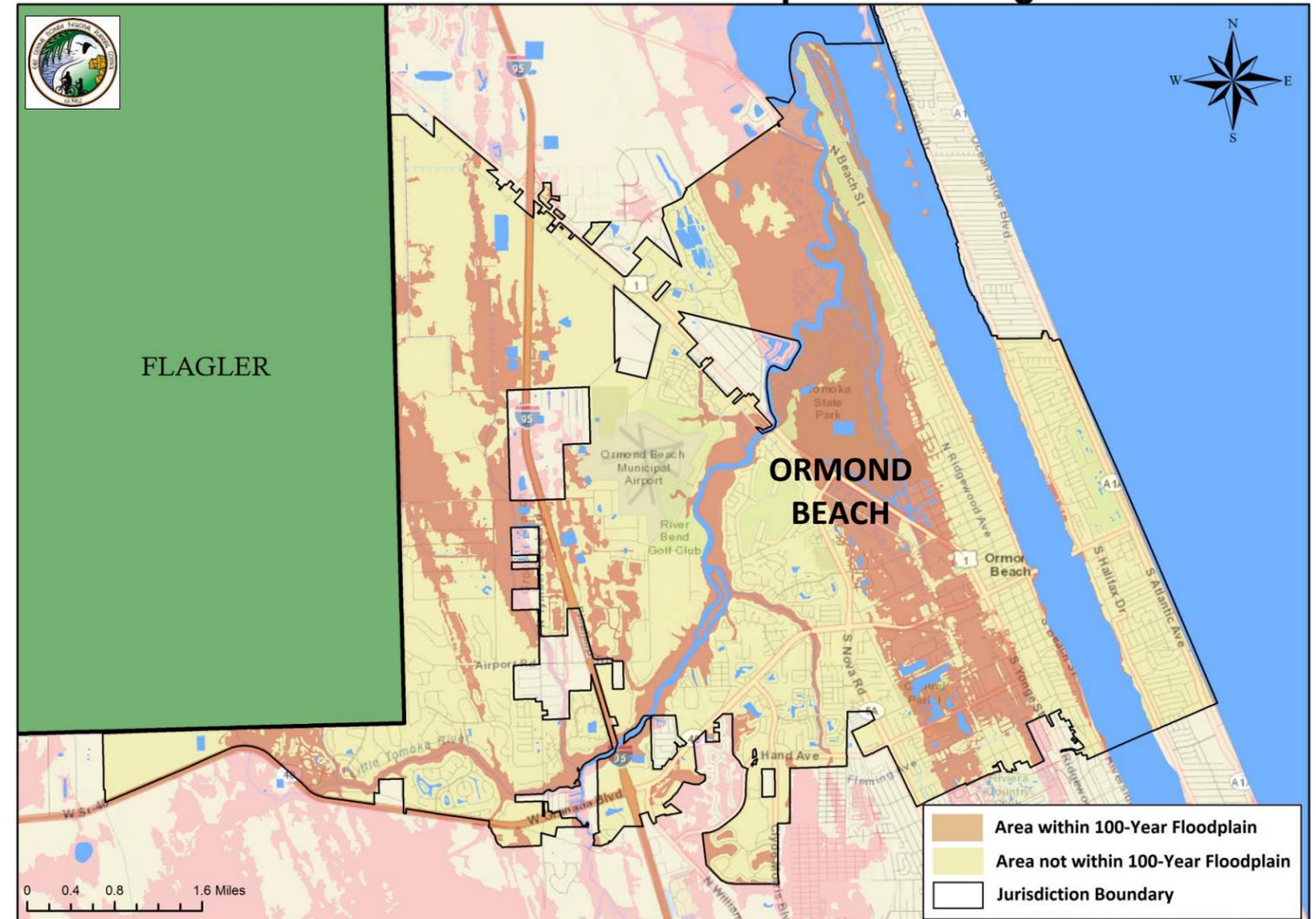
The city of Ormond Beach is located along the Atlantic Ocean and inter-coastal waterway and it one of the higher-risk areas in Volusia County. Approximately 24.0% of all parcels within the city are within the floodplain, with 71.5% of those within Flood Zone AE, 26.0% within Flood Zone A, 2.6% within Flood Zone VE and 0.2% within Flood Zone AH. There are a total of 4,356 parcels and 3,922 structures within the 100-Year Floodplain city wide.

The city of Ormond Beach is relatively older than the rest of the county, with 37.7% of its floodplain-exposed parcels being built between 1969 and 1986 and 23.6% being built between 1987 and 2001. Due to the influx, only 16.6% of parcels within the 100-Year Floodplain have been left undeveloped.

There is approximately \$841,481,612 in taxable property value within the 100-Year Floodplain in the city of Ormond Beach, compared to the jurisdiction average of \$318,247,047. However, from the 2007 DFIRM to 2011 DFIRM mapping update, the city's taxable value exposure has grown only 2.6%.

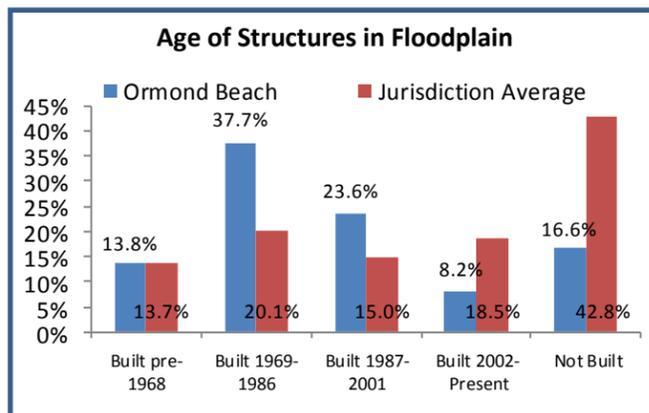
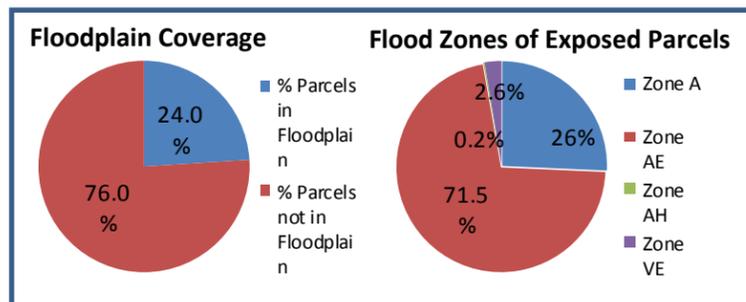
Residential future land use designations account for 54.2% of land exposed to the 100-Year Floodplain in Ormond Beach. Other primary uses include mixed use land uses at 26.1% and commercial land uses are 11.1%.

## 2011 DFIRM 100-Year Floodplain Coverage



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## Ormond Beach Floodplain Profile

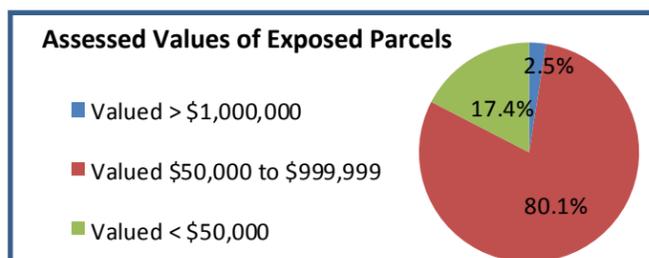
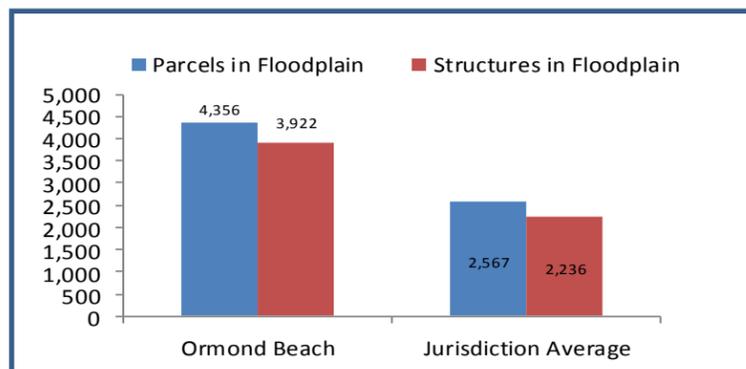


Future Land Use Designation of Exposed Parcels		
Land Use	Acreage	Percent of Exposed Land
Low Density Residential	1,504	48.8%
Med-Hi Den. Residential	166	5.4%
Commercial/Office	341	11.1%
Mixed Use	804	26.1%
Institutional/Public	69	2.2%
Industrial	142	4.6%
Planned Development	0	0.0%
Agriculture	0	0.0%
Recreation	58	1.9%

*\*Conservation Lands Excluded from this Analysis*

Priority Mitigation/Improvement Projects		
Project	Type	
1. VOL-0194 30 Emergency Radios	Internal Improvements	
2. VOL-0400 Elevate Property	Flood Mitigation	
3. VOL-0151 Perf. Arts Generator/Shutters	Flood Mitigation	
4. VOL-0325R Multiple Improvements	Multiple Improvements	
5. VOL-0328 Hand Ave. Drainage	Capital Improvements	
6. VOL-0387 Thompson Creek S.W. Improv.	Capital Improvements	
7. VOL-0050 Old Ormond Drainage	Capital Improvements	
8. VOL-0353 Lake Park Cir. Flood Control	Capital Improvements	
9. Fleming Ave. Pump Station	Capital Improvements	

Red = In Progress      Green = Project Complete

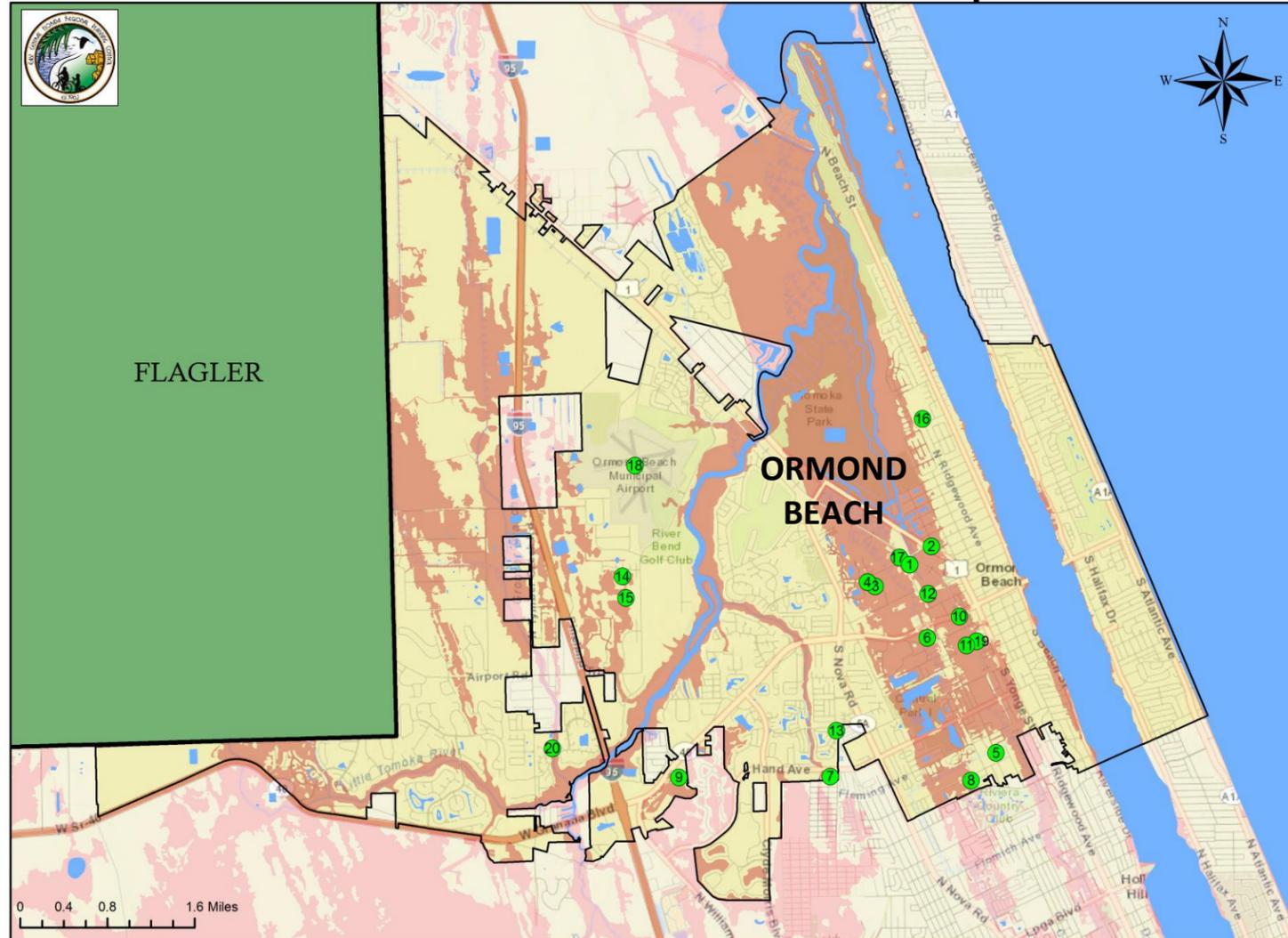


Total Financial Values of Exposed Parcels		
Value	Ormond Beach	Jurisdiction Average
Land Value	\$463,251,795	\$184,533,709
Property Value	\$959,923,055	\$419,027,387
Taxable Value	\$841,481,612	\$318,247,047
Tax Base Exposure	\$18,058,364	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

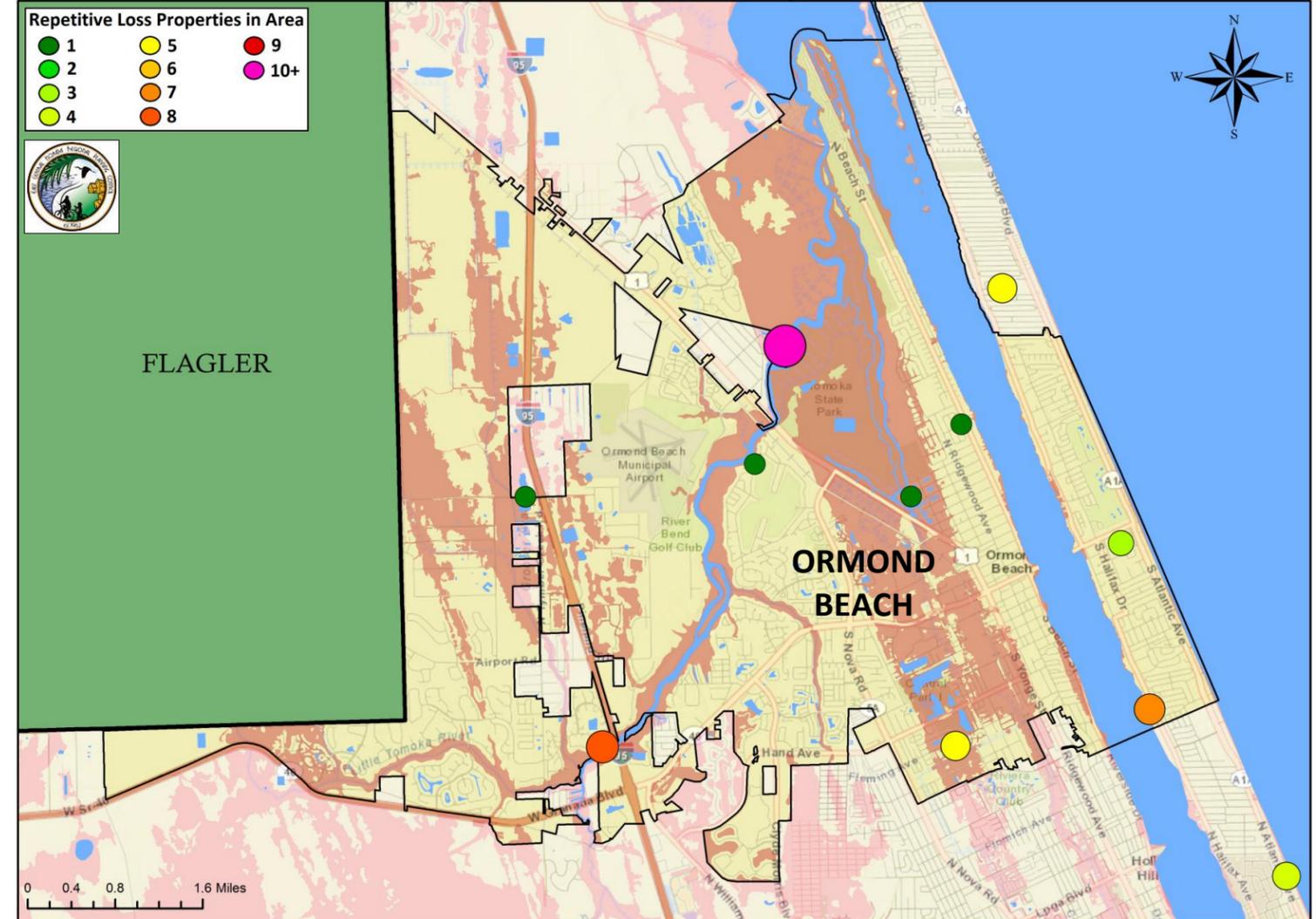
Floodplain Change – 2007 DFIRM to 2011 DFIRM			
	Nominal Change	Percentage Change	Countywide Change
Parcels	80	1.9%	17.4%
Structures	(-27)	-0.7%	27.9%
Land Value	\$17,269,138	3.9%	7.2%
Property Value	\$18,752,894	2.0%	11.6%
Taxable Value	\$21,451,962	2.6%	9.5%

## Critical Facilities within 100-Year Floodplain



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Sources: FEMA, Volusia County and Municipalities, 2013

## Repetitive Loss Properties

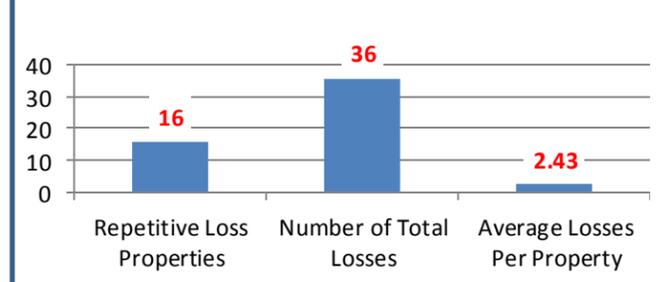


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Sources: FEMA, Volusia County and Municipalities, 2013

### Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type	Facility	Type
1. Public Works Building	Admin	15. Pine Trail Elementary School	School
2. Ormond Beach Fire Station #93	Admin	16. Ormond Beach Junior High School	School
3. Coquina Center Assisted Living	Assisted Living	17. FL0020532 Sewage Treatment Plant	Sewage Treatment
4. Southland Suites of Ormond Beach	Assisted Living	17. Wastewater Treatment Plant	Water Treatment
5. Kozy Korner Assisted Living	Assisted Living	17. Ormond Beach Transfer Station	Landfill
6. Seasons by Riviera Assisted Living	Assisted Living	18. Ormond Beach Municipal Airport	Transportation
6. Dovico Adult Family Care	Assisted Living	19. Water Plant	Water Treatment
7. Golden Abbey Assisted Living	Assisted Living	20. FLA11193 Sewage Treatment Plant	Sewage Treatment
8. Evergreen Assisted Living	Assisted Living	20. Tymber Creek Utility (Location 1)	Water Treatment
9. Lowe's	Chem. Storage	20. Tymber Creek Utility (Location 2)	Water Treatment
10. Rinker Materials (Location 1)	Chem. Storage		
11. Rinker Materials (Location 2)	Chem. Storage		
12. Crown Castle USA	Chem. Storage		
13. Ormond Beach Landfill Class I/III	Landfill		
14. Hudson Tool and Die	Material Storage		

### Repetitive Loss Properties – Summary as of 1/1/2013



### Repetitive Loss Properties – Financial Summary



### Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	87.5%
Med/Hi Resid.	12.5%
Commercial	0.0%
Mixed Use	0.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	0.0%

### Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	56.3%
% Not Mitigated	43.7%
% Unknown	0.00%

INSURANCE	
% Insured	50.0%
% Uninsured	50.0%
% Unknown	0.00%

# PIERSON



# GOALS AND OBJECTIVES: **PIERSON**

THERE ARE NO ADDITIONAL GOALS TO THE COUNTYWIDE GOALS STATED IN THE REPORT



# PIERSON

Pierson is located in western Volusia County and is the least-exposed of all county jurisdictions in terms of taxable property values within to the 100-Year Floodplain.

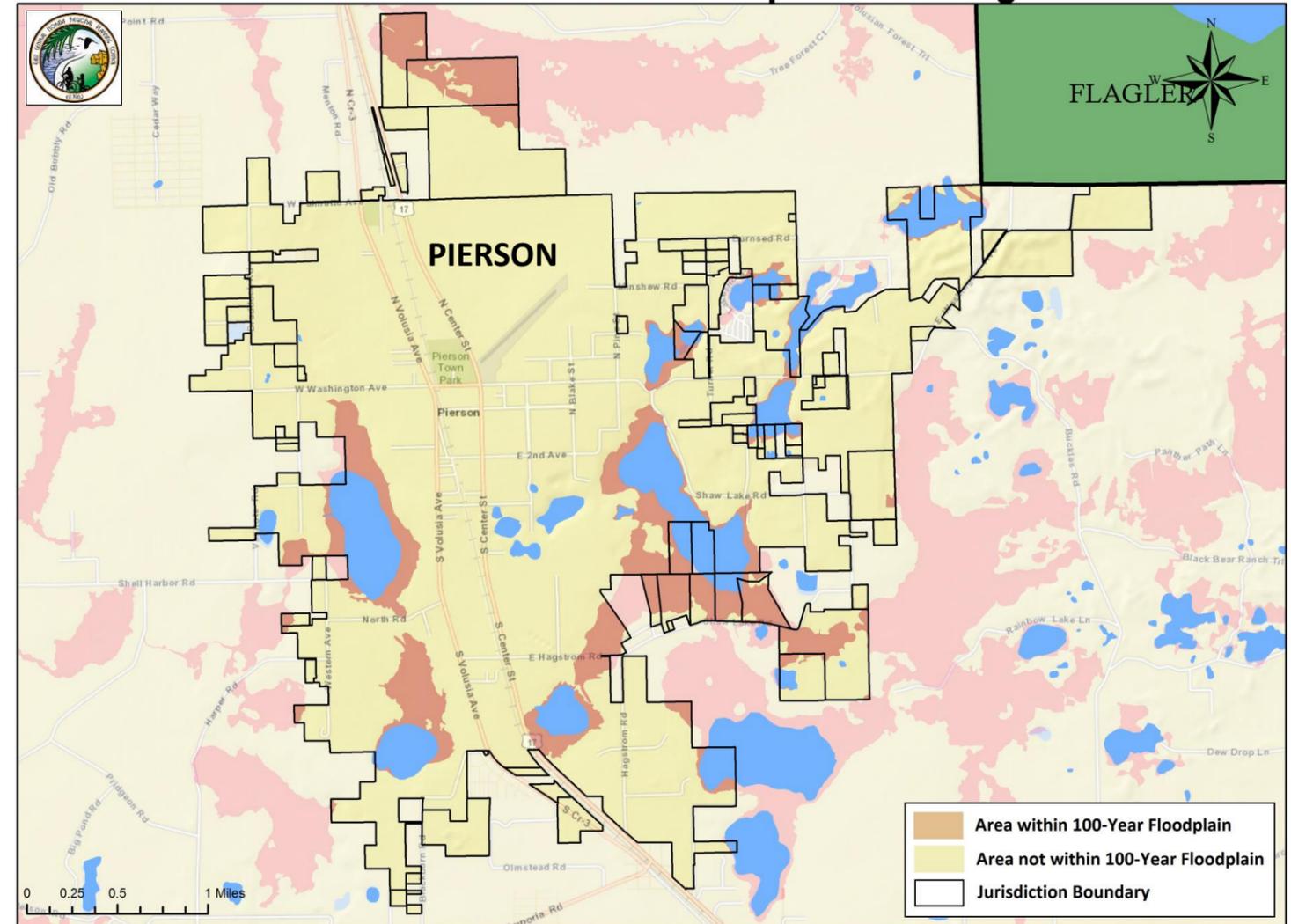
Approximately 12.6% of the parcels within Pierson are within the 100-Year Floodplain, and all of those parcels are within Flood Zone A. This accounts for 161 parcels and 62 structures within the 100-Year Floodplain city wide.

Development has been kept minimal within the floodplain throughout Pierson. The city boasts the lowest floodplain development percentage – just 26.9% of parcels in the floodplain are developed – and none of the parcels exposed to the floodplain are valued over \$1,000,000.

Minimizing risk even further, 71.4% of the parcels within the 100-Year Floodplain in Pierson are ‘low value parcels’; Parcels with a property value less than \$50,000. There is approximately \$6,502,515 in taxable property value within the 100-Year Floodplain in Pierson, compared to the jurisdiction average of \$318,247,047.

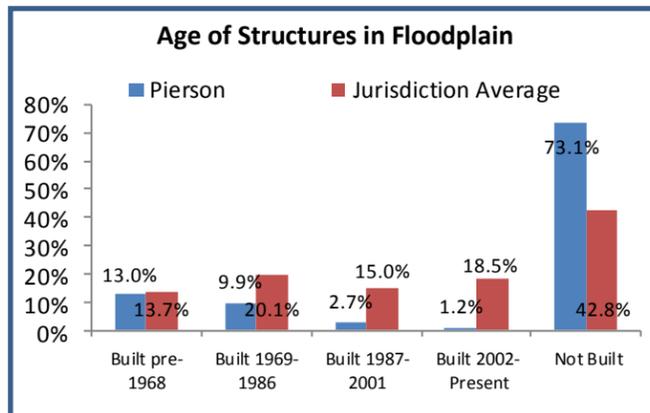
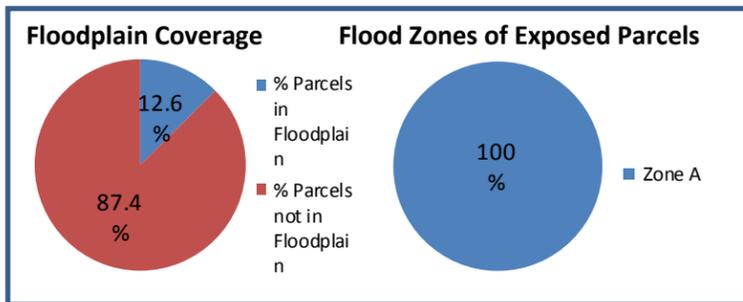
The Future Land Use designations within the floodplain also show a low amount of flooding risk to structures, as 94.8% of the land covered by the 100-Year Floodplain is designated as ‘Agriculture’.

## 2011 DFIRM 100-Year Floodplain Coverage



This map is intended to be used for planning purposes only and is not to be construed as a legal document. Sources: FEMA, Volusia County and Municipalities, 2013

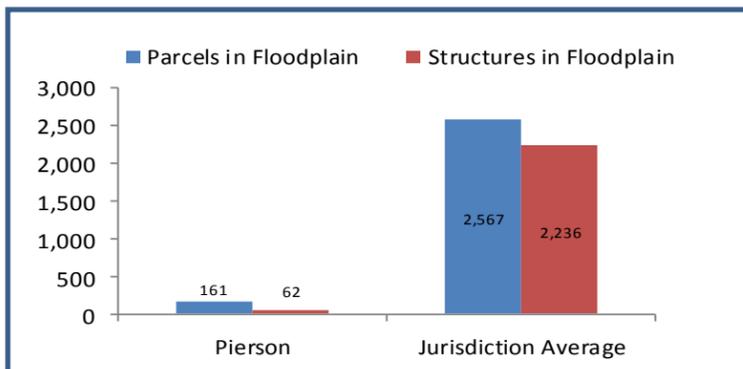
## Pierson Floodplain Profile



Future Land Use Designation of Exposed Parcels		
Land Use	Acreage	Percent of Exposed Land
Low Density Residential	5	3.1%
Med-Hi Den. Residential	0	0.0%
Commercial/Office	0	0.0%
Mixed Use	0	0.0%
Institutional/Public	0	0.0%
Industrial	0	0.0%
Planned Development	0	0.0%
Agriculture	182	94.8%
Recreation	5	3.1%

*\*Conservation Lands Excluded from this Analysis*

Priority Mitigation/Improvement Projects		
Project	Type	
1. VOL-0028 Harden Town Hall	Flood Mitigation	
2. VOL-0218 Secure Water Supply	Capital Improvements	
3. VOL-0219 Establish an EOC	Internal Improvements	
4. VOL-220 MH-Retrofit Tie-Down Program	Internal Improvements	
5. VOL-0221 Stormwater Maint. Program	Internal Improvements	



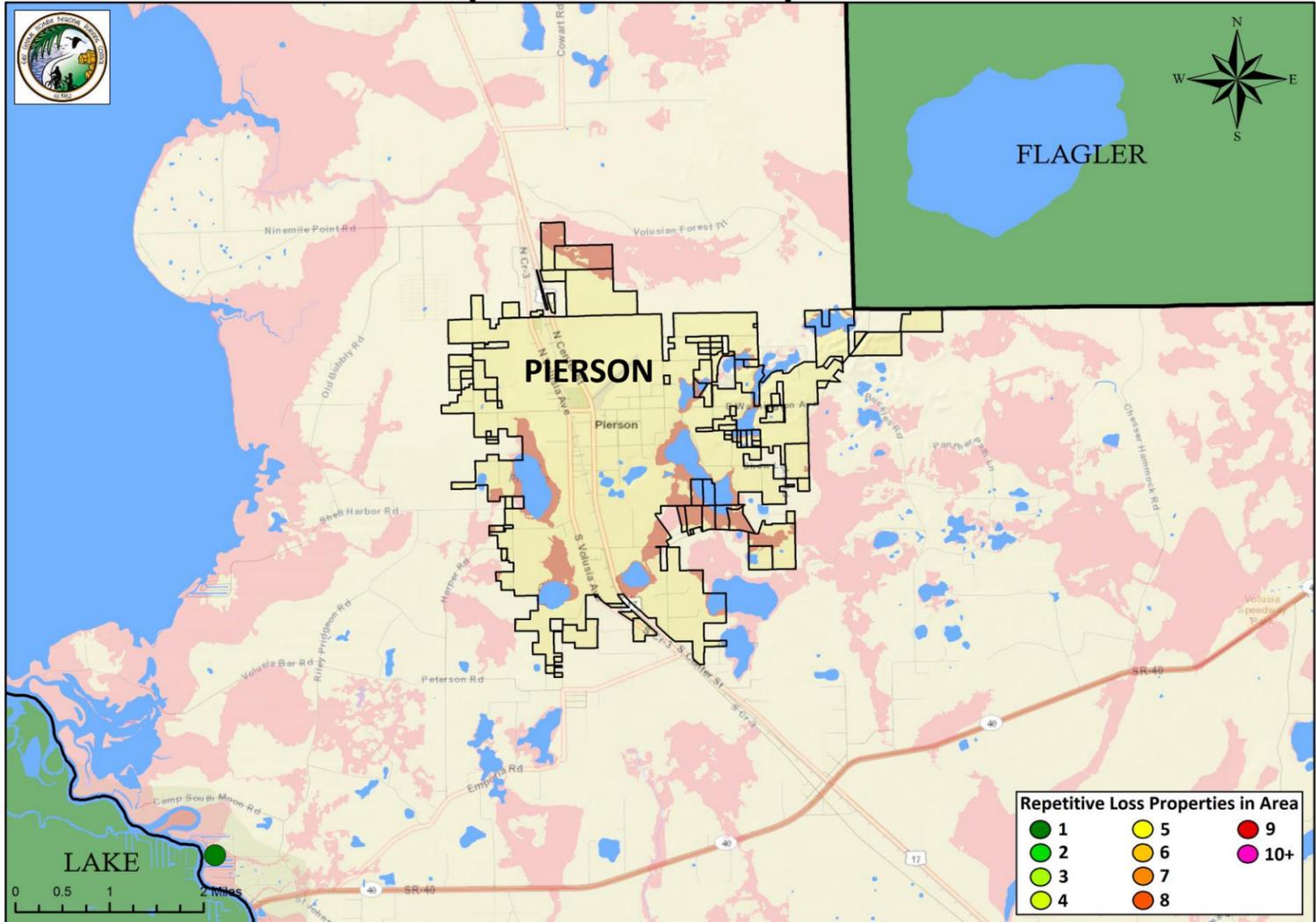
Total Financial Values of Exposed Parcels		
Value	Pierson	Jurisdiction Average
Land Value	\$8,898,710	\$184,533,709
Property Value	\$7,391,371	\$419,027,387
Taxable Value	\$6,502,515	\$318,247,047
Tax Base Exposure	\$175,726	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

Floodplain Change – 2007 DFIRM to 2011 DFIRM			
	Nominal Change	Percentage Change	Countywide Change
Parcels	15	8.8%	17.4%
Structures	(-5)	-7.5%	27.9%
Land Value	\$603,565	7.3%	7.2%
Property Value	\$226,590	-3.0%	11.6%
Taxable Value	\$158,130	-2.4%	9.5%

# Repetitive Loss Properties

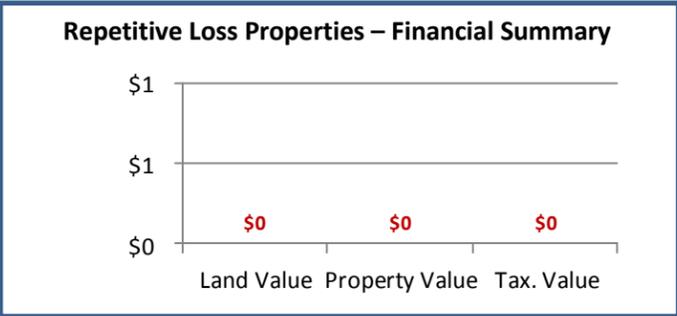
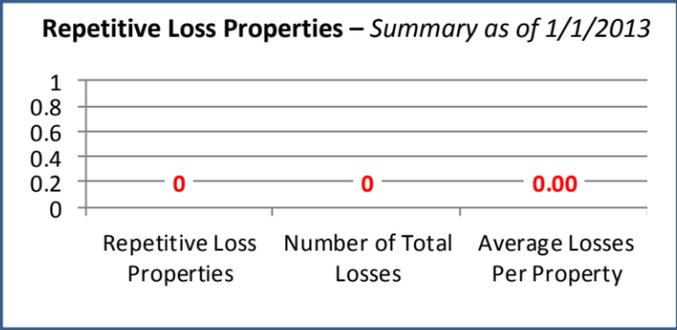
THERE ARE NO CRITICAL FACILITIES INSIDE THE 100-YEAR FLOODPLAIN



This map is intended to be used for planning purposes only and is not to be construed as a legal document.  
Sources: FEMA, Volusia County and Municipalities, 2013

**Critical Facilities within 100-Year Floodplain or Storm Surge**

*The Town of Pierson does not have any Critical Facilities within the 100-Year Floodplain*



**Repetitive Loss Properties – Future Land Use Summary**

Land Use	Percentage
LD Residential	0.0%
Med/Hi Resid.	0.0%
Commercial	0.0%
Mixed Use	0.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	0.0%

**Repetitive Loss Properties – Insurance and Mitigation Summary**

MITIGATION	
% Mitigated	0.00%
% Not Mitigated	0.00%
% Unknown	0.00%
INSURANCE	
% Insured	0.00%
% Uninsured	0.00%
% Unknown	0.00%

# PONCE INLET



# GOALS AND OBJECTIVES: PONCE INLET

**GOAL – Conserve, protect, and restore coastal natural resources in order 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: 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: Protect, conserve and enhance coastal resource wetlands, wildlife habitat and living marine resources by continued implementation of the LUDC's development regulations.

Objective: 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: The town shall develop strategies to lessen the impact of a destructive storm on human life, property, public facilities and natural resources.

Objective: Population concentrations shall be directed away from the Coastal High Hazard Area\* (CHHA).

Objective: 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: 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: If constructed, all public facilities in the CHHA shall be flood-proofed to ensure minimum damages from storms and hurricanes.

Objective: 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. The LMS is a result of a county-wide multi-jurisdictional program called Volusia 2020.

Objective: 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 – Protect, enhance, and restore the natural function of the beach and dune system.**

Objective: 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: 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.

# PONCE INLET

Ponce Inlet is located along the Atlantic Ocean and inter-coastal waterway and is in a fairly high-risk area in terms of large-scale flooding.

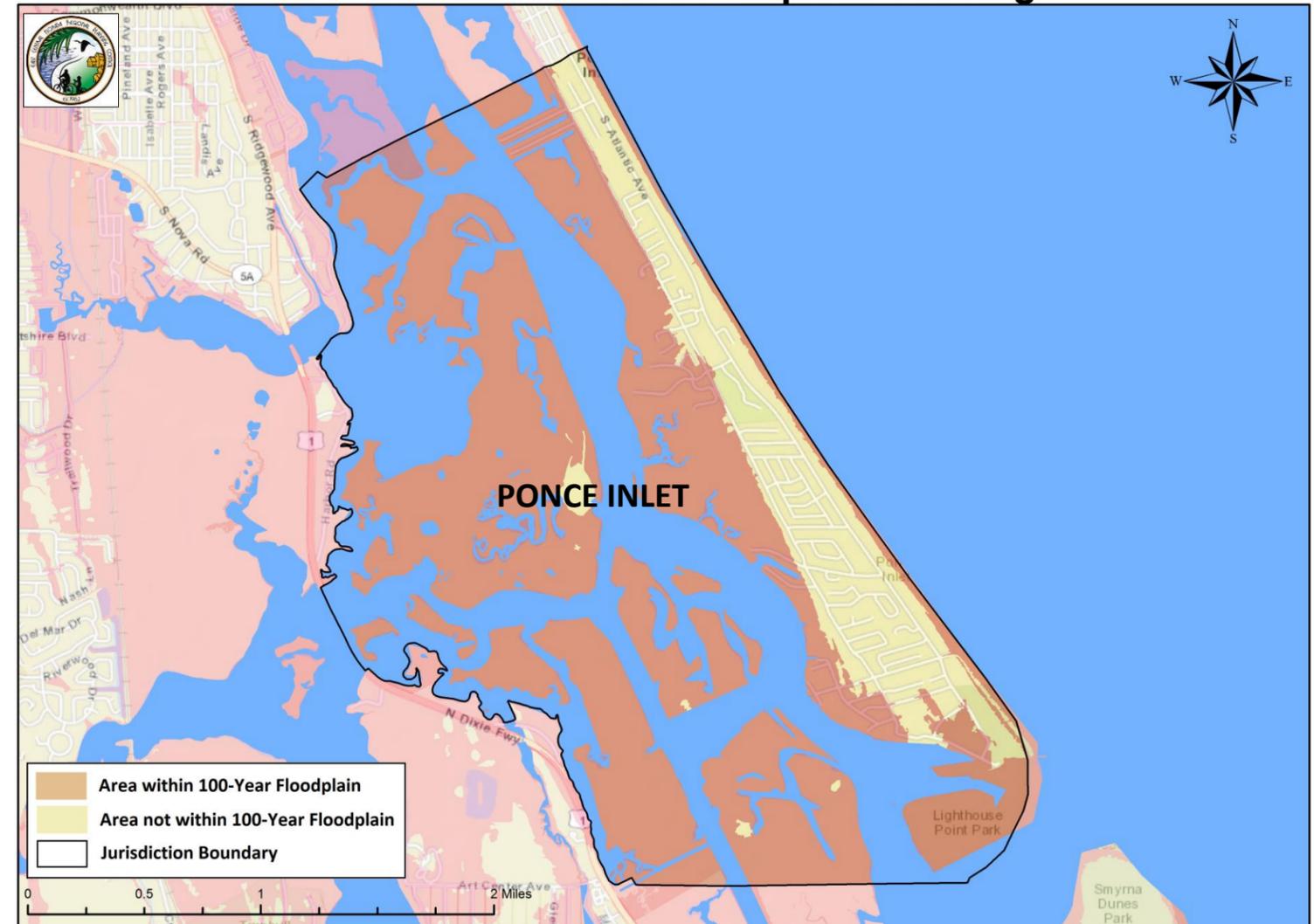
Approximately 34.9% of parcels in the city are partially or completely within the 100-Year Floodplain, with 85.5% of those parcels within Flood Zone AE and 14.5% within Flood Zone VE. This amounts to 574 parcels and 394 buildings within the 100-Year Floodplain city wide.

Development within the 100-Year Floodplain in Ponce Inlet primarily occurred between 1969 and 1986, when 29.4% of floodplain-exposed parcels were developed. Development has steadily dropped off since that time, and as a result 37.8% of the parcels within the floodplain have been left undeveloped.

There is approximately \$137,618,105 in taxable property value within the 100-Year Floodplain in Ponce Inlet, and while this may be lower than the jurisdiction average of \$318,247,047, the small size of Ponce Inlet makes it one of the more risky municipalities for flooding county wide.

Future land use designations of those parcels exposed to the 100-Year Floodplain are somewhat diverse. Approximately 67.9% of the land occupied by the floodplain has a residential designation, while institutional and commercial uses are next most common.

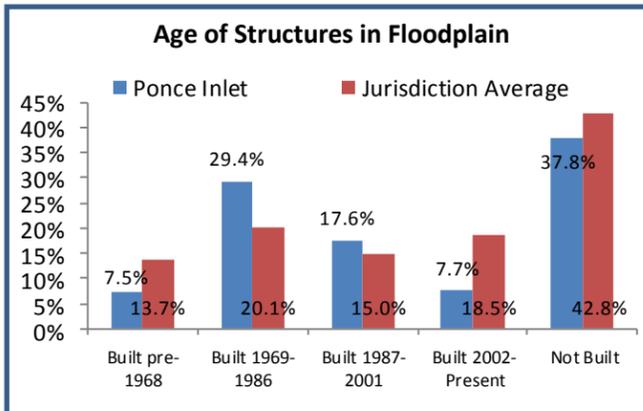
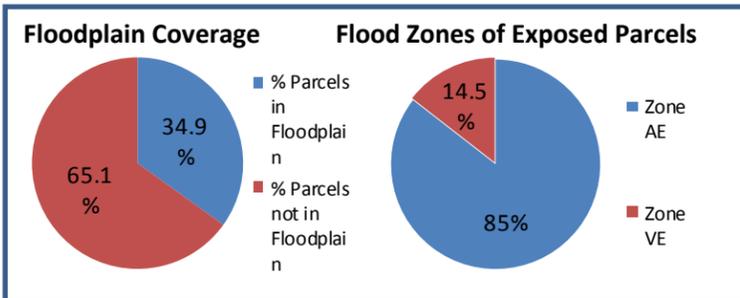
## 2011 DFIRM 100-Year Floodplain Coverage



This map is intended to be used for planning purposes only and is not to be construed as a legal document.

Sources: FEMA, Volusia County and Municipalities, 2013

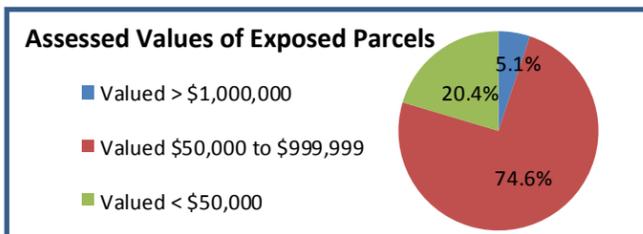
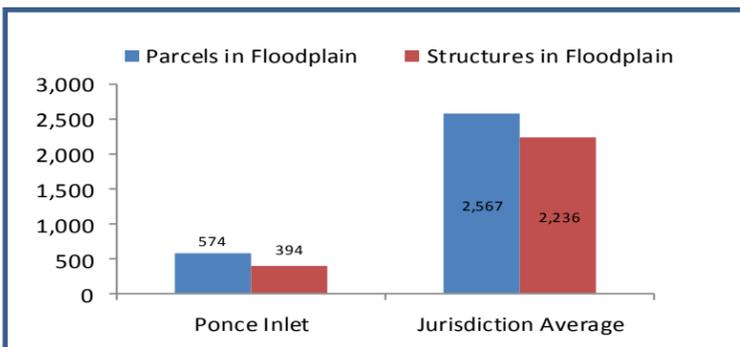
## Ponce Inlet Floodplain Profile



Land Use	Acreage	Percent of Exposed Land
Low Density Residential	106	48.6%
Med-Hi Den. Residential	42	19.3%
Commercial/Office	21	9.6%
Mixed Use	0	0.0%
Institutional/Public	41	18.8%
Industrial	0	0.0%
Planned Development	0	0.0%
Agriculture	0	0.0%
Recreation	8	3.7%

*\*Conservation Lands Excluded from this Analysis*

Project	Type
1. VOL-0173 Equip Mobile Command Center	Capital Improvements
2. VOL-0419 Fire Station Windows/Doors	Flood Mitigation
3. VOL-0420 Purchase 4" Flood Pump	Flood Mitigation

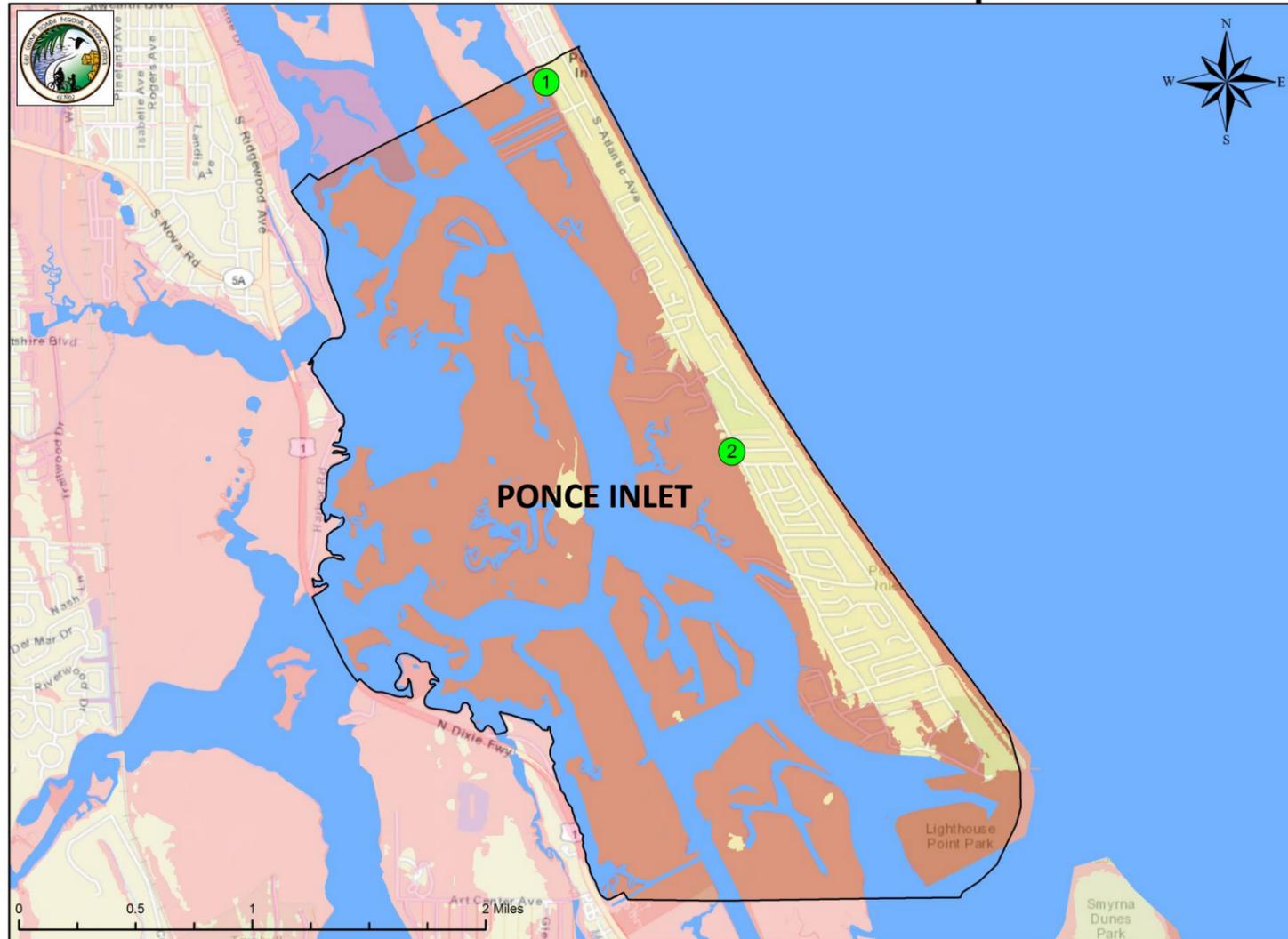


Value	Ponce Inlet	Jurisdiction Average
Land Value	\$127,892,903	\$184,533,709
Property Value	\$177,512,974	\$419,027,387
Taxable Value	\$137,618,105	\$318,247,047
Tax Base Exposure	\$3,030,433	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

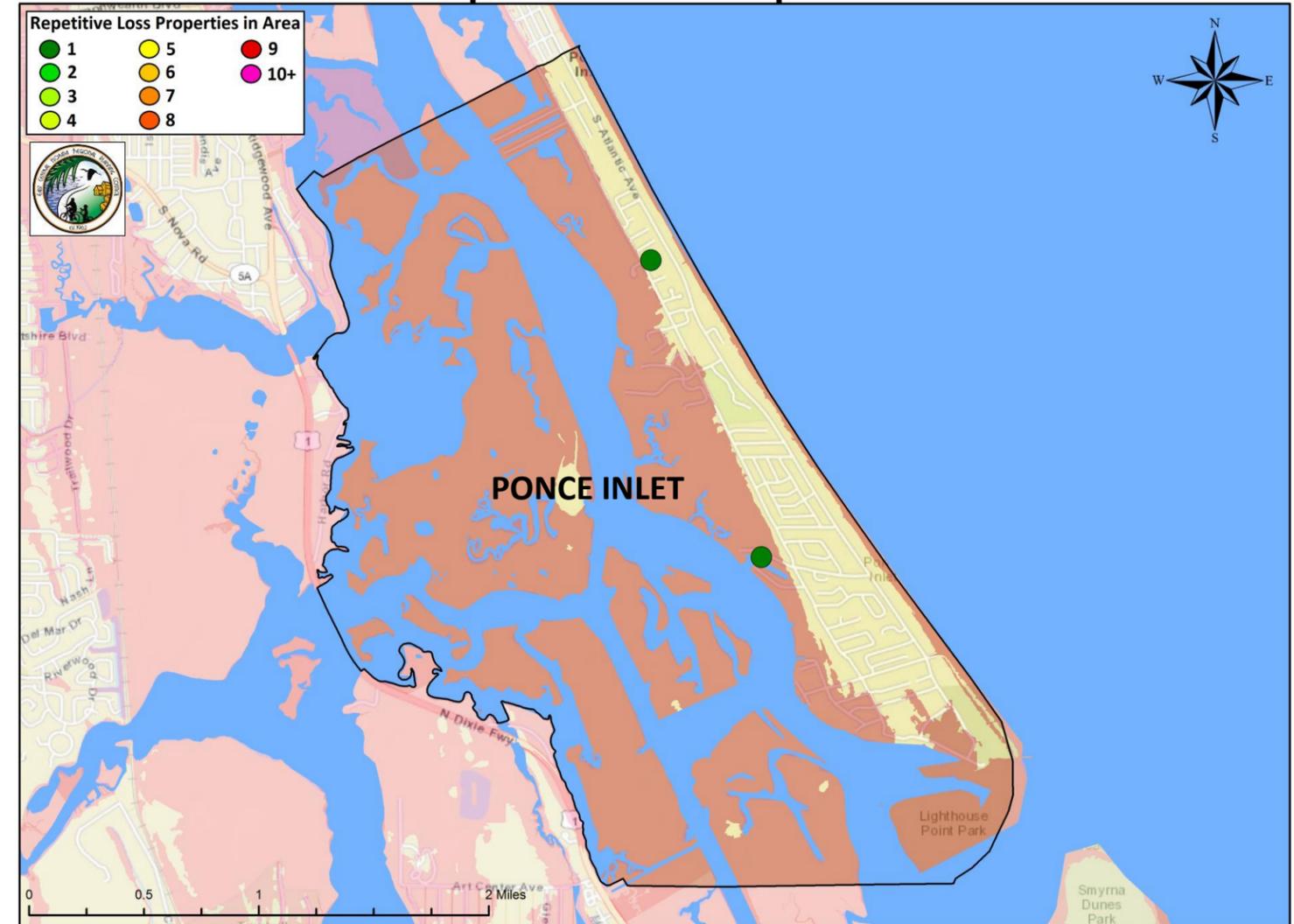
	Nominal Change	Percentage Change	Countywide Change
Parcels	0	0.0%	17.4%
Structures	(-3)	-0.9%	27.9%
Land Value	(-\$6,138,061)	-4.6%	7.2%
Property Value	(-\$6,124,493)	-3.3%	11.6%
Taxable Value	(-\$6,472,078)	-4.5%	9.5%

## Critical Facilities within 100-Year Floodplain



This map is intended to be used for planning purposes only and is not to be construed as a legal document.  
Sources: FEMA, Volusia County and Municipalities, 2013

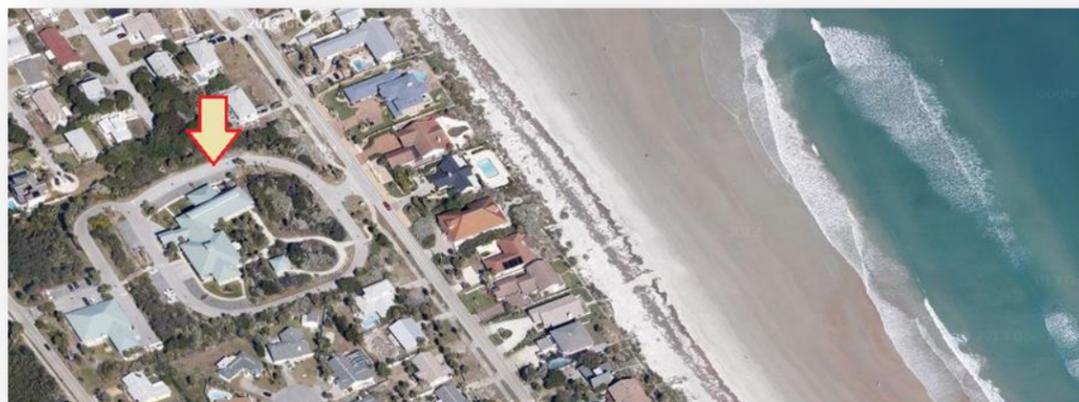
## Repetitive Loss Properties



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Sources: FEMA, Volusia County and Municipalities, 2013

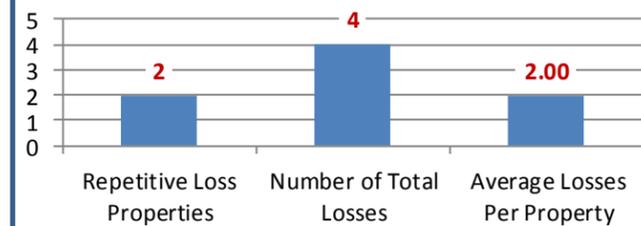
### Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type
1. Ponce Inlet Police Headquarters	Admin
2. Ponce Inlet Fire Station #78	Admin



**Photo:** The Ponce Inlet Police Department is in very close proximity to the Atlantic Ocean.

### Repetitive Loss Properties – Summary as of 1/1/2013



### Repetitive Loss Properties – Financial Summary



### Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	100.0%
Med/Hi Resid.	0.0%
Commercial	0.0%
Mixed Use	0.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	0.0%

### Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	0.00%
% Not Mitigated	0.00%
% Unknown	100.0%
INSURANCE	
% Insured	0.00%
% Uninsured	0.00%
% Unknown	100.0%

# PORT ORANGE



# GOALS AND OBJECTIVES: PORT ORANGE

**GOAL** – 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: 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** – Lessen the impact of a destructive storm on human life, property, public facilities and natural resources.

Objective: 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 (CRS).

**GOAL** – Conserve, protect, manage, restore, and enhance the City's air, water, and soil resources in order to maintain a living environment that supports a healthy population and does not cause illness.

Objective: 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** – 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: 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 depression 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.

# PORT ORANGE

The City of Port Orange is located along the inter-coastal water way and is one of the higher-risk municipalities in terms of flooding in Volusia County.

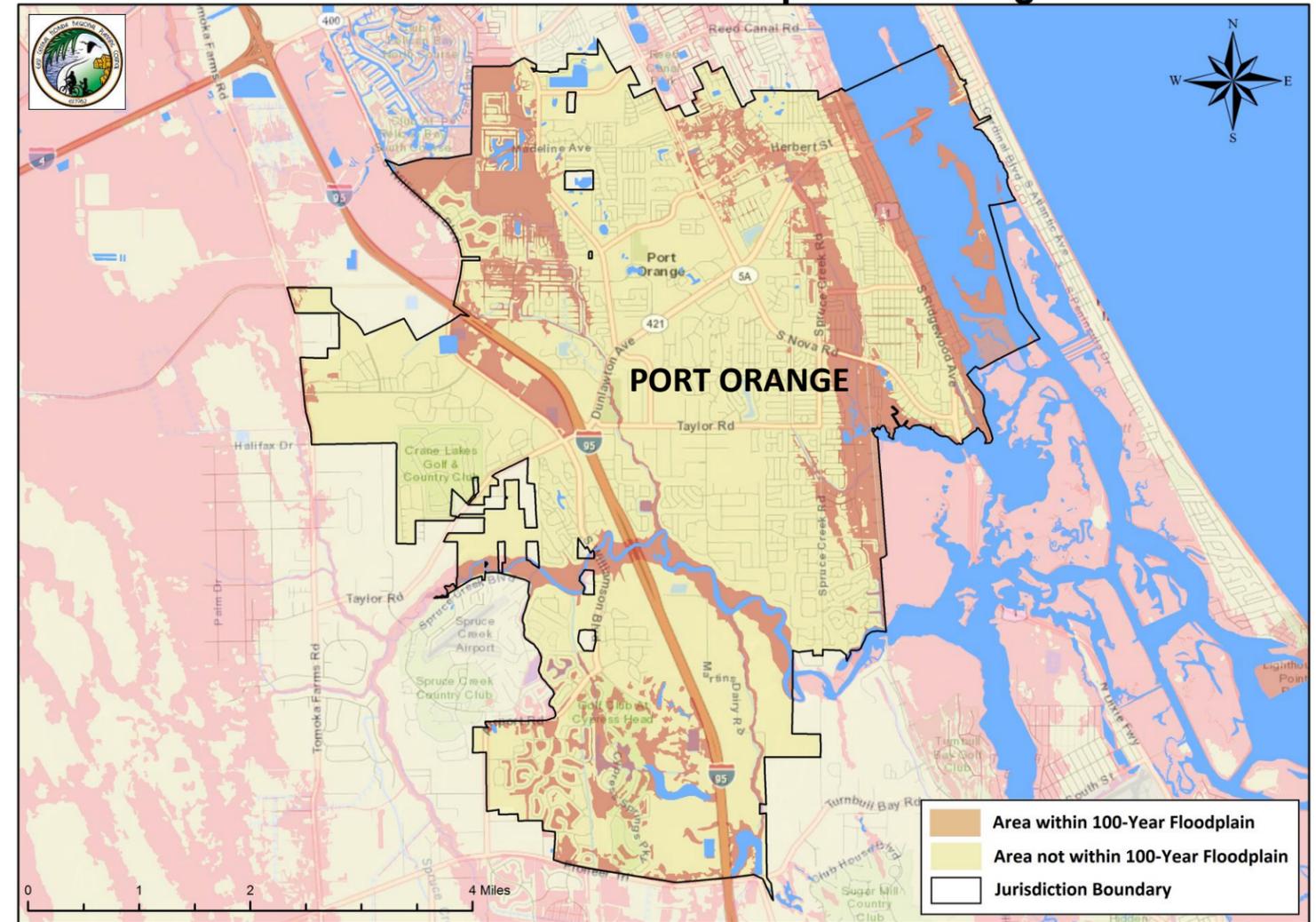
Approximately 24.7% of parcels within the city are somewhat or completely within the 100-Year Floodplain, with 85% in Flood Zone AE, 15% in Flood Zone A and less than 0.1% in Flood Zone AH. This amounts to 5,676 parcels and 5,388 buildings within the floodplain city wide, both well above County averages.

The parcels exposed to the floodplain in the city of Port Orange are much older than those of other jurisdictions, with 36.4% developed between 1969 and 1986 and 26.9% developed between 1987 and 2001.

There is approximately \$670,809,916 in taxable property value within the 100-Year Floodplain in Port Orange, which is well above the jurisdiction average of \$318,247,047. While Port Orange is large in terms of geography and number of parcels, the flood risk remains inherent due to its position relative to local flooding sources.

The future land use designations of exposed areas are primarily residential, with 68.4% of total land coverage (minus conservation) allocated to that land use.

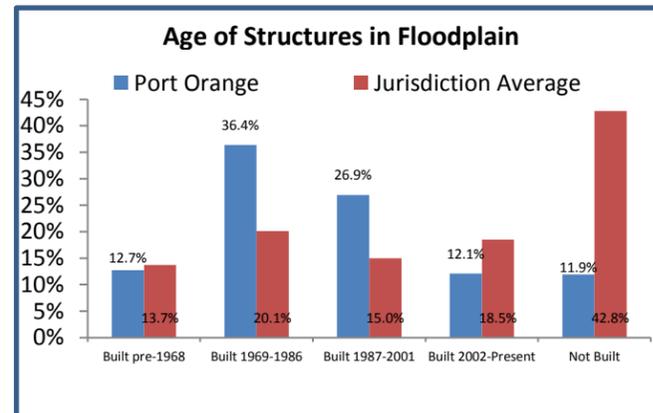
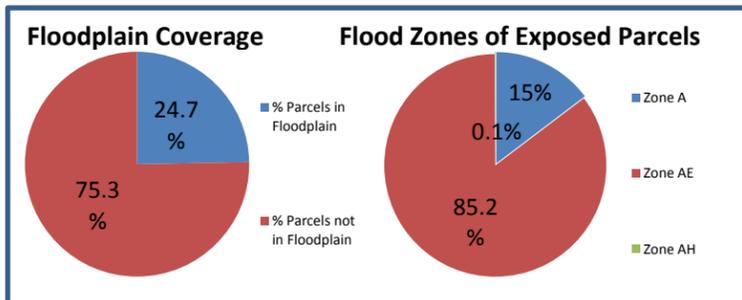
## 2011 DFIRM 100-Year Floodplain Coverage



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Sources: FEMA, Volusia County and Municipalities, 2013

## Port Orange Floodplain Profile

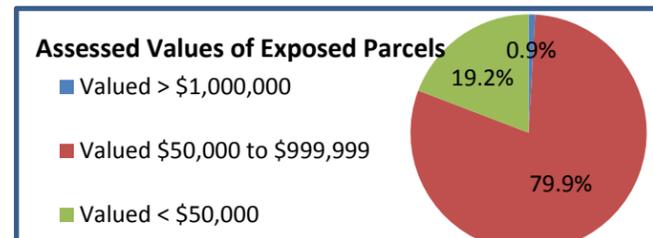
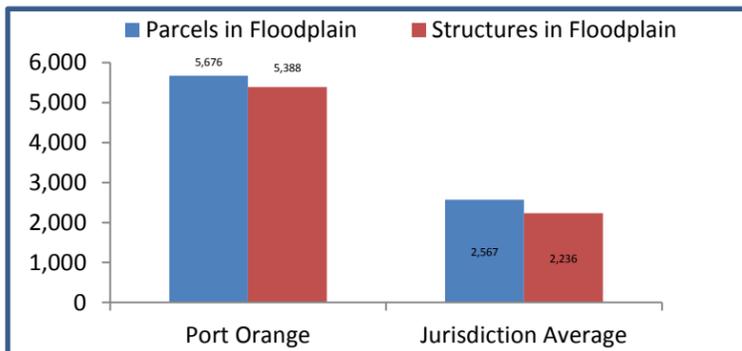


Land Use	Acreage	Percent of Exposed Land
Low Density Residential	1,214	42.5%
Med-Hi Den. Residential	741	25.9%
Commercial/Office	266	9.3%
Mixed Use	82	2.9%
Institutional/Public	264	9.2%
Industrial	129	4.5%
Planned Development	162	5.7%
Agriculture	0	0.0%
Recreation	0	0.0%

*\*Conservation Lands Excluded from this Analysis*

Project	Type
1. Hardening of Cambridge Canal	Capital Improvements
2. Sweetwater Hills Drainage	Capital Improvements
3. Stormwater Pump Station in The Woods	Capital Improvements
4. N.W. Property Regional Stormwater Pond	Acquisition/Development
5. Sleepy Hollow Drainage	Capital Improvements

*\*Please reference the City of Port Orange Mitigation Action Plan for a listing of additional projects within the city.*

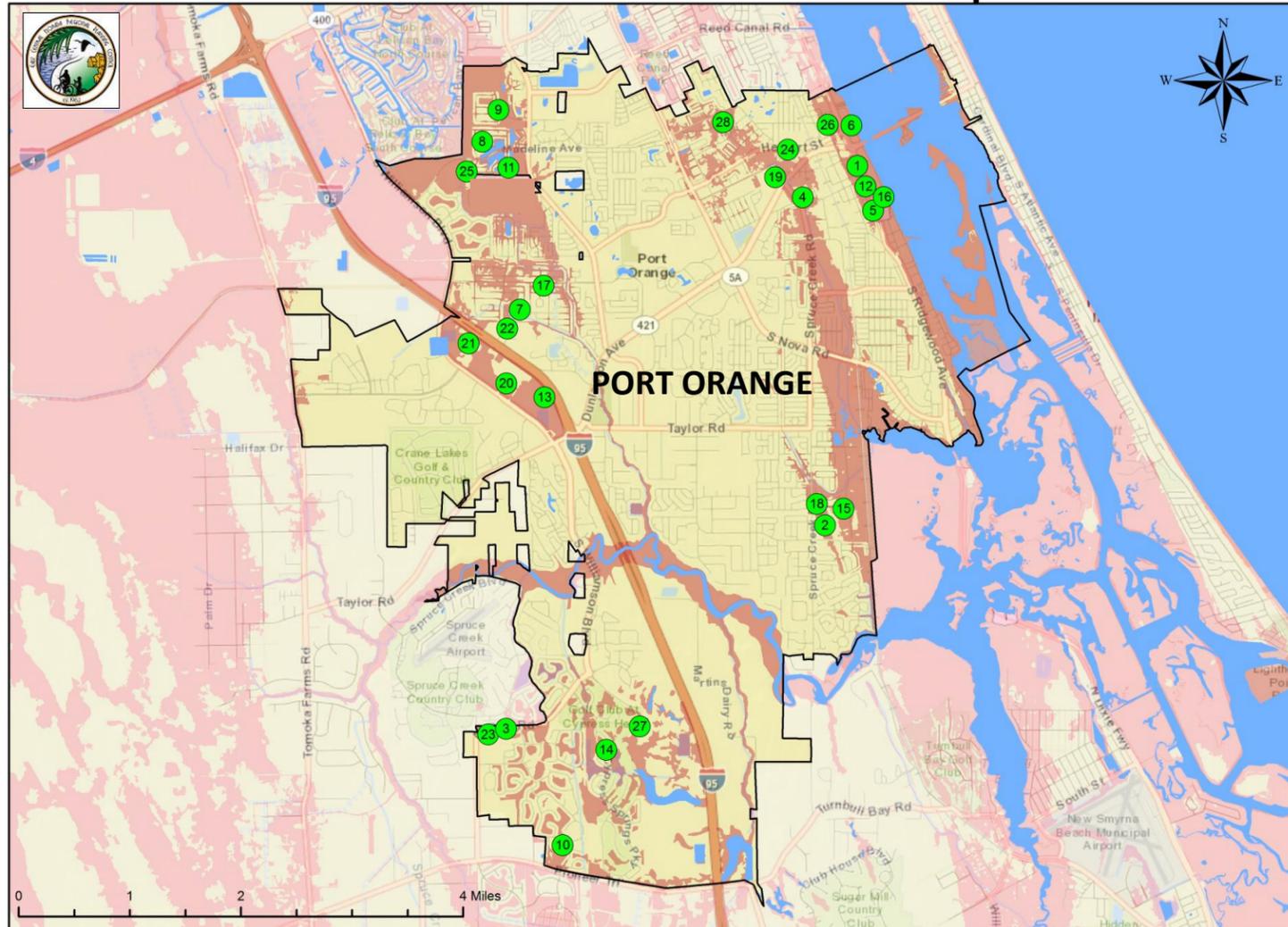


Value	Port Orange	Jurisdiction Average
Land Value	\$316,236,490	\$184,533,709
Property Value	\$819,259,468	\$419,027,387
Taxable Value	\$670,809,916	\$318,247,047
Tax Base Exposure	\$16,317,317	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

	Nominal Change	Percentage Change	Countywide Change
Parcels	771	15.7%	17.4%
Structures	650	13.7%	27.9%
Land Value	\$21,592,361	7.3%	7.2%
Property Value	\$25,292,478	3.2%	11.6%
Taxable Value	\$17,582,410	2.7%	9.5%

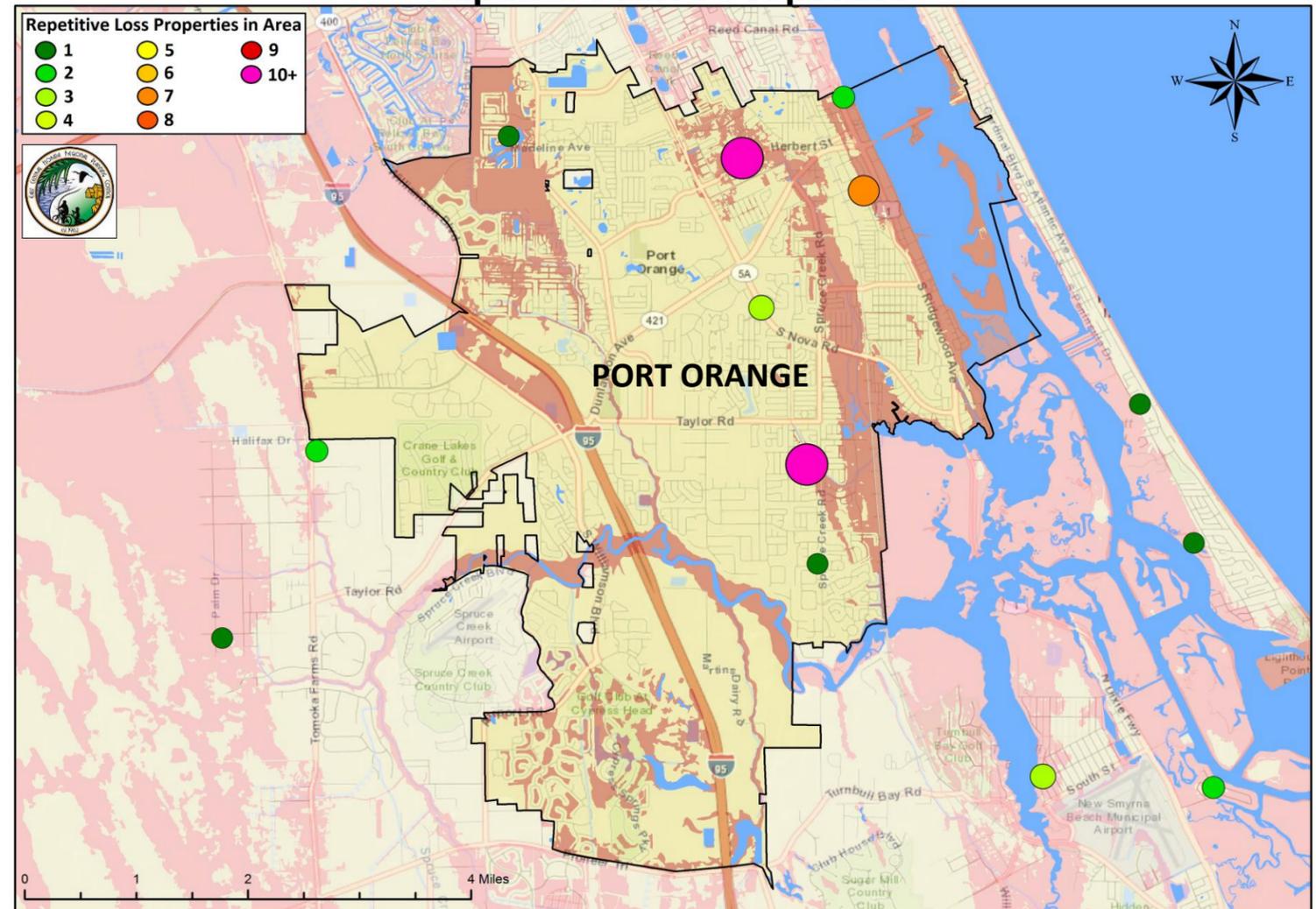
## Critical Facilities within 100-Year Floodplain



This map is intended to be used for planning purposes only and is not to be construed as a legal document.

Sources: FEMA, Volusia County and Municipalities, 2013

## Repetitive Loss Properties



This map is intended to be used for planning purposes only and is not to be construed as a legal document.

Sources: FEMA, Volusia County and Municipalities, 2013

### Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type	Facility	Type
1. Port Orange Fire Station #71	Admin	14. Cypress Head Golf Club/Gamble	Other
2. Port Orange Fire Station #72	Admin	15. Paradise Manor	Other
2. Spruce Creek Road Park	Other	16. Riverview Alf	Other
3. Port Orange Fire Station #74	Admin	17. Sandra Prouse	Other
4. P04 Evacuation Ambulance***	Admin	18. Garden in the Woods	Other
4. FL0020559 Sewage Treatment	Sewage Treat.	19. The Armory of Daytona Beach	Other
4. Port Orange Water Treatment Plant	Water Treat.	20. US Foods	Other
4. Waste Water Laboratory	Water Treat.	21. Raydon	Other
4. Waste Water Treatment Plant	Water Treat.	22. Horizon Elementary School	School
5. Adult Activity Center	Assisted Living	23. Creekside Middle School	School
6. Senior Center	Assisted Living	24. Montessori Magis Preschool	School
7. Fran's Elderly Care	Assisted Living	25. Debra LaRubbio Family Day Care	School
8. Bayside Care Center	Assisted Living	26. Academy of Martial Arts	School
9. Sunrise Oaks Assisted Living	Assisted Living	27. Water Tower	Water Treatment
10. Inclusion Care	Assisted Living	28. Quinley Inn	Other
11. Portside Care Center	Assisted Living		
12. Quick Care Walk In	Hospital/Clinic		
13. Florida Hospital Memorial	Hospital/Clinic		

\*\*\* Critical facility #4 was recently demolished

### Repetitive Loss Properties – Summary as of 1/1/2013



### Repetitive Loss Properties – Financial Summary



### Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	80.6%
Med/Hi Resid.	11.1%
Commercial	2.8%
Mixed Use	2.8%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	2.8%
Agriculture	0.0%
Recreation	0.0%

### Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	11.43%
% Not Mitigated	88.57%
% Unknown	0.00%
INSURANCE	
% Insured	65.71%
% Uninsured	31.43%
% Unknown	2.86%

# SOUTH DAYTONA



# GOALS AND OBJECTIVES: SOUTH DAYTONA

**GOAL** – To protect human life and health through preparedness of emergency response teams from the Fire, Police and Public Works Departments;

**GOAL** – 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** – 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** – 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** – 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** – Provide advice and assistance to property owners by the Floodplain Manager and Chief Building Official, concerning the protection of their properties from flooding;

**GOAL** – Maintain a Public awareness program that informs all property owners in the flood zones that they are located in a flood zone through mail-outs and web-site postings;

**GOAL** – 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, and;

**GOAL** – 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.

# SOUTH DAYTONA

South Daytona is located on the inter-coastal waterway in eastern Volusia County and is one of the higher-risk areas compared to other jurisdictions county wide.

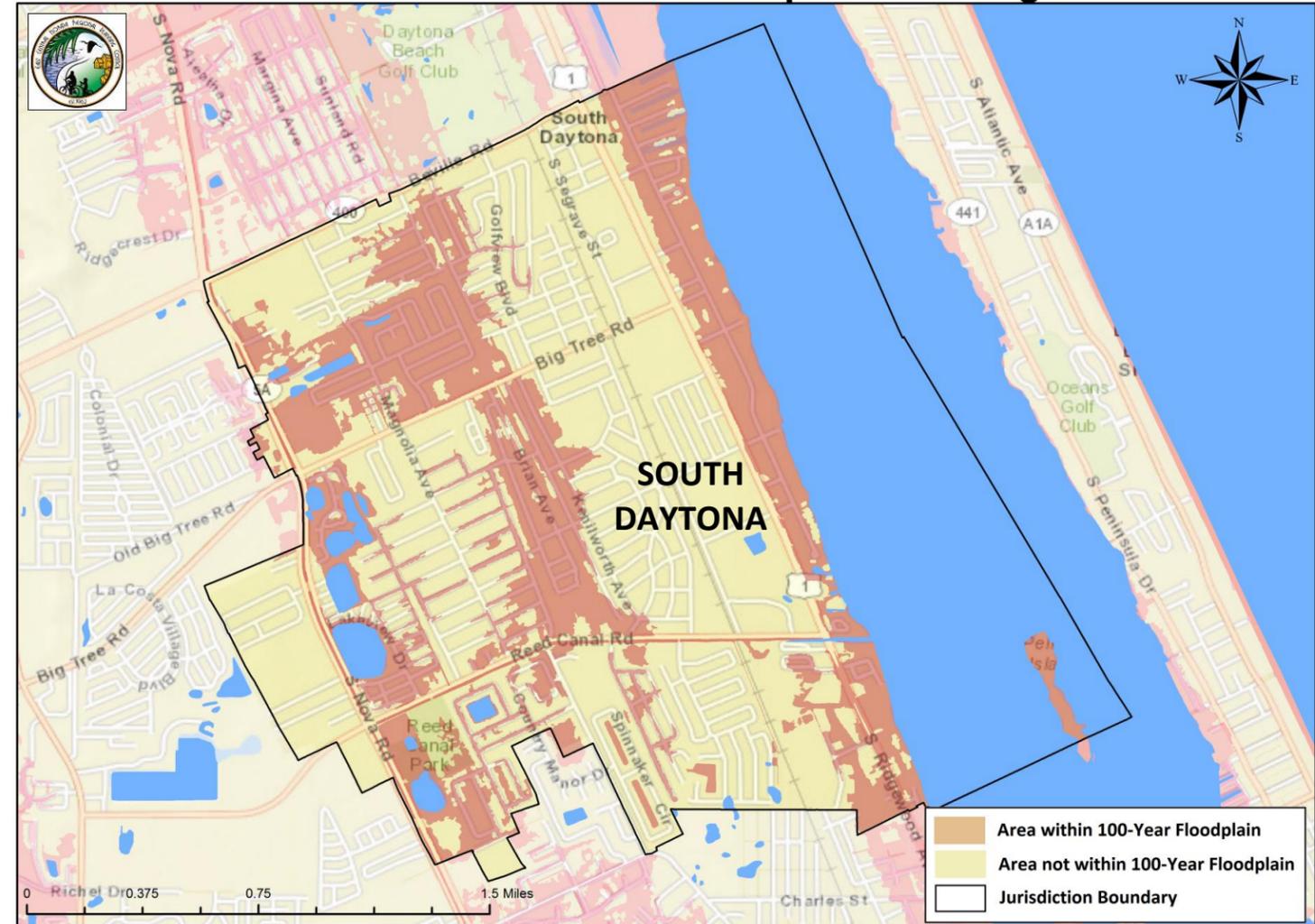
Approximately 47.0% of parcels in the city are within the 100-Year Floodplain, with 65.1% of those parcels within Flood Zone AE and 34.9% within Flood Zone A. This amounts to 2,373 parcels and 2,318 buildings within the 100-Year Floodplain in South Daytona.

Development in the floodplain in South Daytona primarily occurred before 1987. Approximately 27.7% of floodplain-exposed parcels were built before federal flood insurance became available in 1969, while 47.5% were built between 1969 and 1986. Only 7.5% of the parcels within the 100-Year Floodplain are undeveloped, heightening flood risk to structures.

There is approximately \$228,833,616 in taxable property value within the 100-Year Floodplain in South Daytona, compared to the jurisdiction average of \$318,247,047. This number is relatively large given the small size of the city as a whole.

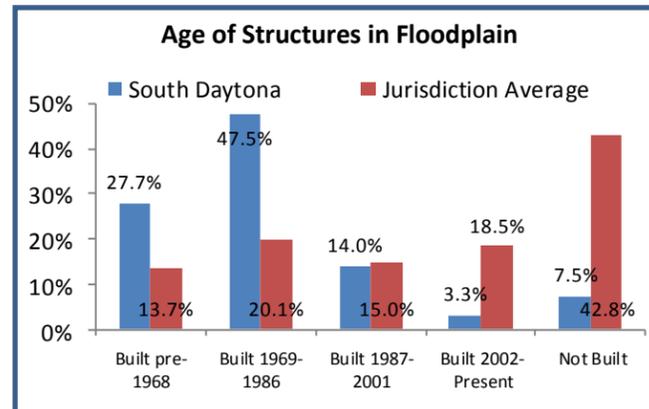
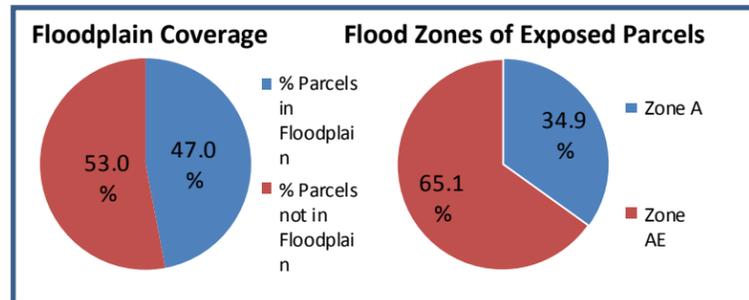
Approximately 64.3% of the land within the 100-Year Floodplain is designated as residential, and the 'Mixed Use' designation comes in next at 14.3% of exposed land.

## 2011 DFIRM 100-Year Floodplain Coverage



This map is intended to be used for planning purposes only and is not to be construed as a legal document. Sources: FEMA, Volusia County and Municipalities, 2013

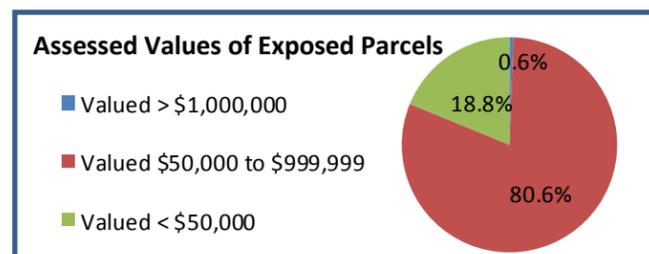
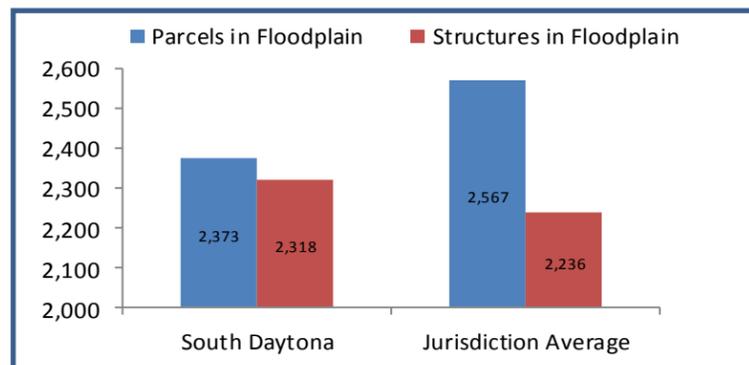
## South Daytona Floodplain Profile



Land Use	Acreage	Percent of Exposed Land
Low Density Residential	199	31.0%
Med-Hi Den. Residential	214	33.3%
Commercial/Office	30	4.7%
Mixed Use	92	14.3%
Institutional/Public	23	3.6%
Industrial	45	7.0%
Planned Development	0	0.0%
Agriculture	0	0.0%
Recreation	39	6.1%

*\*Conservation Lands Excluded from this Analysis*

Project	Type
1. VOL-0389 EOC/Public Works Facility	Capital Improvements

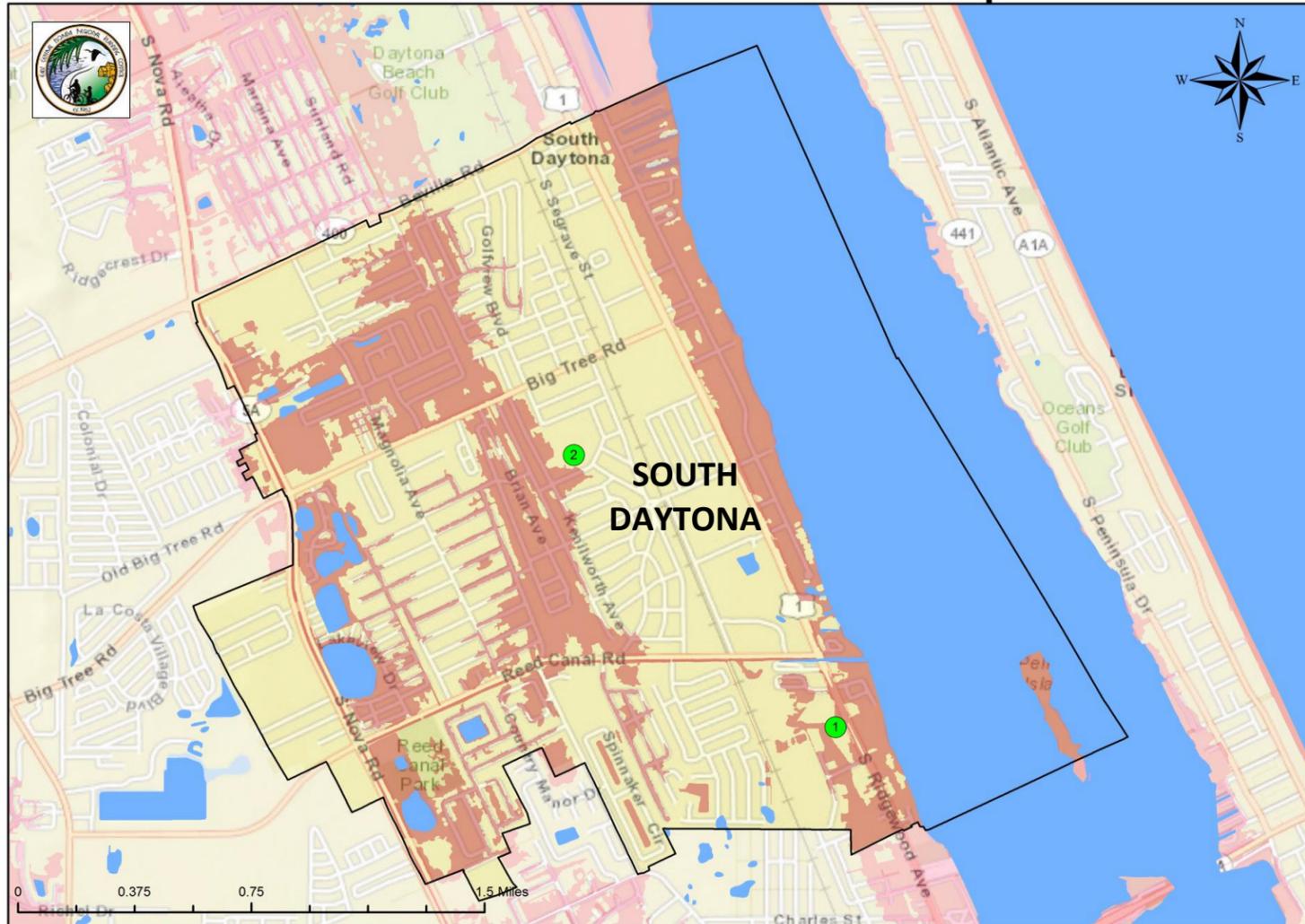


Value	South Daytona	Jurisdiction Average
Land Value	\$111,307,542	\$184,533,709
Property Value	\$285,167,468	\$419,027,387
Taxable Value	\$228,833,616	\$318,247,047
Tax Base Exposure	\$5,299,512	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

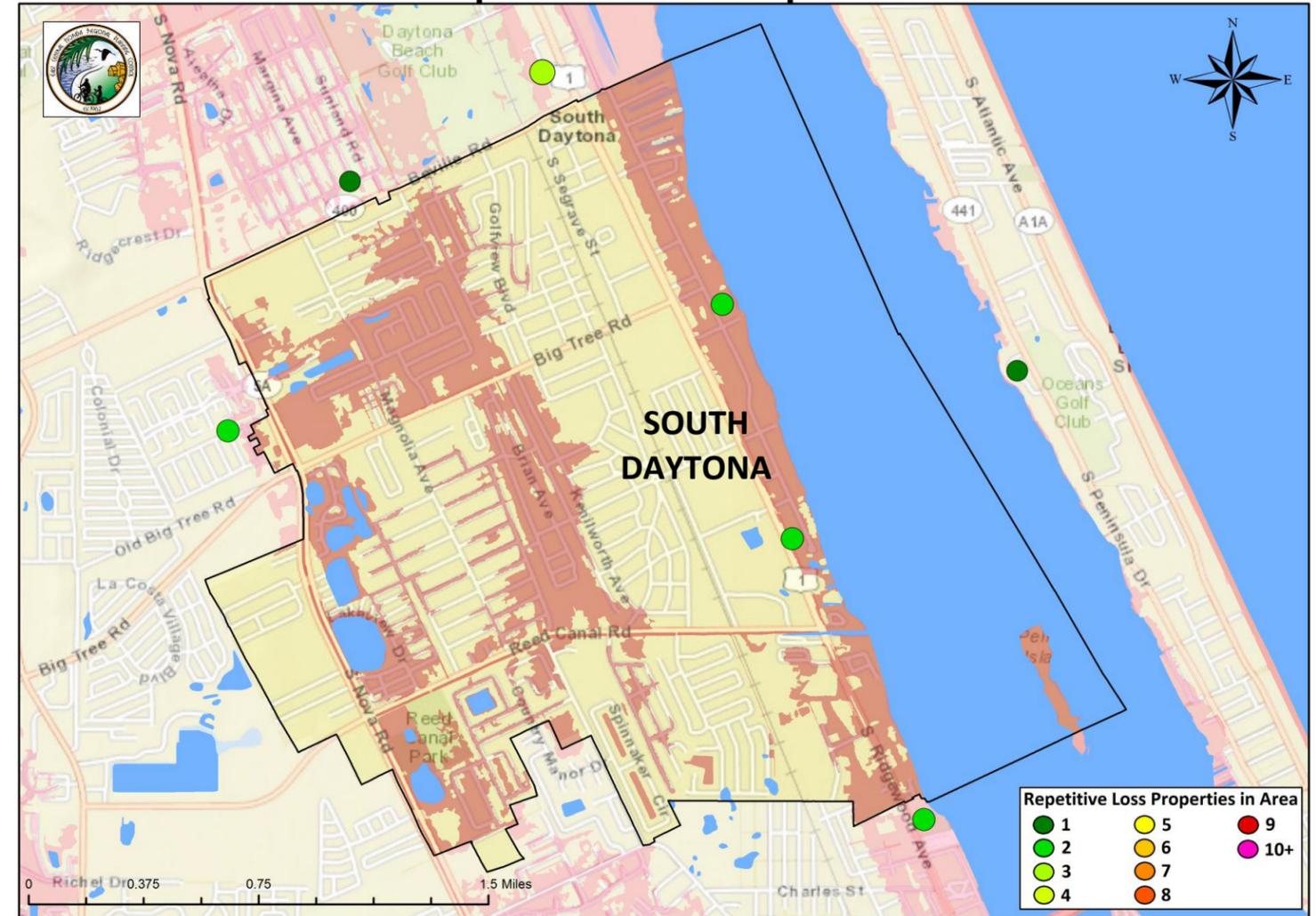
	Nominal Change	Percentage Change	Countywide Change
Parcels	1,984	510.0%	17.4%
Structures	1,944	519.8%	27.9%
Land Value	\$62,961,308	130.2%	7.2%
Property Value	\$201,937,284	242.7%	11.6%
Taxable Value	\$152,528,545	200.0%	9.5%

## Critical Facilities within 100-Year Floodplain



This map is intended to be used for planning purposes only and is not to be construed as a legal document.  
Sources: FEMA, Volusia County and Municipalities, 2013

## Repetitive Loss Properties



This map is intended to be used for planning purposes only and is not to be construed as a legal document.  
Sources: FEMA, Volusia County and Municipalities, 2013

### Critical Facilities within 100-Year Floodplain or Storm Surge

Facility	Type
1. Rinker Materials	Material Storage
2. South Daytona Elementary School	School



**Photo:** South Daytona Elementary School is partially located within the 100-Year Floodplain in Volusia County.

### Repetitive Loss Properties – Summary as of 1/1/2013



### Repetitive Loss Properties – Financial Summary



### Repetitive Loss Properties – Future Land Use Summary

Land Use	Percentage
LD Residential	50.0%
Med/Hi Resid.	25.0%
Commercial	0.0%
Mixed Use	25.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	0.0%
Recreation	0.0%

### Repetitive Loss Properties – Insurance and Mitigation Summary

MITIGATION	
% Mitigated	0.00%
% Not Mitigated	0.00%
% Unknown	100.0%
INSURANCE	
% Insured	80.0%
% Uninsured	20.0%
% Unknown	0.0%

# UNINCORPORATED VOLUSIA



# GOALS AND OBJECTIVES: VOLUSIA COUNTY

**GOAL** – Prevent new development in the floodplain from increasing runoff and resulting increases in flood volumes in the floodplain. Achieved through Volusia County Floodplain Development Ordinance, building permitting process and storm water management plans are on-going.

**GOAL** – Develop a public awareness program that informs all property owners in the flood zones that they are located in a flood zone. Complete. Brochure is mailed annually to all 5,000 residents in the floodplain.

**GOAL** – Provide advice and assistance to property owners concerning the protection of their properties from flooding, local drainage and sewer back-up problems. Information available and provided to property owners by Growth & Resource Management, Library, Public Presentations, Mail-outs – on-going.

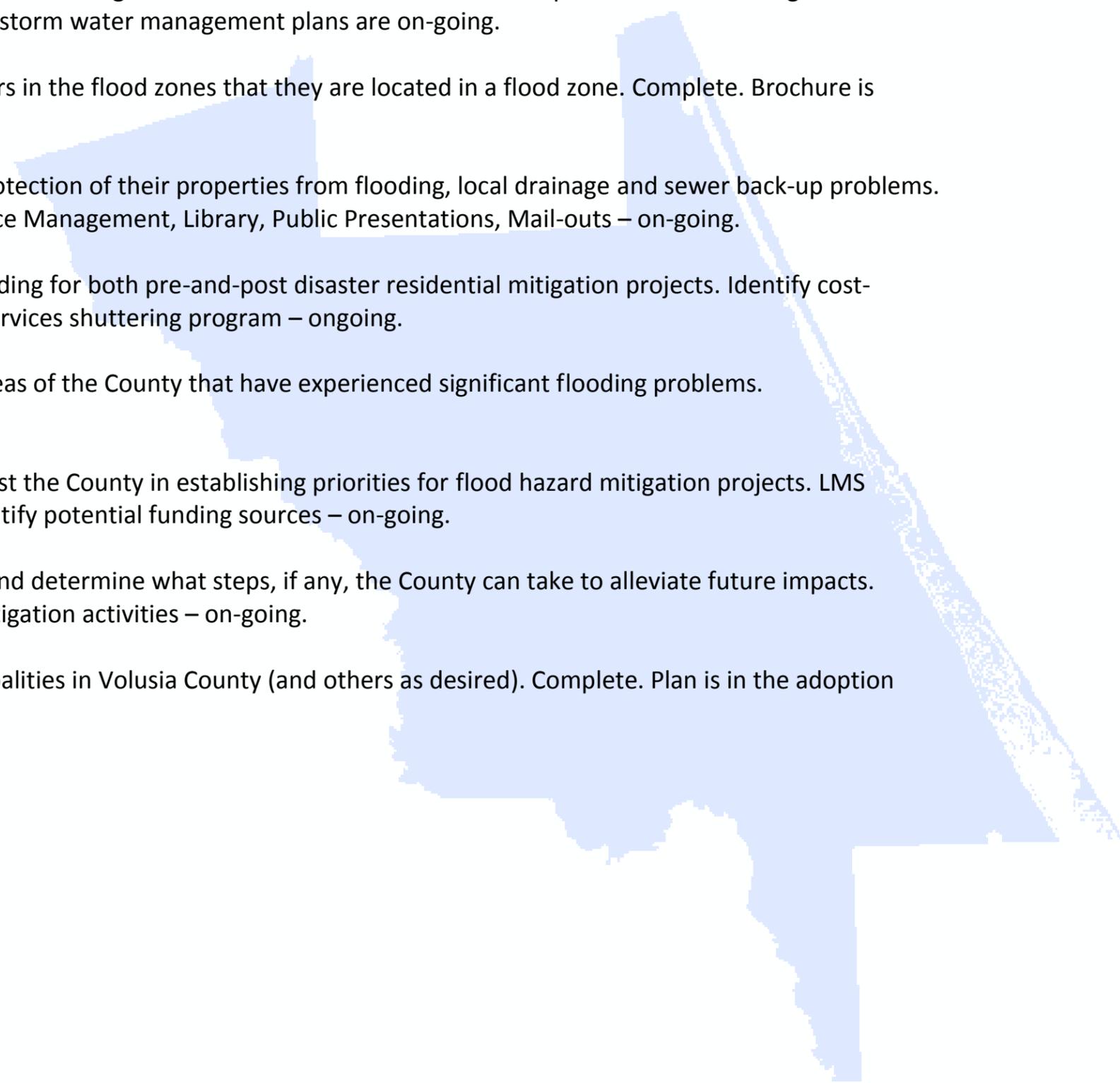
**GOAL** – Continue flood hazard mitigation program to identify and obtain funding for both pre-and-post disaster residential mitigation projects. Identify cost-beneficial residential units for various flood mitigation grants; Community Services shuttering program – ongoing.

**GOAL** – Prioritize capital projects that will mitigate flood impacts in those areas of the County that have experienced significant flooding problems. Stormwater drainage programs – on-going.

**GOAL** – Utilize “Volusia Prepares” Local Mitigation Strategy to guide and assist the County in establishing priorities for flood hazard mitigation projects. LMS Steering Committee meets quarterly to review mitigation initiatives and identify potential funding sources – on-going.

**GOAL** – Review the locations and effects on areas that experience flooding and determine what steps, if any, the County can take to alleviate future impacts. Stormwater conducts inspections of flood prone areas to determine best mitigation activities – on-going.

**GOAL** – Develop Floodplain Management Plans for participating CRS municipalities in Volusia County (and others as desired). Complete. Plan is in the adoption phase by all 16 municipalities and unincorporated Volusia County.

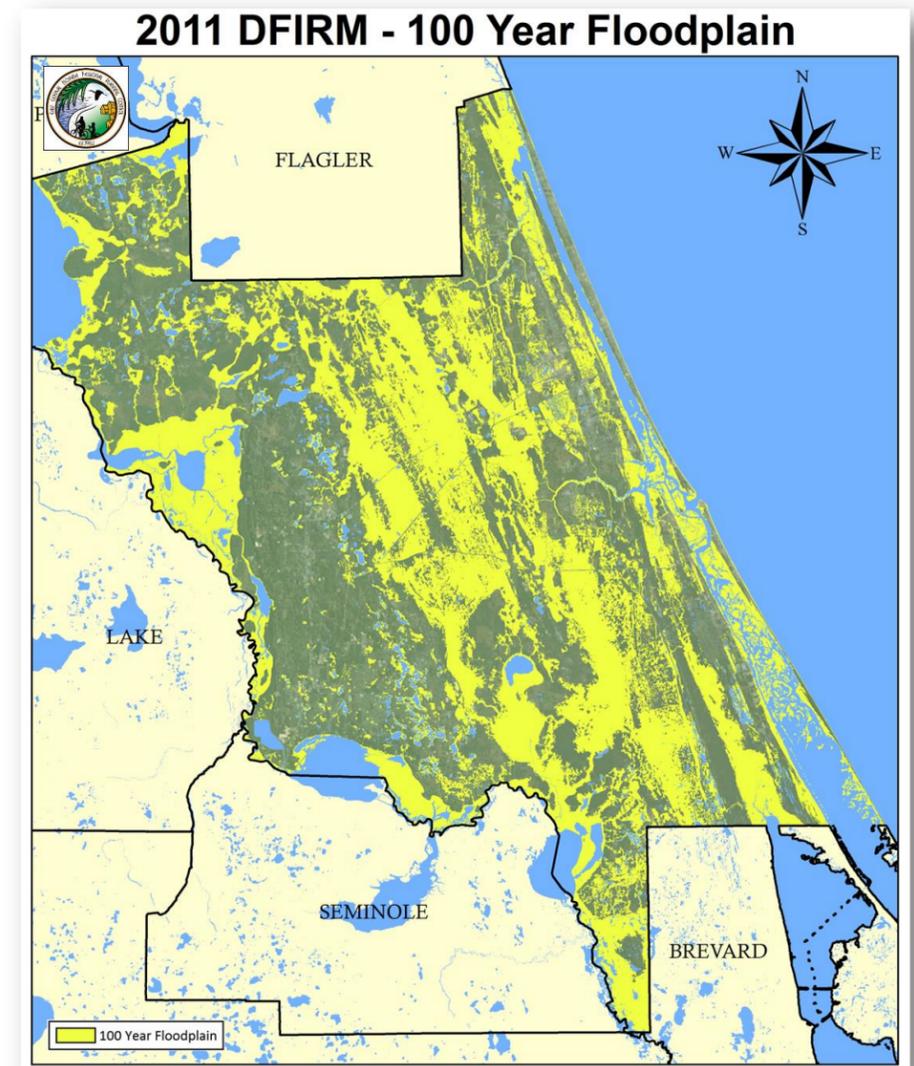


# UNINCORPORATED VOLUSIA

The unincorporated areas of Volusia County are exposed to all four flood zones in the 2011 DFIRM update. Approximately 36.3% of all unincorporated parcels are within the 100-Year Floodplain, with approximately 77.1% in Zone A, 21.7% in Zone AE, 0.7% in Zone VE and 0.5% in Zone AH. This accumulates to a total of 31,775 parcels and 10,361 buildings within the 100-Year Floodplain in unincorporated Volusia County.

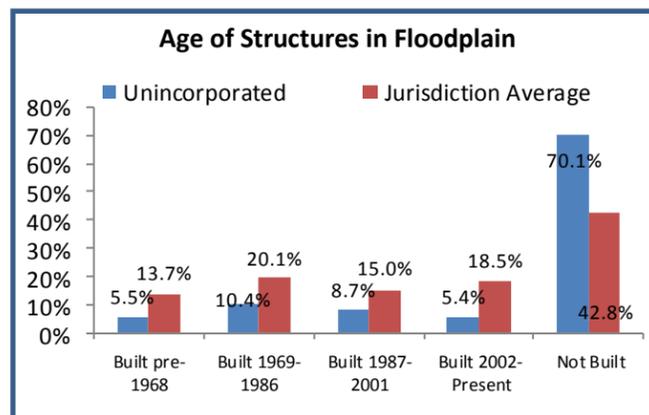
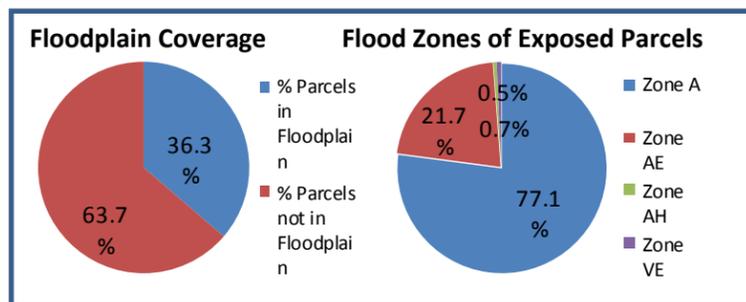
Approximately 70.1% of the floodplain-affected parcels have been left undeveloped, lowering the overall risk for unincorporated areas. Lowering financial risk even further is the percentage of parcels valued below \$50,000, at 68.2%. Only one jurisdiction (Pierson) has a higher percentage of undeveloped land within the floodplain.

In unincorporated areas countywide, \$1,595,817,377 dollars in taxable property value lay within the 100-Year Floodplain.



Sources: FEMA, Volusia County and Municipalities, 2013

## Unincorporated Areas - Floodplain Profile

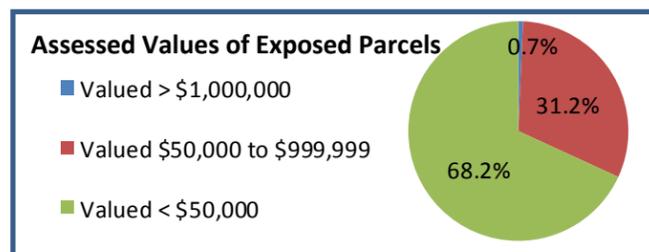
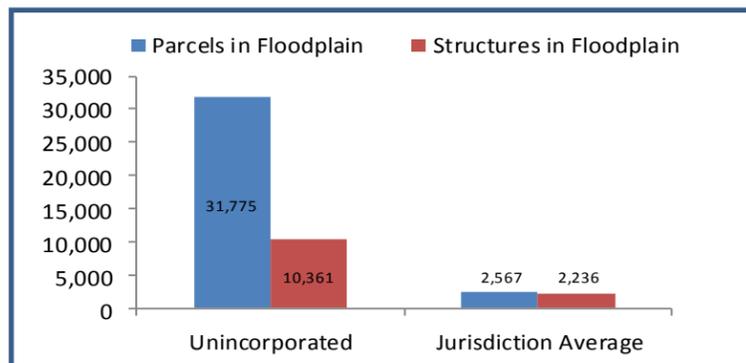


Land Use	Acreage	Percent of Exposed Land
Low Density Residential	13,451	20.9%
Med-Hi Den. Residential	982	1.5%
Commercial/Office	268	0.4%
Mixed Use	86	0.1%
Institutional/Public	3416	5.2%
Industrial	231	0.3%
Planned Development	0	0.0%
Agriculture	47,439	71.5%
Recreation	445	0.7%

*\*Conservation Lands Excluded from this Analysis*

**Priority Mitigation/Improvement Projects**

REFERENCE 2010 VOLUSIA COUNTY LOCAL MITIGATION STRATEGY (PAGE 173)



Value	Unincorporated	Jurisdiction Average
Land Value	\$1,872,207,118	\$184,533,709
Property Value	\$2,389,207,118	\$419,027,387
Taxable Value	\$1,595,817,377	\$318,247,047
Tax Base Exposure	\$37,556,445	\$7,570,866

*\*Tax base exposure utilizes city millage rate*

	Nominal Change	Percentage Change	Countywide Change
Parcels	491	1.6%	17.4%
Structures	50	0.5%	27.9%
Land Value	(\$35,786,925)	-1.9%	7.2%
Property Value	(\$54,982,148)	-2.2%	11.6%
Taxable Value	(\$65,601,554)	-4.1%	9.5%

COUNTY EXTENT DOES NOT DETAIL INDIVIDUAL LOCATIONS

REFERENCE R.L.A MAP WITHIN THIS DOCUMENT

**Critical Facilities within 100-Year Floodplain or Storm Surge**

<i>Facility</i>	<i>Type</i>	<i>Facility</i>	<i>Type</i>
1. US Food Service	Chem. Storage	18. Columbia Elementary School	School
2. Florida Hospital Memorial	Hospital/Clinic	29. FLA011179 Sewage Treatment Plant	Sewage Treatment
3. Tomoka Farms Road Landfill	Landfill	20. Leffler Airport	Transportation
4. West Volusia Transfer Station	Landfill	21. Dan Rice Airport	Transportation
5. Kirton C&D Landfill	Landfill	22. Cross Creek Farms Airport	Transportation
6. Airport Used Auto Parts Salvage Yard	Landfill	23. Budd Darling Airport	Transportation
7. Four Jay's Land Clearing	Landfill	24. Doan Heliport	Transportation
8. Pierson Dump	Landfill	25. Camp Winona	Water Treatment
9. Boston Whaler	Other	26. Blue Springs Water Treatment	Water Treatment
10. Square D	Other	27. Handy Way #3321	Water Treatment
11. Turnbull St. 23	Other	28. Handy Way #3319	Water Treatment
12. South Beach St. 21	Other	29. A&M Discount	Water Treatment
13. Canaveral Nat'l Seashore N. Ranger HQ	Other	30. Seminole/Heathrow System	Water Treatment
14. Spruce Creek St. 12	Other	31. Hacienda Del Rio	Water Treatment
15. Stetson University	School		
16. Spruce Creek Elementary School	School		
17. Spruce Creek High School	School		

**Repetitive Loss Properties – Summary as of 1/1/2013**



**Repetitive Loss Properties – Financial Summary**



**Repetitive Loss Properties – Future Land Use Summary**

<u>Land Use</u>	<u>Percentage</u>
LD Residential	72.4%
Med/Hi Resid.	11.8%
Commercial	0.0%
Mixed Use	0.0%
Institutional	0.0%
Industrial	0.0%
Planned Dev.	0.0%
Agriculture	9.2%
Recreation	6.6%

**Repetitive Loss Properties – Insurance and Mitigation Summary**

<u>MITIGATION</u>	
% Mitigated	0.00%
% Not Mitigated	2.63%
% Unknown	97.37%
<u>INSURANCE</u>	
% Insured	72.4%
% Uninsured	27.6%
% Unknown	0.0%

## **APPENDIX B**

### **PUBLIC SURVEY**

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# Volusia County Floodplain Management Plan Public Survey

## \*1. How long have you lived in your current residence?

- 0-1 Years
- 2-5 Years
- 6-10 Years
- 11-20 Years
- More than 20 Years

## \*2. In what year was your home built?

- Before 1950
- Between 1950 and 1968
- Between 1969 and 1986
- Between 1987 and 2001
- After 2002
- I am unsure

## \*3. Are you concerned about the possibility of your home being flooded?

- Yes, I am very concerned
- Yes, I am somewhat concerned
- No, I am not concerned

Comments

## \*4. Is your home located within a designated flood hazard zone (floodplain)?

- Yes, my home is located within a designated flood hazard zone.
- No, my home is not located within a designated flood hazard zone.
- I am not sure if my home is located within a designated flood zone.

# Volusia County Floodplain Management Plan Public Survey

## \*5. Which flood zone is your property located in?

- Zone A1-A30
- Zone A
- Zone AE
- Zone AH
- Zone AO
- Zone AR
- Zone B
- Unsure of zone classification

## \*6. Has your home ever flooded due to natural/environmental causes?

- Yes, my home has flooded due to natural/environmental causes.
- No, my home has never flooded due to natural/environmental causes.
- I am unsure whether my home has experienced flooding due to natural/environmental causes.

Comments

## \*7. To your best knowledge, during which time period did your home last flood?

- 1900 to 1949
- 1950 to 1959
- 1960 to 1969
- 1970 to 1979
- 1980 to 1989
- 1990 to 1999
- 2000 to 2009
- 2010 to 2012

Comments

# Volusia County Floodplain Management Plan Public Survey

**\*8. What was the depth of the water in your home during the your last flooding event noted in previous question?**

- Less than 1 foot
- Between 1 foot and 2 feet
- Between 2 feet and 3 feet
- Between 3 feet and 5 feet
- Greater than 5 feet
- Unsure

**\*9. What was the approximate dollar value of all structural damages to your home during the last flooding event?**

- Less than \$1,000
- Between \$1,000 and \$4,999
- Between \$5,000 and \$10,000
- Between \$10,000 and \$50,000
- Greater than \$50,000
- Unsure

Other (please specify)

**\*10. What was the approximate dollar value of all personal items lost during the last flooding event?**

- Less than \$1,000
- Between \$1,000 and \$1,999
- Between \$2,000 and \$4,999
- Between \$5,000 and \$15,000
- Greater than \$15,000
- Unsure

Comments

# Volusia County Floodplain Management Plan Public Survey

## \*11. Do you currently have flood insurance for your property?

- Yes
- No
- Unsure

Comments

## \*12. Which of the following reasons best describes why you do not have flood insurance?

- My property is outside of the floodplain.
- I feel there is no real threat of a flood on my property.
- Flood insurance is too expensive.

## \*13. Have any flood mitigation efforts been implemented to your property? (IE.steps taken to remedy or improve structural vulnerability to flooding or flood proofing your home)

- Yes, flood mitigation efforts have been implemented on my property.
- No, flood mitigation efforts have not been implemented on my property.
- I am unsure whether mitigation efforts have been implemented on my property.

## 14. Describe the mitigation efforts conducted on your property.

## \*15. Have you considered implementing flood management strategies on your property?

- Yes
- No

# Volusia County Floodplain Management Plan Public Survey

**16. What mitigation strategies have you considered to implement and/or what is your biggest hold-back to implementing mitigation strategies?**

**\*17. Is your home currently classified as a repetitive flood loss property (defined as a structure that has experienced two floods in the last ten years with at least \$1,000 in damages per event)?**

- Yes
- No
- At one time it was, but it has been removed due to mitigation.
- Unsure

Comments

**\*18. Did you know that you can view the current flood plain and other County-wide resources at the following web site: <http://www.volusia.org/services/public-protection/emergency-management>**

- Yes, I have visited this web site
- No, I have never visited this web site

Comments

# Volusia County Floodplain Management Plan Public Survey

## \*19. How satisfied are you with how your jurisdiction handles public involvement and outreach concerning flood hazards in your area?

- I am very satisfied
- I am somewhat satisfied
- I am somewhat dissatisfied
- I am very dissatisfied
- I am not aware of any public involvement/outreach efforts concerning flood hazards conducted by my jurisdiction

Suggestions

## 20. Optional Information

Name:

Email Address:

# Volusia County Floodplain Management Plan Public Survey



## 1. How long have you lived in your current residence?

		Response Percent	Response Count
0-1 Years		6.4%	14
2-5 Years		19.1%	42
6-10 Years		18.6%	41
<b>11-20 Years</b>		<b>29.1%</b>	<b>64</b>
More than 20 Years		26.8%	59
<b>answered question</b>			<b>220</b>
<b>skipped question</b>			<b>0</b>

## 2. In what year was your home built?

		Response Percent	Response Count
Before 1950		13.2%	29
Between 1950 and 1968		23.2%	51
<b>Between 1969 and 1986</b>		<b>28.2%</b>	<b>62</b>
Between 1987 and 2001		21.4%	47
After 2002		12.7%	28
I am unsure		1.4%	3
<b>answered question</b>			<b>220</b>
<b>skipped question</b>			<b>0</b>

### 3. Are you concerned about the possibility of your home being flooded?

		Response Percent	Response Count
Yes, I am very concerned		18.2%	40
Yes, I am somewhat concerned		38.6%	85
<b>No, I am not concerned</b>		<b>43.2%</b>	<b>95</b>
		Comments	71
		answered question	220
		skipped question	0

### 4. Is your home located within a designated flood hazard zone (floodplain)?

		Response Percent	Response Count
Yes, my home is located within a designated flood hazard zone.		24.5%	54
No, my home is not located within a designated flood hazard zone.		37.3%	82
<b>I am not sure if my home is located within a designated flood zone.</b>		<b>38.2%</b>	<b>84</b>
		answered question	220
		skipped question	0

## 5. Which flood zone is your property located in?

		Response Percent	Response Count
Zone A1-A30		9.8%	5
Zone A		13.7%	7
Zone AE		15.7%	8
Zone AH		0.0%	0
Zone AO		0.0%	0
Zone AR		0.0%	0
Zone B		0.0%	0
<b>Unsure of zone classification</b>		<b>60.8%</b>	<b>31</b>
		<b>answered question</b>	<b>51</b>
		<b>skipped question</b>	<b>169</b>

## 6. Has your home ever flooded due to natural/environmental causes?

		Response Percent	Response Count
Yes, my home has flooded due to natural/environmental causes.		12.4%	27
<b>No, my home has never flooded due to natural/environmental causes.</b>		<b>77.9%</b>	<b>169</b>
I am unsure whether my home has experienced flooding due to natural/environmental causes.		9.7%	21
		Comments	36
		<b>answered question</b>	<b>217</b>
		<b>skipped question</b>	<b>3</b>

## 7. To your best knowledge, during which time period did your home last flood?

		Response Percent	Response Count
1900 to 1949	<input type="checkbox"/>	3.7%	1
1950 to 1959		0.0%	0
1960 to 1969		0.0%	0
1970 to 1979		0.0%	0
1980 to 1989		0.0%	0
1990 to 1999	<input type="checkbox"/>	3.7%	1
<b>2000 to 2009</b>	<input checked="" type="checkbox"/>	<b>88.9%</b>	<b>24</b>
2010 to 2012	<input type="checkbox"/>	3.7%	1
	Comments		7
<b>answered question</b>			<b>27</b>
<b>skipped question</b>			<b>193</b>

**8. What was the depth of the water in your home during the your last flooding event noted in previous question?**

		Response Percent	Response Count
Less than 1 foot		70.4%	19
Between 1 foot and 2 feet		22.2%	6
Between 2 feet and 3 feet		0.0%	0
Between 3 feet and 5 feet		0.0%	0
Greater than 5 feet		0.0%	0
Unsure		7.4%	2
<b>answered question</b>			<b>27</b>
<b>skipped question</b>			<b>193</b>

**9. What was the approximate dollar value of all structural damages to your home during the last flooding event?**

		Response Percent	Response Count
Less than \$1,000		25.9%	7
Between \$1,000 and \$4,999		11.1%	3
Between \$5,000 and \$10,000		22.2%	6
Between \$10,000 and \$50,000		25.9%	7
Greater than \$50,000		0.0%	0
Unsure		14.8%	4
Other (please specify)			6
<b>answered question</b>			<b>27</b>
<b>skipped question</b>			<b>193</b>

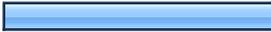
### 10. What was the approximate dollar value of all personal items lost during the last flooding event?

		Response Percent	Response Count
Less than \$1,000		33.3%	9
Between \$1,000 and \$1,999		22.2%	6
Between \$2,000 and \$4,999		11.1%	3
Between \$5,000 and \$15,000		11.1%	3
Greater than \$15,000		3.7%	1
Unsure		18.5%	5
	Comments		3
<b>answered question</b>			<b>27</b>
<b>skipped question</b>			<b>193</b>

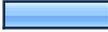
### 11. Do you currently have flood insurance for your property?

		Response Percent	Response Count
Yes		42.9%	93
No		50.7%	110
Unsure		6.5%	14
	Comments		12
<b>answered question</b>			<b>217</b>
<b>skipped question</b>			<b>3</b>

## 12. Which of the following reasons best describes why you do not have flood insurance?

		Response Percent	Response Count
My property is outside of the floodplain.		27.0%	33
<b>I feel there is no real threat of a flood on my property.</b>		<b>40.2%</b>	<b>49</b>
Flood insurance is too expensive.		32.8%	40
<b>answered question</b>			<b>122</b>
<b>skipped question</b>			<b>98</b>

## 13. Have any flood mitigation efforts been implemented to your property? (IE.steps taken to remedy or improve structural vulnerability to flooding or flood proofing your home)

		Response Percent	Response Count
Yes, flood mitigation efforts have been implemented on my property.		15.8%	34
<b>No, flood mitigation efforts have not been implemented on my property.</b>		<b>53.5%</b>	<b>115</b>
I am unsure whether mitigation efforts have been implemented on my property.		30.7%	66
<b>answered question</b>			<b>215</b>
<b>skipped question</b>			<b>5</b>

**14. Describe the mitigation efforts conducted on your property.**

	Response Count
	29
answered question	29
skipped question	191

**15. Have you considered implementing flood management strategies on your property?**

		Response Percent	Response Count
Yes		18.6%	33
No		81.4%	144
	answered question		177
	skipped question		43

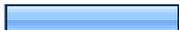
**16. What mitigation strategies have you considered to implement and/or what is your biggest hold-back to implementing mitigation strategies?**

	Response Count
	113
answered question	113
skipped question	107

**17. Is your home currently classified as a repetitive flood loss property (defined as a structure that has experienced two floods in the last ten years with at least \$1,000 in damages per event)?**

		Response Percent	Response Count
Yes		1.5%	3
No		86.1%	174
At one time it was, but it has been removed due to mitigation.		0.0%	0
Unsure		12.4%	25
	Comments		1
<b>answered question</b>			<b>202</b>
<b>skipped question</b>			<b>18</b>

**18. Did you know that you can view the current flood plain and other County-wide resources at the following web site: <http://www.volusia.org/services/public-protection/emergency-management>**

		Response Percent	Response Count
Yes, I have visited this web site		25.7%	52
No, I have never visited this web site		74.3%	150
	Comments		27
<b>answered question</b>			<b>202</b>
<b>skipped question</b>			<b>18</b>

## 19. How satisfied are you with how your jurisdiction handles public involvement and outreach concerning flood hazards in your area?

		Response Percent	Response Count
I am very satisfied		13.4%	27
I am somewhat satisfied		21.8%	44
I am somewhat dissatisfied		8.4%	17
I am very dissatisfied		8.4%	17
I am not aware of any public involvement/outreach efforts concerning flood hazards conducted by my jurisdiction		48.0%	97
		Suggestions	31
		<b>answered question</b>	<b>202</b>
		<b>skipped question</b>	<b>18</b>

## 20. Optional Information

		Response Percent	Response Count
<b>Name:</b>		94.9%	94
<b>Email Address:</b>		94.9%	94
		<b>answered question</b>	<b>99</b>
		<b>skipped question</b>	<b>121</b>

**Page 1, Q3. Are you concerned about the possibility of your home being flooded?**

1	Reason: New home construction raised the ground level up at least 3 feet above ours. So their runoff is going to fill up our backyard. Also, the City does a poor job at maintaining the sewer drains out here. There is plants growing out of them..??...	Mar 8, 2013 11:22 AM
2	My issues were minimal compared to other residents of DeBary during any given storm / hurricane.	Mar 5, 2013 9:21 PM
3	I bought a home high in the area, I knew to do so.	Mar 5, 2013 1:11 PM
4	I have faith the flood mitigation measures implemented by the City of DeBary will work as intended.	Feb 22, 2013 5:54 PM
5	flooding doesn't seem to be an issue in our location	Feb 19, 2013 11:16 AM
6	Holly Hill, Ormond Beach, and Volusia County need to continue to address drainage problems east of Nova from Hand Avenue in Ormond south to Calle Grande and the area around the golf course. Flooding still affects surrounding areas.	Feb 18, 2013 12:43 PM
7	no engineered drainage in area only mosquito control ditches. now over flow from retention pond Nova and Arroyo. dumps right into our area bringing more water than in the past in times of heavy rains greatlt increasing flood potential.	Feb 18, 2013 12:24 PM
8	I've lived in my house for 28 years and it's on the butler chain of lakes, but I've never even had water up to my property line in the back by the lake and yet until a year or so ago when the zoning was changed I had been in a flood zone which was costly.	Feb 18, 2013 8:42 AM
9	I live in near Riviera CC, and was affected by the severe rains in 2009	Feb 18, 2013 8:18 AM
10	Even during the flooding of May 2009, our home did not flood.	Feb 16, 2013 6:52 AM
11	I have "pictures & witnessed", the increased flooding, by storm water being improperly pushed to more mature neighborhoods / the earlier development practices that the government entities have collected impact fees, and tax base, since the 50's; but never changed practices to prevent this "man made flooding conditions I am witnessing". I was skim-boarding on the sides of the road in the early 60's, using the plywood from houses after larger Tropical storm events. The flooding is far greater now and parallels "Development". It can not be blamed on a Natural disaster, when millions of yards of "Fill" are >Trucked-in & dumped on "any available land left, in the name of "Big Business", "Growing the Economy", or any other Title you place on the >Over-development of Florida hammock type land within the Coastal area. Not only do these new three (3') to five (5') foot elevation changes "repulse on coming stormwater, but when there retentions get full on these same properties, the over-flow is dumped back outside these "Man-made" elevated areas to continue moving into the older neighborhoods where the Tax Collectors never spent the money collected to address it in a "real, engineering solution, and acted on"! I not talking using county resources digging a ditch, down inside a hole, as has been the case for the last Two Decades ! As for your Q. 4 on the survey; it's simply "Planned obsolescence" by the government municipalities to let these "lower Tax Base properties", Flood. New Orleans Ward 9, was nothing Natural. My area is	Feb 14, 2013 2:50 PM

**Page 1, Q3. Are you concerned about the possibility of your home being flooded?**

developing with the same mentality as there. There are no mysteries; When a representative of the property on one of the Corners of I-95 & hwy 44 were at a Commission meeting; the conversation went: "That land is really wet". But, can we build on it? Well, "How much money do you have"? >Business as usual<.

12	The water was in the garage in 2004.	Feb 13, 2013 12:14 PM
13	Zone X	Feb 13, 2013 12:11 PM
14	Marlene Drive has flooded 3 times in the 23 years I've lived here.	Feb 13, 2013 12:08 PM
15	it has been flooded	Feb 13, 2013 11:53 AM
16	I live on a canal that is close to the Intracoastal River	Feb 11, 2013 11:37 AM
17	A few years ago there was a lot of rain and this area in general had many issues.	Feb 10, 2013 11:32 AM
18	The Nova road canal is not being dredged out, ie. kept clean of growth and sediment.	Feb 8, 2013 3:24 PM
19	I live on 123 12th street. After a heavy rain, the back end of the property becomes flooded. My family and I live in the apartment above the garages where the flooding happens. The garages are mainly used for storage but I'm concerned about the foundation of the building.	Feb 5, 2013 11:18 AM
20	canal at end of street	Feb 4, 2013 7:30 AM
21	my house has already flooded due to poor storm water management	Feb 3, 2013 3:10 PM
22	With heavy rain my driveway floods badly and runs into my garage...even with my garage doors down. There needs to be a drain put in the road before my home to help with this.	Feb 3, 2013 7:47 AM
23	I am concerned, therefor I purchased flood ins	Feb 2, 2013 10:13 AM
24	Was flooded one time. Only 1 foot of water caused me considerable damage.	Feb 1, 2013 1:14 PM
25	I would like to see more retention ponds built to handle overflow from canal system during heavy rain events.	Jan 31, 2013 6:42 PM
26	I notice every time it rains all of the water from Nova runs down Golf ave and pools in front of my house.	Jan 31, 2013 6:08 PM
27	retention pond nearby.	Jan 30, 2013 2:23 PM
28	No, Fema shows that I live on a ridge in Holly Hill.	Jan 30, 2013 8:08 AM
29	New houses were built behind my property. Effecting drainage.	Jan 29, 2013 4:12 PM
30	My home is next to a retention pond that is managed by the City of Port Orange. Sometimes it gets quite full.	Jan 29, 2013 8:24 AM
31	when they close the gate to keep the river from fowing it backs up on our street	Jan 29, 2013 4:32 AM

**Page 1, Q3. Are you concerned about the possibility of your home being flooded?**

32	My home flooded three years ago. I had 6 inches of water throughout.	Jan 28, 2013 2:54 PM
33	Has never flooded even during hurricanes.	Jan 26, 2013 3:06 PM
34	Been here for 50+ years and through several hurricanes and various heavy rainy times during those years my soil drains almost as fast as the rain can come down so I have no worries.	Jan 24, 2013 9:08 AM
35	When the sewers were redone the drain in front of my house was blocked. Now it floods in front of my home which in had never done before the work a few years back.	Jan 24, 2013 7:48 AM
36	During the heavy rain "event" in 2009 water rose to the floor of my elevated screen room. My wheelchair ramp was under water for 9 days. There were small fish swimming in the storm management swale next to my porch and ramp.	Jan 23, 2013 6:54 PM
37	My home flooded in 2009 and as a result I incurred substantial cost (\$30,000+) to mitigate the damage.	Jan 23, 2013 4:38 PM
38	Never been flooded since we have lived here	Jan 23, 2013 9:48 AM
39	We have had standing water in the area	Jan 23, 2013 8:11 AM
40	Rain doesn't even puddle much in my yard	Jan 22, 2013 1:23 PM
41	My Lot is built up pretty high.	Jan 21, 2013 7:20 PM
42	During Hurrigan Charlie the river did get high and came over the sea wall a little, but my house does have crawl space under it so its not level with ground. But nature is changing things however.	Jan 20, 2013 12:24 PM
43	our garage and area between our house and house north of us floods in every hard rain.	Jan 19, 2013 4:48 PM
44	Have been through numerous hurricanes and have had no problems with flooding.	Jan 18, 2013 8:03 PM
45	i live about 100 feet from the ICW	Jan 18, 2013 3:38 PM
46	I have been in touch with the city, the county and St. Johns Water Management Dsitrict with respect to the flooding in my backyard at 132 Peterson Court off and on for 19 years to no avail. The LPGA canal floods my backyard when tides are high and/or we have heavy rains. I spent nearly \$3000.00 out of pocket to elevate my yard and it is STILL A PROBLEM !	Jan 18, 2013 1:59 PM
47	Only if there is a direct hit from a hurricane with a storm surge that would come over the peninsula.	Jan 18, 2013 12:00 PM
48	Only concerned about storm surge from Halifax River as elevation above street is good.	Jan 17, 2013 2:35 PM
49	If the river rose, it would flood beachside before it ever could flood my street or beyond.	Jan 17, 2013 9:16 AM

**Page 1, Q3. Are you concerned about the possibility of your home being flooded?**

50	Looking down at the Halifax River. Think beachside would be underwater before my feet are wet.	Jan 16, 2013 8:24 PM
51	Do not live in the 100 year flood area as described on the local maps but there is always a possibility.	Jan 16, 2013 3:44 PM
52	I live atop a hill on 12th Street, about 50 above river level	Jan 16, 2013 11:29 AM
53	We have Flood Insurance. I live on the 4th floor in a condo beside the ocean.	Jan 11, 2013 6:33 PM
54	We are 9' above sea level	Jan 11, 2013 6:09 PM
55	I have a riverfront home with a floor elevation of 9.2	Jan 11, 2013 12:44 PM
56	The water runs down the street and into our driveway. The water pools up between the sidewalk and the landscaping. There is no drainage for the water to go anywhere.	Jan 11, 2013 12:42 PM
57	Sit on a fairly high dune	Jan 11, 2013 11:19 AM
58	We were badly flooded on several occasions until a retention pond was put in next to our property. This happened although when we bought the house we were supposedly in a level C area.	Jan 11, 2013 10:46 AM
59	A development was built North of us in town. They messed with water flow and now on heavy rains the retention area by my home fills quickly and drains very slowly.	Jan 11, 2013 10:23 AM
60	Live on ocean. In 20 years water has never come over the sea wall In fact after beach had sand added 8 or 10 years ago and dunes were added,we have more beach than ever	Jan 11, 2013 9:02 AM
61	I live on an uphill (so to speak) on Flomich St. and water runs down to Ridgewood or down to Riverside Dr. I do have flood insurance though, you never say never.:)	Jan 10, 2013 11:46 AM
62	MY the rear of my home is 15 to 17 feet above lake level under normal condutions. 18 to 20 feet at this time. The front of my home is at least 8 feet above road level. there is also a drainage ditch that emptys into the lake. There is a greater risk of Lake Louise freezing over than flooding my home.	Jan 10, 2013 3:46 AM
63	My concern is from people who get cheap contractors to work on their condominium without a permit or inspection. These are the units that will flood which will cause flooding to other units who have responsible owners.	Jan 8, 2013 11:27 AM
64	poor city stormwater management	Jan 8, 2013 4:41 AM
65	My property has gotten real soggy but never has water gotten into my home; even when the entire city was flooded.	Jan 7, 2013 5:08 AM
66	It is hard not to be at least a little concerned when you live between the ocean and the river, but my house is high enough to avoid flooding excepting a major natural disaster.	Jan 6, 2013 7:47 PM

**Page 1, Q3. Are you concerned about the possibility of your home being flooded?**

67	Our home was flooded in 2009 because of the lack of maintenance of the canal on Nova Road and the small storm sewer main line that takes flood water to the ocean.	Jan 6, 2013 3:39 PM
68	an open lot on Fairview/Ridgewood/Seagrave & that area before the RR tracks always floods and it worries me as my house is located in that area and it makes driving scary too	Jan 5, 2013 7:38 AM
69	As this has happened in the past, it is a significant concern for us	Jan 5, 2013 2:16 AM
70	concerned about drainage along 3rd Avenue off Jimmy Ann	Jan 4, 2013 3:12 PM
71	worried about the tidal surge in a hurricane	Jan 4, 2013 2:26 PM

**Page 2, Q6. Has your home ever flooded due to natural/environmental causes?**

1	During the Storm Wilma our yard was very flooded..didn't reach inside home. As Citizens, our neighbors & myself went cleaning drain ditches with rakes as City & County workers drove by looking at us like we where crazy! If we did not rake & pull debry from those drains the water would not have drained as fast as it did...	Mar 8, 2013 11:25 AM
2	water has come to the door but not in the house.	Mar 1, 2013 9:36 AM
3	However, many homes on my street were flooded during TS Fay.	Feb 22, 2013 5:56 PM
4	I beleive over flowing retention pond played a major role.	Feb 18, 2013 12:26 PM
5	It was close.	Feb 18, 2013 8:18 AM
6	The ditches in my neighborhood have been wrongly engineered to the point, "water backs up, back into the neighborhood from the very source that is suppose to take it away. I have screamed and insulted County workers to "Not Dig", and I can show where they have gone so deep...to the point, when you drop the grade to the point of draining....you are now at the water level of a "Tidal water", that can back up into that same ditch. Go figure! The Storm-water retention pond that butts my property, will "Take on water i.e.Back-flow", with the right conditions! I have videoed that as well. And, to think they are going to put a "Car Dealership", with thousands of sq. ft. of asphalt right around the corner. I have way too many examples of "Real Issues" for this communication. Of course; your meetings are in the "middle of a work day"; perfect for the government decision makers responsible for this poor management; they do not have to deal with it. Just put it on the back page in the New Paper!	Feb 14, 2013 3:15 PM
7	Home not flooded, only garage.	Feb 13, 2013 12:14 PM
8	2009 May rain 31 inches/5 day. failure of developer in adjacent subdivision and city to start pumping in time to avoid flooding.	Feb 13, 2013 12:12 PM
9	I have a pool and it was fine even through all 3 2004 storms	Feb 11, 2013 11:39 AM
10	2009	Feb 8, 2013 3:25 PM
11	We intentionally built our foundation 1 foot above the benchmark set by the surveyor.	Feb 5, 2013 6:31 PM
12	crawl space filled up to floor boards that year when just about everybody flooded out.	Feb 4, 2013 2:06 PM
13	because of outdated storm management system and a ridiculous retention pond built near my house.	Feb 3, 2013 3:11 PM
14	Not home but yard has. It came close to the home at least to the foundation	Feb 2, 2013 10:14 AM
15	It came close the last time there was flooding 3 years ago.	Jan 30, 2013 2:25 PM
16	My yard has flooded several times because the East Volusia Mosquito Control Ditch was filled in by neighbors down stream.	Jan 30, 2013 8:10 AM
17	I've only been here for a year, so I don't know if it has ever flooded before.	Jan 30, 2013 4:57 AM

**Page 2, Q6. Has your home ever flooded due to natural/environmental causes?**

18	Only the back porch and a half inch from coming in the house.	Jan 29, 2013 4:14 PM
19	during the last big rains three years ago my house was completely flooded. New neighbor is talking about raising height of his land and the only drain is right outside his property.	Jan 28, 2013 2:54 PM
20	Water built up and came in my home due to my drain being blocked. We complained to the water management and other drains were fixed in my area, but not mine.	Jan 24, 2013 7:50 AM
21	My screen room flooded but water did not get into my house.	Jan 23, 2013 6:54 PM
22	Not in the last three years	Jan 23, 2013 8:11 AM
23	We went through the 3 hurricanes no flooding	Jan 22, 2013 1:24 PM
24	always the garage and area between homes floods and sometimes in garage as high as 3rd of 4 steps into house	Jan 19, 2013 4:50 PM
25	when we moved in, there was indications that there was water damage about 18 inches up from the floor. all was repaired and mold removed. how it got damaged, i don't know. previous owner was not available for comment and neighbors didn't know. jm	Jan 18, 2013 3:40 PM
26	Water did not get in the home itself but my crawl space was completely flooded.	Jan 18, 2013 2:00 PM
27	House is on piers , and on first ridge inland from the ICW ( Halifax River )	Jan 17, 2013 2:36 PM
28	As long as street drains are kept clear, I've never had any even minor flooding, and my neighbors, who have been there since the 60s, told me they have never seen flooding in our area.	Jan 17, 2013 9:18 AM
29	No, we have had water intrusions from hurricanes.	Jan 11, 2013 6:34 PM
30	But exacerbated by overbuilding on surrounding properties.	Jan 11, 2013 10:48 AM
31	not in 11 years.	Jan 11, 2013 10:23 AM
32	See 4	Jan 11, 2013 9:02 AM
33	My home has flooded because of storms and now we have new windows but other people in our condominium refuse to get new windows putting us all in danger of getting flooded.	Jan 8, 2013 11:28 AM
34	my yard has but my house is built off the ground which is very important in architecture and always should be built off the ground and higher up then ground level	Jan 5, 2013 7:40 AM
35	May 2009 - there were other homes on my street, Mollie Road that were flooded.	Jan 4, 2013 12:08 PM
36	House has not flooded but my property has from the canal overflowing since it is not properly maintained.	Jan 2, 2013 9:45 PM

**Page 3, Q7. To your best knowledge, during which time period did your home last flood?**

1	May 2009 - City of Ormod Beach experienced 28 inches of water	Feb 18, 2013 12:50 PM
2	in may 2009	Feb 3, 2013 3:12 PM
3	Storm of the century.	Jan 29, 2013 4:15 PM
4	when the canals overflow, with the businesses on the corner who were allowed to raise their land significantly, I am very concerned with flooding	Jan 28, 2013 2:54 PM
5	The May 2009 flood from hell.	Jan 23, 2013 4:41 PM
6	Has not happened since due to corrective actions that I took.	Jan 18, 2013 2:01 PM
7	the storm drains just could not handle it all	Jan 5, 2013 7:41 AM

**Page 4, Q9. What was the approximate dollar value of all structural damages to your home during the last flooding event?**

1	lost back room of house, had to rebuild	Feb 13, 2013 12:09 PM
2	all sheet rock had to be replaced all wood structure had to be sprayed for mold contamination	Feb 3, 2013 3:16 PM
3	this includes extraction by professional company	Jan 28, 2013 2:54 PM
4	I was not the owner at the time of the damage - so I am unsure as to the storm / damage extent.	Jan 11, 2013 7:18 AM
5	Flood insurance amounted to \$35,000, but that did not put the home back to where it was before the flood.	Jan 6, 2013 3:42 PM
6	the flooding was more in my yard and so there was no real cost as stuff just went to the curb	Jan 5, 2013 7:44 AM

**Page 4, Q10. What was the approximate dollar value of all personal items lost during the last flooding event?**

1	everything up to 4 feet from the floor was destroyed or contaminated kitchen cabinets bathroom cabinets carpet wood floor all dressers bed tables etc.	Feb 3, 2013 3:16 PM
2	I was not the owner at the time of the damage - so I am unsure as to the storm / damage extent.	Jan 11, 2013 7:18 AM
3	Due to depreciated value based on age of personal items such as furniture, etc. we could not replace everything we lost.	Jan 6, 2013 3:42 PM

**Page 4, Q11. Do you currently have flood insurance for your property?**

1	I can afford flood insurance, but do not believe it is needed.	Feb 22, 2013 5:58 PM
2	Yes - cost about \$4500/year	Feb 18, 2013 12:51 PM
3	went from \$300- to current \$5000	Feb 18, 2013 12:28 PM
4	I have carried flood insurance in the past, but not currently	Feb 16, 2013 7:23 AM
5	Mandatory for a mortgage; but realize, it can't replace my large Oaks and trees that will die from root rot, or replace anything at todays cost.	Feb 14, 2013 3:17 PM
6	Required	Jan 23, 2013 4:42 PM
7	I rent	Jan 21, 2013 7:20 PM
8	very expensive !	Jan 18, 2013 3:41 PM
9	Have to play self defense .	Jan 17, 2013 2:37 PM
10	Not required by my mortgage company	Jan 11, 2013 3:28 PM
11	can't afford	Jan 8, 2013 4:42 AM
12	I absolutely cannot afford it and when seeing how the Flood Ins. people have not paid the "Sandy" flood victims then it all becomes bureaucratic anyhow and that fact is dismal & sad	Jan 5, 2013 7:44 AM

**Page 6, Q14. Describe the mitigation efforts conducted on your property.**

1	larger vebtng of crawl space. Which will have no effect at this location and was a waste of time and money	Feb 18, 2013 12:30 PM
2	new gutters, new room has new 18" cement barrier at wall bases.	Feb 13, 2013 12:09 PM
3	Flood wall	Feb 13, 2013 12:07 PM
4	Home was built about base flood elevation.	Feb 11, 2013 11:47 AM
5	prior to building the house, our slab and foundation was elevated to decrease the risk of flooding.	Feb 5, 2013 6:33 PM
6	House was built in 2009 to City specifications for my location.	Jan 31, 2013 10:39 AM
7	The control ditch mentioned earlier.	Jan 30, 2013 8:11 AM
8	We are writing to the City about the blocked drain. We have called the water management plant and let them know about the problem. We are going to survey our property to see what we can do to keep the water out.	Jan 24, 2013 7:54 AM
9	Raised the back floor several inches. Applied a quality sealent on both the exterior and interior of the walls approx 1-2 ' from foundation and replaced roof in 2009.	Jan 23, 2013 4:45 PM
10	Floor 3 feet above property line	Jan 22, 2013 10:51 AM
11	Holly Hill public works put asphalt along edge of road to try to divert rain water....not much help. We keep sandbags and plastic barricade at garage entry at all times.	Jan 19, 2013 4:52 PM
12	Swales	Jan 19, 2013 3:06 PM
13	Built a retaining wall that directs the flow of water away from the house.	Jan 19, 2013 8:23 AM
14	I had 17 dump truck loads (or 170 cubic YARDS) of fill dirt added to my backyard to elevate the property and protect it from the LPGA canal.	Jan 18, 2013 2:03 PM
15	Keep street drain clear, and paths for water to the drain. Plant native trees, plants and lessen grass. Mow grass less so it develops better root system. Extend downspouts, taking water away from home. Only problem now is my one neighbor, who constructed his home so his storm water drains onto my property.	Jan 17, 2013 9:22 AM
16	Installed a "French Drain" along the edge of my driveway after the construction of garage (1992) caused soil erosion.	Jan 16, 2013 3:47 PM
17	drainage	Jan 14, 2013 11:29 AM
18	river waterfront home built in 2004 raised home 2' above requirements in area....ie 11' above MHT. pumps/AC/etc all are on elevated pedestals.	Jan 11, 2013 5:02 PM
19	We sold an adjacent property to the town on which a retention pond was dug as a part of an overall Ponce Inlet floodwater control project.	Jan 11, 2013 10:51 AM
20	Town installed drains to retention ponds. that my street drains into. They tried	Jan 11, 2013 10:24 AM

**Page 6, Q14. Describe the mitigation efforts conducted on your property.**

but I'm not confident in the quality of work.

21	When addition was built in 08, pilings were put in 35 ft to hold the upper structure. Interestingly the Ponce Inlet lighthouse only has a solid base of 8 ft or so	Jan 11, 2013 9:06 AM
22	Built to elevation of 9.5 feet, retention areas on property.	Jan 11, 2013 7:19 AM
23	stormwater drainage improvements	Jan 11, 2013 6:27 AM
24	New windows and doors	Jan 8, 2013 11:29 AM
25	My developement has improved the drainage system.	Jan 4, 2013 2:52 PM
26	My lot has been filled appx three fee above flood plain!!	Jan 3, 2013 4:22 PM
27	xgfsgsdgdsf	Jan 3, 2013 12:09 PM
28	First owner had property developed and elevated higher than surrounding area. Backyard has also been sloped away from home. Gutters downspouts have been piped underground and take runoff rain to middle of yard.	Jan 3, 2013 10:58 AM
29	At my own expense, had 12 or 13 truckloads of sand brought in to elevate my property.	Jan 2, 2013 9:46 PM

**Page 8, Q16. What mitigation strategies have you considered to implement and/or what is your biggest hold-back to implementing mitigation strategies?**

1	the funds....	Mar 8, 2013 11:27 AM
2	none needed	Mar 5, 2013 1:11 PM
3	cost	Mar 4, 2013 8:56 AM
4	i rent	Mar 1, 2013 9:40 AM
5	none	Feb 27, 2013 2:15 PM
6	None	Feb 23, 2013 6:46 AM
7	None considered because I don't believe any are needed.	Feb 22, 2013 5:59 PM
8	N/A	Feb 22, 2013 8:50 AM
9	hold-back for any mitigation is financially-related. Also, FEMA is inconsistent in its responses on how to reduce cost of flood insurance.	Feb 18, 2013 12:51 PM
10	None needed.	Feb 18, 2013 8:43 AM
11	The biggest holdback is cost. I am hoping the City and County will continue to work together to improve and maintain flood management strategies in my neighborhood.	Feb 18, 2013 8:21 AM
12	Do not know what would help	Feb 16, 2013 9:54 AM
13	I don't know what strategies are available or that I need.	Feb 14, 2013 8:03 PM
14	Don't know what they would be. ?	Feb 14, 2013 5:20 PM
15	Dike my entire property with a 4' berm. Have sump-pump to remove storm-water to the outside of property, just enough to keep structures safe. Biggest hold back. RESOURCES	Feb 14, 2013 3:20 PM
16	waste of time and money	Feb 13, 2013 12:13 PM
17	building a dike but it's too expensive	Feb 13, 2013 11:55 AM
18	have lived in this house for over 50 years through every type of hurricane and other natural disaster that has struck this area, and have never had any flooding or standing water that caused any concern to my home or property.. Therefore, I feel that unless we have some unforeseen event like a catastrophic f-5 tornado, or class 5 hurricane, there's no reason to start now.. if we were to have something occur like that, ain't no one living through it anyway.	Feb 12, 2013 5:25 PM
19	Elevation but the expense of such a project is prohibitive	Feb 11, 2013 11:40 AM
20	Don't know what to do.	Feb 10, 2013 11:33 AM
21	Raising the level of the home because it is lowest in the area.	Feb 8, 2013 3:28 PM
22	COST !!!!!	Feb 8, 2013 4:46 AM

**Page 8, Q16. What mitigation strategies have you considered to implement and/or what is your biggest hold-back to implementing mitigation strategies?**

23	Lack of funds	Feb 6, 2013 8:32 AM
24	I haven't	Feb 5, 2013 9:50 PM
25	Drainage Money	Feb 5, 2013 12:41 PM
26	Digging a retention pond on the back end of the property. The biggest holdback is expenses and what do I do with the earth that has been removed.	Feb 5, 2013 11:23 AM
27	none,don't feel a need.	Feb 5, 2013 9:05 AM
28	Money	Feb 4, 2013 9:21 PM
29	finances	Feb 4, 2013 2:07 PM
30	unknown what might help	Feb 4, 2013 7:31 AM
31	i have spoke with holly hill city commissioners to replace all storm drains in the area	Feb 3, 2013 3:17 PM
32	none	Feb 2, 2013 11:25 AM
33	Leveling my yard and fixing the erosion of my yard into ditch. Funds on a fixed income not able to finance to repairs needed	Feb 2, 2013 10:17 AM
34	No need.	Feb 2, 2013 6:09 AM
35	Don't know anything about them.	Feb 1, 2013 1:18 PM
36	Money	Feb 1, 2013 8:20 AM
37	Would like to have sandbags stored for emergency, but have no place to store them and no money to buy them.	Jan 31, 2013 6:47 PM
38	putting some drainage in on the front of my property but its to costly	Jan 31, 2013 6:09 PM
39	I am in a Manufactured Home Park	Jan 31, 2013 4:30 PM
40	House is built up off gorund a couple feet and that is all that is done.	Jan 31, 2013 2:13 PM
41	none	Jan 31, 2013 3:55 AM
42	I live in a condo .	Jan 30, 2013 2:27 PM
43	Retention area / pond	Jan 30, 2013 7:37 AM
44	I don't know what flood mitigation strategies might entail. I also don't know that they're necessary for my location.	Jan 30, 2013 4:59 AM
45	I don't control storm water management.	Jan 29, 2013 4:19 PM
46	none do not know what is	Jan 29, 2013 12:05 PM

**Page 8, Q16. What mitigation strategies have you considered to implement and/or what is your biggest hold-back to implementing mitigation strategies?**

47	I don't know what to do.	Jan 29, 2013 8:25 AM
48	2004 hurricanes - didn't flood, 2009 May storm event, didn't flood, didn't even come close to flooding.	Jan 29, 2013 7:50 AM
49	better drainage which is outside my control.	Jan 28, 2013 2:54 PM
50	None. In May 2009 when we got about 24 inches of rain in a short time, flooding was occurring all around me, but my house didn't flood.	Jan 28, 2013 9:25 AM
51	don't know what it is	Jan 25, 2013 7:48 PM
52	When we have big storms water comes up and out of the storm drains and overflows onto my property	Jan 24, 2013 3:17 PM
53	my soil allows for exceedingly fast drainage. As i SAID I have been here over 50 years and through hurricanes and heavy rain seasons I have no problems. Please don't make any.	Jan 24, 2013 9:10 AM
54	People have allowed their swales to fill with weeds and junk. The swales need to be restored to their original state so water will flow and drain as intended by the builder. Money is the biggest hold-back.	Jan 23, 2013 6:58 PM
55	cost	Jan 23, 2013 2:38 PM
56	do not know if I need to do so	Jan 23, 2013 8:54 AM
57	Waterproofing the walls around the base of the house./ Hold back is the cost as I am a senior on a fix income.	Jan 23, 2013 8:14 AM
58	House Is Up On Blocks.	Jan 22, 2013 5:42 PM
59	My house sits quite high having been built by a carpenter that took this into consideration..	Jan 22, 2013 1:26 PM
60	dont even knowwhat flood mitigation strategies are. Where can I get info on them	Jan 21, 2013 7:35 PM
61	I don't own the property.	Jan 21, 2013 7:21 PM
62	havn't done any and if I the hold back would be money.	Jan 20, 2013 12:28 PM
63	Except for elevating the house, I know of nothing that I can do.	Jan 19, 2013 6:25 PM
64	There are no practical mitigation strategies. If my property floods, many around it will also be floodedand mitigation efforts on one property will have little effect.	Jan 19, 2013 3:58 PM
65	Cost	Jan 18, 2013 8:04 PM
66	Single story house and I am disabled so what can be done? our only plan is to leave ther area if there is actual flooding. [ i.e. water aproaching the property]	Jan 18, 2013 3:47 PM
67	I have no idea what to do.	Jan 18, 2013 12:01 PM

**Page 8, Q16. What mitigation strategies have you considered to implement and/or what is your biggest hold-back to implementing mitigation strategies?**

68	no steps taken or necessary.	Jan 18, 2013 11:17 AM
69	I see no need to do so.	Jan 17, 2013 11:59 PM
70	House is on the "peak" of first ridge. Not much else to do .	Jan 17, 2013 2:38 PM
71	none & None	Jan 17, 2013 8:12 AM
72	none	Jan 17, 2013 7:45 AM
73	Properity will not flood	Jan 17, 2013 7:03 AM
74	?	Jan 16, 2013 8:25 PM
75	I have no idea what I should do.	Jan 16, 2013 4:30 PM
76	concrete wall barrier	Jan 16, 2013 3:36 PM
77	Improved stormwater drainage. Cost is the hold back.	Jan 16, 2013 1:05 PM
78	Don't feel need; no idea what could be done as an improvement; plus am disabled oin fixed income	Jan 16, 2013 11:30 AM
79	Our house is a tear down...perhaps if we rebuild ever.	Jan 16, 2013 10:14 AM
80	Don't know what those are	Jan 14, 2013 7:42 AM
81	Not needed at this time	Jan 14, 2013 6:58 AM
82	None	Jan 14, 2013 6:33 AM
83	Need to learn more about this and if it would benefit my home.	Jan 12, 2013 5:47 PM
84	We have hurricane resistant windows and SG doors and make sure our windows are caulked.	Jan 11, 2013 6:36 PM
85	None	Jan 11, 2013 12:45 PM
86	Haven't thought about it and number 7 does not apply to us	Jan 11, 2013 12:45 PM
87	cost	Jan 11, 2013 12:39 PM
88	Don't see a need for anything more than exists	Jan 11, 2013 11:20 AM
89	live on the 5th floor of a 7 floor condo	Jan 11, 2013 9:02 AM
90	Our house is on Atlantic Ave, it is elevated up from the ocean level.	Jan 11, 2013 7:53 AM
91	I live in a condo - on the bottom floor (Tidewater @ 30 Inlet Harbor Rd). Any changes would have to be implemented by the Condo Association.	Jan 11, 2013 7:19 AM
92	We are in a Condo	Jan 11, 2013 7:14 AM

**Page 8, Q16. What mitigation strategies have you considered to implement and/or what is your biggest hold-back to implementing mitigation strategies?**

93	N/A	Jan 11, 2013 5:32 AM
94	I never really thought about it.	Jan 10, 2013 11:48 AM
95	None	Jan 10, 2013 3:49 AM
96	There is a storm water drain in the front of my property that drains to the rear. Obviously, it's for the street, but my front area certainly benefits. I have not looked at any other strategies.	Jan 8, 2013 8:58 PM
97	add fill but this would jeporidize the neighbors	Jan 8, 2013 4:43 AM
98	cost to implement	Jan 7, 2013 7:50 AM
99	money	Jan 7, 2013 7:41 AM
100	None	Jan 7, 2013 5:08 AM
101	My home is already roughly five feet higher than the street and has a four foot high crawl space under the house for most of the water to go. Aside from putting it on stilts, there is not much else to do to mitigate flooding.	Jan 6, 2013 7:50 PM
102	Our home sits lower than all the others on the block. Raising the level of the home would be necessary to prevent future flooding but cost prohibits our doing that.	Jan 6, 2013 3:44 PM
103	None, property is elevated	Jan 5, 2013 10:09 AM
104	Cost	Jan 5, 2013 7:45 AM
105	I have considered implementing flood barriers, however the cost is prohibitive	Jan 5, 2013 2:28 AM
106	sandbagging garage which is on ground level. Unable to do so due to age and illness. House is i/2 block from river and ocean	Jan 4, 2013 3:21 PM
107	Don't know what strategies are available other than sand-bagging	Jan 4, 2013 2:42 PM
108	none	Jan 4, 2013 2:41 PM
109	cost	Jan 4, 2013 2:27 PM
110	N/A	Jan 4, 2013 12:09 PM
111	n/a	Jan 4, 2013 8:09 AM
112	cost	Jan 3, 2013 9:49 AM
113	none	Jan 3, 2013 6:47 AM

**Page 9, Q17. Is your home currently classified as a repetitive flood loss property (defined as a structure that has experienced two floods in the last ten years with at least \$1,000 in damages per event)?**

1	only one flood May 2009	Feb 18, 2013 12:47 PM
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**Page 9, Q18. Did you know that you can view the current flood plain and other County-wide resources at the following web site: <http://www.volusia.org/services/public-protection/emergency-management>**

1	I will visit the website in the future	Mar 5, 2013 9:23 PM
2	Not needed	Mar 5, 2013 1:15 PM
3	No computer at the moment.	Feb 27, 2013 2:06 PM
4	no computer	Feb 27, 2013 2:04 PM
5	Definitely will visit the web site.	Feb 22, 2013 6:02 PM
6	haven't looked up the newer designations that won't change anything	Feb 18, 2013 12:47 PM
7	yes, but the maps are very difficult to navigate	Feb 16, 2013 7:26 AM
8	Thank you. I will visit it.	Feb 14, 2013 5:23 PM
9	There have been thousands of surveys done; water runs down hill. What's the problem with all these high paid degrees, executing a plan?	Feb 14, 2013 3:40 PM
10	no computer	Feb 13, 2013 12:15 PM
11	no computer	Feb 13, 2013 12:13 PM
12	Excellent website!	Feb 11, 2013 11:49 AM
13	feel the flood map is highly incorrect!!!!	Feb 8, 2013 4:48 AM
14	I will	Feb 5, 2013 12:42 PM
15	thanks	Jan 29, 2013 4:21 PM
16	I will visit this site to determine if I am in a flood plain	Jan 28, 2013 2:55 PM
17	I have only used the hurricane info that comes in paper	Jan 20, 2013 12:31 PM
18	will look after this survey	Jan 18, 2013 3:49 PM
19	No effort to my knowledge has been made until now to notify residents of this site.	Jan 18, 2013 2:07 PM
20	I will view it, thanks.	Jan 18, 2013 12:08 AM
21	yes, but did not view it	Jan 16, 2013 10:38 AM
22	I just visited the website and cannot figure out if I am in the flood plain or not.	Jan 12, 2013 6:02 PM
23	Went there just now. Very nice but could not get explanations "I" to work	Jan 12, 2013 8:39 AM
24	It's not possible to visit it on my iPad.	Jan 11, 2013 6:38 PM
25	But I will now :-)	Jan 8, 2013 8:58 PM
26	don't agree with boundaries of flood zones	Jan 8, 2013 4:45 AM

**Page 9, Q18. Did you know that you can view the current flood plain and other County-wide resources at the following web site: <http://www.volusia.org/services/public-protection/emergency-management>**

27 Not sure

Jan 3, 2013 4:26 PM

**Page 9, Q19. How satisfied are you with how your jurisdiction handles public involvement and outreach concerning flood hazards in your area?**

1	They may offer sandbags, but they don't offer to help clean up.	Mar 8, 2013 11:28 AM
2	I learned from my dad when i was a child to always buy/ build on the highest area because water travels down.	Mar 5, 2013 1:15 PM
3	Any information on this topic I would like sent to me.	Feb 27, 2013 2:06 PM
4	I am just beginning to study this issue and plan to become very well informed.	Feb 22, 2013 4:07 PM
5	This area of Ormond Beach from Nova Road to US1 over to Riviera Golf Course does not have any stormwater management.	Feb 18, 2013 12:54 PM
6	We need engineered drainage. hard to beleive that that retention pond was set to drain into an area with out good drainage. It was bound to cause problems.	Feb 18, 2013 12:47 PM
7	I would like to know who to speak to who can answer my concerns about the coming increase in flood insurance rates.	Feb 14, 2013 5:23 PM
8	Stop wasting money on "consultants"; have the employees do the work there paid to do. Stop irresponsible development. You keep laying down asphalt over recharge land, and then scratch your head as if you don't understand. Example: Miami property just W. of I-95 > 8,500 homes plus commercial property in the millions of sq. ft.< That is not sustainable in an area "Florida = wetlands plus Tropical weather". Once that properties elevations are "RAISED", where or how will the Stormwater be deflected, and at what speed, and where will it all go. It can't stay in a Pond. That only works in a Computer Model! Note: St. Johns W. Mang. took "what I call a pay-off", they will say "mitigate". But, whatever you want to call it, "they buried a natural creek running through Venetian bay. A subdivision on the West S. of Glencoe Rd. Raised by "feet" and killed a Natural flowing creek in that cow pasture, that I use to catch bait out of "year around as a kid. Suggestions: Stop taking money for bad Projects!	Feb 14, 2013 3:40 PM
9	The City of Holly Hill needs to keep drains cleaned and canal nearby the street slopes sideways eastward	Feb 13, 2013 12:10 PM
10	More direct mail outs with flood information	Feb 11, 2013 11:49 AM
11	More information needs to be given to home buyers before they buy into a flood hazard area home and are stuck with extremely high expenses related to flood insurance and/or mitigation	Feb 11, 2013 11:43 AM
12	Fix the problems without raping the home owner	Feb 8, 2013 4:48 AM
13	clean out the swales so that water moves away from property instead of creeping up to the property	Feb 4, 2013 2:08 PM
14	An participating in this survey at the prompting of the City of Holly Hill. Have been not been aware of the flood plain status for this manufactured home park lot site. Our insurance company did not require or recommend flood insurance, but I will check out the flood plain map for the park's status. Thank You.	Feb 2, 2013 5:23 PM
15	Holly Hill has done a fine job of building additional retention ponds, but more should be built or current ponds expanded.	Jan 31, 2013 6:50 PM

**Page 9, Q19. How satisfied are you with how your jurisdiction handles public involvement and outreach concerning flood hazards in your area?**

16	with our never ending need for water during dry season and our capacity for huge deluge during rainy season, I would wish for a plan to harvest and contain water. Too Sci-Fi? Ok. Better drainage.	Jan 28, 2013 2:55 PM
17	I have contacted the city to clean the storm drains but nothing happens. When we have big rain storms the water comes within 4-5 inches from going inside the units	Jan 24, 2013 3:20 PM
18	City has done extensive maintenance on sewer and drainage in the last couple years.	Jan 24, 2013 9:12 AM
19	Respond to letters and calls about problems with runoff water. The front of my property always has standing water after a rain. This was never a problem before the new sewer system was put in. My drain is blocked it being connected to my neighbors, with no hole to continue on it just fills up.	Jan 24, 2013 7:59 AM
20	We would like some advice as we need to replace our present driveway and want to do it to solve this problem.	Jan 19, 2013 4:54 PM
21	Need to demand that surrounding communities implement appropriate strategies to minimize their effect on Holly Hill	Jan 19, 2013 4:00 PM
22	There is no communication. A	Jan 19, 2013 3:11 PM
23	I have no reason to be satisfied with any efforts as I have seen no efforts. When I have asked for information or assistance I have been told to contact the county, the county tells me to call St. Johns Water Management and St. Johns Water Management tells me to talk to the city. NO ONE WANTS TO TAKE RESPONSIBILITY FOR THE LPGA CANAL EAST OF US 1.	Jan 18, 2013 2:07 PM
24	This is the first I have read about it in 12 years.	Jan 12, 2013 6:02 PM
25	i live in ponce inlet there hasn't been any real official interaction re flooding and action plans broadly communicated.	Jan 11, 2013 5:04 PM
26	Number 7 is not worded properly I am unsure of flood insurance from number 6 so number 7 doesn't make sense to pick one of them. I do not feel we have a flood problem We have a drainage problem every time it rains, I do not know who to speak with regarding this problem. I have only been In this home for 1 year.	Jan 11, 2013 12:50 PM
27	Chief Scales is the emergency manager for Ponce Inlet. In May 2009 when areas in the Town flooded, he promptly advised residents, isolated the areas that flooded, and helped flooded homeowners with pumps to remove stormwater. Ponce Inlet has both a "reverse 911" phone system and an e-mail system to inform residents of flooding problems.	Jan 11, 2013 7:24 AM
28	More information to the public other than required by CRS or other mandate.	Jan 7, 2013 7:51 AM
29	This is first mention of subject n 18 years.	Jan 4, 2013 3:22 PM
30	Latest flood plain survey used old street level altitude data , no resurveys were preformed to determine actual property levels.	Jan 3, 2013 4:26 PM

**Page 9, Q19. How satisfied are you with how your jurisdiction handles public involvement and outreach concerning flood hazards in your area?**

31 maintain the canals

Jan 2, 2013 9:48 PM



## News & Current Events in the City of Daytona Beach

Week of February 4, 2013

*In this issue...*

**New program to upgrade water meters begins in Daytona Beach**  
**Residents are invited to find their way to upcoming public workshop about Wayfinding Program**  
**Golf for a good cause**  
**Learn more about the city and county's efforts to create a Floodplain Management Plan**

[Report a Problem to City Hall](#) ♦ [Contact Us](#) ♦ [Calendar for City Meetings](#) ♦ [View Agendas and Minutes](#)

### Installation of new water meters begins

As part of the City of Daytona Beach's commitment to maintain a high quality of life for our citizens through cost-effective, innovative systems, we will begin replacing manual read water meters with an advanced metering infrastructure (AMI) system.

The innovative system will replace monthly manual meter reads with a wireless system that collects multiple remote reads per day, allowing for better leak detection, increased billing accuracy and improved customer service.

#### What are the benefits of the new meters and technology for the residents?

- More consistent and accurate consumption readings
- Daily and monthly usage charts
- 24-hour leak detection
- High and low consumption alerts
- Alarms for unsafe conditions like cut wires and backflow conditions



#### Installation process

The city has hired National Metering Services (NMS) to install the new meters and equipment. NMS crews will be in neighborhoods and work on Monday through Saturday from 7 a.m. to 6 p.m. For the safety of our residents, installers are required to have:

- Photo identification badges
- Company uniforms
- Drive clearly marked NMS vehicles

Contractors will be supervised by Utility Department staff, carry proper identification and have successfully completed a comprehensive background check; contractor vehicles will also be clearly marked. Replacing all of the city's meters will take about eight months, and utility customers will receive a postcard prior to installation in their area.

During installation, contractors working on behalf of the City of Daytona Beach will interrupt water service for about 20 minutes. Before leaving the site, crews will test the new meter by running about 10 gallons of water from an exterior hose or faucet.

### Public comments sought for wayfinding project

The public is invited to a workshop about the city's wayfinding signage program on Thursday, February 21 at 7 p.m. in City Hall, 301 S. Ridgewood Avenue in Daytona Beach.

The purpose of this meeting is to discuss the master plan process and receive the public's comments regarding purpose, benefits and schedule of the program. The workshop will provide attendees the opportunity to comment on the three-phased project which will create a plan to guide vehicular and pedestrian traffic to venues of interest within the city and create distinct signage.



City commissioners in August 2012 approved an agreement not to exceed \$120,000 with Lassiter Transportation Group to produce a wayfinding master plan. The Daytona Beach-based consultant is currently creating an inventory of the city's landmarks and existing signage and documenting regulatory requirements for signage. The consultant is concentrating on major roadways that serve as gateways into the city including I-95, I-4 and International Speedway Boulevard as well as city, county and state roads such as Beach Street, Main Street, Orange Avenue, Halifax Avenue, Peninsula Avenue, Mason Avenue and Ocean Avenue.

For more information, contact the city's Public Works Department at (386) 671-8607.

### 34th Annual Mayor's Charity Golf Tournament



There is still time for golfers to register for the Mayor's 34th Annual Pro-Am/Golf Tournament on Friday, March 22 at the Daytona Beach Golf Club on Wilder Avenue. Using a scramble format, each foursome will be paired with a PGA golf professional so the group has the option of using the professional's ball on each hole.

Sponsorships are also available. Hole sponsorships begin at \$100 with other sponsorship levels ranging from \$1,000 to \$3,500.

Daytona Beach Mayor Derrick Henry has selected three worthwhile organizations in our community as the tournament's beneficiaries -- Halifax Community Health System's Keech Street Children's Clinic, Daytona Beach Pop Warner and the Greater Daytona Junior Golf Association. The Keech Street Children's Clinic provides health care services to juveniles in the core area of our city, while Pop Warner and the Greater Daytona Junior Golf Association works with youths to not only teach the fundamentals of their respective sports, but also by instill important life skills and values like integrity, respect, conflict resolution and perseverance.

To register to play or for sponsorship information, please contact Golf Director John Cameron at 386-671-3501.

### Learn about the city and county's collaborative efforts for flood-prone areas

Floodplain management is vital to ensure the safety of lives and property in flood prone areas. The City of Daytona Beach is one of several Volusia County municipalities joining forces with Volusia County and the East Central Florida Regional Planning Council to produce a Floodplain Management Plan. The public is invited to attend two upcoming public meeting to learn more about this countywide effort.



The open-house meetings will be:

- **Monday, February 11 - 1 to 4 p.m.**  
Daytona Beach Regional Library at City Island  
105 E. Magnolia Ave., Daytona Beach
- **Friday, February 15 -- 1 to 4 p.m.**  
Volusia County Historic Courthouse  
125 W. Indiana Ave., DeLand

The public is invited to listen to presentations, review the plan and provide feedback.

For more information about the meetings, please visit [www.ecfrpc.org](http://www.ecfrpc.org) or call 407-262-7772.

Want to share your flooding experience? Please take part in a simple [floodplain management survey](#).

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# Integrated Floodplain Management Plan

The City of Ormond Beach is coordinating with Volusia County and the East Central Florida Regional Planning Council on the development of an Integrated Floodplain Management Plan. The City is seeking input from residents concerning floodplain management issues, concerns, and other feedback to assist in the development of the Floodplain Management Plan. A short survey is available at:

[https://www.surveymonkey.com/s/Volusia\\_Floodplain\\_Management\\_Public\\_Survey](https://www.surveymonkey.com/s/Volusia_Floodplain_Management_Public_Survey)

Please visit the link and complete the survey to provide your input. Thank you for your time and feedback.



## Firefighters in Training

This week firefighters trained at Station 92 and Station 94 by practicing firefighter survival training techniques.



### Weekly Police Stats

Calls for Service - 1,771    Arrests – 33

Citations Issued - 132

Reports Written - 145    Traffic Stops - 302



### Weekly Fire Operations Stats

**111 INCIDENTS**

66 - EMS    3 - Motor Vehicle Accidents

3 - Fires    4 - Fire Alarms

33 - Public Assists    2 - Hazardous

## Notice of Meeting/Workshop Hearing

### REGIONAL PLANNING COUNCILS East Central Florida Regional Planning Council

The Volusia County Department of Emergency Management announces a public meeting to which all persons are invited.

DATE AND TIME: February 15, 2013, 1:00 p.m. - 4:00 p.m.

PLACE: Volusia County Historic Courthouse, 120 W. Indiana Ave., DeLand, FL.

GENERAL SUBJECT MATTER TO BE CONSIDERED: Volusia County and its municipalities are seeking input from residents concerning floodplain management issues, concerns, and other feedback to assist in the development of the Floodplain Management Plan.

A copy of the agenda may be obtained by contacting: Tara McCue, (407) 262-7772 or [tara@ecfrpc.org](mailto:tara@ecfrpc.org).

For more information, you may contact: [www.ecfrpc.org](http://www.ecfrpc.org).

ACCOUNT NUMBER	[REDACTED]
BILLING DATE	1/24/13
CURRENT CHARGES / DUE DATE	2/15/13
SERVICE ADDRESS	[REDACTED]
CYCLE/RTE/RATE CLASS	10-04 RESIDENTIAL
LAST BILL AMOUNT	41.84
LAST PAYMENT AMT/DATE	45.00 1/04/13



**CITY OF ORMOND BEACH  
UTILITY BILLING**  
 22 South Beach Street  
 Ormond Beach, FL 32174  
 Telephone: (386) 676-3209  
 Facsimile: (386) 676-3374  
 Office Hours: 8:00-5:00 Mon-Fri  
 Closed Holidays  
 After Hours Emergency: (386) 676-3230



Bills are due when rendered and shall be paid within fifteen (15) days following the original date of billing. A late fee will apply on bills paid later than twenty (20) days after the bill date. Service will be discontinued without further notice if unpaid within 30 days of each bill date.

SERVICE PERIOD	DAYS	METER NUMBER	CURRENT	PREVIOUS	USAGE (x 1000)
WA 12/21/12 1/23/13	33	[REDACTED]	601	597	4

SERVICE	CONSUMPTION	CHARGE	TOTAL
PREVIOUS DUE BALANCE			3.16-
WA Minimum Charge	2.00	11.79	
WA Cons Over 2000 Gals	2.00	6.20	
TOTAL WATER SERVICE CHARGE			17.99
GB Refuse Pickup		13.59	13.59
RC Recycling Program		2.89	2.89
ST Stormwater Drainage		8.00	8.00
NEW CHARGES TOTAL			42.47
TOTAL AMOUNT DUE			39.31

The City is seeking input from residents concerning floodplain management issues to assist in the development of the Floodplain Management Plan. A short survey is available at [www.surveymonkey.com/s/Volusia\\_Floodplain\\_Management\\_Public\\_Survey](http://www.surveymonkey.com/s/Volusia_Floodplain_Management_Public_Survey). Please visit the link and complete the survey to provide your input.

### COMPARE YOUR USAGE

PERIOD	WATER GALS. USED
CURRENT	4,000
YEAR AGO	3,000

SERVICE DEPOSIT ON FILE IS:



# Edgewater Shorelines

JANUARY 2013

The Official Newsletter for  
The City of Edgewater

Mayor Michael Thomas  
District 1 Councilwoman Christine Power  
District 2 Councilwoman Gigi Bennington  
District 3 Councilman Mike Ignasiak  
District 4 Councilman Gene Emter

City Hall  
104 N. Riverside Drive  
Edgewater, FL 32132  
Phone: 386-424-2400  
Fax: 386-424-2410  
www.CityofEdgewater.org

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## Newsletter Changes

The Edgewater Shoreline Newsletter will now be available on the city website at [www.cityofedgewater.org](http://www.cityofedgewater.org) on the 1st and 15th of each month. Mailed newsletters will be done quarterly. We are hoping this will help our residents have the latest news of the happenings in our community.



Mark your calendars now for the Edgewater RiverFest. The festival will be held March 22<sup>nd</sup> through the 24<sup>th</sup> along beautiful Riverside Drive. This year's event includes a carnival, an arts & crafts show, a business expo, fun activities on the river, lots of great local entertainment, and a FREE concert on Saturday, March 23<sup>rd</sup>, featuring the National Country Music band *Little Texas!*



Look for more details in the weeks ahead. Please contact Janet Shira at (386) 424-2485 or [jshira@cityofedgewater.org](mailto:jshira@cityofedgewater.org) for questions or more details. And a huge THANK YOU to our event sponsors: Advanced Air & Heat, Bert Fish Medical Center, Florida Power & Light, Hometown News, The News Journal, K&S Printing, Klein-Yaney Media, Best Western of Edgewater, and Dustin's BBQ!

We couldn't do it without your help!

## Compliment, Complaint or Request on the Web!

Are you one of our residents that never seem to have time to contact the City with a compliment, file a complaint or submit a request. Well now you can do any of these at the convenience of your home/office without worry that you may be placed on hold or transferred to one department to find out you need another department. Edgewater has the solution to this problem, <http://www.cityofedgewater.org/index.php/contact-us> by using this link you can file your compliment, complaint or request, when using the email option and providing your email address the system will generate an automatic email response to you when your issue has been completed. We hope this new system will assist our residents 24/7.



## Floodplain Management Plan Survey

Volusia County and its municipalities are seeking input from residents concerning floodplain management issues, concerns, and other feedback to assist in the development of the Floodplain

Management Plan. A short survey is available at:

[https://www.surveymonkey.com/s/Volusia\\_Floodplain\\_Management\\_Public\\_Survey](https://www.surveymonkey.com/s/Volusia_Floodplain_Management_Public_Survey)

Please visit the link and complete the survey to provide your input. If you do not have internet access please contact Tyna Lynn Hilton, Environmental Administrator at 386-424-2494 for a hard copy of the survey.

The City of Edgewater, County of Volusia, and the East Central Florida Regional Planning Council thank you for your time and feedback.



# Edgewater Shorelines

FEBRUARY 1, 2013

The Official Newsletter for  
The City of Edgewater

Mayor Michael Thomas  
District 1 Councilwoman Christine Power  
District 2 Councilwoman Gigi Bennington  
District 3 Councilman Mike Ignasiak  
District 4 Councilman Gene Emter

City Hall  
104 N. Riverside Drive  
Edgewater, FL 32132  
Phone: 386-424-2400  
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www.CityofEdgewater.org

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*Edgewater is throwing a Party for the Planet and You're Invited!*

*Come enjoy the fun, family-friendly celebration. Stroll the park and visit the many vendors demonstrating their environmentally-friendly products and services. Enjoy the hands-on activities for kids and adults alike. Learn what you can do to conserve our natural resources and preserve the world's wildlife places for future generations. Take time to relax at the event and enjoy some delicious food and great local entertainment.*

**See you at the Party!** Hawks Park, Saturday, April 20<sup>th</sup>, 10 a.m. to 4 p.m.

If you are interested in being a sponsor or vendor please contact Janet Shira at (386)424-2485 or email at [jshira@cityofedgewater.org](mailto:jshira@cityofedgewater.org) for further information.

## Council & City Board Meetings Live on the Web

Edgewater is proud to announce you can watch the council meetings and board meetings live through the internet.

Go to <http://www.cityofedgewater.org/index.php/agenda-minutes-a-video>

You can now stay informed whether you watch live or watch later, you can do so at your convenience in your home, office or on the go with your Smartphone.

## Compliment, Complaint or Request (TracEZ) on the Web!

Are you one of our residents that never seem to have time to contact the City with a compliment, file a complaint or submit a request. Well now you can do any of these at the convenience of your home/office without worry that you may be placed on hold or transferred to one department to find out you need another department. Edgewater has the solution to this problem, visit our web page and select "Contact Us" by using this link you can file your compliment, complaint or request, when using the email option and providing your email address the system will generate an automatic email response to you when your issue has been completed. This new system will assist our residents 24/7.

## Newsletter Changes

The Edgewater Shoreline Newsletter will now be available on the city website at [www.cityofedgewater.org](http://www.cityofedgewater.org) on the 1st and 15th of each month. Mailed newsletters will be done quarterly. We are hoping this will help our residents have the latest news of the happenings in our community.

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1. Online at [www.cityofedgewater.org](http://www.cityofedgewater.org) with your Discover, American Express, MasterCard, or Visa credit card or an Electronic Check. Available 24/7.
2. Signup for EASY pay program which provides for automatic payments of your monthly utility bill.
3. Automated system available by calling 386-427-EASY (3279). Available 24/7.
  - a. Check account information
  - b. Check billing history
  - c. Check payment history
  - d. Make payments

Don't forget, as always you can make a utility payment at City Hall.

You can also have your Utility Bill delivered to you by E-notification via your email provider. Find more Utility Billing information by visiting [www.cityofedgewater.org](http://www.cityofedgewater.org), email Customer Service at [customerservice@cityofedgewater.org](mailto:customerservice@cityofedgewater.org), or stop by City Hall.



Want to be a lifesaver? The Edgewater Fire Dept can help! You will learn how to use an Automated External Defibrillator (AED) and perform CPR so you will be prepared to be the lifesaver! Call (386) 424-2445 to register or for more information.

**DATE:** Wednesday, February 20th

**TIME:** 6:00pm

**LOCATION:** Fire Hall-2628 Hibiscus Dr.

**COST:** \$25

Must be pre-registered and you may pay when you register or the night of class with check or cash.



## Floodplain Management Plan Survey

Volusia County and its municipalities are seeking input from residents concerning floodplain management issues, concerns, and other feedback to assist in the development of the Floodplain Management Plan. A short survey is available at:

[https://www.surveymonkey.com/s/Volusia\\_Floodplain\\_Management\\_Public\\_Survey](https://www.surveymonkey.com/s/Volusia_Floodplain_Management_Public_Survey)

Please visit the link and complete the survey to provide your input. If you do not have internet access please contact Tyna Lynn Hilton, Environmental Administrator at (386) 424-2494 for a hard copy of the survey.

The City of Edgewater, County of Volusia, and the East Central Florida Regional Planning Council thank you for your time and feedback.

Staff from Volusia County's Emergency Management Division and the East Central Florida Regional Planning Council will discuss the county's proposed floodplain management plan during two public meetings.

The meetings will be held at these times:

- 1 to 4 p.m. Monday, Feb. 11, at the Daytona Beach Regional Library at City Island, 105 E. Magnolia Ave., Daytona Beach
- 1 to 4 p.m. Friday, Feb. 15, at the Volusia County Historic Courthouse, 125 W. Indiana Ave., DeLand

The public is invited to listen to the presentations, review the plan, and provide feedback.

Reservations are not required. For more information, please visit [www.ecfrpc.org](http://www.ecfrpc.org) or call Tara McCue at 407-262-7772.



# Edgewater Shorelines

FEBRUARY 15, 2013

The Official Newsletter for  
The City of Edgewater

Mayor Michael Thomas  
District 1 Councilwoman Christine Power  
District 2 Councilwoman Gigi Bennington  
District 3 Councilman Mike Ignasiak  
District 4 Councilman Gene Emter

City Hall  
104 N. Riverside Drive  
Edgewater, FL 32132  
Phone: 386-424-2400  
Fax: 386-424-2410  
www.CityofEdgewater.org

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# Reclaimed Water

**NOW IS THE TIME TO CONNECT TO RECLAIMED WATER!!**

**CONNECTION FEE \$650.00\***

**\*A 12-month payment plan for the Connection Fee can be arranged with a minimum \$200 down payment.**

## RECLAIMED WATER RESTRICTIONS THREE Days of Watering

Homes with addresses that end in an **EVEN** number may water  
**SUNDAY, TUESDAY, THURSDAY.**

Homes with addresses that end in an **ODD** number may water  
**MONDAY, WEDNESDAY, SATURDAY.**

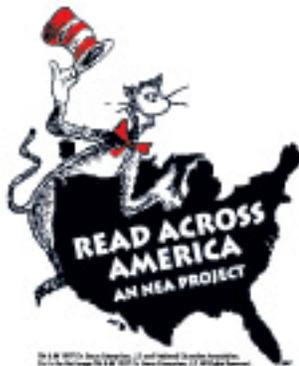
Watering is allowed only before 10 a.m. or after 4 p.m. year round.

Contact the Department of Environmental Services at  
(386) 424-2476 for further information.

## Newsletter Changes

The Edgewater Shoreline Newsletter will now be available on the city website at [www.cityofedgewater.org](http://www.cityofedgewater.org) on the 1st and 15th of each month. Mailed newsletters will be done quarterly. We are hoping this will help our residents have the latest news of the happenings in our community.

## Read Across America



[www.nea.org/readacross](http://www.nea.org/readacross)



Would you like to be part of building a nation of readers? If so call and volunteer at Edgewater Public for the National Education Association's award winning program, Read Across America. This program was launched in 1997 and takes place each year on or near March 2, the birthday of beloved children's author Dr. Seuss, who epitomizes a love of learning.

Edgewater Public will be celebrating with volunteers reading a Dr. Seuss book to each Kindergarten, 1st and 2nd grade classroom.

If you are interested in volunteering please contact the school for an application prior to event, volunteers must be approved through Volusia County Schools prior to volunteering.

**Building a nation of readers one book at a time!**

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2. Signup for EASY pay program which provides for automatic payments of your monthly utility bill.
3. Automated system available by calling 386-427-EASY (3279). Available 24/7.
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Are you one of our residents that never seem to have time to contact the City with a compliment, file a complaint or submit a request. Well now you can do any of these at the convenience of your home/office without worry that you may be placed on hold or transferred to one department to find out you need another department. Edgewater has the solution to this problem. Visit our web page and select "Contact Us". By using this link you can file your compliment, complaint or request. When using the email option and providing your email address, the system will generate an automatic email response to you when your issue has been completed. This new system will assist our residents 24/7.



## Floodplain Management Plan Survey DEADLINE FOR SURVEY IS FEBRUARY 28TH

Volusia County and its municipalities are seeking input from residents concerning floodplain management issues, concerns, and other feedback to assist in the development of the Floodplain Management Plan. A short survey is available at:

[https://www.surveymonkey.com/s/Volusia\\_Floodplain\\_Management\\_Public\\_Survey](https://www.surveymonkey.com/s/Volusia_Floodplain_Management_Public_Survey)

Please visit the link and complete the survey to provide your input. If you do not have internet access please contact Tyna Lynn Hilton, Environmental Administrator at (386) 424-2494 for a hard copy of the survey.

The City of Edgewater, County of Volusia, and the East Central Florida Regional Planning Council thank you for your time and feedback.

## Edgewater Police News

## Special Olympic Law Enforcement Torch Run



Law enforcement officers from over 300 Florida agencies all participates in the state-wide torch run to benefit the athletes of Special Olympics Florida since 1984. Each year, over 5,000 officers carry the torch on a 1500 mile relay through 66 counties in Florida. This year the Torch Run will be coming through Edgewater on April 10th. The New Smyrna Beach officers will be passing the torch to Edgewater officers at 10th Street and US #1.

Edgewater officers will then carry the torch South on US#1 to Turgot Avenue (Hawks Park). Funds are generated through contributions from individuals and businesses along the way and through sales of the popular Torch Run T-shirts. For more information or to purchase the 2013 Torch Run T-shirt please contact David Soltz at (386) 424-2400 x2158, please leave a message and you will receive a returned call.



# Edgewater Shorelines

MARCH 1, 2013

The Official Newsletter for  
The City of Edgewater

Mayor Michael Thomas  
District 1 Councilwoman Christine Power  
District 2 Councilwoman Gigi Bennington  
District 3 Councilman Mike Ignasiak  
District 4 Councilman Gene Emter

City Hall  
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## CHANGE YOUR CLOCK CHANGE YOUR BATTERY



It's time to spring forward your clock. On Sunday, March 10, we will be moving our clocks forward one hour. As a reminder, when you change your clock, change your batteries in your smoke alarms. This simple act could save you and your family!

## WATER QUALITY

It has come to our attention that cards are being mailed from Central Florida Environmental recommending residents have their water tested. This is NOT coming from the City. The card states that EPA recommends everyone have their water tested on an annual basis. This recommendation is for those who receive their water from a private well. The City's Water Treatment Plant tests the water and monitors it continuously, 24/7 365 days a year. Utility Customers of the City of Edgewater can rest assured the water is safe and there is no need to have it tested. If you have questions about your water quality, please contact the Water Plant Manager at 386-424-2490. You may also visit the City's website and review the latest Consumer Confidence Report at: [www.cityofedgewater.org/index.php/main-menu/departments/environmental-services/utilities/waterplant](http://www.cityofedgewater.org/index.php/main-menu/departments/environmental-services/utilities/waterplant).

### Watering Restrictions Daylight Savings Time\* Effective March 10, 2013- November 3rd

Mandatory lawn watering restrictions specify the days when you may water. These days depend on whether you have an odd or even numbered address, and the time of year. The following restrictions apply to private well and potable water (city water). Reclaimed water restrictions are listed in the purple box to the right.

#### WATERING DAYS:

Homes with odd numbered addresses:  
WEDNESDAY & SATURDAY

Homes with even numbered addresses:  
THURSDAY & SUNDAY

Nonresidential Properties:  
TUESDAY & FRIDAY

Only water when needed and not between  
10 a.m. and 4 p.m.  
Water no more than one hour per zone.

### Reclaimed Water Restrictions Year Round

#### ATTENTION EDGEWATER RECLAIMED WATER USERS

#### THREE Days of Watering

#### WATERING DAYS:

Homes with **EVEN** numbered addresses:  
**SUNDAY, TUESDAY, THURSDAY.**

Homes with **ODD** numbered addresses:  
**MONDAY, WEDNESDAY, SATURDAY.**

Watering is allowed only before 10 a.m. or after 4 p.m. year round. You may use up to 20,000 gallons per month of reclaimed water for \$9.50 a month.

Watering restrictions are still in effect for those using wells, ground water and potable water for irrigation see box on left.

(Limited service area—reclaimed water is not available to all Edgewater residences.)

\*\*\*City Council Approved to continue the \$650.00 connection fee and reduced rates for reclaimed water for another year.\*\*\*

## Newsletter Changes

The Edgewater Shoreline Newsletter will now be available on the city website at [www.cityofedgewater.org](http://www.cityofedgewater.org) on the 1st and 15th of each month. Mailed newsletters will be done quarterly. We are hoping this will help our residents have the latest news of the happenings in our community.

If you have any questions about water restrictions for city water or reclaimed water please contact the Department of Environmental Services at (386) 424-2476 or email at [PublicWorks@CityofEdgewater.org](mailto:PublicWorks@CityofEdgewater.org).

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1. Online at [www.cityofedgewater.org](http://www.cityofedgewater.org) with your Discover, American Express, MasterCard, or Visa credit card or an Electronic Check. Available 24/7.
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**EDGEWATER IS ON FACEBOOK**

**Join Edgewater on Facebook! Check us out for the latest news on what is happening in the City.**

**Code Enforcement News**

**Want a FREE Garage Sale Permit?**

The City of Edgewater is now offering an easy way to obtain a garage sale permit and view a list of garage sales in the city. When visiting the City's website ([www.cityofedgewater.org](http://www.cityofedgewater.org)) click on the tab on the right hand side of the screen labeled "Garage Sale Permits". You can view the list of all sales in the City with permits, including addresses and the dates of the sale. You can also choose to register for your garage sale permit online. **When applying for the garage sale permit online there is NO FEE.** If you choose to visit City Hall to obtain your garage sale permit, the fee is \$5 and it is then added to the online list of sales. Any questions about garage sale regulations or permits may be directed to Code Enforcement at (386) 424-2414.



**The City of Edgewater, County of Volusia, and the East Central Florida Regional Planning Council would like to thank everyone that participated in the Floodplain Management Plan Survey.**

**Police Dept News**

**Law Enforcement Supports Special Olympics**



**Law Enforcement**



Uniformed Officers of Edgewater Police Department will be serving and busing tables for TIPS to benefit the Special Olympics at Edgewater Chick-fil-A on April 6th from 10am-6pm. Law enforcement officers from over 300 Florida agencies participate in state-wide events to benefit the athletes of Special Olympics Florida. Each year, over 5,000 officers carry the torch on a 1500 mile relay through 66 counties in Florida. This year the Torch Run is being hosted by Edgewater Police Department and will be coming through Edgewater on April 10th. Funds are generated through contributions from individuals and businesses, through the TIP-A-COP at Chick fil-A, and through sales of the popular Torch Run T-shirts and hats. For more information or to purchase the 2013 Torch Run T-shirt/hat please contact David Soltz at (386) 424-2400 x2158, please leave a message and you will receive a return call.



## Request for Input: Floodplain Management Plan

The City of Holly Hill is participating with other local governments in the development of a countywide floodplain management plan. Our participation in this plan could eventually lead to lower rates for flood insurance in the City. As part of this study we are seeking input from businesses concerning floodplain management issues, concerns, and other feedback to assist in the development of the Floodplain Management Plan. We are asking you to help us by completing a short survey. The survey is available [Here](#)

CATEGORIES [NEWS & ANNOUNCEMENTS](#) | TAGS: | POSTED ON MARCH 6, 2013

Social Networks:



Comments are closed.

### NEWS & ANNOUNCEMENTS

[1200 Center Avenue – Public Workshop Schedule](#)

[Professional Planning Services – RFQ Evaluation Status Notification](#)

[Request for Input: Floodplain Management Plan](#)

[Hurricane Preparedness Class](#)

### QUICK LINKS

[Agendas & Minutes](#)

[Applications & Forms](#)

[Bidding Opportunities](#)

[Budget Information](#)

[Calendar of Events](#)

[Codes & Legislation](#)

[Document Center](#)

[Employment Opportunities](#)

[Frequently Asked Questions](#)

## **APPENDIX C**

### **BUSINESS SURVEY**

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# Volusia County Floodplain Management Plan - Business Survey

## 1. How long have you been in business at your current location?

- 0-1 Years
- 2-5 Years
- 6-10 Years
- 11-20 Years
- More than 20 Years

## 2. In what year was your building constructed?

- Before 1950
- Between 1950 and 1968
- Between 1969 and 1986
- Between 1987 and 2001
- After 2002
- Unsure

## 3. How concerned are you about the possibility of your place of business being flooded?

- I am very concerned
- I am somewhat concerned
- I am not concerned

## 4. How concerned are you about the possibility of the streets accessing your place of business being flooded?

- I am very concerned
- I am somewhat concerned
- I am not concerned

## 5. Is your business located within a designated flood hazard zone (floodplain)?

- Yes, my business is located within a designated flood hazard zone
- No, my business is not located within a designated flood hazard zone
- Unsure

# Volusia County Floodplain Management Plan - Business Survey

## 6. Which flood zone is your property located in?

- Zone A1-A30
- Zone A
- Zone AE
- Zone AH
- Zone AO
- Zone AR
- Zone B
- Unsure of zone classification

## 7. Was being located in a flood zone a concern in locating your business at its current location?

- Yes
- No

Comments

## 8. Has your place of business ever flooded due to natural/environmental causes?

- Yes, my place of business has flooded due to natural/environmental causes.
- No, my place of business has never flooded due to natural/environmental causes.
- Unsure

Comments

# Volusia County Floodplain Management Plan - Business Survey

## 9. To your best knowledge, during which time period did your place of business last flood?

- 1900 to 1949
- 1950 to 1959
- 1960 to 1969
- 1970 to 1979
- 1980 to 1989
- 1990 to 1999
- 2000 to 2009
- 2010 to 2012
- Unsure

## 10. What was the approximate dollar value of all damages and losses to your business during the last flooding event?

- Less than \$1,000
- Between \$1,000 and \$4,999
- Between \$5,000 and \$10,000
- Greater than \$10,000
- Unsure

Comments

## 11. Describe, if any, the economic effect local flooding has on your business (ie, loss of business days, employees unable to work, profit loss, etc.)?

# Volusia County Floodplain Management Plan - Business Survey

## 12. Approximately how many days of business, per year, do you lose due to flooding in your area?

- 0-1 Days
- 2-4 days
- 5-7 days
- More than 7 days
- Other

Comments

## 13. Do you currently have flood insurance for your property?

- Yes, I have flood insurance for my property
- No, I do not have flood insurance for my property
- Unsure

## 14. Which of the following reasons best describes why you do not have flood insurance?

- My property is outside of the floodplain.
- I feel there is no real threat of a flood on my property.
- It is not cost effective to buy flood insurance for my business location.
- I rent my business location.

Comments

## 15. Have any flood mitigation efforts been implemented to your property? (IE.steps taken to remedy or improve structural vulnerability to flooding or flood proofing your property)

- Yes, flood mitigation efforts have been implemented on my property.
- No, flood mitigation efforts have not been implemented on my property.
- I am unsure whether mitigation efforts have been implemented on my property.

## 16. Describe the mitigation efforts conducted on your property.

# Volusia County Floodplain Management Plan - Business Survey

## 17. Is your property classified as a repetitive flood loss property?

- Yes, my property is classified as a repetitive flood loss property
- No, my property is not classified as a repetitive flood loss property
- Unsure

## 18. Did you know that you can view the current flood plain and other County-wide resources at the following web site: <http://www.volusia.org/services/public-protection/emergency-management/> ?

- Yes, I am aware of this web site
- No, I am unaware of this web site

## 19. How satisfied are you with how your jurisdiction handles public involvement and outreach concerning flood hazards in your area?

- I am very satisfied
- I am somewhat satisfied
- I am somewhat dissatisfied
- I am very dissatisfied

## 20. Optional: Contact Information

Name:	<input type="text"/>
Address:	<input type="text"/>
City:	<input type="text"/>
Zip Code:	<input type="text"/>
Email:	<input type="text"/>

# Volusia County Floodplain Management Plan - Business Survey



## 1. How long have you been in business at your current location?

		Response Percent	Response Count
0-1 Years		14.3%	3
2-5 Years		33.3%	7
6-10 Years		4.8%	1
<b>11-20 Years</b>		<b>38.1%</b>	<b>8</b>
More than 20 Years		9.5%	2
<b>answered question</b>			<b>21</b>
<b>skipped question</b>			<b>1</b>

## 2. In what year was your building constructed?

		Response Percent	Response Count
Before 1950		0.0%	0
Between 1950 and 1968		5.0%	1
Between 1969 and 1986		20.0%	4
<b>Between 1987 and 2001</b>		<b>45.0%</b>	<b>9</b>
After 2002		10.0%	2
Unsure		20.0%	4
<b>answered question</b>			<b>20</b>
<b>skipped question</b>			<b>2</b>

### 3. How concerned are you about the possibility of your place of business being flooded?

		Response Percent	Response Count
I am very concerned		0.0%	0
I am somewhat concerned		30.0%	6
<b>I am not concerned</b>		<b>70.0%</b>	<b>14</b>
<b>answered question</b>			<b>20</b>
<b>skipped question</b>			<b>2</b>

### 4. How concerned are you about the possibility of the streets accessing your place of business being flooded?

		Response Percent	Response Count
I am very concerned		5.3%	1
I am somewhat concerned		31.6%	6
<b>I am not concerned</b>		<b>63.2%</b>	<b>12</b>
<b>answered question</b>			<b>19</b>
<b>skipped question</b>			<b>3</b>

## 5. Is your business located within a designated flood hazard zone (floodplain)?

		Response Percent	Response Count
Yes, my business is located within a designated flood hazard zone		25.0%	5
<b>No, my business is not located within a designated flood hazard zone</b>		<b>40.0%</b>	<b>8</b>
Unsure		35.0%	7
<b>answered question</b>			<b>20</b>
<b>skipped question</b>			<b>2</b>

## 6. Which flood zone is your property located in?

		Response Percent	Response Count
Zone A1-A30		25.0%	1
Zone A		0.0%	0
Zone AE		25.0%	1
Zone AH		0.0%	0
Zone AO		0.0%	0
Zone AR		0.0%	0
Zone B		0.0%	0
<b>Unsure of zone classification</b>		<b>50.0%</b>	<b>2</b>
<b>answered question</b>			<b>4</b>
<b>skipped question</b>			<b>18</b>

**7. Was being located in a flood zone a concern in locating your business at its current location?**

		Response Percent	Response Count
Yes		25.0%	5
No		75.0%	15
	Comments		3
answered question			20
skipped question			2

**8. Has your place of business ever flooded due to natural/environmental causes?**

		Response Percent	Response Count
Yes, my place of business has flooded due to natural/environmental causes.		26.3%	5
No, my place of business has never flooded due to natural/environmental causes.		68.4%	13
Unsure		5.3%	1
	Comments		2
answered question			19
skipped question			3

### 9. To your best knowledge, during which time period did your place of business last flood?

		Response Percent	Response Count
1900 to 1949		0.0%	0
1950 to 1959		0.0%	0
1960 to 1969		0.0%	0
1970 to 1979		0.0%	0
1980 to 1989		0.0%	0
1990 to 1999		0.0%	0
<b>2000 to 2009</b>		<b>60.0%</b>	<b>3</b>
2010 to 2012		40.0%	2
Unsure		0.0%	0
<b>answered question</b>			<b>5</b>
<b>skipped question</b>			<b>17</b>

**10. What was the approximate dollar value of all damages and losses to your business during the last flooding event?**

		Response Percent	Response Count
Less than \$1,000		40.0%	2
Between \$1,000 and \$4,999		20.0%	1
Between \$5,000 and \$10,000		0.0%	0
Greater than \$10,000		40.0%	2
Unsure		0.0%	0
	Comments		0
answered question			5
skipped question			17

**11. Describe, if any, the economic effect local flooding has on your business (ie, loss of business days, employees unable to work, profit loss, etc.)?**

	Response Count
	5
answered question	5
skipped question	17

**12. Approximately how many days of business, per year, do you lose due to flooding in your area?**

		Response Percent	Response Count
0-1 Days		93.3%	14
2-4 days		6.7%	1
5-7 days		0.0%	0
More than 7 days		0.0%	0
Other		0.0%	0
	Comments		1
	<b>answered question</b>		<b>15</b>
	<b>skipped question</b>		<b>7</b>

**13. Do you currently have flood insurance for your property?**

		Response Percent	Response Count
Yes, I have flood insurance for my property		25.0%	4
<b>No, I do not have flood insurance for my property</b>		<b>50.0%</b>	<b>8</b>
Unsure		25.0%	4
	<b>answered question</b>		<b>16</b>
	<b>skipped question</b>		<b>6</b>

#### 14. Which of the following reasons best describes why you do not have flood insurance?

		Response Percent	Response Count
My property is outside of the floodplain.		11.1%	1
<b>I feel there is no real threat of a flood on my property.</b>		55.6%	5
It is not cost effective to buy flood insurance for my business location.		11.1%	1
I rent my business location.		22.2%	2
	Comments		1
	answered question		9
	skipped question		13

#### 15. Have any flood mitigation efforts been implemented to your property? (IE.steps taken to remedy or improve structural vulnerability to flooding or flood proofing your property)

		Response Percent	Response Count
Yes, flood mitigation efforts have been implemented on my property.		18.8%	3
<b>No, flood mitigation efforts have not been implemented on my property.</b>		56.3%	9
I am unsure whether mitigation efforts have been implemented on my property.		25.0%	4
	answered question		16
	skipped question		6

**16. Describe the mitigation efforts conducted on your property.**

	Response Count
	3
answered question	3
skipped question	19

**17. Is your property classified as a repetitive flood loss property?**

		Response Percent	Response Count
Yes, my property is classified as a repetitive flood loss property		0.0%	0
No, my property is not classified as a repetitive flood loss property		56.3%	9
Unsure		43.8%	7
	answered question		16
	skipped question		6

**18. Did you know that you can view the current flood plain and other County-wide resources at the following web site: <http://www.volusia.org/services/public-protection/emergency-management/> ?**

		Response Percent	Response Count
Yes, I am aware of this web site		43.8%	7
No, I am unaware of this web site		56.3%	9
	answered question		16
	skipped question		6

### 19. How satisfied are you with how your jurisdiction handles public involvement and outreach concerning flood hazards in your area?

		Response Percent	Response Count
I am very satisfied		37.5%	6
<b>I am somewhat satisfied</b>		<b>50.0%</b>	<b>8</b>
I am somewhat dissatisfied		12.5%	2
I am very dissatisfied		0.0%	0
		<b>answered question</b>	<b>16</b>
		<b>skipped question</b>	<b>6</b>

### 20. Optional: Contact Information

		Response Percent	Response Count
<b>Name:</b>		<b>100.0%</b>	<b>4</b>
<b>Address:</b>		<b>100.0%</b>	<b>4</b>
<b>City</b>		<b>100.0%</b>	<b>4</b>
<b>Zip Code:</b>		<b>100.0%</b>	<b>4</b>
<b>Email:</b>		<b>100.0%</b>	<b>4</b>
		<b>answered question</b>	<b>4</b>
		<b>skipped question</b>	<b>18</b>

**Page 3, Q7. Was being located in a flood zone a concern in locating your business at its current location?**

1	The building site was elevated	Mar 14, 2013 6:44 AM
2	weather patterns are changing, home based	Mar 7, 2013 7:16 AM
3	non issue in our situation	Feb 14, 2013 7:40 AM

**Page 4, Q8. Has your place of business ever flooded due to natural/environmental causes?**

1	The site was flooded but not into the building	Mar 14, 2013 6:45 AM
2	not since we have been here	Mar 12, 2013 1:32 PM

**Page 6, Q11. Describe, if any, the economic effect local flooding has on your business (ie, loss of business days, employees unable to work, profit loss, etc.)?**

1	access to Hospital services by the community	Mar 14, 2013 6:46 AM
2	none	Mar 12, 2013 8:43 AM
3	wet carpeting in back office	Mar 12, 2013 8:43 AM
4	had to evacuate	Mar 7, 2013 7:18 AM
5	2 weeks lost business	Feb 8, 2013 1:16 PM

**Page 6, Q12. Approximately how many days of business, per year, do you lose due to flooding in your area?**

1	i did have flood insurance until it went up 100% and they will NOT grandfather me in as old elevation levels when it was build BS	Mar 7, 2013 7:18 AM
---	---	---------------------

**Page 7, Q14. Which of the following reasons best describes why you do not have flood insurance?**

1	i did have flood insurance until it went up 100% and they will NOT grandfather me in as old elevation levels when it was build BS	Mar 7, 2013 7:18 AM
---	---	---------------------

**Page 9, Q16. Describe the mitigation efforts conducted on your property.**

1	St. John Water Management approved stormwater basin was constructed on site.	Mar 14, 2013 6:47 AM
2	city flood drainage always cleared and free of debrit	Mar 12, 2013 11:43 AM
3	water dams	Feb 8, 2013 1:17 PM

**Page 10, Q20. Optional: Contact Information**

**Name:**

1	Florida Hospital Fish Memorial	Mar 14, 2013 6:48 AM
2	cynthia lantz	Mar 12, 2013 1:33 PM
3	Mark Ford	Mar 12, 2013 8:45 AM
4	Dick Neland	Feb 8, 2013 1:19 PM

**Address:**

1	1055 Saxon Blvd.	Mar 14, 2013 6:48 AM
2	13872 howland blvd	Mar 12, 2013 1:33 PM
3	1447 Summit Hill Dr	Mar 12, 2013 8:45 AM
4	133 Inlet Harbor Rd.	Feb 8, 2013 1:19 PM

**City**

1	Orange City, Fl	Mar 14, 2013 6:48 AM
2	deltone	Mar 12, 2013 1:33 PM
3	Deltona	Mar 12, 2013 8:45 AM
4	Ponce Inlet, Fl	Feb 8, 2013 1:19 PM

**Zip Code:**

1	32763	Mar 14, 2013 6:48 AM
2	32738	Mar 12, 2013 1:33 PM
3	32725	Mar 12, 2013 8:45 AM
4	32127	Feb 8, 2013 1:19 PM

**Email:**

1	stephen.cantwell@fhfm.org	Mar 14, 2013 6:48 AM
2	cindy@kidcityusa.com	Mar 12, 2013 1:33 PM
3	fantasticfordllc@yahoo.com	Mar 12, 2013 8:45 AM
4	dneland @inletharbor.com	Feb 8, 2013 1:19 PM

## **APPENDIX D**

### **NEIGHBORHOOD ASSOCIATION SURVEY**

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# Volusia County Floodplain Management Plan - Neighborhood Organizations

## 1. How long has your neighborhood association been active?

- 0-1 Years
- 2-5 Years
- 6-10 Years
- 11-20 Years
- I am unsure

## 2. In what year were the homes in your coverage area built?

- Before 1950
- Between 1950 and 1968
- Between 1969 and 1986
- Between 1987 and 2001
- After 2002
- I am unsure

## 3. Is flooding a real concern for property owners in your association?

- Yes, property owners are very concerned about flooding
- Yes, property owners are somewhat concerned about flooding
- No, property owners are not concerned about flooding
- Not applicable

# Volusia County Floodplain Management Plan - Neighborhood Organizations

## 4. Is your Homeowner's Association neighborhood located in the flood plain?

- Yes, our entire neighborhood is located in the flood plain
- Yes, portions of our neighborhood is located in the floodplain
- No portion of our neighborhood is located in the floodplain
- Unknown

## 5. Approximately what percentage of the homes within your association are within a designated flood hazard zone?

- 0%
- 1%-9%
- 10-25%
- 26-50%
- 51-75%
- 76-100%
- I am unsure

## 6. Have homes in your association area ever been flooded due to natural environmental causes?

- Yes, homes in our association area have flooded.
- No, homes in our association area have never flooded.
- I am unsure whether homes in our association have flooded.

Comments

# Volusia County Floodplain Management Plan - Neighborhood Organizations

## 7. Do the roadways in your neighborhood experience major flooding during normal or extensive rainfall?

- Yes, during both normal and extensive
- Yes, during extensive rainfall only
- No, our streets do not normally flood

Comments

## 8. Do retention ponds in your neighborhood flood during normal or extensive rainfall?

- Yes, during both normal and extensive
- Yes, during extensive rainfall only
- No, our streets do not normally flood

Comments

# Volusia County Floodplain Management Plan - Neighborhood Organizations

## 9. To the best of your knowledge, during which time period did a home in your association area last flood?

- 1900 to 1949
- 1950 to 1959
- 1960 to 1969
- 1970 to 1979
- 1980 to 1989
- 1990 to 1999
- 2000 to 2009
- 2010 to 2013
- Unknown
- Never

Comments

## 10. Has a known problem area been identified as the source of most flooding issues experienced by your neighborhood?

- Yes, a single issue has been identified as the main contributor to the flooding.
- A number of issues have been identified which contribute to the flooding.
- No known issues or sources have been identified
- I am unsure

Comments

# Volusia County Floodplain Management Plan - Neighborhood Organizations

## 11. Have homes in your association undergone flood mitigation efforts?

- Yes, a majority of the homes have undergone flood mitigation efforts
- Yes, less than half of homes have undergone flood mitigation efforts
- Yes, a small number of homes have undergone flood mitigation efforts
- No, no homes have undergone flood mitigation efforts
- I am unsure

## 12. Are there any restrictions to structural improvements that, if removed, could possibly reduce the risk of flood loss to properties in your area?

- Yes
- No
- Unknown

## 13. If you answered "Yes" to the previous question, please explain these types of restrictions.

## 14. Has your association ever implemented large-scale flood mitigation efforts?

- Yes, we have implemented incentive programs
- Yes, we encourage or assist property owners with flood mitigation efforts
- No, we have never implemented large-scale flood mitigation efforts
- Unknown

## Volusia County Floodplain Management Plan - Neighborhood Organizations

**15. If you answered 'Yes' to the above question, what types of improvements were made?**

**16. Are there homes in your association area that are classified as Repetitive Flood Loss properties (defined as a structure that has experienced two floods in the last ten years with at least \$1,000 in damages per event)?**

- Yes
- No
- At one time, but the classification has been removed
- I am unsure

**17. Did you know that you can view the current flood plain and other County-wide resources at the following web site:  
<http://www.volusia.org/services/public-protection/emergency-management>**

- Yes, I am aware of this web site.
- No, I am unaware of this web site.

## Volusia County Floodplain Management Plan - Neighborhood Organizations

### 18. How satisfied are you with how your jurisdiction handles public involvement and outreach concerning flood hazards in your area?

- I am very satisfied
- I am somewhat satisfied
- I am somewhat dissatisfied
- I am very dissatisfied
- I am not aware of any public involvement/outreach efforts concerning flood hazards

Comments

## **ATTENTION VOLUSIA COUNTY HOMEOWNER'S ASSOCIATIONS**

Volusia County and its municipalities are currently seeking input with assistance from the East Central Florida Regional Planning Council on strategies and issues concerning the floodplain in your area.

Please visit the specialized survey at the following link to provide feedback on behalf of your Homeowner's Association. Your feedback will help to improve our current and future planning efforts in your community.

<https://www.surveymonkey.com/s/G2JCCGS>

We suggest that all surveys be completed by March 1<sup>st</sup>, 2013.

Thank you,

East Central Florida Regional Planning Council  
Staff



## **ATTENTION VOLUSIA COUNTY HOMEOWNER'S ASSOCIATIONS**

Volusia County and its municipalities are currently seeking input with assistance from the East Central Florida Regional Planning Council on strategies and issues concerning the floodplain in your area.

Please visit the specialized survey at the following link to provide feedback on behalf of your Homeowner's Association. Your feedback will help to improve our current and future planning efforts in your community.

<https://www.surveymonkey.com/s/G2JCCGS>

We suggest that all surveys be completed by March 1<sup>st</sup>, 2013.

Thank you,

East Central Florida Regional Planning Council  
Staff



# Volusia County Floodplain Management Plan - Neighborhood Organizations



## 1. How long has your neighborhood association been active?

		Response Percent	Response Count
0-1 Years		0.0%	0
2-5 Years		0.0%	0
6-10 Years		25.0%	1
<b>11-20 Years</b>		<b>75.0%</b>	<b>3</b>
I am unsure		0.0%	0
<b>answered question</b>			<b>4</b>
<b>skipped question</b>			<b>0</b>

## 2. In what year were the homes in your coverage area built?

		Response Percent	Response Count
Before 1950		0.0%	0
Between 1950 and 1968		0.0%	0
<b>Between 1969 and 1986</b>		<b>50.0%</b>	<b>2</b>
<b>Between 1987 and 2001</b>		<b>50.0%</b>	<b>2</b>
After 2002		0.0%	0
I am unsure		0.0%	0
<b>answered question</b>			<b>4</b>
<b>skipped question</b>			<b>0</b>

### 3. Is flooding a real concern for property owners in your association?

		Response Percent	Response Count
Yes, property owners are very concerned about flooding		25.0%	1
Yes, property owners are somewhat concerned about flooding		25.0%	1
<b>No, property owners are not concerned about flooding</b>		<b>50.0%</b>	<b>2</b>
Not applicable		0.0%	0
		<b>answered question</b>	<b>4</b>
		<b>skipped question</b>	<b>0</b>

### 4. Is your Homeowner's Association neighborhood located in the flood plain?

		Response Percent	Response Count
<b>Yes, our entire neighborhood is located in the flood plain</b>		<b>50.0%</b>	<b>2</b>
Yes, portions of our neighborhood is located in the floodplain		25.0%	1
No portion of our neighborhood is located in the floodplain		25.0%	1
Unknown		0.0%	0
		<b>answered question</b>	<b>4</b>
		<b>skipped question</b>	<b>0</b>

**5. Approximately what percentage of the homes within your association are within a designated flood hazard zone?**

		Response Percent	Response Count
0%		0.0%	0
1%-9%		0.0%	0
10-25%		0.0%	0
26-50%		25.0%	1
51-75%		0.0%	0
76-100%		25.0%	1
I am unsure		50.0%	2
answered question			4
skipped question			0

**6. Have homes in your association area ever been flooded due to natural environmental causes?**

		Response Percent	Response Count
Yes, homes in our association area have flooded.		75.0%	3
No, homes in our association area have never flooded.		25.0%	1
I am unsure whether homes in our association have flooded.		0.0%	0
Comments			1
answered question			4
skipped question			0

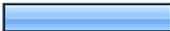
**7. Do the roadways in your neighborhood experience major flooding during normal or extensive rainfall?**

		Response Percent	Response Count
Yes, during both normal and extensive		0.0%	0
Yes, during extensive rainfall only		25.0%	1
<b>No, our streets do not normally flood</b>		<b>75.0%</b>	<b>3</b>
	Comments		1
	answered question		4
	skipped question		0

**8. Do retention ponds in your neighborhood flood during normal or extensive rainfall?**

		Response Percent	Response Count
Yes, during both normal and extensive		0.0%	0
Yes, during extensive rainfall only		0.0%	0
<b>No, our streets do not normally flood</b>		<b>100.0%</b>	<b>2</b>
	Comments		0
	answered question		2
	skipped question		2

**9. To the best of your knowledge, during which time period did a home in your association area last flood?**

		Response Percent	Response Count
1900 to 1949		0.0%	0
1950 to 1959		0.0%	0
1960 to 1969		0.0%	0
1970 to 1979		0.0%	0
1980 to 1989		0.0%	0
<b>1990 to 1999</b>		<b>25.0%</b>	<b>1</b>
<b>2000 to 2009</b>		<b>25.0%</b>	<b>1</b>
<b>2010 to 2013</b>		<b>25.0%</b>	<b>1</b>
Unknown		0.0%	0
<b>Never</b>		<b>25.0%</b>	<b>1</b>
	Comments		1
	<b>answered question</b>		<b>4</b>
	<b>skipped question</b>		<b>0</b>

**10. Has a known problem area been identified as the source of most flooding issues experienced by your neighborhood?**

		Response Percent	Response Count
Yes, a single issue has been identified as the main contributor to the flooding.		50.0%	2
A number of issues have been identified which contribute to the flooding.		0.0%	0
No known issues or sources have been identified		25.0%	1
I am unsure		25.0%	1
		Comments	2
		<b>answered question</b>	<b>4</b>
		<b>skipped question</b>	<b>0</b>

### 11. Have homes in your association undergone flood mitigation efforts?

		Response Percent	Response Count
Yes, a majority of the homes have undergone flood mitigation efforts		0.0%	0
Yes, less than half of homes have undergone flood mitigation efforts		0.0%	0
Yes, a small number of homes have undergone flood mitigation efforts		0.0%	0
No, no homes have undergone flood mitigation efforts		25.0%	1
<b>I am unsure</b>		<b>75.0%</b>	<b>3</b>
<b>answered question</b>			<b>4</b>
<b>skipped question</b>			<b>0</b>

### 12. Are there any restrictions to structural improvements that, if removed, could possibly reduce the risk of flood loss to properties in your area?

		Response Percent	Response Count
Yes		0.0%	0
No		25.0%	1
<b>Unknown</b>		<b>75.0%</b>	<b>3</b>
<b>answered question</b>			<b>4</b>
<b>skipped question</b>			<b>0</b>

**13. If you answered "Yes" to the previous question, please explain these types of restrictions.**

	Response Count
	0
answered question	0
skipped question	4

**14. Has your association ever implemented large-scale flood mitigation efforts?**

	Response Percent	Response Count
Yes, we have implemented incentive programs	0.0%	0
Yes, we encourage or assist property owners with flood mitigation efforts	0.0%	0
<b>No, we have never implemented large-scale flood mitigation efforts</b>	<b>75.0%</b>	<b>3</b>
Unknown	25.0%	1
answered question		4
skipped question		0

**15. If you answered 'Yes' to the above question, what types of improvements were made?**

	Response Count
	0
answered question	0
skipped question	4

**16. Are there homes in your association area that are classified as Repetitive Flood Loss properties (defined as a structure that has experienced two floods in the last ten years with at least \$1,000 in damages per event)?**

		Response Percent	Response Count
Yes		0.0%	0
No		75.0%	3
At one time, but the classification has been removed		0.0%	0
I am unsure		25.0%	1
		<b>answered question</b>	<b>4</b>
		<b>skipped question</b>	<b>0</b>

**17. Did you know that you can view the current flood plain and other County-wide resources at the following web site: <http://www.volusia.org/services/public-protection/emergency-management>**

		Response Percent	Response Count
Yes, I am aware of this web site.		50.0%	2
No, I am unaware of this web site.		50.0%	2
		<b>answered question</b>	<b>4</b>
		<b>skipped question</b>	<b>0</b>

**18. How satisfied are you with how your jurisdiction handles public involvement and outreach concerning flood hazards in your area?**

		<b>Response Percent</b>	<b>Response Count</b>
I am very satisfied		0.0%	0
I am somewhat satisfied		0.0%	0
I am somewhat dissatisfied		0.0%	0
I am very dissatisfied		25.0%	1
<b>I am not aware of any public involvement/outreach efforts concerning flood hazards</b>		<b>75.0%</b>	<b>3</b>
	Comments		2
		<b>answered question</b>	<b>4</b>
		<b>skipped question</b>	<b>0</b>

**Page 1, Q6. Have homes in your association area ever been flooded due to natural environmental causes?**

1	Even with TS Fay (summer 2008) when much of the surrounding area, especially in Port Orange and Daytona Beach, flooded, our area did not.	Mar 4, 2013 1:51 PM
---	---	---------------------

**Page 1, Q7. Do the roadways in your neighborhood experience major flooding during normal or extensive rainfall?**

1	There are ample retention ponds and adequate drainage that mitigate against flooding.	Mar 4, 2013 1:51 PM
---	---	---------------------

**Page 1, Q9. To the best of your knowledge, during which time period did a home in your association area last flood?**

1	I am certain of this statistic, given that many of the original residents still live here.	Mar 4, 2013 1:51 PM
---	--	---------------------

**Page 1, Q10. Has a known problem area been identified as the source of most flooding issues experienced by your neighborhood?**

1	Again, no flooding has occurred.	Mar 4, 2013 1:51 PM
2	Storm water drainage pipes narrow nearby, from a canal to a pipe.	Feb 27, 2013 6:52 AM

**Page 5, Q18. How satisfied are you with how your jurisdiction handles public involvement and outreach concerning flood hazards in your area?**

1	There has been no flooding, so we have not experienced any outreach efforts, etc.	Mar 4, 2013 1:53 PM
2	The Nova Road Canal is one of the issues relating to flooding. It needs to be cleaned. We have made several complaints with no results. The canal is overgrown with weeds and garbage.	Feb 26, 2013 10:56 AM

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## **APPENDIX E**

### **PUBLIC MEETING INFORMATION**

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**N E W S   F O R   I M M E D I A T E   R E L E A S E**

Jan. 29, 2013

Contact: Pat Kuehn, APR, CPRC  
Community Information Specialist  
386-822-5062, ext. 12934

**Public meetings will address  
floodplain management plan**

Staff from Volusia County's Emergency Management Division and the East Central Florida Regional Planning Council will discuss the county's proposed floodplain management plan during two public meetings.

The meetings will be held at these times:

- 1 to 4 p.m. Monday, Feb. 11, at the Daytona Beach Regional Library at City Island, 105 E. Magnolia Ave., Daytona Beach
- 1 to 4 p.m. Friday, Feb. 15, at the Volusia County Historic Courthouse, 125 W. Indiana Ave., DeLand

The public is invited to listen to the presentations, review the plan, and provide feedback.

Reservations are not required. For more information, please visit [www.ecfrpc.org](http://www.ecfrpc.org) or call Tara McCue at 407-262-7772.

- 30 -

[www.volusia.org](http://www.volusia.org)

**V O L U S I A   C O U N T Y   C O U N C I L**

**JASON P. DAVIS**  
COUNTY CHAIR

**JOYCE M. CUSACK**  
AT-LARGE, VICE CHAIR

**PAT PATTERSON**  
DISTRICT 1

**JOSHUA WAGNER**  
DISTRICT 2

**DEBORAH DENYS**  
DISTRICT 3

**DOUG DANIELS**  
DISTRICT 4

**PATRICIA NORTHEY**  
DISTRICT 5

Two Public Meetings are scheduled for February 11, 2013 and February 15, 2013 to discuss the draft Volusia County Floodplain Management Plan and allow the public the opportunity to comment, review and provide feedback.

The Volusia County Department of Emergency Management staff as well as representatives from the East Central Florida Regional Planning Council will be on hand to present and discuss the proposed floodplain management plan and answer questions.

The first meeting will be held on February 11, 2013 from 1:00 p.m. to 4:00 p.m. in the Auditorium of the Daytona Beach City Island Library located at 105 East Magnolia Avenue in Daytona Beach, FL.

The second meeting will be held at the Volusia County Historic Courthouse in DeLand, FL on February 15, 2013 from 1:00 p.m. to 4:00 p.m.

The meetings are open to the public and it is urged to attend. For additional information please visit [www.ecfrpc.org](http://www.ecfrpc.org) or contact Tara McCue at 407-262-7772.



## News & Current Events in the City of Daytona Beach

Week of February 4, 2013

*In this issue...*

**New program to upgrade water meters begins in Daytona Beach**  
**Residents are invited to find their way to upcoming public workshop about Wayfinding Program**  
**Golf for a good cause**  
**Learn more about the city and county's efforts to create a Floodplain Management Plan**

[Report a Problem to City Hall](#) ♦ [Contact Us](#) ♦ [Calendar for City Meetings](#) ♦ [View Agendas and Minutes](#)

### Installation of new water meters begins

As part of the City of Daytona Beach's commitment to maintain a high quality of life for our citizens through cost-effective, innovative systems, we will begin replacing manual read water meters with an advanced metering infrastructure (AMI) system.

The innovative system will replace monthly manual meter reads with a wireless system that collects multiple remote reads per day, allowing for better leak detection, increased billing accuracy and improved customer service.

#### What are the benefits of the new meters and technology for the residents?

- More consistent and accurate consumption readings
- Daily and monthly usage charts
- 24-hour leak detection
- High and low consumption alerts
- Alarms for unsafe conditions like cut wires and backflow conditions



#### Installation process

The city has hired National Metering Services (NMS) to install the new meters and equipment. NMS crews will be in neighborhoods and work on Monday through Saturday from 7 a.m. to 6 p.m. For the safety of our residents, installers are required to have:

- Photo identification badges
- Company uniforms
- Drive clearly marked NMS vehicles

Contractors will be supervised by Utility Department staff, carry proper identification and have successfully completed a comprehensive background check; contractor vehicles will also be clearly marked. Replacing all of the city's meters will take about eight months, and utility customers will receive a postcard prior to installation in their area.

During installation, contractors working on behalf of the City of Daytona Beach will interrupt water service for about 20 minutes. Before leaving the site, crews will test the new meter by running about 10 gallons of water from an exterior hose or faucet.

### Public comments sought for wayfinding project

The public is invited to a workshop about the city's wayfinding signage program on Thursday, February 21 at 7 p.m. in City Hall, 301 S. Ridgewood Avenue in Daytona Beach.

The purpose of this meeting is to discuss the master plan process and receive the public's comments regarding purpose, benefits and schedule of the program. The workshop will provide attendees the opportunity to comment on the three-phased project which will create a plan to guide vehicular and pedestrian traffic to venues of interest within the city and create distinct signage.



City commissioners in August 2012 approved an agreement not to exceed \$120,000 with Lassiter Transportation Group to produce a wayfinding master plan. The Daytona Beach-based consultant is currently creating an inventory of the city's landmarks and existing signage and documenting regulatory requirements for signage. The consultant is concentrating on major roadways that serve as gateways into the city including I-95, I-4 and International Speedway Boulevard as well as city, county and state roads such as Beach Street, Main Street, Orange Avenue, Halifax Avenue, Peninsula Avenue, Mason Avenue and Ocean Avenue.

For more information, contact the city's Public Works Department at (386) 671-8607.

### 34th Annual Mayor's Charity Golf Tournament



There is still time for golfers to register for the Mayor's 34th Annual Pro-Am/Golf Tournament on Friday, March 22 at the Daytona Beach Golf Club on Wilder Avenue. Using a scramble format, each foursome will be paired with a PGA golf professional so the group has the option of using the professional's ball on each hole.

Sponsorships are also available. Hole sponsorships begin at \$100 with other sponsorship levels ranging from \$1,000 to \$3,500.

Daytona Beach Mayor Derrick Henry has selected three worthwhile organizations in our community as the tournament's beneficiaries -- Halifax Community Health System's Keech Street Children's Clinic, Daytona Beach Pop Warner and the Greater Daytona Junior Golf Association. The Keech Street Children's Clinic provides health care services to juveniles in the core area of our city, while Pop Warner and the Greater Daytona Junior Golf Association works with youths to not only teach the fundamentals of their respective sports, but also by instill important life skills and values like integrity, respect, conflict resolution and perseverance.

To register to play or for sponsorship information, please contact Golf Director John Cameron at 386-671-3501.

### Learn about the city and county's collaborative efforts for flood-prone areas

Floodplain management is vital to ensure the safety of lives and property in flood prone areas. The City of Daytona Beach is one of several Volusia County municipalities joining forces with Volusia County and the East Central Florida Regional Planning Council to produce a Floodplain Management Plan. The public is invited to attend two upcoming public meeting to learn more about this countywide effort.



The open-house meetings will be:

- **Monday, February 11 - 1 to 4 p.m.**  
Daytona Beach Regional Library at City Island  
105 E. Magnolia Ave., Daytona Beach
- **Friday, February 15 -- 1 to 4 p.m.**  
Volusia County Historic Courthouse  
125 W. Indiana Ave., DeLand

The public is invited to listen to presentations, review the plan and provide feedback.

For more information about the meetings, please visit [www.ecfrpc.org](http://www.ecfrpc.org) or call 407-262-7772.

Want to share your flooding experience? Please take part in a simple [floodplain management survey](#).

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## City Commission Members

**Mayor Ed Kelley**

**Zone 1 James Stowers**

**Zone 2 Troy Kent**

**Zone 3 Rick Boehm**

**Zone 4 Bill Partington**

City Attorney  
Randy Hayes

City Manager  
Joyce Shanahan  
22 S. Beach St.  
Ormond Beach, FL 32174

Ph: 386-676-3200

Fax: 386-676-3384

Email:

joyce.shanahan@ormondbeach.org

www.ormondbeach.org

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# City of Ormond Beach

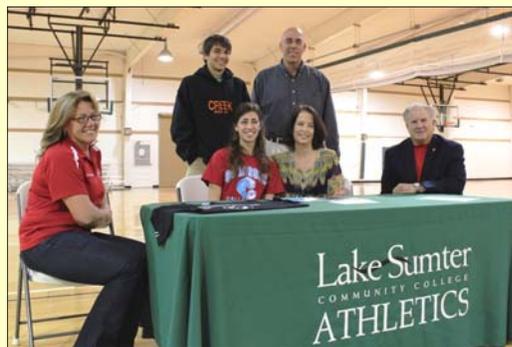
FEBRUARY 8, 2013



## Local Volleyball Student Signs Scholarship

Mariah Zirkelbach, former youth volleyball participant as well as volunteer "coach," had her official signing of her scholarship papers to Lake Sumter State College at the Nova Community Center Gymnasium on Saturday at 1 p.m.

The festivities included speeches by Gerry Pitchford, Athletic Supervisor, Bear Cord, Executive Pastor at Tomoka Christian Church, Mr. Wallace, Principal of Seabreeze High School, Erica Scott, Assistant Volleyball Coach at Seabreeze High School, as well as Mariah's family. Teammates and friends also attended to support Mariah. Refreshments and cake was enjoyed by all and the event ended with a friendly volleyball game.



# Public Meetings will Address Floodplain Management Plan

Staff from Volusia County's Emergency Management Division and the East Central Florida Regional Planning Council will discuss the County's proposed floodplain management plan during two public meetings.

The meetings will be held at the following times:

Monday, Feb. 11, 1 to 4 p.m. at the Daytona Beach Regional Library at City Island, 105 E. Magnolia Ave., Daytona Beach

Friday, Feb. 15, 1 to 4 p.m. at the Volusia County Historic Courthouse, 125 W. Indiana Ave., DeLand

The public is invited to listen to the presentations, review the plan, and provide feedback. Reservations are not required. For more information, please visit [www.ecfrpc.org](http://www.ecfrpc.org) or call Tara McCue at 407-262-7772, ext. 327.



**Magic Forest/  
Rainbow Park  
Needs Volunteers  
2/12/13 – 2/17/13**

## ***Volunteers are still needed for the renovation of Magic Forest/Rainbow Park!***

If you have not already committed to work, please come to the playground at 440 North Nova Road, Ormond Beach, any time between the hours of 8 a.m. and 8 p.m. beginning Tuesday, February 12<sup>th</sup> through Sunday, February 17<sup>th</sup>.

Child care is available for children 5 years and up while their parents work on the playground. The ribbon cutting for the park is scheduled for Sunday, February 17<sup>th</sup> at 5 p.m.

For more information, or to volunteer, please email Sylvia Frost at [frost@ormondbeach.org](mailto:frost@ormondbeach.org) through February 11<sup>th</sup>. See you at the park after that date!



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- Photo gallery
- Social media feeds
- Tag & Title cams
- Volusia Magazine- TV
- Volusia Today - radio
- Beach cams

## Floodplain management meeting

Posted On: February 12th

Staff from Volusia County's Emergency Management Division and the East Central Florida Regional Planning Council will discuss the county's proposed floodplain management plan during a public meeting from 1 to 4 p.m. Friday, Feb. 15, at the Volusia County Historic Courthouse, 125 W. Indiana Ave., DeLand.

The public is invited to listen to the presentation, review the plan, and provide feedback.

Reservations are not required. For more information, please visit [www.ecfrpc.org](http://www.ecfrpc.org) or call Tara McCue at 407-262-7772.



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## Volusia County hosting meeting on floodplain plan

By Andrew Gant  
STAFF WRITER

Published: Wednesday, February 13, 2013 at 4:53 p.m.  
Last Modified: Wednesday, February 13, 2013 at 5:48 p.m.

DELAND – Volusia County and its cities have been asking for public input on flood plain issues, and on Friday the county will hold an open meeting to discuss a flood plain management plan.

The county's Emergency Management Division and the East Central Florida Regional Planning Council will hold the meeting from 1 to 4 p.m. Friday inside the Volusia County Historic Courthouse at 125 W. Indiana Ave.

Last year, changes to the federal government's map of flood zones in Volusia County removed some areas from the 100-year flood plain, but added several new ones. People who own property in a flood zone face increased costs for flood insurance, generally ranging from \$400 to \$4,000 per year.

The Federal Emergency Management Administration last revised Volusia's flood maps in 2003. Flagler's last update was in 2006, and FEMA is expected to produce new draft maps later this year.

Volusia's last major storm surge was in 2004 – the year of hurricanes Charley, Frances and Jeanne – but the county has also seen significant flooding from heavy rains on the west side in 2008, during Tropical Storm Fay, and on the east side in 2009.

For more information on Friday's meeting, visit [www.ecfrpc.org](http://www.ecfrpc.org) or call Tara McCue at 407-262-7772.

**zulily**

**DAILY DEALS**

UP TO 90% OFF

SHOP WOMEN >

**MOST READ** **MOST EMAILED** **MOST RECENT**

- \* The 'Main' event at Bike Week has changed over the years
- \* New SunRail plan by Volusia Chair Davis irks colleagues
- \* Guests back in Daytona hotel after fire
- \* Palm Coast entrepreneur shares how she built her business
- \* Gaming investigation started small before larger scheme uncovered

**PHOTOS** | **YOUR PHOTOS**



Daytona Flat Track



Bike Week: Day 7



Bike Week Day 6



West Volusia Mayors Lunch



The Iditarod Trail Sled Dog Race



Pope Francis

**DAILY DEALS**



# Edgewater Shorelines

FEBRUARY 1, 2013

The Official Newsletter for  
The City of Edgewater

Mayor Michael Thomas  
District 1 Councilwoman Christine Power  
District 2 Councilwoman Gigi Bennington  
District 3 Councilman Mike Ignasiak  
District 4 Councilman Gene Emter

City Hall  
104 N. Riverside Drive  
Edgewater, FL 32132  
Phone: 386-424-2400  
Fax: 386-424-2410  
www.CityofEdgewater.org

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*Edgewater is throwing a Party for the Planet and You're Invited!*

*Come enjoy the fun, family-friendly celebration. Stroll the park and visit the many vendors demonstrating their environmentally-friendly products and services. Enjoy the hands-on activities for kids and adults alike. Learn what you can do to conserve our natural resources and preserve the world's wildlife places for future generations. Take time to relax at the event and enjoy some delicious food and great local entertainment.*

**See you at the Party! Hawks Park, Saturday, April 20<sup>th</sup>, 10 a.m. to 4 p.m.**

If you are interested in being a sponsor or vendor please contact Janet Shira at (386)424-2485 or email at [jshira@cityofedgewater.org](mailto:jshira@cityofedgewater.org) for further information.

## Council & City Board Meetings Live on the Web

Edgewater is proud to announce you can watch the council meetings and board meetings live through the internet.

Go to <http://www.cityofedgewater.org/index.php/agenda-minutes-a-video>

You can now stay informed whether you watch live or watch later, you can do so at your convenience in your home, office or on the go with your Smartphone.

## Compliment, Complaint or Request (TracEZ) on the Web!

Are you one of our residents that never seem to have time to contact the City with a compliment, file a complaint or submit a request. Well now you can do any of these at the convenience of your home/office without worry that you may be placed on hold or transferred to one department to find out you need another department. Edgewater has the solution to this problem, visit our web page and select "Contact Us" by using this link you can file your compliment, complaint or request, when using the email option and providing your email address the system will generate an automatic email response to you when your issue has been completed. This new system will assist our residents 24/7.

## Newsletter Changes

The Edgewater Shoreline Newsletter will now be available on the city website at [www.cityofedgewater.org](http://www.cityofedgewater.org) on the 1st and 15th of each month. Mailed newsletters will be done quarterly. We are hoping this will help our residents have the latest news of the happenings in our community.

Do you simply not have the time to stop by City Hall and pay your bill? Are you looking to save a stamp and not have to bother with the hassle of mailing yet another bill?

City of Edgewater Customer Service has three quick and easy options for paying your bill.

1. Online at [www.cityofedgewater.org](http://www.cityofedgewater.org) with your Discover, American Express, MasterCard, or Visa credit card or an Electronic Check. Available 24/7.
2. Signup for EASY pay program which provides for automatic payments of your monthly utility bill.
3. Automated system available by calling 386-427-EASY (3279). Available 24/7.
  - a. Check account information
  - b. Check billing history
  - c. Check payment history
  - d. Make payments

Don't forget, as always you can make a utility payment at City Hall.

You can also have your Utility Bill delivered to you by E-notification via your email provider. Find more Utility Billing information by visiting [www.cityofedgewater.org](http://www.cityofedgewater.org), email Customer Service at [customerservice@cityofedgewater.org](mailto:customerservice@cityofedgewater.org), or stop by City Hall.



Want to be a lifesaver? The Edgewater Fire Dept can help! You will learn how to use an Automated External

Defibrillator (AED) and perform CPR so you will be prepared to be the lifesaver! Call (386) 424-2445 to register or for more information.

**DATE:** Wednesday, February 20th

**TIME:** 6:00pm

**LOCATION:** Fire Hall-2628 Hibiscus Dr.

**COST:** \$25

Must be pre-registered and you may pay when you register or the night of class with check or cash.



## **Floodplain Management Plan Survey**

Volusia County and its municipalities are seeking input from residents concerning floodplain management issues, concerns, and other feedback to assist in the development of the Floodplain Management Plan. A short survey is available at:

**[https://www.surveymonkey.com/s/Volusia\\_Floodplain\\_Management\\_Public\\_Survey](https://www.surveymonkey.com/s/Volusia_Floodplain_Management_Public_Survey)**

Please visit the link and complete the survey to provide your input. If you do not have internet access please contact Tyna Lynn Hilton, Environmental Administrator at (386) 424-2494 for a hard copy of the survey.

The City of Edgewater, County of Volusia, and the East Central Florida Regional Planning Council thank you for your time and feedback.

Staff from Volusia County's Emergency Management Division and the East Central Florida Regional Planning Council will discuss the county's proposed floodplain management plan during two public meetings.

The meetings will be held at these times:

- 1 to 4 p.m. Monday, Feb. 11, at the Daytona Beach Regional Library at City Island, 105 E. Magnolia Ave., Daytona Beach
- 1 to 4 p.m. Friday, Feb. 15, at the Volusia County Historic Courthouse, 125 W. Indiana Ave., DeLand

The public is invited to listen to the presentations, review the plan, and provide feedback.

Reservations are not required. For more information, please visit [www.ecfrpc.org](http://www.ecfrpc.org) or call Tara McCue at 407-262-7772.



## Floodplain Management Plan Public Meeting

February 11, 2013



### Project Purpose:

- Develop municipal specific FMPs based on Community Rating System Guidance.
- Integrate Floodplain Management Plan (FMP) into Local Mitigation Strategy (LMS).
- Review flood hazards, flood claims, development trends, mitigation strategies, and goals.

### FMP Committee Participants:

- Jurisdictional staff
- Floodplain Managers and Administrators
- NFIP Coordinator
- State Hazard Mitigation Officer

### How we are involving the public in the planning process:

- Public Meetings (2 kick off meetings; 1-2 final comment meetings)
- Resident Survey
- Business Survey
- Neighborhood Association Survey

**Volusia County Flood Map Viewer:** <http://www.volusia.org/services/public-protection/emergency-management/types-of-disasters/floods/flood-maps.stml>

### National Flood Insurance Program:

[http://www.floodsmart.gov/floodsmart/pages/flooding\\_flood\\_risks/understanding\\_flood\\_maps.jsp](http://www.floodsmart.gov/floodsmart/pages/flooding_flood_risks/understanding_flood_maps.jsp)

### ECFRPC Contact:

Tim Kitchen, Emergency Preparedness Manager - 407.262.7772 [tkitchen@ecfrpc.org](mailto:tkitchen@ecfrpc.org)



## Floodplain Management Plan Public Meeting

February 15, 2013



### Project Purpose:

- Develop municipal specific FMPs based on Community Rating System Guidance.
- Integrate Floodplain Management Plan (FMP) into Local Mitigation Strategy (LMS).
- Review flood hazards, flood claims, development trends, mitigation strategies, and goals.

### FMP Committee Participants:

- Jurisdictional staff
- Floodplain Managers and Administrators
- NFIP Coordinator
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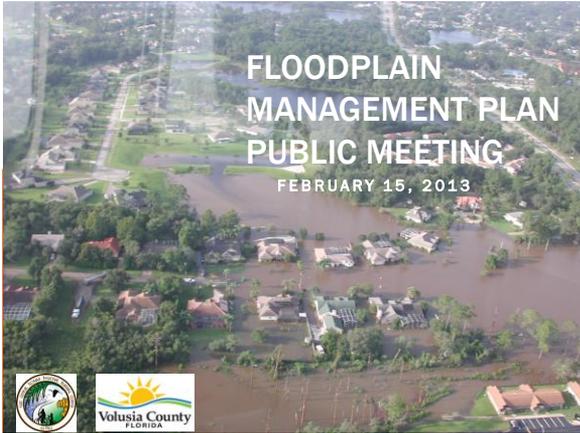
**Volusia County Flood Map Viewer:** <http://www.volusia.org/services/public-protection/emergency-management/types-of-disasters/floods/flood-maps.stml>

### National Flood Insurance Program:

[http://www.floodsmart.gov/floodsmart/pages/flooding\\_flood\\_risks/understanding\\_flood\\_maps.jsp](http://www.floodsmart.gov/floodsmart/pages/flooding_flood_risks/understanding_flood_maps.jsp)

### ECFRPC Contact:

Tim Kitchen, Emergency Preparedness Manager - 407.262.7772 [tkitchen@ecfrpc.org](mailto:tkitchen@ecfrpc.org)



### AGENDA

- Welcome
- Project Overview
- Public Outreach/Survey and Meetings
- Questions and Concerns



Open House



### AGENDA

- Welcome
- Project Overview**
- Public Outreach/Survey and Meetings
- Questions and Concerns
  
- Open House

### PROJECT OVERVIEW

Review Floodplain Management Plan (FMP) and Local Mitigation Strategy (LMS) integration document and procedures.

- Update data
- Strengthen LMS
- Incorporate FMP into LMS



Develop municipal specific FMPs based on Community Rating System Guidance.



### COMMITTEE PARTICIPANTS

- Jurisdictional staff
- Floodplain Managers and Administrators
- NFIP Coordinator
- State Hazard Mitigation Officer



### INVOLVE THE PUBLIC

- Public Meetings (2 kick off meetings; 1-2 final comment meetings)
- Resident Survey
- Business Survey
- HOA Survey



**OTHER STEPS**

- Assessment of the flood hazard using best available data (DFIRM MAPS).
- Review past flood claims and issues.
- Describe areas that provide natural and beneficial functions and habitat for rare and endangered species.
- Analyze current and future development, Redevelopment and population trends.



**FINAL STEPS**

Draft Action Plan (FMP)



Adopt the Plan



**AGENDA**

- Welcome
- Project Overview
- Public Outreach/Survey and Meetings
- Questions and Concerns
- Open House



**PUBLIC SURVEY**

- 54% have lived in current residence over 11 years
- 64.2% of homes built before 1986
- 56.3% concerned about flooding
- 39% unsure if they are in a designated flood zone
- 24% are within a flood zone (64% unsure of zone classification)
- 37% not in a flood zone



**PUBLIC SURVEY (CONT.)**

- 78% have not experienced flooding
- Of those who have flooded, 86% occurred during 2000-2009
- 71% experienced less than 1 foot
- 29% experienced less than \$1000 in damages
- 24% experienced between \$5,000 and \$10,000 in damages
- 33% lost less than \$1000 in personal items



**PUBLIC SURVEY (CONT.)**

- 45% have flood insurance
- 48% do not have flood insurance
- No real threat of flooding main reason
- 17% have implemented flood mitigation efforts
- 1.3% are classified as a Repetitive Loss Property
- 13.1% unsure
- 72.5% have not visited the Volusia County Floodplain Website
- 49% unsure of public involvement/outreach efforts
- 36% are satisfied with outreach



AGENDA

- Welcome
- Project Overview
- Public Outreach/Survey and Meetings
- Questions and Concerns**
- Open House



What has been your experience with flooding caused by natural events?

(Extent of flooding, response efforts, damages, etc)



Do you *plan* to or *have* you implemented any mitigation efforts on your property?

(structural, topographic, landscape, etc)



What are your thoughts concerning floodplain management public outreach and education?



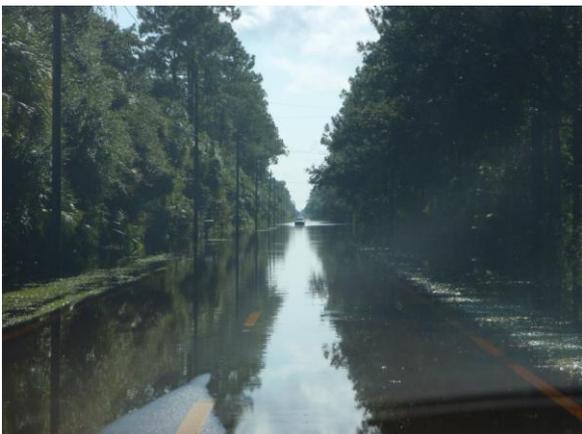
QUESTIONS/ADDITIONAL ITEMS

- Tim Kitchen ([tkitchen@ecfrpc.org](mailto:tkitchen@ecfrpc.org))
- Tara McCue ([tara@ecfrpc.org](mailto:tara@ecfrpc.org))
- PJ Smith ([pjsmith@ecfrpc.org](mailto:pjsmith@ecfrpc.org))
- Amanda Webb ([amanda@ecfrpc.org](mailto:amanda@ecfrpc.org))



407.262.7772  
[www.ecfrpc.org](http://www.ecfrpc.org)











# Volusia County Floodplain Management Plan Public Meeting Feedback Form



*Please fill out and return before leaving.*

“Please circle the number that best represents your opinion on the following statements, with “5” being the highest and “1” being the lowest. Your feedback will leverage our current and future planning efforts in your area and will allow the planning team to develop a tailored plan that meets the needs of Volusia County residents.”

	LOW				HIGH
Before this meeting, my knowledge of the Floodplain Management Plan (FMP) was:	1	2	3	4	5
After this meeting, I have a better understanding of the FMP process and purpose.	1	2	3	4	5
I recognize the importance of an FMP & support the project.	1	2	3	4	5
I feel confident that public input will be incorporated into the plan.	1	2	3	4	5
I have a clear understanding of the importance of the public’s input.	1	2	3	4	5

For rankings below 3, please provide comments as to how we can improve those areas.

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Other comments or feedback concerning the Floodplain Management Plan and Public Outreach.

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**Contact information (Please Print Clearly)**

Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

*Thank you!!*

# Volusia County Floodplain Management Plan Public Meeting



February 11, 2013  
1-4 pm  
Daytona Beach Library



NAME	Zip Code	Phone Number	Email Address
A. Benedetti		321-676-6606	abenedet@sjrwmcd.com
Beth Lemke Planning Solutions Corp	32114	407-491-9477	blemke@planning-solutions.com
Pat White	32141	386 254 1500 x11245	pwhite@volusia.org
Larry LaHue - VCEM	32174	386 254 1500	llahue@volusia.org
Amanda Webb		407-262-8772	amanda@ecfrpc.org
Kimberly Dixon	<del>671 8807</del> 32168	386 671 8807	kdixon@ecodb.us
Tim Kitchen			
PJ Smith	32836	407-496-5463	pjsmith@ecfrpc.org



# Volusia County Floodplain Management Plan Public Meeting

February 15, 2013  
1-4 pm

Volusia County Historic Courthouse, Deland, FL



NAME	Zip Code	Phone Number	Email Address
Kimberly Dixon	32168	386 671 8807	dixonkecodb@us
Peter Kouzacos Volusia Soil & Water Conservation District	32148	(386) 871-1533	Kouzacos P, Florida, VSWCDg via.com
Betty Kouzacos	32129	386-871-1533	
PJ Smith			pjsmith@ecfrpc.org
Amanda Webb			amanda@ecfrpc.org
Tara McCue			tara@ecfrpc.org
Tim Kitchen			+kitchen@ecfrpc.org



# Volusia County Floodplain Management Plan Public Meeting

February 15, 2013  
1-4 pm

Volusia County Historic Courthouse, Deland, FL



NAME	Zip Code	Phone Number	Email Address
JEFF CORY	32168	386 427-9575	jeffecory@svrncpr.com
Dick Smith	32128	386 547 4729	dsmith@icihomes.com
Larry Latta	32174	386-254-1500	llatta@volusia.org
Marvin Wonder	32174	386-672-9159	marvonder@cfl.rt.com
Vince D. BERARDINO	32138	386 575 0716	vtd.berardino@gmail.com

# Volusia County Floodplain Management Plan

## Public Meeting #1 Minutes

February 11, 2013

<b>Attendee</b>	<b>Email</b>	<b>Association</b>
Ann Benedetti	abenedet@sjrwmd.com	St. Johns Water Mgmt. District / Member of Public
Kimberly Dixon	dixonk@codb.us	City of Daytona Beach
Beth Leinke	bleinke@planningsolutionscorp.com	Planning Solutions (Consultant for Daytona Beach)
Larry LaHue	llahue@volusia.org	Volusia County Emergency Management
Pat White	pwhite@volusia.org	Volusia County Emergency Management
Tim Kitchen	tkitchen@ecfrpc.org	E. Central Florida Regional Planning Council
Tara McCue	tara@ecfrpc.org	E. Central Florida Regional Planning Council
Amanda Webb	amanda@ecfrpc.org	E. Central Florida Regional Planning Council
PJ Smith	pjsmith@ecfrpc.org	E. Central Florida Regional Planning Council

## Meeting Summary

- Tim introduced the project and went through the power point as ECFRPC team members contributed to segments of the presentation.
- Tim then opened the meeting for comment with specific questions concerning the floodplain. The following is a summary of all public comments:
  - Ann Benedetti explained that her neighborhood flooded during Tropical Storm Faye. The extent of the flooding was “yard to yard” water coverage of the entire street section (approximately 25 to 37 feet). Children were swimming in the street, while the two retention ponds the neighborhood had did not successfully hold water. It appeared that wildlife (turtles) got stuck in the water pump between the two water maintenance sites, causing one of the sites to overflow and flood into the nearby neighborhood.
  - Beth Leinke explained that perhaps the planning team should try alternative methods for informing the public of the context of next public meeting. The overall purpose of the meeting was not entirely known to Mrs. Leinke.
- Larry LaHue then closed the meeting by explaining photos of severe flooding in Volusia County (primarily in DeBary) that were taken from a helicopter following Tropical Storm Faye.

## Volusia County Floodplain Management Plan

### Public Meeting #2 Minutes

February 15, 2013

<b>Attendee</b>	<b>Email</b>	<b>Association</b>
Jeff Cory	jeffecory@surveyor.com	Member of Public
Rick Smith	dsmith@icihomes.com	Member of Public
Marvin Wonder	mewonder@cfl.rr.com	Member of Public
Vince DiBerardino	vtdiberardino@gmail.com	Member of Public
Peter Kouracos	<i>n/a</i>	Vol. Soil/Water Cons. District/Member of Public
Betty Kouracos	<i>n/a</i>	Member of Public
Larry LaHue	llahue@volusia.org	Volusia County Emergency Management
Kimberly Dixon	dixonk@codb.us	City of Daytona Beach
Tim Kitchen	tkitchen@ecfrpc.org	E. Central Florida Regional Planning Council
Tara McCue	tara@ecfrpc.org	E. Central Florida Regional Planning Council
Amanda Webb	amanda@ecfrpc.org	E. Central Florida Regional Planning Council
PJ Smith	pjsmith@ecfrpc.org	E. Central Florida Regional Planning Council

### Meeting Summary

- PJ and Tara introduced the project and went through the power point, with each ECFRPC team members contributing to segments of the presentation.
- Tim then continued the meeting with specific questions for the public concerning the floodplain. The following is a summary of all public comments:
  - The first resident expressed strong disapproval of FEMA, asking why the agency was not present for the meeting. Further, the resident wanted information as to why FEMA was not involved, and if they had ever been to Volusia County, and the project team told him that this was a local project that utilizes LIDAR technology (FIMA DFIRM maps) to give them a discount on their insurance, and that FEMA was not directly involved.
  - The resident (same as above) told the project team that his parcel was “clipped” by the floodplain, and since this was the case, high flood insurance has skyrocketed despite the fact that his home structure is not within the floodplain.
  - The second resident to speak had great information on surveying (Taylor Engineering did this for the county), and told the group that the current DFIRM maps (which have grown considerably since the 2007 DFIRM edition) are extremely accurate, down to the six-inch level.
  - The third resident had a neighbor who obtained a mitigation grant to improve their property. No other residents had undergone or had any input about mitigation efforts.
  - Another resident then expressed concern that the general public has no idea about where flood sources (inlet, etc.) are before they buy property, and that easier access to this information is needed. The project team explained to him that Volusia County has an online interactive mapping system and directed him to the link on his handout.

- The next resident to speak told us that during the 2004 Hurricane season, ¾ of her backyard (which was adjacent to a body of water) was 75% covered in water. The water never reached her home. This resident expressed concern that while selling them home, the full disclosure agreements that exposed past flooding made the sale process more difficult than it otherwise would have been.
- A public official from the Volusia County Soil and Water Conservation District then told us that he would like to be more proactive with floodplain management in Volusia County. He will be with the Division of Forestry next week to discuss his findings at this Public Meeting and will provide us with a bigger contact list of community activists for Volusia County.
- The following letter was sent to the ECFRPC after the conclusion of the meeting:

*Ms. McCue:*

*I will not be able to attend the County's floodplain management program tomorrow due to a prior commitment, but I would like to add my comments about flooding in/near a County and City of Holly Hill area. Aragon St. west of US1 in Holly Hill is partly in Holly Hill and partly in Volusia County. When it rains hard Aragon St. floods, as does Espanola Ave., the latter of which is in Holly Hill. I am a disabled person who uses a battery-powered mobility scooter. These scooters cannot get wet without running the risk of shorting out the motor. When I need to use Votran I must get to or from US1 using Aragon St. and/or Espanola Ave. That means on rainy days I am stuck at home, or if I'm away from home during the rain event I have difficulty getting home.*

*During the unnamed rain event in the spring of 2010 I was trapped at home for 9 days due to flooding on Aragon St. and Espanola Ave. Also the runoff from Espanola Ave. and State Ave. combined to flood the swale that runs north to south (or south to north as some people claim) behind Riviera Village Association, the homeowners' association where I live, and the businesses that front on State Ave. I had fish swimming in my parking space until the water drained.*

*My home is not in a FEMA flood zone at present, but I purchase flood insurance as a precaution.*

*Thank you for reading my comments.*

*Aleda J. (AJ) Devies  
1684 Espanola Ave.  
Holly Hill, FL 32117*

## Notice of Meeting/Workshop Hearing

### REGIONAL PLANNING COUNCILS East Central Florida Regional Planning Council

The Volusia County Department of Emergency Management announces a public meeting to which all persons are invited.

DATE AND TIME: April 8, 2013, 1:00 p.m.

PLACE: Daytona Beach City Island Library Auditorium, 105 East Magnolia Avenue, Daytona Beach, FL

GENERAL SUBJECT MATTER TO BE CONSIDERED: Volusia County Department of Emergency Management and its municipalities are soliciting public input and comment for the final draft Floodplain Management Plan. The public comment period will occur from April 3, 2013 through April 12, 2013. An open public meeting will also be held on April 8, 2013.

The draft Floodplain Management Plan will be available on April 3, 2013 at [www.ecfrpc.org](http://www.ecfrpc.org). To submit written comments by email, please send to Tara McCue at [tara@ecfrpc.org](mailto:tara@ecfrpc.org).

A copy of the agenda may be obtained by contacting: Tara McCue at (407)262-7772 or [tara@ecfrpc.org](mailto:tara@ecfrpc.org).



**N E W S   F O R   I M M E D I A T E   R E L E A S E**

March 21, 2013

Contact: Pat Kuehn, APR, CPRC  
Community Information Specialist  
386-822-5062, ext. 12934

**Public input sought on  
floodplain management plan**

Volusia County's Emergency Management Division and the county's municipalities are soliciting public input and comment for the final draft of the floodplain management plan.

The draft plan will be posted on [www.ecfrpc.org](http://www.ecfrpc.org) on April 3.

Residents may give comments during a public meeting at 1 p.m. Monday, April 8, in the auditorium of the Daytona Beach Regional Library at City Island, 105 E. Magnolia Ave., Daytona Beach.

To submit a comment by email, contact Tara McCue at [tara@ecfrpc.org](mailto:tara@ecfrpc.org) by April 12. For more information or a copy of the agenda, call McCue at 407-262-7772.

- 30 -

[www.volusia.org](http://www.volusia.org)

**V O L U S I A   C O U N T Y   C O U N C I L**

**JASON P. DAVIS**  
COUNTY CHAIR

**JOYCE M. CUSACK**  
AT-LARGE, VICE CHAIR

**PAT PATTERSON**  
DISTRICT 1

**JOSHUA WAGNER**  
DISTRICT 2

**DEBORAH DENYS**  
DISTRICT 3

**DOUG DANIELS**  
DISTRICT 4

**PATRICIA NORTHEY**  
DISTRICT 5



**Volusia County**  
**Floodplain Management Plan**  
**Public Input Meeting**



April 8, 2013

1:00 p.m.

Daytona Beach City Isle Library, Daytona Beach, Florida

## **AGENDA**

**Welcome**

**Project Overview**

**Plan Overview**

**Public Input, Questions and Concerns**

**Open House**

---

**Volusia County Flood Map Viewer:** <http://www.volusia.org/services/public-protection/emergency-management/types-of-disasters/floods/flood-maps.stml>

**National Flood Insurance Program:**

[http://www.floodsmart.gov/floodsmart/pages/flooding\\_flood\\_risks/understanding\\_flood\\_maps.jsp](http://www.floodsmart.gov/floodsmart/pages/flooding_flood_risks/understanding_flood_maps.jsp)

**ECFRPC Contact:**

Tim Kitchen, Emergency Preparedness Manager - 407.262.7772 [tkitchen@ecfrpc.org](mailto:tkitchen@ecfrpc.org)



**AGENDA**

- Welcome**
- Project Overview**
- Plan Overview**
- Questions and Concerns**
- Open House**



**AGENDA**

- Welcome**
- Project Overview**
- Plan Overview**
- Questions and Concerns**
- Open House**

**PROJECT OVERVIEW**

Purpose:  
 Amend Floodplain Management Plan (FMP) to develop municipal specific FMPs based on Community Rating System Guidance.

Incorporate FMP into Local Mitigation Strategy



**COMMITTEE PARTICIPANTS**

- Jurisdictional staff
- Floodplain Managers and Administrators
- NFIP Coordinator
- State Hazard Mitigation Officer



**PUBLIC INVOLVEMENT**

- Public Meetings (2 kick off meetings; 1 final comment meetings)
- Resident Survey (220)
- Business Survey (22)
- HOA Survey



**OTHER STEPS**

- Assessment of the flood hazard using best available data (DFIRM MAPS).
- Review past flood claims and issues.
- Describe areas that provide natural and beneficial functions and habitat for rare and endangered species.
- Analyze current and future development, redevelopment and population trends.



**FINAL STEPS**

**Draft Action Plan (FMP)**



**Adopt the Plan**



### AGENDA

- Welcome
- Project Overview
- Plan Overview**
- Questions and Concerns
- Open House



### PLAN OVERVIEW

- Planning Process*
- Risk Assessment*
  - Hazard Assessment
  - Problem Assessment/Vulnerabilities
    - Life, Safety, Health
    - Critical Facilities
    - Economics
    - Property
    - Repetitive Loss Analysis
    - Flood Claim Analysis
    - Natural Areas
    - Land Use Trends
- Mitigation Strategy and Action Plan*



### MITIGATION STRATEGIES

- Flood Prevention
- Property Preventative
- Natural Resource Protection
- Emergency Services
- Structural Projects
- Public Education and Awareness
- Action Plan



- Appendix A
  - Jurisdictional Floodplain Management Plan
  - Goals and Objectives
  - Data
  - Action Plan
- Appendix B – Public Survey Information
- Appendix C – Business Survey Information
- Appendix D – Neighborhood Association Survey
- Appendix E – Public Meeting Information
- Appendix F – Action Plan



DRAFT FMP - [www.ecfrpc.org](http://www.ecfrpc.org)



Feedback form:

[http://www.surveymonkey.com/s/VCdraftFMP\\_PublicComment](http://www.surveymonkey.com/s/VCdraftFMP_PublicComment)

Has the process of updating the Volusia County Floodplain Management Plan provided you with more knowledge of the purpose of the plan?



How satisfied are you with the public outreach conducted as part of the planning process for the plan update?



What additional feedback do you have concerning the Floodplain Management Plan?





**QUESTIONS/ADDITIONAL ITEMS**

**Tim Kitchen** ([tkitchen@ecfrc.org](mailto:tkitchen@ecfrc.org))

**Tara McCue** ([tara@ecfrc.org](mailto:tara@ecfrc.org))

**PJ Smith** ([pjsmith@ecfrc.org](mailto:pjsmith@ecfrc.org))

**Amanda Webb** ([amanda@ecfrc.org](mailto:amanda@ecfrc.org))



407.262.7772

[www.ecfrc.org](http://www.ecfrc.org)





# Volusia County Floodplain Management Plan Public Comment Form



1. Has the process of updating the Volusia County Floodplain Management Plan provided you with more knowledge of the purpose of the plan?

YES

NO

UNSURE

2. Please rank your satisfaction of the public outreach conducted as part of the planning process for the plan update.

- Completely Dissatisfied
- Dissatisfied
- No Opinion
- Satisfied
- Completely Satisfied

3. Please use the following space to provide feedback on the DRAFT Volusia County Floodplain Management Plan.

---

SUBMIT COMMENTS TO:  
EAST CENTRAL FLORIDA REGIONAL PLANNING COUNCIL  
309 CRANES ROOST BLVD. SUITE 2000  
ALTAMONTE SPRINGS, FL  
407.262.7772

TIM KITCHEN, EM MANAGER  
TKITCHEN@ECFRPC.ORG  
407.262.7772 EXT. 349

(Turn Over)



# Volusia County Floodplain Management Plan Public Meeting Feedback Form



*Please fill out and return before leaving.*

“Please circle the number that best represents your opinion on the following statements, with “5” being the highest and “1” being the lowest. Your feedback will leverage our current and future planning efforts in your area and will allow the planning team to develop a tailored plan that meets the needs of Volusia County residents.”

	LOW				HIGH
Before this meeting, my knowledge of the Floodplain Management Plan (FMP) was:	1	2	3	4	5
After this meeting, I have a better understanding of the FMP process and purpose.	1	2	3	4	5
I recognize the importance of an FMP & support the project.	1	2	3	4	5
I feel confident that public input will be incorporated into the plan.	1	2	3	4	5
I have a clear understanding of the importance of the public’s input.	1	2	3	4	5

For rankings below 3, please provide comments as to how we can improve those areas.

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Other comments or feedback concerning the Floodplain Management Plan and Public Outreach.

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**Contact information (Please Print Clearly)**

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Email: \_\_\_\_\_

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SUBMIT COMMENTS TO:

EAST CENTRAL FLORIDA REGIONAL PLANNING COUNCIL 309 CRANES ROOST BLVD. SUITE 2000 ALTAMONTE SPRINGS, FL 407.262.7772	TIM KITCHEN, EM MANAGER TKITCHEN@ECFRPC.ORG 407.262.7772 EXT. 349
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(Turn Over)



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## **APPENDIX F**

### **RESOLUTIONS OF SUPPORT**

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**RESOLUTION NO. 2013-04**

**A RESOLUTION OF THE CITY OF DAYTONA BEACH SHORES, VOLUSIA COUNTY, FLORIDA IN SUPPORT OF THE PLANNING PROCESS FOR THE DEVELOPMENT OF THE REVISED "VOLUSIA COUNTY AND MUNICIPALITY FLOODPLAIN MANAGEMENT PLAN"; PROVIDING A SAVING PROVISION; PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY AND 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 National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

**WHEREAS**, the Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

**WHEREAS**, in an effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents, the County of Volusia has contracted with the East Central Florida Regional Planning Council (ECFRPC) to draft the revised Floodplain Management Plan (FMP) in alignment with the CRS Guidelines; and

**WHEREAS**, the ECFRPC is also required to integrate the FMP into the Local Mitigation Strategy; and

**WHEREAS**, the FMP will be completed in April of 2013.

**NOW, THEREFORE, BE IT RESOLVED THAT THE CITY COUNCIL OF THE CITY OF DAYTONA BEACH SHORES, FLORIDA, AS FOLLOWS:**

**SECTION ONE. FINDING.** The City Council of the City of Daytona Beach Shores hereby considers the Floodplain Management Plan to be of the utmost importance to the City of Daytona Beach Shores and supports the Floodplain Management Plan Planning Process.

**SECTION TWO. SAVINGS.** The prior actions of the City of Daytona Beach Shores relating to floodplain management are hereby ratified and affirmed.

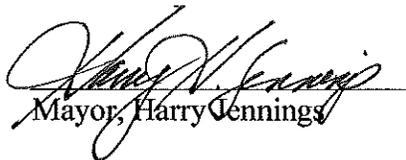
**SECTION THREE: CONFLICTS.** All resolutions or parts thereof in conflict with this

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**

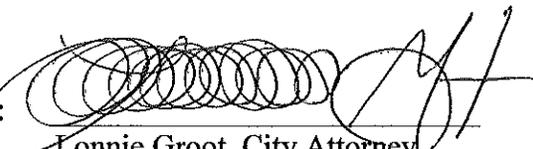
By:   
Mayor, Harry Jennings

**ATTEST:**

By:   
Michael T. Booker, City Manager

  
Cheri Schwab, City Clerk

**APPROVED AS TO FORM AND LEGALITY:**

By:   
Lonnie Groot, City Attorney

Passed and adopted on first reading this 22 day of January, 2013.

Posted this 23 day of January, 2013.

RESOLUTION NO. 13-24

A RESOLUTION IN SUPPORT OF THE PLANNING PROCESS OF THE EAST CENTRAL FLORIDA REGIONAL PLANNING COUNCIL FOR THE DEVELOPMENT AND INTEGRATION OF "THE VOLUSIA COUNTY LOCAL MITIGATION STRATEGY AND THE CITY'S FLOODPLAIN MANAGEMENT PLAN"; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, coastal and riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

WHEREAS, the National Flood Insurance Program provides federally supported flood insurance in communities that regulate development in floodplains; and

WHEREAS, the Community Rating System ("CRS") grades the various Community Floodplain Management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

WHEREAS, in an effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents, Volusia County has contracted with East Central Florida Regional Planning Council to draft the revised Floodplain Management Plan in alignment with CRS guidelines; and

WHEREAS, the East Central Florida Regional Planning Council is also required to integrate the Floodplain Management Plan into the local mitigation strategy; and

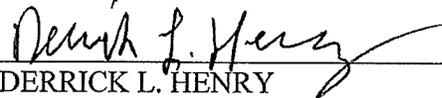
WHEREAS, the Floodplain Management Plan will be completed in April of 2013; and

WHEREAS, the Utilities Director recommends the City support the planning process of the East Central Florida Regional Planning Council to further the goals of the Community Rating System and National Flood Insurance Program.

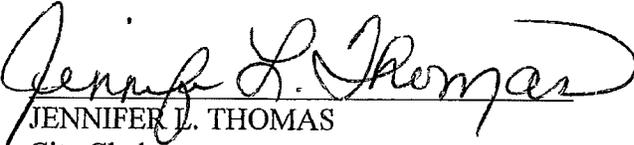
NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE  
CITY OF DAYTONA BEACH, FLORIDA:

SECTION 1. The City Commission considers the Floodplain Management Plan to  
be of utmost importance to the City and supports the Floodplain Management Plan planning process.

SECTION 2. This Resolution shall take effect immediately upon its adoption.

  
DERRICK L. HENRY  
Mayor

ATTEST:

  
JENNIFER L. THOMAS  
City Clerk

Adopted: February 6, 2013

**RESOLUTION NO. 13-03**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF DEBARY, FLORIDA IN SUPPORT OF THE PLANNING PROCESS FOR THE DEVELOPMENT OF THE REVISED "VOLUSIA COUNTY & MUNICIPALITY FLOODPLAIN MANAGEMENT PLAN"**

**WHEREAS**, Coastal and riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and,

**WHEREAS**, The National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and,

**WHEREAS**, The Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

**WHEREAS**, In an effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents, Volusia County has contracted with East Central Florida Regional Planning Council to draft the revised floodplain management plan in alignment with the CRS guidelines; and

**WHEREAS**, The East Central Florida Regional Planning Council is also required to integrate the floodplain management plan into the local mitigation strategy; and

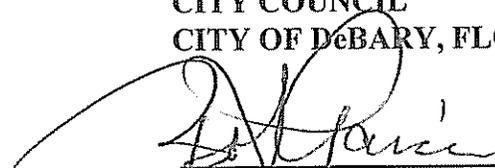
**WHEREAS**, the floodplain management plan will be completed in April of 2013.

**IT IS HEREBY RESOLVED BY THE CITY OF DEBARY AS FOLLOWS:**

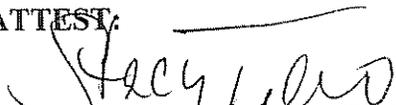
The City of DeBary considers the floodplain management plan to be of utmost importance to Volusia County and the City of DeBary, and supports the floodplain management plan planning process.

**ADOPTED** the 6<sup>th</sup> day of March, 2013.

**CITY COUNCIL  
CITY OF DEBARY, FLORIDA**

  
\_\_\_\_\_  
Bob Garcia, Mayor

**ATTEST:**

  
\_\_\_\_\_  
Stacy Tebo, City Clerk

**RESOLUTION NO. 2013-R-06**

**A RESOLUTION OF THE CITY OF HOLLY HILL, FLORIDA, IN SUPPORT OF THE PLANNING PROCESS FOR THE DEVELOPMENT OF THE REVISED "VOLUSIA COUNTY & MUNICIPALITY FLOODPLAIN MANAGEMENT PLAN"; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTING RESOLUTIONS; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS:** coastal and riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

**WHEREAS:** the National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

**WHEREAS:** the Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

**WHEREAS:** in an effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents, Volusia County has contracted with East Central Florida Regional Planning Council to draft the revised floodplain management plan in alignment with the CRS guidelines; and

**WHEREAS:** the East Central Florida Regional Planning Council is also required to integrate the FMP into the local mitigation strategy; and

**WHEREAS:** the floodplain management plan will be completed in April of 2013.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:**

**SECTION 1.** The City Commission of the City of Holly Hill hereby considers the floodplain management plan to be of utmost importance to the City of Holly Hill and supports the floodplain management plan planning process.

**SECTION 2.** 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 3.** That all resolutions made in conflict with this Resolution are hereby repealed.

**SECTION 4.** That this Resolution shall become effective immediately upon its adoption.

The within and foregoing Resolution was read before the City Commission of the City of Holly Hill, Florida, at its regular meeting held in commission chambers at City Hall, 1065 Ridgewood Avenue, Holly Hill, Florida, on the 22<sup>nd</sup> day of January, 2013.

It was moved by Commissioner Moore and seconded by Commissioner Penny that said Resolution be adopted. A roll call vote of the Commission on said motion of the Resolution resulted as follows:

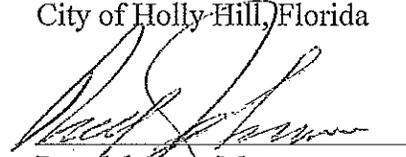
**ROLL CALL VOTE AS FOLLOWS: (Resolution 2013-R-06):**

Mayor Roy Johnson	Yes
Commissioner John Penny	Yes
Commissioner Penny Currie	Yes
Commissioner Donnie Moore	Yes
Commissioner Elizabeth Albert	Yes

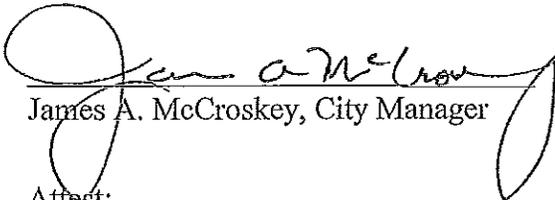
**ADOPTED THIS 22<sup>nd</sup> DAY OF JANUARY, 2013.**

**WHEREAS**, the Mayor of the City of Holly Hill, Florida, has hereunto set his official signature, duly authorized by the City Clerk, and has caused the official seal of said City to be affixed, all at the City Hall in the City of Holly Hill, this 22<sup>nd</sup> day of January 2013, for the purpose of authenticity as is required by law.

City of Holly Hill, Florida

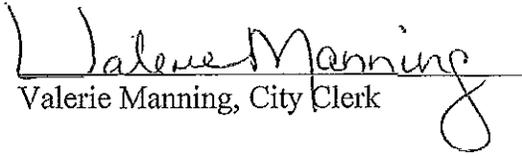


Roy Johnson, Mayor



James A. McCroskey, City Manager

Attest:



Valerie Manning, City Clerk

RECEIVED JAN 24 2013

**A RESOLUTION OF THE CITY OF LAKE HELEN, FLORIDA, IN SUPPORT OF THE PLANNING PROCESS FOR THE DEVELOPMENT OF THE REVISED "VOLUSIA COUNTY AND MUNICIPALITY FLOODPLAIN MANAGEMENT PLAN"; MAKING FINDINGS OF FACT (WHEREAS CLAUSES); AND PROVIDING AN EFFECTIVE DATE.**

WHEREAS, coastal, riverine and inland flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

WHEREAS, the National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

WHEREAS, the Community Rating System (CRS) grades the various Community Floodplain Management Programs and reduces flood insurance premiums in those communities that meet certain requirements; and

WHEREAS, in an effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents, Volusia County has contracted with East Central Florida Regional Planning Council to draft the revised Floodplain Management Plan in alignment with the Community Rating System guidelines; and

WHEREAS, the East Central Florida Regional Planning Council is also required to integrate the Flood Management Plan into the Local Mitigation Strategy; and

WHEREAS, the Floodplain Management Plan will be completed in April of 2013.

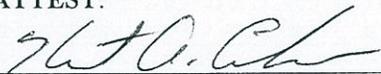
NOW, THEREFORE, BE IT RESOLVED by the City Commission of the City of Lake Helen, Florida,

Section 1. The City of Lake Helen considers the preparation of the Floodplain Management Plan to be of utmost importance to the City.

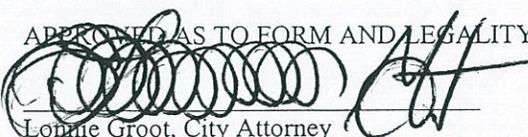
Section 2. The City of Lake Helen supports the Floodplain Management Plan planning process.

PASSED AND DULY ADOPTED this 10th day of January, 2013.

ATTEST:

  
KC Cichon, City Administrator

  
Buddy Snowden, Mayor

APPROVED AS TO FORM AND LEGALITY  
  
Lonnie Groot, City Attorney

**RESOLUTION NO. 2013-35**

A RESOLUTION OF THE CITY OF ORMOND BEACH SUPPORTING THE PLANNING PROCESS TO UPDATE THE VOLUSIA COUNTY MULTI-JURISDICTIONAL LOCAL MITIGATION STRATEGY THROUGH THE DEVELOPMENT OF A REVISED INTEGRATED FLOODPLAIN MANAGEMENT PLAN, AND SETTING FORTH AN EFFECTIVE DATE .

**WHEREAS**, areas of the City of Ormond Beach are vulnerable to coastal and riverine flooding that significantly threaten the safety of residents; and

**WHEREAS**, the National flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

**WHEREAS**, the Community Rating System (CRS) rewards communities that exceed the minimum requirements of the NFIP that help citizens prevent or reduce flood losses; and

**WHEREAS**, the City of Ormond Beach has been an active participant in *Volusia Prepares*, the Local Mitigation Strategy (LMS) working group, which has established comprehensive, coordinated planning process involving the County and its municipalities, as well as other public and private setor organizations, to eliminate or decrease these vulnerabilities; and

**WHEREAS**, in a continuing effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents, the City LMS representatives are working with Volusia County and the East Central

Florida Regional Planning Council to draft a revised Floodplain Management Plan in alignment with the Community Rating System (CRS) guidelines; and

**WHEREAS**, the East Central Florida Regional Planning Council is also required to integrate the FMP into the local mitigation strategy; and

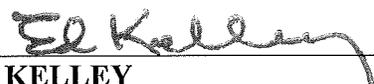
**WHEREAS**, it is anticipated that the Floodplain Management Plan will be completed in April of 2013, now therefore,

**BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF ORMOND BEACH, FLORIDA, THAT:**

**SECTION ONE.** The City Commission hereby considers the Floodplain Management Plan to be of utmost importance to the City of Ormond Beach and supports the planning process.

**SECTION TWO.** This Resolution shall take effect immediately upon its adoption.

**APPROVED AND AUTHENTICATED this 15th Day of January, 2013.**

  
\_\_\_\_\_  
**ED KELLEY**  
Mayor

  
**ATTEST:**  
  
\_\_\_\_\_  
**J. SCOTT McKEE**  
City Clerk



# CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

## **CITY MANAGER MEMORANDUM**

**To:** The Honorable Mayor Kelley and City Commissioners  
**Through:** Joyce A. Shanahan, City Manager  
**From:** Ric Goss, Planning Director  
**Date:** January 15, 2013  
**Subject:** Support of Planning Process to Develop an Integrated FMP

### **Introduction:**

This is a Resolution for the City Commission's support of the planning process to update the Volusia County Multi-Jurisdictional Local Mitigation Strategy through the development of a revised Integrated Floodplain Management Plan.

### **Background**

In an effort to reduce the Nation's mounting natural disaster losses, the U.S. Congress passed the Disaster Mitigation Act of 2000 (DMA 2000). Section 322 of DMA 2000 emphasizes the need for state and local government entities to closely coordinate on 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 prepositioned and are more apt to receive available mitigation funds before and after the next disaster strikes.

The Volusia County Local Hazard Mitigation Plan was amended in 2005 to be compliant with the new federal and state requirements. The City of Ormond Beach actively participates in Volusia Prepares, the Local Mitigation Strategy (LMS) working group and adopted the Volusia County Multi-jurisdictional LMS by Resolution 2005-55 on March 15, 2005.

Recently, Volusia County contracted with the East Central Florida Regional Planning Council to strengthen the Floodplain Management Plan and to develop and integrate individual municipal Floodplain Management Plans into the Volusia County Multi-jurisdictional LMS. The planning process for the development of the floodplain management plans will be in accordance with the Community Rating System 10 step process:

Community Rating System Point Breakdown	
Organize to Prepare the Plan	10 Points
Involve the Public	85 Points
Coordinate with other Agencies	25 Points
Assess the Hazard	20 Points
Assess the Problem	35 Points
Set the Goals	2 Points
Review Possible Activities	30 Points
Draft and Action Plan	70 Points
Adopt the Plan	2 Points
Implement, Evaluate and Revise	15 Points

The City of Ormond Beach is a CRS community and is currently rated as a 6, which provides a 20% flood insurance discount to residents in a special flood hazard area. Out of a potential 359 points for floodplain management activities, the City currently receives 192. The City is able to receive additional points by participating in the planning process in the development of the Volusia County Integrated Floodplain Management Plan which solidifies the current CRS rating and flood insurance discounts to the residents and exceeds the state and federal guidelines.

**Budget Impact:**

There is no budget impact to the City of Ormond Beach.

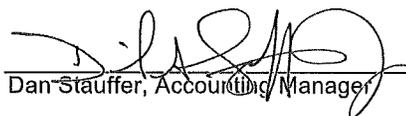
**Recommendation:**

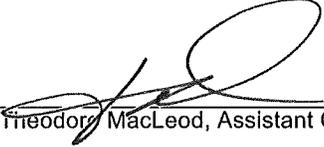
It is recommended that the City Commission approve the Resolution to support the planning process in the development of the revised Volusia County Integrated Floodplain Management Plan.

**Attachments:**

- 13-035A - VOLUSIA COUNTY INTEGRATED FLOODPLAIN MANAGEMENT PLAN P13-0004G (PDF)

REVIEWED BY:


  
 Dan Stauffer, Accounting Manager 12/27/2012

  
Theodore MacLeod, Assistant City Manager 1/9/2013

APPROVED BY:

  
Joyce Shanahan, City Manager 1/9/2013

**RESOLUTION NO. 2013-01**

**A RESOLUTION BY THE TOWN COUNCIL OF THE TOWN OF PONCE INLET, FLORIDA IN SUPPORT OF THE PLANNING PROCESS FOR THE DEVELOPMENT OF THE “VOLUSIA COUNTY & MUNICIPALITY FLOODPLAIN MANAGEMENT PLAN” PROVIDING LEGISLATIVE FINDINGS; PROVIDING AN EFFECTIVE DATE.**

**WHEREAS:** Coastal and riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

**WHEREAS:** The National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

**WHEREAS:** The Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

**WHEREAS:** in an effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents, Volusia County has contracted with East Central Florida Regional Planning Council to draft the revised Floodplain Management Plan in alignment with the CRS guidelines; and

**WHEREAS:** The East Central Florida Regional Planning Council is also required to integrate the Floodplain Management Plan into the local mitigation strategy; and

**WHEREAS:** The “Volusia County & Municipality Floodplain Management Plan” will be completed in April of 2013.

**NOW, THEREFORE, BE IT RESOLVED** that the Town Council of the Town of Ponce Inlet considers the Floodplain Management Plan to be of utmost importance to the County and the Town and supports the Floodplain Management Plan planning process.

**Section 1.** The above recitals are incorporated herein by reference as to the legislative findings of the Town Council.

**Section 2.** The Town Council of Ponce Inlet does acknowledge and support the creation of a “Volusia County & Municipality Floodplain Management Plan”.

**Section 3.** The Town Council of Ponce Inlet recognizes that participation in the Volusia County Floodplain Management Plan, once established, may improve the current level and CRS Rating within the Town of Ponce Inlet and Volusia County.

**Section 4.** The Town Council of Ponce Inlet directs staff to work with Volusia County to develop the **Floodplain Management Plan Goals**.

**Section 5.** This Resolution shall take effect immediately upon adoption.

It was moved by Councilmember Lewis and seconded by Mayor Smith that said Resolution be adopted. A roll call vote of the Town Council on said motion resulted as follows:

Mayor Smith, Seat #1	Yes
Councilmember Milano, Seat #2	Yes
Vice-Mayor Hoss, Seat #3	Yes
Councilmember Perrone, Seat #4	Yes
Councilmember Lewis, Seat #5	Yes

Passed this 17<sup>th</sup> day of January, 2013.



Town of Ponce Inlet, Florida

*Gary L. Smith*  
Gary L. Smith, Mayor

ATTEST:

*Jeaneen P. Clauss*

Jeaneen P. Clauss, CMC  
Town Manager/Town Clerk

**RESOLUTION NO. 2013-R-06**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF EDGEWATER, FLORIDA; IN SUPPORT OF THE PLANNING PROCESS FOR THE DEVELOPMENT OF THE REVISED “VOLUSIA COUNTY & MUNICIPALITY FLOODPLAIN MANAGEMENT PLAN”; PROVIDING FOR SEVERABILITY; REPEALING RESOLUTIONS IN CONFLICT HERewith AND ESTABLISHING AN EFFECTIVE DATE.**

**WHEREAS**, coastal and riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

**WHEREAS**, the National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

**WHEREAS**, the Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

**WHEREAS**, in an effort to reduce the potential for personal/property losses in flood prone areas and ensure the lowest possible flood insurance premiums for residents, Volusia County has contracted with East Central Florida Regional Planning Council to draft the revised floodplain management plan in alignment with the CRS guidelines; and

**WHEREAS**, the East Central Florida Regional Planning Council is also required to integrate the FMP into the local mitigation strategy; and

**WHEREAS**, the floodplain management plan will be completed in April of 2013.

**NOW, THEREFORE**, be it resolved by the City Council of Edgewater, Florida:

**Section 1.** The City Council of the City of Edgewater hereby considers the floodplain management plan to be of utmost importance to the City of Edgewater and supports the floodplain management plan planning process.

**Section 2.** 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

**Section 3.** All resolutions or parts of resolutions in conflict herewith are hereby repealed.

**Section 4.** This resolution shall take effect upon adoption.

After a motion by Councilwoman Power with Second by Councilman Ignasiak the vote on this resolution held on March 4, 2013 was as follows:

	AYE	NAY
Mayor Mike Thomas	<u>X</u>	_____
Councilwoman Christine Power	<u>X</u>	_____
Councilwoman Gigi Bennington	<u>EXCUSED</u>	_____
Councilman Mike Ignasiak	<u>X</u>	_____
Councilman Gene Emter	<u>X</u>	_____

**PASSED AND DULY ADOPTED** this 4<sup>th</sup> day of March, 2013.

**ATTEST:**

Bonnie Wenzel  
**Bonnie Wenzel**  
City Clerk

**CITY COUNCIL OF THE  
CITY OF EDGEWATER, FLORIDA**

By: [Signature]  
**Mike Thomas**  
Mayor

[Signature]  
**Robin L. Matusick**  
Paralegal

For the use and reliance only by the City of Edgewater, Florida. Approved as to form and legality by:  
Aaron R. Wolfe, Esquire  
City Attorney  
Doran, Sims, Wolfe & Kundid

Approved by the City Council of the City of Edgewater at a meeting held on this 4th day of March, 2013 under Agenda Item No 8 e.

RESOLUTION NO. 13-22

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA; SUPPORTING THE PLANNING PROCESS FOR THE DEVELOPMENT OF THE REVISED VOLUSIA COUNTY AND MUNICIPALITY FLOODPLAIN MANAGEMENT PLAN; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Coastal and Riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

WHEREAS, the National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

WHEREAS, the Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

WHEREAS, in an effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents, Volusia County has contracted with East Central Florida Regional Planning Council to draft the revised Floodplain Management Plan in alignment with the CRS guidelines; and

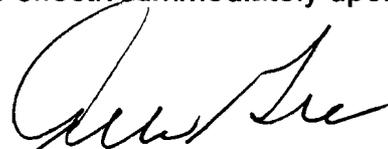
WHEREAS, the East Central Florida Regional Planning Council is also required to integrate the FMP into the local mitigation strategy; and

WHEREAS, the Floodplain Management Plan will be completed in April of 2013.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA:

Section 1. That the City Council of the City of Port Orange considers the Floodplain Management Plan to be of utmost importance to the City of Port Orange and supports the Floodplain Management Plan planning process.

Section 2. This resolution shall become effective immediately upon adoption.

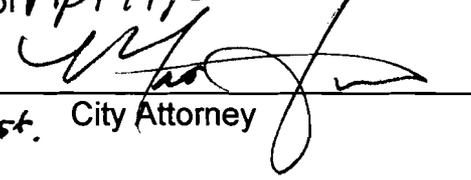


\_\_\_\_\_  
MAYOR ALLEN GREEN

ATTEST:

  
\_\_\_\_\_  
Robin L. Fenwick, City Clerk

Adopted on the 2 day of April, 2013.

Reviewed and Approved:   
\_\_\_\_\_  
Asst. City Attorney

**APPENDIX G**

**ACTION PLAN**

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Activities Category: S = Structural PP = Property Protection PE = Public Education P = Prevention ES = Emergency Services  
 Funding Source: 1-PDM 2-SHSP 3-CDBG 4-FMA 5-HMGP 6-PA 7-SRLP  
 Status: C-Completed D-Deferred N-New T-Terminated U-Updated IP-In Progress

Priority	Number	Jurisdiction	Responsible Organization	Hazard	Activities Category	Project Description	Funding Source	Date	Estimated Completion	Status
	VOL-0276	City of Daytona Beach	Daytona Beach Utilities	All	P	Articulating Excavator Purchase				
	VOL-0275	City of Daytona Beach	Daytona Beach Partnership	All	PE	Waterfronts FI Best Practicing: Demo-Disaster Planning		10/13/2004	N/A	T
	VOL-0365	City of Daytona Beach	Daytona Beach Utilities	All	PE	Hurricane & Flood Protection Public Education and Outreach				
	VOL-0170	City of Daytona Beach	Daytona Beach City Manager	All	PP	Replace the aging commercial structures in the boardwalk areas		8/1/2001	N/A	T
M	VOL-0166	City of Daytona Beach	Daytona Beach Utilities	All	PP	A-5 barrier peninsula watershed Ocean Dunes Rd/Ocean Dunes Tr/Wisteria Rd				
M	VOL-0165	City of Daytona Beach	Daytona Beach Utilities	Flood	PP	Stormwater/flood abatement	5	10/1/2001	2011	D
M	VOL-0166	City of Daytona Beach	Daytona Beach Utilities	Flood	PP	A-5 barrier peninsula watershed Ocean Dunes Rd/Ocean Dunes Tr/Wisteria Rd	5	10/1/2001	2010	D
H	VOL-0413	City of Daytona Beach	City of Daytona Beach Utilities	Flood	PP	Aberdeen Reptative Loss: Acquisition and Demolition	4,5,7		<1	N
H	Vol-0418	City of Daytona Beach	City of Daytona Beach Utilities	Flood	PP	Palm Place Rep Loss: Acquisition and Demolition	4,5,7		<1 year	N
H		City of Daytona Beach	City of Daytona Beach Utilities	Flood	PP	Jean Street Area: RepLoss; Acquisition and Demolition	4,5,7		<1 year	N
H		City of Daytona Beach	City of Daytona Beach Utilities	Flood	PP	Jean Street Area: RepLoss; Acquisition and Demolition	4,5,7		< 1 year	N
H		City of Daytona Beach	City of Daytona Beach Utilities	Flood	PP	Jean Street Area: RepLoss; Acquisition and Demolition	4,5,7		<1 year	N
	VOL-0164	City of Daytona Beach	Daytona Beach Utilities	Flood	PP	VOL-0164 Flood abatement project/aquifer recharge				
H	Vol-0165	City of Daytona Beach	Daytona Beach Utilities	Flood	PP	Stormwater/flood abatement 3rd, 4th, and 6th Street				
	VOL-0432	City of Daytona Beach	City of Daytona Beach	Flood	PP	Kennedy Blvd and 3rd Street RLA and Demo.				
	VOL-0447	City of Daytona Beach	City of Daytona Beach	Flood	PP	Area of Carolina Street and Nova Canal Property Buyout				
	VOL-0541	City of Daytona Beach	City of Daytona Beach	Flood	PP	Area of Keech Street and Nova Canal Repetitive Loss				
	VOL-0010	City of Daytona Beach	City of Daytona Beach Fire	Flood/Wind	PP	Purchase Storm shutters and raise the location of emergency generator at Fire Station #1		8/1/1999	2006	C
	VOL-0056	City of Daytona Beach	City of Daytona Beach Fire	Flood/Wind	PP	Purchase Storm shutters and raise the location of emergency generator at Fire Station #2		8/1/1999	2006	C
	VOL-0011	City of Daytona Beach	City of Daytona Beach Fire	Flood/Wind	PP	Purchase Storm shutters and raise the location of emergency generator at Fire Station #3		8/1/1999	N/A	T
	VOL-0167	City of Daytona Beach	Daytona Beach City Manager	Surge	PP	Restore/Preserve the historic Daytona Beach Main Street Pier		8/1/1999	2004	C
	VOL-0042	City of Daytona Beach	Public Works	Flood	S	Lenox/Grandview Exfiltration Drainage System		8/1/1999	2005	C
	VOL-0044	City of Daytona Beach	Daytona Beach Utilities	Flood	S	R B5/B6 Phase 2 - Nova Canal Drainage Basin		8/1/1999	N/A	T
	VOL-0157	City of Daytona Beach	Daytona Beach Utilities	Flood	S	Stormwater project for Daytona Beach		10/1/2001	N/A	T
M	VOL-0168	City of Daytona Beach	Daytona Beach Utilities	Flood	S	B-3 Halifax River drainage basin-Wilder Outfall Study				
M	VOL-0364	City of Daytona Beach	Daytona Beach Utilities	Flood	S	North Street & Mark Avenue Stormwater Improvements				
	VOL-277	City of Daytona Beach	Daytona Beach Utilities	Flood	S	Bay Street Stormwater Improvements PW3/PW7 - Phase 1-5 Phase 1 Only				
L	VOL-0347	City of DeBary	City of DeBary	All	ES	Programmable message boards/trailers	5	1/12/2005	<1 YEAR	U
M	VOL-0390	City of DeBary	City of DeBary	All	PE	Community Information using an AM radio frequency EAS	2, 5	3/7/2006	<1 YEAR	U
	VOL-0346	City of DeBary	City of DeBary	All	PP	Purchase 15 - 800 MHz radios		1/12/2005		D
	VOL-0342	City of DeBary	City of DeBary	All	PP	Generator for VC Sherriff's Office Debary Substation		1/12/2005		T
	VOL-0344	City of DeBary	City of DeBary	All	PP	Generator for City Hall		1/12/2005		T
	VOL-0402	City of DeBary	City of DeBary	Flood	PP	Acquire 14 Flood prone residential residences		11/18/2008		C

Activities Category: S = Structural PP = Property Protection PE = Public Education P = Prevention ES = Emergency Services

Funding Source: 1-PDM 2-SHSP 3-CDBG 4-FMA 5-HMGP 6-PA 7-SRLP

Status: C-Completed D-Deferred N-New T-Terminated U-Updated IP-In Progress

Priority	Number	Jurisdiction	Responsible Organization	Hazard	Activities Category	Project Description	Funding Source	Date	Estimated Completion	Status
	VOL-356	City of DeBary	City of DeBary	Flood	PP	Acquire residential repetitive flood loss property near East Highbanks Rd		2/14/2005		C
H	VOL-0288	City of DeBary	City of DeBary	Flood	S	City of DeBary Emergency Outfall System	5	12/7/2004	<1 YEAR	
H	VOL-0403	City of DeBary	City of DeBary	Flood	S	Gravity Overflow Systems	5	11/18/2008	<1 YEAR	
H	VOL-0404	City of DeBary	City of DeBary	Flood	S	East Side Flood Management System Upgrade	5	11/18/2008	<1 YEAR	
	VOL-0041	Daytona Beach Shores	City of Daytona Beach Shores	All	PP	Increase the structural integrity of the main roof section for the City Hall Complex		8/1/1999	2003	C
	VOL-0224	Daytona Beach Shores	City of Daytona Beach Shores	All	PP	Upgrade new public safety campus		10/13/2004	2005	C
	VOL-0392	Daytona Beach Shores	City of Daytona Beach Shores	All	PP	Replace window at the DBS City Hall with Impact Reisitant		9/10/2007	2008	C
H	Vol-0411	Daytona Beach Shores	City of Daytona Shores	All	PP	Replace the roof at Daytona Beach Shores City Hall	5	1/7/2009	2011	C
	VOL-0012	Daytona Beach Shores	City of Daytona Beach Shores	Flood	S	Protect wastewater collection and transmission system		8/1/1999	2003	C
	VOL-0052	DeLand	The City of DeLand Public Works	Flood	ES	Emergency generators at the K-Mart Earl Brown Park and Painter Pond stormwater		8/2/1999		C
H	VOL-0053	DeLand	City of DeLand Public Services	Flood	ES	Purchase/install emergency generator for Volusia County Fairgrounds	5	8/1/1999	< 1 YEAR	U
H	VOL-0054	DeLand	The City of DeLand Public Services	Flood	ES	Purchase/install emergency generator for Pistol Range Road	5	8/1/1999	2010	U
	VOL-0055	DeLand	The City of DeLand	All	PP	Installl protective doors at fire station		8/1/1999		C
H	VOL-0349	DeLand	The City of DeLand	Flood	PP	Acquisition and expansion of stormwater for DeLand Middle School	5	2/14/2005	2010	D
H	VOL-0351	DeLand	The City of DeLand	Flood	PP	Acquire flooded property near New Hampshire between Amelia Ave & Garfield	4,5,7	2/14/2005		U
	VOL-0369	DeLand	The City of DeLand	Flood	S	Stormwater storage project in the Crystal Cove Subdivision		9/21/2005	2010	C
H	VOL-0002	DeLand	The City of DeLand Public Works	Flood	S	Construct a stormwater pumping station and force main	5	8/1/1999	2010	U
H	VOL-0241	DeLand	The City of DeLand Public Services	Flood	S	Acquisition and expansion of stormwater ponds	5	10/13/2004	2010	U
H	VOL-0242	DeLand	The City of DeLand Public Services	Flood	S	Raise head works and effluent pump station	5	10/13/2004	2010	U
	VOL-0048	Deltona	The City of Deltona Development	All	ES	Install Services connection to provide generator for back-up electrical power		8/1/1999		C
	VOL-0179	Deltona	City of Deltona Fire Rescue	All	ES	Establish a CERT program for the City of Deltona		11/1/2002		C
	VOL-0195	Deltona	City of Deltona Fire Rescue	All	ES	Community-wide information & warning system		8/1/2003		C
M	VOL- 0376	Deltona	City of Deltona Fire Rescue	All	PE	Public Education Specialist	5	8/1/1999	2010	C
	VOL-0046	Deltona	City of Deltona Fire Rescue	Flood	PP	Relocate Fire Station #62		1/1/2002		C
	VOL-0211-	Deltona	City of Deltona Fire Rescue	Flood	PP	Acquire residential home		8/1/2003		C
	Vol-0285	Deltona	The City of Deltona	Flood	PP	Acquisition of residential home near Montero Circle Deltona		1/12/2005		C
	VOL-0286	Deltona	The City of Deltona	Flood	PP	Acquisition of residential home near Melshire Ave		1/12/2005		C
	VOL-0287	Deltona	The City of Deltona	Flood	PP	Acquisition of property Tulsa Dr Deltona		1/12/2005		C
	VOL-0335	Deltona	The City of Deltona	Flood	PP	Acquisition Montero Circle		1/12/2005		C
	VOL-0073	Deltona	The City of Deltona Public Works	Flood	S	Lake level management program for Lake Theresa Basin lakes		8/1/1999		C
	VOL-0074	Deltona	The City of Deltona Public Works	Flood	S	Direct some of the stormwater from Sterling Lake to Baton Lake thru pump system		8/1/1999		C
	VOL-0075	Deltona	The City of Deltona Public Works	Flood	S	Construct a permanent pump station within the subbasin		8/1/1999		C
	VOL-0076	Deltona	The City of Deltona Public Works	Flood	S	Install a backup pump system		8/1/1999		C

remove

Activities Category: S = Structural PP = Property Protection PE = Public Education P = Prevention ES = Emergency Services

Funding Source: 1-PDM 2-SHSP 3-CDBG 4-FMA 5-HMGP 6-PA 7-SRLP

Status: C-Completed D-Deferred N-New T-Terminated U-Updated IP-In Progress

Priority	Number	Jurisdiction	Responsible Organization	Hazard	Activities Category	Project Description	Funding Source	Date	Estimated Completion	Status
	VOL-0077	Deltona	The City of Deltona Public Works	Flood	S	Pump systems should either be enlarged or an emergency pump system set up		8/1/1999		C
	VOL-0078	Deltona	The City of Deltona Public Works	Flood	S	Pump systems should either be enlarged or an emergency pump system		8/1/1999		C
	VOL-0079	Deltona	The City of Deltona Public Works	Flood	S	Pump systems should either be enlarged or an emergency pump system		8/1/1999		C
	VOL-0080	Deltona	The City of Deltona Public Works	Flood	S	Pump systems should either be enlarged or an emergency pump system set up		8/1/1999		C
	VOL-0081	Deltona	The City of Deltona Public Works	Flood	S	Provide a pumping system from the drainage retention area (DRA)		8/1/1999		C
	VOL-0082	Deltona	The City of Deltona Public Works	Flood	S	Culvert improvements for drainage retention area		8/1/1999		C
	VOL-0083	Deltona	The City of Deltona Public Works	Flood	S	Big Ditch connection between Lake Mitnik and Lake Doyle		8/1/1999		C
	VOL-0084	Deltona	The City of Deltona Public Works	Flood	S	Outfall improvements for drainage retention area adjacent to Beechdale Drive		8/1/1999		C
M	VOL-0085	Deltona	The City of Deltona Public Works	Flood	S	Outfall improvements for Pioneer Lake	5	8/1/1999	<1 Year	IP
M	VOL-0086	Deltona	The City of Deltona Public Works	Flood	S	Outfall improvements for Castle Lake		8/1/1999		IP
	VOL-0087	Deltona	The City of Deltona Public Works	Flood	S	Outfall improvements for drainage retention area south of Elkcam Boulevard		8/1/1999		C
	VOL-0088	Deltona	The City of Deltona Public Works	Flood	S	Culvert improvements at Elkcam Boulevard		8/1/1999		C
	VOL-0089	Deltona	The City of Deltona Public Works	Flood	S	Culvert improvements at Humphrey BLVD		8/1/1999		C
	VOL-0091	Deltona	The City of Deltona Public Works	Flood	S	Culvert improvement at Braddock Road		8/1/1999		C
	VOL-0092	Deltona	The City of Deltona Public Works	Flood	S	Culvert improvement at Brickell Drive		8/1/1999		C
	VOL-0093	Deltona	The City of Deltona Public Works	Flood	S	Culvert improvement at Harbor Drive		8/1/1999		C
	VOL-0094	Deltona	The City of Deltona Public Works	Flood	S	Culvert improvements for Enterprise-Osteen Road		8/1/1999		C
	VOL-0095	Deltona	The City of Deltona Public Works	Flood	S	Culvert improvements for Doyle Road	5	1/7/2009	<1 year	C
	VOL-0212-	Deltona	City of Deltona Fire Rescue	Flood	S	Tulsa DR Stormwater retrofit		8/1/1999		C
M	VOL-0406	Deltona	The City of Deltona Public Works	Flood	S	Lake Lapanocia Pump Station	5	1/7/2009	<1 year	C
M	VOL-0407	Deltona	The City of Deltona Public Works	Flood	S	Piedmont Pump Station	5	1/7/2009	<1 year	C
M	VOL-0408	Deltona	The City of Deltona Public Works	Flood	S	Kingsway/Lehigh Culvert	5	1/7/2009	<1 year	C
M	VOL-0409	Deltona	The City of Deltona Public Works	Flood	S	Tivoli & Wheeling Pump	5	9/21/2005	<1 year	IP/C
	VOL-0047	Deltona	The City of Deltona Development	Flood	S	Storm Services protection for Development Services		8/1/1999		T
	VOL-0071	Edgewater	The City of Edgewater Fire Department	All	ES	Re-Activated-Purchase replacement generator for Police Department		8/1/1999		C
	VOL-197	Edgewater	The City of Edgewater Fire Department	All	ES	Purchase a generator and hardened enclosure @ Fire/Rescue Assn		11/18/2002		C
H	VOL-0424	Edgewater	The City of Edgewater	All	ES	Palm Drive	5	6/17/2009	<1 year	N
H	VOL-0428	Edgewater	The City of Edgewater	All	ES	Permanent emergency back up generator and gas line for IT Bldg				N
	VOL-0064	Edgewater	The City of Edgewater Fire Department	All	ES	Purchase three (3) laptop computers		8/1/1999		T
	VOL-0068	Edgewater	The City of Edgewater Fire Department	All	ES	Replace non-functional back-up paging system		8/1/1999		T
	VOL-0196	Edgewater	The City of Edgewater Fire Department	All	ES	Purchase a passenger van		11/18/2002		T
	VOL-0310	Edgewater	The City of Edgewater	All	ES	Storm harden emergency services structures	4,5,7	8/1/1999		T
	VOL-0332	Edgewater	The City of Edgewater Fire Department	All	ES	Harden and provide backup power to key emergency service structure		1/12/2005		T

in process of

Activities Category: S = Structural PP = Property Protection PE = Public Education P = Prevention ES = Emergency Services

Funding Source: 1-PDM 2-SHSP 3-CDBG 4-FMA 5-HMGP 6-PA 7-SRLP

Status: C-Completed D-Deferred N-New T-Terminated U-Updated IP-In Progress

Priority	Number	Jurisdiction	Responsible Organization	Hazard	Activities Category	Project Description	Funding Source	Date	Estimated Completion	Status
	VOL-0070	Edgewater	The City of Edgewater Fire Department	All	ES	Purchase emergency back-up generator for the YMCA	5	8/1/1999	<1 year	U
	VOL-0072	Edgewater	The City of Edgewater Fire Department	All	PE	Develop and implement a public education program		8/1/1999		T
	VOL-0317	Edgewater	The City of Edgewater Fire Department	Flood	PP	Completed- Acquisition of home in area of Wildwood Avenue, Edgewater		12/8/2004		C
	VOL-0333	Edgewater	The City of Edgewater Fire Department	Flood	PP	R-Completed-Acquire repetitive flood loss near W. Pine Bluff		1/12/2005		C
M	VOL-0421	Edgewater	The City of Edgewater	Flood	PP	Acquire repetitive flood loss home in area Sabal	5	6/17/2009	<1 year	N
M	VOL-0334	Edgewater	The City of Edgewater Fire Department	Flood	PP	R Acquire repetitive loss home in area of Cheeta Drive	4,5,7	1/12/2005		U
H	VOL-0426	Edgewater	The City of Edgewater	Flood	S	Retrofit lift station #5 & #1				N
	VOL-0001	Edgewater	The City of Edgewater	Flood	S	Install new "wet well mounted, non-clog" pump		8/1/1999		T
	VOL-0207R	Holly Hill	Holly Hill Public Safety	All	ES	Purchase ONE programmable message signs		12/18/2002		C
	VOL-0214	Holly Hill	Holly Hill Public Safety	All	ES	Purchase portable generators		12/18/2002		C
	VOL-0223	Holly Hill	Holly Hill Public Safety	All	ES	Construction of city EOC		10/13/2004		C
L	VOL-0183	Holly Hill	Holly Hill Public Safety	All	ES	Purchase a passenger van/trailer and traffic control equipment	2,5	12/18/2002	<1 year	U
	VOL-0222	Holly Hill	Holly Hill Public Safety	Flood	PP	Sunrise Park Seawall		10/13/2004		C
L	VOL-0357	Holly Hill	City of Holly Hill	Flood	PP	Cave Avenue Structure purchase	5	2/14/2005	<1 year	
	VOL-0098	Holly Hill	City of Holly Hill Public Works	Flood	S	Install new storm sewers and Department catch basin		8/1/1999		C
	VOL-0099	Holly Hill	City of Holly Hill Public Works	Flood	S	Storm sewers Department and inlets for three street		8/1/1999		C
L	VOL-0278	Holly Hill	City of Holly Hill	Flood	S	Trailer mounted emergency pumps	5		<1 year	
L	VOL-0279	Holly Hill	City of Holly Hill Public Works	Flood	S	State Avenue (6th - 8th St) Department Stormwater	5	1/12/2005	<1 year	
L	VOL-0280	Holly Hill	City of Holly Hill Public Works	Flood	S	Tuscaloosa Street drainage Department improvements	5	1/12/2005	<1 year	
L	VOL-0281	Holly Hill	City of Holly Hill Public Works	Flood	S	Eagle Drive and Peacock Rd Department Drainage Improvements	5	1/12/2005	<1 year	
L	VOL-0282	Holly Hill	City of Holly Hill Public Works	Flood	S	Espanola Ave Drainage Department Improvements	5	1/12/2005	<1 year	
	VOL-0331	Lake Helen	City of Lake Helen	All	PP	Install 6 new overhead doors & fencing around public works compound		1/11/2005		T
H	VOL-0051	Lake Helen	City of Lake Helen	All	PP	Renovate to harden the Police building	5	8/1/1999		
	VOL-0107	New Smyrna Beach	City of New Smyrna Beach Fire	All	ES	Install emergency Department generators at FireStations 52 and 54		8/1/1999		T
	VOL-0188	New Smyrna Beach	City of New Smyrna Beach Fire	All	ES	Equip new EOC Department		11/1/2002		T
	VOL-0189	New Smyrna Beach	City of New Smyrna Beach Fire	All	ES	Equip a mobile emergency Department response vehicle		11/1/2002		T
	VOL-0192	New Smyrna Beach	City of New Smyrna Beach Fire	All	ES	Establish a community Department emergency response team		11/1/2002		T
L	VOL-0103	New Smyrna Beach	City of New Smyrna Beach Fire	All	ES	Relocate and replace Fire Department Station #50	5	8/1/1999	<1 year	U
	VOL-0193	New Smyrna Beach	City of New Smyrna Beach Fire	All	ES	Purchase and enclose in a Department hardened enclosure four (4) generators (CHANGED TO (3) GENERATORS				U
	VOL-208	New Smyrna Beach	City of New Smyrna Beach	All	ES	Purchase and enclose in a Department hardened enclosure four (4) generators (CHANGED TO (3) GENERATORS				U
	VOL-0105	New Smyrna Beach	City of New Smyrna Beach Fire	All	PP	Replace & relocate NSB Department police headquarters with a hardened facility	NSB	8/1/2003	2009	C
	VOL-213R	New Smyrna Beach	City of New Smyrna Beach	Flood	PP	Relocate Fire Stations #52 Department	NSB	2/1/2003	2009	C
	VOL-239	New Smyrna Beach	Emergency Management	Flood	PP	Sunset DR Property Acquisition		9/29/2004		C

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Status: C-Completed D-Deferred N-New T-Terminated U-Updated IP-In Progress

Priority	Number	Jurisdiction	Responsible Organization	Hazard	Activities Category	Project Description	Funding Source	Date	Estimated Completion	Status
	VOL-0104	New Smyrna Beach	City of New Smyrna Beach Fire	Flood	PP	Relocate Fire Station #53 to Department a site further west	NSB	8/1/2003	2009	T
	VOL-238	New Smyrna Beach	Emergency Management	Flood	PP	Area of Cunningham DR Property Acquisition		9/29/2004		T
M	VOL-359	New Smyrna Beach	City of New Smyrna Beach	Flood	PP	Acquire property at Willard Street for drainage improvements		4/8/2005		t
M	VOL-386	New Smyrna Beach	City of New Smyrna Beach	Flood	PP	0386-Central Beachside Flood Mitigation Project Phase II	5	9/10/2007	<1 year	U
	VOL-360	New Smyrna Beach	City of New Smyrna Beach	Flood	PP	Acquire property near Glenwood Avenue		4/8/2005		
	VOL-0100	New Smyrna Beach	City of New Smyrna Beach	Flood	S	Relieve flooding at the Greenbriar Apartments on Roberts Road	NSB	8/1/1999	2006	C
	VOL-0101	New Smyrna Beach	City of New Smyrna Beach	Flood	S	Improvement to the West Canal basin	NSB	8/1/1999	2005	C
	VOL-240	New Smyrna Beach	Emergency Management	Flood	S	Country Club Chalet Flood Mitigation Project Utilities Commission		9/29/2004	2007	C
	VOL-0102	New Smyrna Beach	City of New Smyrna Beach	Flood	S	Mitigate periodic flooding in the Golf Course Canal drainage basin		8/1/1999		T
	VOL-237	New Smyrna Beach	Emergency Management	Flood	S	North Street Drainage Improvements -Islesboro		10/13/2004		T
M	VOL-0410	New Smyrna Beach	City of New Smyrna Beach	Flood	S	New Smyrna Beach Central Beachside Storm Water Management Project	5	1/7/2009	<1 year	U
H	VOL-0217	Oak Hill	City Hall	All	PP	Harden City Hall/Police	5	10/7/2004	<1 year	U
	VOL-0358	Orange City	City of Orange City	All	PP	Harden Public Works Facility				T
	VOL-0032	Orange City	City of Orange City	Flood	S	Correct flooding problem at City Hall Annex		8/1/1999		C
	VOL-0033	Orange City	City of Orange City	Flood	S	Construction of a stormwater pump station for Post Office Area				C
H	VOL-0398	Orange City	City of Orange City	Flood	S	Fawn Ridge Subdivision				
H	VOL-0399	Orange City	City of Orange City	Flood	S	Treemont Drainage Project				
H	VOL-0194	Ormond Beach	City of Ormond Beach	All	ES	Purchase 30 emergency radios for use during emergencies	2,5	11/18/2002	2004	C
	VOL-0299	Ormond Beach	City of Ormond Beach Fire	All	ES	Weather Station and generator Department Fire Station 92		12/7/2004	2006	C
	VOL-0373	Ormond Beach	City of Ormond Beach Fire	All	ES	Ormond Beach Fire Corps Department		2/22/2006	2006	C
	VOL-0375	Ormond Beach	City of Ormond Beach	All	PE	Public Notification Signs - Electronic Changeable Copy		2/22/2006	2009	C
M	VOL-0151	Ormond Beach	City of Ormond Beach	All	PP	Purchase hurricane shutters and generator power for the Performing Arts Center	5	12/1/2000	2008	C
	VOL-0352	Ormond Beach	City of Ormond Beach	Flood	PP	Fire Station #93 shutter. Status: Received a State EMPATF grant to do this; however, was unable to after review of flood plain maps; funds used at FS #94.		3/1/2000	2001	C
H	VOL-0400	Ormond Beach	City of Ormond Beach	Flood	PP	Elevate residence, Cumberland Ave area	4,5,7	10/7/2008	2011	C
	VOL-0329	Ormond Beach	City of Ormond Beach Public Works	Flood	PP	Melrose Avenue Seawall and Lisa Lake Dredging (No funding available)		1/11/2005	Not Scheduled	D
	VOL-0049	Ormond Beach	City of Ormond Beach Public Works	Flood	S	Drainage improvements to Ellinor Village-1,050 ft of 36" high density polyethylene installed		8/1/1999	2006	C
M	VOL-0050	Ormond Beach	City of Ormond Beach Public Works	Flood	S	Drainage improvements to areas of "Old Ormond" (mainland)- New baffle boxes/pollution control structures installed, dilapidated pipe removed, and new storm pipe installed.	5	8/1/1999		C
	VOL-0061	Ormond Beach	City of Ormond Beach Public Works	Flood	S	Drainage improvements to areas of "Old Ormond" (Barrier Island) - New baffle boxes/pollution control structures installed, dilapidated pipe remove, and new storm pipe installed.		8/1/1999	2002-2005	C
	VOL-0326	Ormond Beach	City of Ormond Beach	Flood	S	Peninsula Pump Station Improvements		1/11/2005	2006	C
	VOL-0327	Ormond Beach	City of Ormond Beach	Flood	S	Peninsula Pump Station Emergency Power generastor		1/11/2005	2006	C
M	VOL-0353	Ormond Beach	City of Ormond Beach Public Works	Flood	S	Hand Avenue/Lake Park Circle Flood Control Improvements. Construction began 2012.	5		<1 year	IP
M	VOL-0325R	Ormond Beach	City of Ormond Beach Public Works	Flood	S	Hand Ave/ Laurel Creek Pump Station Generator & Central Park Pond Interconnects	5	1/11/2005	<1 year	IP
M	VOL-328	Ormond Beach	City of Ormond Beach Public Works	Flood	S	Hand Avenue roadway & Drainage improvements	5	1/11/2005	<1 year	IP

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		Ormond Beach	City of Ormond Beach Public Works	Flood	S	Fleming Ave. Pump Station	5	12/12/2012	Not Scheduled	N
	VOL-0298	Ormond Beach	City of Ormond Beach	Flood	S	Thompson Creek Stormwater Improvement		12/7/2004		T
M	Vol-0387-	Ormond Beach	City of Ormond Beach Fire	Flood	S	Thompson Creek Stormwater Department Improvement- Construct a seawall from the existing seawall north of Cumberland Ave. and continue south to Putnam Ave.	5	9/10/2007	<1 year	
	VOL-0219	Pierson	Town of Pierson	All	ES	Establish an Emergency Operations Center in Community Center	5	10/13/2004	< 1 year	
	VOL-0218	Pierson	Town of Pierson	All	P	Secure water supply	2,5	10/13/2004	< 1 year	
	VOL-0221	Pierson	Town of Pierson	Flood	S	Establish stormwater management maintenance program	5	10/13/2004	< 1 year	
H	VOL-0173	Ponce Inlet	Ponce Inlet Fire Department	All	ES	Purchase the equipment necessary to equip a mobile command center	2,5	1/1/2002	<1 year	
	VOL-0209	Ponce Inlet	Town of Ponce Inlet Community	Flood	PP	Public Acquisition Effort Services		10/9/2003		C
H	VOL-0420	Ponce Inlet	Town of Ponce Inlet	Flood	S	Purchase 4" Pump for flood control	5	6/16/2009	<1 year	
	VOL-0187	Port Orange	City of Port Orange	All	ALL	Develop a Post-Disaster Redevelopment Plan		11/1/2002		C
	VOL-0015	Port Orange	City of Port Orange	All	ES	2002 Supply Fire Station #1 with emergency generator power		8/1/1999		C
	VOL-0156	Port Orange	City of Port Orange	All	ES	2005 Retrofit 33kw generator when a larger generator is obtained		10/1/2001		C
	VOL-0159	Port Orange	City of Port Orange	All	ES	2005 Generator for city hall		10/1/2001		C
	VOL-0161	Port Orange	City of Port Orange	All	ES	Install a generator at the Allen Green civic center		10/1/2001		C
	VOL-0163	Port Orange	City of Port Orange	All	ES	2003 Install a larger generator at FD #3		10/1/2001		C
	VOL-0171	Port Orange	City of Port Orange	All	ES	2003 Retrofit the Allen Green Civic Center to meet ARC 4496 shelter standards		10/1/2001		C
	VOL-0199	Port Orange	City of Port Orange	All	ES	Construct a 2,500 square foot emergency shelter		11/1/2002		C
	VOL-0296R	Port Orange	City of Port Orange	All	ES	Port Orange Performing Arts Pavilion - shelter		12/8/2004		C
M	VOL-0169R	Port Orange	City of Port Orange	All	ES	Retrofit the Port Orange Cypress Head golf course banquet area	5	10/1/2001	<1 year	N
	VOL-0137	Port Orange	City of Port Orange	All	ES	To purchase a city wide emergency notification system		12/1/2000		T
	VOL-0162	Port Orange	City of Port Orange	All	ES	Purchase 6 portable radios to be used at shelters		10/1/2001		T
	VOL-0348-	Port Orange	City of Port Orange	All	ES	Shelter retrofit of Port Orange Gym		2/14/2005		T
	VOL-0013	Port Orange	City of Port Orange	Flood	NRP	Water reuse program, expanding the reuse system		8/1/1999		C
	VOL-0014	Port Orange	City of Port Orange	All	P	Create a digital base map of the City		8/1/1999	2007	C
		Port Orange	City of Port Orange	Flood	P	Create a Ridgewood Corridor Master Stormwater Plan that can promote re-development in the Ridgewood Corridor	4			N
		Port Orange	City of Port Orange	Flood	P	Purchase Newton White Property and construct a regional stormwater pond to mitigate future impacts within the area	1			N
	VOL-0063	Port Orange	City of Port Orange	All	PP	2001 Replace Fire Station #1 located on Commonwealth Blvd		8/1/1999		C
	VOL-0383-	Port Orange	City of Port Orange	Flood	PP	Purchase six homes in the Cambridge Basin		7/18/2007	2008	C
	VOL-0383-	Port Orange	City of Port Orange Emergency Management	Flood	PP	Purchase 6 homes in the Cambridge Basin		7/18/2007	2008	C
M	VOL-0130	Port Orange	City of Port Orange	Flood	PP	Purchase Seabird Island; remove mobile homes, and convert the area into a park	5	12/1/2000		N
		Port Orange	City of Port Orange	Flood	PP	Install a pump station or other form of drainage relief for the Sweetwater Hills subdivision	4			N
H		Port Orange	City of Port Orange	Flood	PP	Replace and upsize the stormwater pump station in The Woods Subdivision	4			N
		Port Orange	City of Port Orange	Flood	PP	Construct a positive drainage outfall for the Southwinds Stormwater Pond Outfall	4			N

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Priority	Number	Jurisdiction	Responsible Organization	Hazard	Activities Category	Project Description	Funding Source	Date	Estimated Completion	Status
		Port Orange	City of Port Orange	Flood	PP	Retrofit the drainage system in the Sleepy Hollow subdivision to provide relief along Kristina Court	4			N
		Port Orange	City of Port Orange	Flood	S	Install canal bank hardening for the Cambridge Canal	1			U
		Port Orange	City of Port Orange	Flood	S	Purchase and Install a mechanical rake for Cambridge Pumo Station.	1			U
	VOL-0004	Port Orange	City of Port Orange	Flood	S	Provide flood protection to two main lift stations		8/1/1999		C
	VOL-0005	Port Orange	City of Port Orange	Flood	S	Provide flood protection for the pump rooms at the Garnsey Water Plant		8/1/1999		C
	VOL-0017	Port Orange	City of Port Orange	Flood	S	Increase emergency generator power at the sewer plant		8/1/1999		C
	VOL-0018	Port Orange	City of Port Orange	Flood	S	Flood Protection in the Cambridge Basin area of Port Orange		8/1/1999	2007	C
	VOL-0144	Port Orange	City of Port Orange	Flood	S	To build a lake to hold water from storm water runoff and excess reclaimed water		12/1/2000		C
	VOL-0225	Port Orange	City of Port Orange	Flood	S	Cambridge Basin North Flood Mitigation Project		10/13/2004		C
	VOL-0226	Port Orange	City of Port Orange	Flood	S	Cambridge Basin South Flood Mitigation Project		10/13/2004		C
	VOL-0227	Port Orange	City of Port Orange	Flood	S	Cambridge Basin Central Flood Mitigation Project		10/13/2004		C
	VOL-0230	Port Orange	City of Port Orange	Flood	S	R Spruce Creek RD South Drainage retrofit		10/13/2004		C
	VOL-0231	Port Orange	City of Port Orange	Flood	S	Wellfield Vulnerability Reduction		10/13/2004		C
	VOL-0232	Port Orange	City of Port Orange	Flood	S	Rainfall collection, weather monitoring system		10/13/2004		C
	VOL-0233	Port Orange	City of Port Orange	Flood	S	2005 Stormwater pipe lining 10/13		10/13/2004		C
	VOL-0234	Port Orange	City of Port Orange	Flood	S	B-19 Canal Drainage retrofit		10/13/2004		C
	VOL-0235	Port Orange	City of Port Orange	Flood	S	B-23 Phase II Canal drainage retrofit and flood attenuation project		10/13/2004		C
	VOL-0297	Port Orange	City of Port Orange	Flood	S	Mitigation of wooden boat dock & launch areas		1/12/2005		C
	VOL-0363	Port Orange	City of Port Orange	Flood	S	Cambridge Basin Design & Engineering		4/14/2005		C
H	VOL-0228	Port Orange	City of Port Orange	Flood	S	Taylor Woods and S. Williamson Drainage retrofit	5	10/13/2004	< 1 year	N
H	VOL-0229	Port Orange	City of Port Orange	Flood	S	Taylor RD Drainage retrofit	5	10/13/2004	< 1 year	N
		Port Orange	City of Port Orange	Flood	S	Replace and retrofit the City's stormwater outfalls into the Halifax River	1			N
		Port Orange	City of Port Orange	Flood	S	Construct a piped drainage system for the B-23 Canal	1			N
	VOL-0180	Port Orange	City of Port Orange	Surge	S	Shoreline protection along the Halifax River IVO the Chamber of Commerce Building		8/1/2002		C
	VOL-0236	Port Orange	City of Port Orange	Surge	S	Seawall and embankment restoration		10/13/2004		C
H	Vol-0389	South Daytona	City of South Daytona	All	PP	South Daytona EOC/Public Works Facility	5	1/10/2007	<1 year	
	VOL-0210	South Daytona	City of South Daytona	Flood	S	Country Club Manor Subdivision		11/6/2003		C
	VOL-0246	South Daytona	City of South Daytona	Flood	S	Reed Canal Reconstruction Design		10/13/2004		C
	VOL-0244	South Daytona	City of South Daytona	Flood	S	Golfview Subdivision Retrofit- PHASE V STORMWATER		10/13/2004		T
	VOL-0245	South Daytona	City of South Daytona	Flood	S	Lantern park retrofit - PHASE V STORMWATER		10/13/2004		T
	VOL-0247	South Daytona	City of South Daytona	Flood	S	Western RD Stormwater Improvements		10/13/2004		T
	VOL-0248	South Daytona	City of South Daytona	Flood	S	Greenbriar Subdivision Retrofit		10/13/2004		T
	VOL-0378	South Daytona	City of South Daytona	Flood	S	Stevens Canal Outflow Pond		9/13/2006		T

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	Vol-0395	South Daytona	City of South Daytona	Flood	S	Reed Canal Basin Stormwater Treatment Facility		9/10/2007		T
	VOL-0254	Volusia County (Unincorporated)	Public Works	All	All	GPS Units		10/13/2004		C
	VOL-0109	Volusia County (Unincorporated)	Volusia County Fire Services	All	All	Hire a contractor GIS specialist		8/1/1999		T
	VOL-0111	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Appropriate the funds to train 100 Volusia County citizens		8/1/1999		C
	VOL-0114	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Replace existing Fire Station 14		8/1/1999	2007	C
	VOL-0155	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Purchase brushcutter and atvs		12/1/2000	2004	C
	VOL-0172	Volusia County (Unincorporated)	Volusia County Sheriff's Dept	All	ES	Purchase a mobile EOC		1/1/2002		C
	VOL-0186	Volusia County (Unincorporated)	Volusia County Sheriff's Dept	All	ES	Purchase a weapons of mass destruction bomb disposal unit		11/7/2002		C
	VOL-0273	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Satellite Communications Phones		10/13/2004	2006	C
	VOL-0353	Volusia County (Unincorporated)	Halifax Medical Center - Daytona	All	ES	Emergency Domestic Water		2/14/2005		C
	VOL-0354	Volusia County (Unincorporated)	Halifax Medical Center - Daytona	All	ES	Oxygen Storage Protection		2/14/2005		C
	VOL-0355	Volusia County (Unincorporated)	Halifax Medical Center - Daytona	All	ES	Add Patient Room Air Conditioning to Emergency Power		2/14/2005		C
	VOL-0112	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Purchase four (4) mass casualty trailers with generators, lighting, tarps, back		8/1/1999		T
	VOL-0289	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Replace Fire Station 33 in Debary		12/8/2004	< 1 YEAR	T
M	VOL-0204	Volusia County (Unincorporated)	Volusia County Emergency Management	All	ES	Integrate and expand the existing CERT programs	2,5	11/1/2002	<1 YEAR	U
M	VOL-0256	Volusia County (Unincorporated)	Public Works	All	ES	Mosquito Control Helicopter Hangar	5	10/13/2004	< 1 year	U
	VOL-0029	Volusia County (Unincorporated)	Volusia County Health Department - DeLand Clinic	All	ES	Provide emergency generatorpower at Environmental Health Lab	5	8/1/1999	< 1 YEAR	
	VOL-0030	Volusia County (Unincorporated)	Volusia County Health Department - Daytona Clinic	All	ES	To provide emergency power to operate the medical clinics	5	8/1/1999	< 1 YEAR	
	VOL-0031	Volusia County (Unincorporated)	Volusia County Health Department	All	ES	To provide emergency power to operate the the medical clinic	2,5	8/1/1999	< 1 YEAR	
H	VOL-0115	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Replace existing Fire Station 23	2,5	8/1/1999	< 1 year	
	VOL-0132	Volusia County (Unincorporated)	Volusia County Private Agencies	All	ES	Fund CERV program	5		< 1 YEAR	
H	VOL-0153	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Construct a structural collapse training facility	2,5	12/1/2000	< 1 year	
H	VOL-0154	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Purchase specialized rescue equipment	2,5	12/1/2000	< 1 year	
	VOL-0175	Volusia County (Unincorporated)	Volusia County Health Department	All	ES	Install a backup generator at the new Health Department building	5	1/1/2002	< 1 YEAR	
M	VOL-0198	Volusia County (Unincorporated)	Volusia County Sheriff's Dept	All	ES	Updated 09/10/08 Construct a hardened, centralized evidence storage facility	5	11/1/2002	< 1 YEAR	
	VOL-0249	Volusia County (Unincorporated)	Volusia County Health Department - Daytona Clinic	All	ES	Emergency Communications	2,5	10/13/2004	< 1 YEAR	
	VOL-0250	Volusia County (Unincorporated)	Volusia County Health Department - Daytona Clinic	All	ES	Emergency Backup Power	5	10/13/2004	< 1 YEAR	
	VOL-0251	Volusia County (Unincorporated)	Volusia County Health Department - Daytona Clinic	All	ES	Emergency Prime Mover Vehicle	5	10/13/2004	< 1 YEAR	
	VOL-0253	Volusia County (Unincorporated)	Volusia County Health Department - Env Health Lab	All	ES	Emergency Response	2,5	10/13/2004	< 1 YEAR	
H	VOL-0270	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Emergency Power for 4 County Fire Stations	5	10/13/2004	< 1 year	
H	VOL-0271	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Training Facility Improvements	2,5	10/13/2004	< 1 year	
H	VOL-0274	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Weather Stations for 22 Fire Stations	2,5	10/13/2004	< 1 YEAR	
H	VOL-0290	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Replace Fire Station 43 in Seville	5	12/8/2004	< 1 YEAR	

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Priority	Number	Jurisdiction	Responsible Organization	Hazard	Activities Category	Project Description	Funding Source	Date	Estimated Completion	Status
H	VOL-0291	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Replace Fire Station 13 in Ormond Beach	5	12/8/2004	< 1 YEAR	
H	VOL-0292	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Replace Fire Station 15 in Daytona Beach	5	12/8/2004	< 1 YEAR	
H	VOL-0293	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Replace Fire Station 41 in DeLeon Springs	5	12/8/2004	< 1 YEAR	
H	VOL-0294	Volusia County (Unincorporated)	Volusia County Fire Services	All	ES	Replace Fire Station 32 in DeLand	5	12/8/2004	< 1 YEAR	
	VOL-0265	Volusia County (Unincorporated)	Environmental Management	Flood	NEP	Habitat Stabilization/Revegetation Project	5	10/13/2004	<1 year	
M	VOL-0024	Volusia County (Unincorporated)	Volusia County Emergency Management	All	P	Identify and hire an individual to support the efforts of Volusia 2020		8/1/1999		C
M	VOL-0025	Volusia County (Unincorporated)	Volusia County Emergency Management	All	P	Develop a Recovery and Redevelopment Plan template		8/1/1999		C
M	VOL-0060	Volusia County (Unincorporated)	Volusia County Emergency Management	All	P	Increase size of back-up emergency generator to 59 Keyton		8/1/1999	2002	C
M	VOL-0023	Volusia County (Unincorporated)	Volusia County Emergency Management	All	P	Develop and implement a Community Emergency Management Academy	2,5	8/1/1999	<1 year	D
M	VOL-0366	Volusia County (Unincorporated)	Volusia County Emergency Management	All	PE	Understanding Volusia County's demographics to anticipate behavior & mitigate hazards	2,5	9/12/2005	<1 year	D
M	VOL-0367	Volusia County (Unincorporated)	Volusia County Emergency Management	All	PE	Volusia Prepares Business	2,5	9/20/2005	<1 year	U
M	VOL-0368	Volusia County (Unincorporated)	Volusia County Emergency Management	All	PE	Condominium mitigation video	5	9/20/2005	<1 year	U
	VOL-0252	Volusia County (Unincorporated)	Volusia County Health Department	All	PE	VCHD Public Information Disaster Initiative	2,5	10/13/2004	< 1 YEAR	
	VOL-0323	Volusia County (Unincorporated)	Public Works	All	PE	Overhead School Zone Signs			<1 year	
	VOL-0302	Volusia County (Unincorporated)	Public Works	All	PP	Onsite generator for Pine Island Water Treatment Plant				C
	VOL-0304	Volusia County (Unincorporated)	Public Works	All	PP	Onsite generator for LIFT STATION SW-60 (Orange City Regional)				C
	VOL-0305	Volusia County (Unincorporated)	Public Works	All	PP	Onsite generator for LIFT STATION SW-56 (Riviera Bella Lift Station)				C
	VOL-0307	Volusia County (Unincorporated)	Public Works	All	PP	Onsite generator for Lift Station SW-33 (Glen Abbey North)				C
	VOL-0309	Volusia County (Unincorporated)	Public Works	All	PP	Onsite generator for Lift Station SW-23 (Debary Elementary Lift Station)				C
	VOL-0322	Volusia County (Unincorporated)	Public Works	All	PP	Generators to harden the Mosquito Control facilities				C
M	VOL-0396	Volusia County (Unincorporated)	Volusia County Emergency Management	All	PP	Warning and Alert System		1/16/2008	2008	C
M	VOL-0397	Volusia County (Unincorporated)	Volusia County Emergency Management	All	PP	Purchase NOAA weather radios for distribution to mobile/manufactured home owners		1/16/2008	2008	C
	VOL-0301	Volusia County (Unincorporated)	Public Works	All	PP	Onsite generator for Medowlea on River water treatment plant				T
	VOL-0303	Volusia County (Unincorporated)	Public Works	All	PP	Onsite generator for Deltona N. Treatment Plant, Well #4				T
	VOL-0306	Volusia County (Unincorporated)	Public Works	All	PP	Onsite generator for LIFT STATION SW-31 (Pine Valley Ct. Lift Station)				T
	VOL-0308	Volusia County (Unincorporated)	Public Works	All	PP	Onsite generator for Lift Station SW-5 (Eustace Lift Station)				T
M	VOL-0255	Volusia County (Unincorporated)	Public Works	All	PP	Volusia County Public Works Eastside Service Center	5	10/13/2004	< 1 year	U
	VOL-0026	Volusia County (Unincorporated)	Volusia County Private Agencies	All	PP	Develop a countywide contractor licensing program	5		< 1 YEAR	
	VOL-0045	Volusia County (Unincorporated)	Volusia County Private Agencies	All	PP	Protect United Way Headquarters with generator & window protection	5		< 1 YEAR	
M	VOL-0177	Volusia County (Unincorporated)	Volusia County Private Citizen	Flood	PP	Replace the repetitive loss structure in Shockney Drive area		1/1/2002		C
M	VOL-0178	Volusia County (Unincorporated)	Volusia County Private Citizen	Flood	PP	Replace the repetitive loss structure in Shockney Drive area		1/1/2002		C
M	VOL-0203	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Increase the design storm year event from 25 years to 100 years		3/1/2002	2006	C
M	VOL-0206	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Shockney DR Mitigation		1/29/2004	2005	C

Activities Category: S = Structural PP = Property Protection PE = Public Education P = Prevention ES = Emergency Services

Funding Source: 1-PDM 2-SHSP 3-CDBG 4-FMA 5-HMGP 6-PA 7-SRLP

Status: C-Completed D-Deferred N-New T-Terminated U-Updated IP-In Progress

Priority	Number	Jurisdiction	Responsible Organization	Hazard	Activities Category	Project Description	Funding Source	Date	Estimated Completion	Status
M	VOL-0258	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Palm AV Mitigation		10/13/2004	2005	C
M	VOL-0318	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Demo/Rebuild repetitive loss home near Cherokee Dr Ormond Beach		2/14/2005	2006	C
M	VOL-0319	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	LIDAR Mapping of Volusia County		12/7/2004	2006	C
M	VOL-0339	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Acquire repetitive flood property near Westchester, DeLand		1/12/2004	2005	C
M	VOL-0381	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	elevate property near Shockney Drive 3 feet above the base flood elevation		4/1/2005	2006	C
M	VOL-337	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Acquire/demolish property near Blue Lake Avenue DeLand		1/12/2005	2006	C
M	VOL-0201	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Increase the base flood elevation requirement	5	11/1/2002	<1 YEAR	D
M	VOL-0261	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Stone Island Estates RD Elevation Project		10/13/2004		T
M	VOL-0262	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Ranchette RD Elevation		10/13/2004		T
M	VOL-0338	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Acquire repetitive loss property near Cherokee Drive, Ormond Beach		1/12/2004		T
M	VOL-0259	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Shockney DR Mitigation		10/13/2004	<1 year	U
M	VOL-0267	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Stone Island Flood Mitigation Project	4,5,7	10/13/2004	<1 YEAR	U
M	VOL-0268	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Tomoka Estates Flood Mitigation Project	4,5,7	10/13/2004	<1 YEAR	U
M	VOL-0269	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Repetitive Loss Property Mitigation	4,5,7	10/13/2004	<1 YEAR	U
M	VOL-0320	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	DEMO/REBUILD REPETITIVE LOSS HOME near SPRING GARDEN DRIVE ASTOR	4,5,7	12/7/2004	<1 year	U
M	VOL-0321	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Elevate & retrofit rep loss property near Stone Trail, Enterprise	4,5,7	2/14/2005	<1 year	U
M	VOL-0380	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Shockney DR Mitigation	4,5,7	10/13/2004	<1 year	U
M	VOL-0382	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Demo/Rebuild property near Shockney Drive due to repetitive flood losses	4,5,7	4/14/2005	<1 year	U
M	VOL-336	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	PP	Demo/rebuild repetitive loss property near Shockney Drive	4,5,7	1/12/2005	<1 year	U
	VOL-0266	Volusia County (Unincorporated)	Environmental Management	Surge	PP	Shoreline Erosion Control and Restoration Project	5	10/13/2004	<1 year	
M	VOL-0027	Volusia County (Unincorporated)	VOL 20 20 MP Subcommittee	All	PP/PE/P/S	LMS Steering Committee support a home mitigation education & incentive program		6/1/1999	<1 year	U
M	VOL-0090	Volusia County (Unincorporated)	Volusia County	Flood	S	Culvert improvements at Enterprise-Osteen Road		8/1/1999		C
M	VOL-0300	Volusia County (Unincorporated)	Public Works	All	S	Onsite generator for New Hope Villas of Seville wastewater treatment	5		< 1 year	U
	VOL-0108	Volusia County (Unincorporated)	Water and Utility Services	Flood	S	The creation of additional flood storage capacity and additional outfall capacity		8/1/1999		C
H	VOL-0180	Volusia County (Unincorporated)	Volusia County Emergency Management	Flood	S	Conduct a causeway/bridge vulnerability assessment	5	8/1/2002	<1 YEAR	D
H	VOL-0405	Volusia County (Unincorporated)	Florida Hospital Fish Memorial	Flood	S	Florida Hospital Fish Memorial Orange City Retention Pond Project	5	1/7/2009	<1 year	N
M	VOL-0181	Volusia County (Unincorporated)	Volusia County Private Agencies	Flood	S	Infrastructure placement in Tomoka Estates Subdivision	2,5	5/21/2004	< 1 YEAR	U
	VOL-0035	Volusia County (Unincorporated)	Volusia County Road and Bridge	Flood	S	Replace Orange Avenue Bridge with Fixed High Level Bridge	5	8/1/1999	<1YEAR	
	VOL-0038	Volusia County (Unincorporated)	Volusia County Road and Bridge	Flood	S	Replace Bridge #794010 (Taylor Road over B-19)	5	8/1/1999	< 1 YEAR	

## **APPENDIX H**

### **PUBLIC COMMENT ON DRAFT PLAN SURVEY**

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## Notice of Meeting/Workshop Hearing

### REGIONAL PLANNING COUNCILS East Central Florida Regional Planning Council

The Volusia County Department of Emergency Management announces a public meeting to which all persons are invited.

DATE AND TIME: April 8, 2013, 1:00 p.m.

PLACE: Daytona Beach City Island Library Auditorium, 105 East Magnolia Avenue, Daytona Beach, FL

GENERAL SUBJECT MATTER TO BE CONSIDERED: Volusia County Department of Emergency Management and its municipalities are soliciting public input and comment for the final draft Floodplain Management Plan. The public comment period will occur from April 3, 2013 through April 12, 2013. An open public meeting will also be held on April 8, 2013.

The draft Floodplain Management Plan will be available on April 3, 2013 at [www.ecfrpc.org](http://www.ecfrpc.org). To submit written comments by email, please send to Tara McCue at [tara@ecfrpc.org](mailto:tara@ecfrpc.org).

A copy of the agenda may be obtained by contacting: Tara McCue at (407)262-7772 or [tara@ecfrpc.org](mailto:tara@ecfrpc.org).

**1. Has the process of updating the Volusia County Floodplain Management Plan provided you with more knowledge of the purpose of the plan?**

- Yes
- No
- Unsure

Comments

**2. Please rank your satisfaction of the public outreach conducted as part of the planning process for the plan update.**

- Completely Dissatisfied
- Dissatisfied
- No opinion
- Satisfied
- Completely Satisfied

Comments

**3. Please use the following space to provide feedback on the DRAFT Volusia County Floodplain Management Plan.**

**4. (Continue comments from above)**

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**1. Has the process of updating the Volusia County Floodplain Management Plan provided you with more knowledge of the purpose of the plan?**

		Response Percent	Response Count
Yes		0.0%	0
No		50.0%	1
Unsure		50.0%	1
Comments			2
answered question			2
skipped question			0

**2. Please rank your satisfaction of the public outreach conducted as part of the planning process for the plan update.**

		Response Percent	Response Count
Completely Dissatisfied		0.0%	0
Dissatisfied		50.0%	1
No opinion		50.0%	1
Satisfied		0.0%	0
Completely Satisfied		0.0%	0
Comments			2
answered question			2
skipped question			0

**3. Please use the following space to provide feedback on the DRAFT Volusia County Floodplain Management Plan.**

	<b>Response Count</b>
	2
<b>answered question</b>	<b>2</b>
<b>skipped question</b>	<b>0</b>

**4. (Continue comments from above)**

	<b>Response Count</b>
	1
<b>answered question</b>	<b>1</b>
<b>skipped question</b>	<b>1</b>

**Q1. Has the process of updating the Volusia County Floodplain Management Plan provided you with more knowledge of the purpose of the plan?**

- |   |  |                     |
|---|--|---------------------|
| 1 | There needs to be a more direct dialog with the public who will be affected by this. | Apr 7, 2013 3:54 AM |
| 2 | The link provided get you no where so no information available                       | Apr 3, 2013 3:06 PM |

**Q2. Please rank your satisfaction of the public outreach conducted as part of the planning process for the plan update.**

- |   |  |                     |
|---|--|---------------------|
| 1 | There is very little awareness on the part of public. Meetings were announced only a few days ahead. I can not get off work to go. Others do not seem to be aware of the implications (insurance rates). I have tried contacting my County Council representative and have received no response. | Apr 7, 2013 3:54 AM |
| 2 | The link provided get you no where so no information available   | Apr 3, 2013 3:06 PM |

**Q3. Please use the following space to provide feedback on the DRAFT Volusia County Floodplain Management Plan.**

- |   |  |                     |
|---|--|---------------------|
| 1 | I understand the need to update the map. I do not know how homeowners are expected to afford the upcoming astronomical increase in flood insurance premiums. It is hard to get feedback on what to expect. I think a lot of the public will be stunned. I have talked to Volusia County about my property and know that I have limited options. I had hoped to pay off my mortgage and retire in a few years, but with several thousand dollars per year, every year, in additional flood premiums.... I can not afford to do that. The added expense also makes my house much less attractive (and less valuable) to sell. The increased flood rates put me in a difficult position, as it will put many other Florida homeowners. THIS is the issue which needs to be addressed, in my opinion. I would appreciate it if it were addressed in an open, direct, understandable manner. I would appreciate it if someone would contact me regarding my property, so I can know whether I am wrong in my assumptions, or I am correct and I am empowered with the knowledge of what to expect in the future. My name is Jeanne Buckley. My property address is 232 Chippewa Circle, Ormond Beach. My phone # is (386) 677-0732. If you publish this survey, I hope you will keep my private information unpublished. Thank you. | Apr 7, 2013 3:54 AM |
| 2 | The link provided get you no where so no information available   | Apr 3, 2013 3:06 PM |

**Q4. (Continue comments from above)**

- |   |  |                     |
|---|--|---------------------|
| 1 | The link provided get you no where so no information available | Apr 3, 2013 3:06 PM |
|---|--|---------------------|

**From:** Steve Gunter <sgunter1@cfl.rr.com>  
**Sent:** Thursday, April 04, 2013 11:00 AM  
**To:** Tara McCue  
**Cc:** FEMA Map Specialist; Steve  
**Subject:** Re: Public Comment of DRAFT Floodplain Management Plan  
**Attachments:** Water deflecting Glenco and area.png; Eco-systems Buried.png; No small amount of fill dirt liquor store.JPG; Backflowing into our neighborhood.png; Home Depot Non retention01.png

Tara,

Models are unreliable

"[Models] are full of fudge factors that are fitted to the existing climate, so the models more or less agree with the observed data".

**Knee Jerk to the Environmental Engineering; Dig deeper and Wider ditches, to Move the Storm water from the New Developments, to the lower revenue generating parts of the County! This all in the name of State / County / City just collecting "Impact Fees, Mitigation Fees for filling environmentally sensitive Florida unique habitat, to gain the increase in a higher Tax Rate against the New development VS the Old Homesteaded percentage point"!**

**Just because someone has the financial resources to bring in dirt from outside, raise elevations based on a computer model in a vaccum, and then pave over the entire area, surely, does not make it legitimate.**

Is there an opportunity to show you just a few pictures of "Real Time Development", that demonstrates >there is NOTHING NATURAL about the FLOODING!

I have far more "different examples", but I will not burden you with them in this email, but it is enough to document "my continued communications to many different entities that act as though they are here to help. I personally have not witnessed it over the last few decades of these exercises you are now deploying once again.

I am, and have been *witnessing the development of another New Orleans "Repeat" here in Volusia County*. Older development overwhelmed by New Development signed off on by Government decision makers who are paid to protect "all tax payers". Deltona's reckless development and Flooding was purely, Orlando sprawl moving East with money first, poor planning and execution to follow. East Volusia is just a repeat pattern at a different pace.

I have lived here since the 60's, and have witnessed this "Increase in Flooding", that has been associated "Directly", to the UN-natural hauling in of Millions of Tons of UN-natural "Fill" from out of the area and dumped in my area, in the name of Free Enterprise associated with Capitalism i.e. >to boost the economy!

I am all for Capitalism, and a persons free-will to do what they want with "what is theirs, that they own it"! I sure am not going to let others dictate what I can and can not do on my "personal homestead"! Except, for one serious issue when we all are sharing the same planet!

I surely do not believe if a Person, or Company has the Funds to totally change the Environment / biological make up of the property to become destructive in an unsustainable form, and elevations of their

property are changed so drastically, to the point of >totally changing the speed and direction of Stormwater, to the point of "Destroying My Property"! I find that as an "attack on my castle", and any and all efforts to repel such an attack is ethically, and morally justified. I do not have the connections, or the financial resources to go to court a fight for the protection of my homestead, but there are many creative, although destructive to everyone concerned including myself, to go head to head with the attack on my Homestead. No one can actually believe a person is suppose to just take it, and be attacked and not respond!

These Management Plans become more and more the single issue by you and a bunch of Political Partners, to just look at the "Financial Loss / Exposure of those potential losses", to the County / State. (?) My decades of building my Homestead for me and my family, and which I plan to retire on my sustainable homestead, is in the cross-hairs of "Planned Obsolesce" by what I am reading, and witnessing.

My large trees, and my efforts in building my property "by only about a half-inch of good tilth soil a year", will all be lost, and No amount of money based on your "Property worth assessments", could begin to recover my losses. Big Money just hauling in huge volumes of Fill into the area is completely destructive, period!

Realize, my Homestead property has been "paying Taxes, and this Government *has been collecting those taxes, for more than 50 years;* and to think we are now "Planned Obsolescence" in the Big Picture of these (Management Plans?).

I have "witnessed" the "Planned Management", of the D.O.T., the County, the City, "all pushing the Stormwater into the >same target zone< i.e.. into My Back yard!

They come into my neighborhood, and only "due to Development happening close by", which has now put my property into a HOLE. It is no longer an even playing field, when the Tropical Storms push through. I'm not talking about some summer rain, where flooding is not an issue. But, we have been receiving Tropical storms and Hurricanes for thousands of years, and Government Official, "Choose to ignore the amount of Development you can place in such a Florida Habitat with the conditions so obvious"!

The County will come through with a quarter of a million dollars in equipment and human resources, to do what? Dig a hole/ditch, down in a HOLE(?)

Yet, during "Any Tropical Event", Nothing, comes close to leaving my neighborhood. I have screamed and yelled, and it only repeats. You are now just one more deaf ear! "WE NOW RECEIVE THE STORMWATER FROM ALL NEW DEVELOPMENT THAT THE GOVERNMENT COLLECTED MONEY FOR (Tree Mitigation, Fill Mitigation, Wetland Mitigation) ALLOWING SUCH DEVELOPMENT TO MOVE FORWARD." Can I yell any louder?

Tara, you and your associates; don't even begin to call it a Natural Disaster, when my homestead goes underwater. I have folders full of "communications and pictures", pointing out the flawed engineering taking place in a vacuum!

Tara, sorry, if this sound "negative", but you must realize, I am "witnessing" for years now, "deaf ears", and this "horse n' donkey show concerning Public Input", is just a formality, to move forward with "*Business as usual*."

As I write, >Just on the Northside of Hwy. 44, from the liqueur Store elevations **raised four feet** in the last six months, with the lot next to it "Available For Development", (where do you think that elevation will end up? Surely not "lower" than the lot next door!), We all know what happens when that is the case!

But, Tara, just "Across the street, the Elevation is being **raised by FOUR FEET**, except it is a **TEN ACRE PROJECT**, which will be all roof-top, Concrete and Asphalt! All signed off-on, by Government Decision makers. This is abutting the Stormwater you see in one of the above picture dumping millions of gallons, heading East to "My Property" at the Home Depot. So, where do you think that water is going once it runs into the >Dike<, of "Another four foot elevation change, but ten acres?"

I can't believe, you, and your engineers are that stupid; this is corruption, or "Group Think" at its most obvious. What? No one wants to be the "outsider", and say, hey, we have some serious problems with this engineering, even though I realize the "Money", is really, really, looking good!"

Tara, Big disaster are never from one bad decision, they develop over a "series of bad decisions". So, how can what should appear to be a >room full of smart people<, continue, and repeatedly, keep making back to back Bad Decisions?

Mow down ten acres of natural upland hammock, and raise the elevation by four feet, and pave the entire area with concrete and asphalt, >Right in the middle of these sensitive Flood Areas, with all their Ecologically sensitive tributaries that are against the East coast Estuary!

Should there not be buffer zones. This thought process is so stupid, that the only analogy I can share with you is: "I give the government official collecting mitigation fees, and taxes a few million dollars, so I can pour concrete, build a building on a Sand Bar in the Indian River at low tide; purchase Flood insurance for big money, and wait for the Tide to come in!"

That example is no different than what is being signed off on NOW, except everyone likes to use the Term "Hundred Year Plan", but it is no different then building on a sand-bar at low tide. The Hundred year term just "Hides", what the term attempts to "Describe", which is giving "current decision makers the room to sign-off, on bad Development, but those individuals will not be responsible down the road, when the Tide comes in! Of course, "my property" will be the Stormwater pond for all this new development!

OK, I have obviously made my point; it will go nowhere, but I do want this communications to be there, so I can hold these writings up to the News camera's who come to film, when this all plays out as it surely will.

I hope your understanding in this challenge makes a difference, and I can only hope my observations are completely wrong. But decades of observation, only tells me, the "momentum is picking up, and I have seen more than one stormwater system be overwhelmed while other got washed totally away! Give my best to all the smart people who are executing this go nowhere exercise!

Steve

----- Original Message -----

**From:** [Tara McCue](#)

**To:** [Tara McCue](#)

**Sent:** Wednesday, April 03, 2013 11:59 AM

**Subject:** Public Comment of DRAFT Floodplain Management Plan

The Volusia County Division of Emergency Management and the East Central Florida Regional Planning Council are seeking input on the completed DRAFT Volusia County Floodplain Management Plan – 20

Public Comment is open from April 3 – April 12<sup>th</sup>.

Please access the plan at: [www.ecfrpc.org](http://www.ecfrpc.org)

To provide feedback, please use the following link:  
[http://www.surveymonkey.com/s/VCdraftFMP\\_PublicComment](http://www.surveymonkey.com/s/VCdraftFMP_PublicComment)

Or submit comments to Tara McCue at [tara@ecfrpc.org](mailto:tara@ecfrpc.org).

In addition, there will be a public meeting held on Monday, April 8<sup>th</sup> at 1pm at the Daytona Beach City Island Library Auditorium, 105 East Magnolia Avenue, Daytona Beach, FL.

If you have any questions, please feel free to contact Tara McCue at 407.262.7772 ext. 327

**Tara M. McCue, AICP**  
Planner III  
[tara@ecfrpc.org](mailto:tara@ecfrpc.org)



**East Central Florida Regional Planning Council**

309 Cranes Roost Blvd. Suite 2000

Altamonte Springs, FL 32701

407.262.7772 Ext. 327 (phone)

407.262.7788 (fax)

[www.ecfrpc.org](http://www.ecfrpc.org)

**From:** Robert Camp <rcamp@cfl.rr.com>  
**Sent:** Wednesday, April 03, 2013 6:04 PM  
**To:** Tara McCue  
**Subject:** My Review of the Floodplain Draft

Tara,

First and foremost thank you for making sure I am included in this e-mail list as I have a great interest in the outcome of all of this as I live on the Sica Hall canal and as an informed citizen I like to voice my opinion. Please do not take the comments personally, they are a reflection of years of frustration on this very subject. I placed my commentary in green to make it easier to differentiate between my comments and the excerpts I am quoting.

My first comment would be that I am sorry I cannot attend this upcoming meeting but they always seem to be scheduled for the hours that us working stiffs must be out generating the revenue that our elected officials so enjoy spending on surveys and consultants. My second comment/complaint would be to point the futility of all this discussion and planning when it invariably all of the citizen's concerns are voiced and then the rubber hits the road and we are told that the fixes are not "economically feasible".

I found several things that impact me directly and find it interesting that Figure 3 in the draft lists areas of concern (except below) but in the 19 years I have lived at 132 Peterson Court, Holly Hill there has NEVER been anyone out to do ANY work on the SICA HALL canal between Ridgewood Avenue and the Halifax River and moreover that many of our "critical Facilities" are in the floodplain area, all public works, police and fire services. (see below Table 6). Also that 46 % of Holly Hill Propoerties are liseded as in the floodplain (see Table 9). Wow, who would have imagined that ?

**Figure 3 depicts areas that have been identified by county stakeholders as areas prone to flood damage.**

**1. SICA HALL CANAL – Canal prone to flooding. 2. LPGA CANAL – Canal prone to flooding.**

**Table 6: Number of Critical Facilities located in Floodplain by Jurisdiction : Holly Hill 9**

**Table 9: Property Analysis of Parcels Located within the Volusia County Floodplain by Jurisdiction**

Holly Hill **46.24%**

and this point below only seems to accenuate the fact that there are people and/or entities that are aware of the problems in this area... (in italic)

**Note : Interesting point but seemingly unfulfilled along LPGA and Sica Hall Canals**

**8. 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 and estuaries as well as 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 and the jurisdictions recognize the importance wetlands and floodplains of surface water bodies play in protecting uplands. 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.*

I knew I would find this phrase in here "where financially feasible". The plan sounds good but action is far better, implementation... objective 2.5 is easy, you already have a constituency that desires to see the plan's recommendations implemented. They are the 46% in Holly Hill that have their homes and businesses in the floodplain as well as the many others in this county that face a flooding dilemma.

## Section VI : Setting Goals

Objective 1.5 Reduce flood exposure and maximize flood protection efforts.

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.

"Continue with the Hazard Mitigation Grant program" ?? There should be a forum whereby the citizens are informed that grants may be available to assist in flood mitigation. I spent a sizable sum raising my property' elevation and had NO IDEA that such programs exist !

**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 cost-beneficial residential units for various flood mitigation grants.**

**Objective 3.2 Utilize "Volusia Prepares" Local Mitigation Strategy to guide and assist the County and municipalities in establishing priorities for hazard mitigation projects.**

Having a hard time trying to build public and political support for projects that prevent new problems, reduce losses (see Objective 5.2)... I find this extremely hard to swallow that there needs to be a drive to build support to reduce floodplain hazards to property and life. Again I say it sounds good and looks good on paper but where should we expect this drive to build support to come from ? After the rain event of 2009 I would think this would be easier done than said.

**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 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.**

**\*\* Mitigation specifically involves the managing and controlling of flood movement in an effort to prevent and control flooding. Flood mitigation is any action taken to reduce risk to people or property from flooding and its effects.**

These below all seem to point to the fact that what needs to be done has already been determined but where is the ACTION ?

Section VII

C

**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 Watershed management Riparian buffers Erosion and sediment control Wetland preservation and restoration**

Section E , Comment the same as my last comment (ACTION) . Knowledge is power and the knowledge of what needs to be done has already been defined. STOP THE STUDIES AND ADDRESS SPECIFIC CONCERNS.

E

**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:

Reservoirs Channel modifications Levees/floodwalls/seawalls Beach nourishment Diversions Storm sewers

### Mitigation Plan- Where can this be viewed ? Again with the Sica hall and LPGA Canals in mind.

The Volusia County Multi-Jurisdictional Local Mitigation Strategy features a mitigation action plan that is maintained through the LMS Working Group as well as the FMP 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 Mitigation Action Plan can be found in Appendix #.

### Holly Hill-

**If it is shown in Table 3 at the beginning that the Sica Hall and LPGA Canals are "prone to flood", why is there nothing in the mitigation plans about the Sica Hall and LPGA Canals ? Also there is nothing with reference to Holly Hill repairng the extensive damage to the city-owned retaining wall at City Hall along the canal. Nothing with respect to future dredging or canal management through deepening the canal or construction or placement of some form of flow restrictors along the canal. Cannot drain so much of Holly Hill into the Halifax without some form of canal flow management.**

### GOALS AND OBJECTIVES: HOLLY HILL

**GOAL – 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. Poppy cock, sounds good, no action !**

Objective: Minimize unnecessary disruption of commerce, access and public service during times of flooding. Ridgewood Avenue floods during the summer months with a good storm and has for 20 years that I have been a resident. 20 YEARS and no corrective, try that in the private sector and see how quick your "constituents" (for the private sector "customers") accept that type of responsiveness.

Objective: require the use of appropriate construction practices in order to prevent or minimize future flood damage

Objective: 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: 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. manage the alteration of flood hazard areas. Haven't seen any sign of "managing these Holly Hill canal flood areas and the city is known to be aware of them. Again no accountability for "public servants". In the private sector people would be fired.

Objective: Minimize damage to public and private facilities and utilities

Objective: Help maintain a stable tax base by providing for the sound use and development of flood hazard areas

Objective: Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events. First you have to address the problem before you can plan to minimize expenditures resulting from continued efforts or are city officials already "minimizing expenditures" by ignoring the issues outlined in the plan ?

Objective: Meet the requirements of the National Flood Insurance Program for community participation as set forth in the Title 44 Code of Federal

**FINAL NOTE : My biggest complaint is and always has been with "public servants" unwilling to step up and take responsibility and there seems to be no accountability. My comment in the survey was spot on and bears repeating ...**

**"I have no reason to be satisfied with any efforts as I have seen no efforts. When I have asked for information or assistance I have been told to contact the county, the county tells me to call St. Johns Water Management and St. Johns Water Management tells me to talk to the city. NO ONE WANTS TO TAKE RESPONSIBILITY FOR THE LPGA (Sica Hall) CANAL EAST OF US 1".**

**Sorry for what I am sure appears to be repetitive or harping but I really want to show that the problems are known and just not being addressed.**

**Thank you for your time and hopefully willingness to continue this discourse.**

**Robert R Camp**

**132 peterson Court**

**Holly Hill Florida 32117**

## **APPENDIX I**

### **RESOLUTIONS OF ADOPTION**

**RESOLUTION NO. 2013-13**

**A RESOLUTION OF THE CITY OF DAYTONA BEACH SHORES, VOLUSIA COUNTY, FLORIDA RELATING TO THE 2013 VOLUSIA COUNTY FLOODPLAIN MANAGEMENT PLAN; PROVIDING A SAVINGS PROVISION; PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY AND 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 health and safety of residents of Volusia County and its municipalities; and

**WHEREAS**, 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**, City of Daytona Beach Shores 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 National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

**WHEREAS**, the Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet CRS certain requirements; and

**WHEREAS**, in an effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents; and

**WHEREAS**, the adoption of the 2013 Volusia County Floodplain Management Plan, in alignment with the CRS Guidelines, and integration into the Local Mitigation Strategy supports this effort; and

**WHEREAS**, as adoption of the plan is a requirement of the Community Rating System; and

**WHEREAS**, the City of Daytona Beach Shores hereby considers the adoption of the 2013 Volusia County Floodplain Management Plan to be of the utmost importance to the citizens of Daytona Beach Shores.

**NOW, THEREFORE, BE IT RESOLVED THAT THE CITY COUNCIL OF THE CITY OF DAYTONA BEACH SHORES, FLORIDA, AS FOLLOWS:**

**SECTION ONE. ADOPTION.** The City Council of the City of Daytona Beach Shores hereby accepts and approves of its designated portion of the 2013 Volusia County Floodplain Management Plan. The City Council of the City of Daytona Beach Shores also hereby 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 strategy.

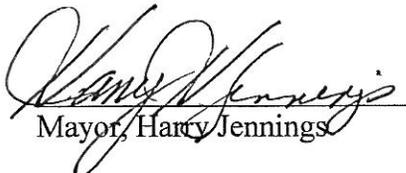
**SECTION TWO. SAVINGS.** The prior actions of the City of Daytona Beach Shores relating to floodplain management are hereby ratified and affirmed.

**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**

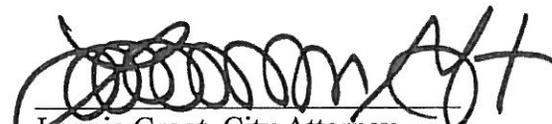
By:   
Mayor, Harry Jennings

**ATTEST:**

By:   
Michael T. Booker, City Manager

  
Cheri Schwab, City Clerk

**APPROVED AS TO FORM AND LEGALITY:**

By:   
Lonnie Groot, City Attorney

Passed and adopted on first reading this 23 day of July, 2013.

Posted this 24 day of July, 2013.

RESOLUTION NO. 13-164

A RESOLUTION ADOPTING THE 2013 VOLUSIA COUNTY INTEGRATED FLOODPLAIN MANAGEMENT PLAN; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, coastal and riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

WHEREAS, the National Flood Insurance Program provides federally supported flood insurance in communities that regulate development in floodplains; and

WHEREAS, the Community Rating System grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

WHEREAS, efforts have been made to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents; and

WHEREAS, the adoption of the 2013 Volusia County Integrated Floodplain Management Plan is in alignment with the Community Rating System Guidelines, and integration into the Local Mitigation Strategy supports this effort; and

WHEREAS, adoption of the plan is a requirement of the Community Rating System; and

WHEREAS, Interim Utilities Director considers the Floodplain Management Plan to be of the utmost importance to the citizens of The City of Daytona Beach and recommends adoption of the Volusia County Integrated Floodplain Management Plan 2013.

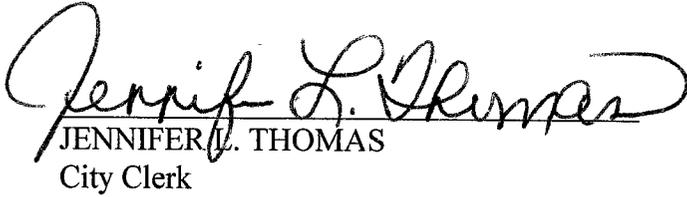
NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE  
CITY OF DAYTONA BEACH, FLORIDA:

SECTION 1. The Volusia County Integrated Floodplain Management Plan 2013 is  
hereby adopted. A copy of the Plan is attached hereto and made a part hereof by reference.

SECTION 2. This Resolution shall take effect immediately upon its adoption.

  
DERRICK L. HENRY  
Mayor

ATTEST:

  
JENNIFER L. THOMAS  
City Clerk

Adopted: July 17, 2013

RESOLUTION NO. 13-09

A RESOLUTION FOR THE ADOPTION OF THE "2013 VOLUSIA  
COUNTY INTEGRATED FLOODPLAIN MANAGEMENT PLAN"; AND  
PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, coastal and riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

WHEREAS, the National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

WHEREAS, the Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

WHEREAS, in an effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents; and

WHEREAS, the adoption of the 2013 Volusia County Integrated Floodplain Management Plan, in alignment with the CRS Guidelines; and integration into the Local Mitigation Strategy supports this effort; and

WHEREAS, the adoption of the plan is a requirement of the Community Rating System; and

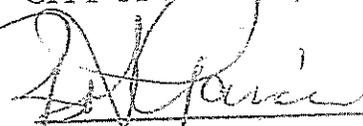
WHEREAS, The CITY OF DEBARY CITY COUNCIL hereby considers the Floodplain Management Plan to be of the utmost importance to the citizens of the CITY OF DEBARY

IT IS HEREBY RESOLVED BY THE CITY OF DEBARY AS FOLLOWS:

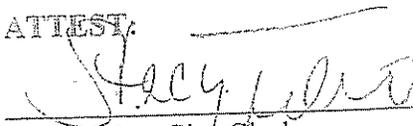
The City of DeBary considers the Volusia County Integrated Floodplain Management Plan to be of utmost importance to the City of DeBary and supports the Volusia County Integrated Floodplain Management Plan.

ADOPTED the 5<sup>th</sup> day of June, 2013.

CITY COUNCIL  
CITY OF DEBARY, FLORIDA

  
\_\_\_\_\_  
Bob Garcia, Mayor

ATTEST:

  
\_\_\_\_\_  
Stacy Tebo, City Clerk

RESOLUTION NO. 2013 – 44

**A RESOLUTION OF THE CITY COMMISSION OF DELAND, FLORIDA,  
ADOPTING THE 2013 VOLUSIA COUNTY FLOODPLAIN MANAGEMENT  
PLAN AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS**, Coastal and riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

**WHEREAS**, the National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

**WHEREAS**, the Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

**WHEREAS**, in an effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents, Volusia County has contracted with East Central Florida Planning Council to draft a revised Floodplain Management Plan in alignment with the CRS guidelines; and

**WHEREAS**, as adoption of the plan is a requirement of the Community Rating System; and

**WHEREAS**, the City Commission hereby considers the Floodplain Management Plan to be of the utmost importance to the citizens of DeLand.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF DELAND,  
FLORIDA:**

**Section 1.** The foregoing recitals are hereby incorporated herein by reference.

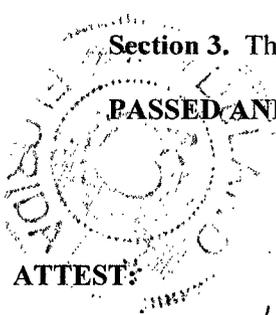
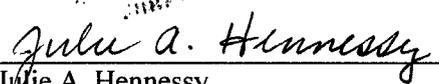
**Section 2.** The City Commission for the City of DeLand hereby adopts the 2013 Volusia County Floodplain Management Plan, in alignment with the CRS Guidelines; and integration into the Local Mitigation Strategy.

**Section 3.** This Resolution shall become effective immediately upon its adoption.

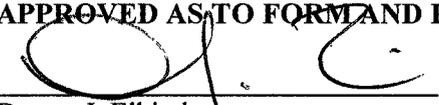
**PASSED AND DULY ADOPTED** this 1<sup>st</sup> day of July, 2013.

  
\_\_\_\_\_  
Robert F. Apgar  
Mayor-Commissioner

**ATTEST:**

  
  
\_\_\_\_\_  
Julie A. Hennessy  
City Clerk - Auditor

**APPROVED AS TO FORM AND LEGALITY:**

  
\_\_\_\_\_  
Darren J. Elkind  
City Attorney

**RESOLUTION NO. 2013-R-10**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF EDGEWATER, FLORIDA; ADOPTING THE “2013 VOLUSIA COUNTY INTEGRATED FLOODPLAIN MANAGEMENT PLAN”; PROVIDING FOR SEVERABILITY; REPEALING RESOLUTIONS IN CONFLICT HEREWITH AND ESTABLISHING AN EFFECTIVE DATE.**

**WHEREAS**, coastal and riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

**WHEREAS**, the National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

**WHEREAS**, the Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

**WHEREAS**, in an effort to reduce the potential for personal/property losses in flood prone areas and ensure the lowest possible flood insurance premiums for resident; and

**WHEREAS**, the adoption of the 2013 Volusia County Integrated Floodplain Management Plan, in alignment with the CRS Guidelines; and integration into the Local Mitigation Strategy supports this effort; and

**WHEREAS**, as adoption of the Plan is a requirement of the Community Rating System; and

**WHEREAS**, the City Council for the City of Edgewater hereby considers the Integrated Floodplain Management Plan to be of the utmost importance to the citizens of Edgewater.

**NOW, THEREFORE**, be it resolved by the City Council of Edgewater, Florida:

**Section 1.** The City Council of the City of Edgewater hereby considers the floodplain management plan to be of utmost importance to the City of Edgewater and hereby adopts the 2013 Volusia County Integrated Floodplain Management Plan (which is attached hereto and incorporated herein as Exhibit “A”).

**Section 2.** 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 applications hereof.

**Section 3.** All resolutions or parts of resolutions in conflict herewith are hereby repealed.

**Section 4.** This resolution shall take effect upon adoption.

After a motion by Councilwoman Power with Second by Councilman Emter, the vote on this resolution held on June 3, 2013 was as follows:

	<b>AYE</b>	<b>NAY</b>
Mayor Mike Thomas	<u>X</u>	_____
Councilwoman Christine Power	<u>X</u>	_____
Councilwoman Gigi Bennington	<u>X</u>	_____
Councilman Mike Ignasiak	<u>X</u>	_____
Councilman Gene Emter	<u>X</u>	_____

**PASSED AND DULY ADOPTED** this 3<sup>rd</sup> day of June, 2013.

**ATTEST:**

Bonnie Wenzel  
**Bonnie Wenzel**  
City Clerk

**CITY COUNCIL OF THE  
CITY OF EDGEWATER, FLORIDA**

By: Mike Thomas  
**Mike Thomas**  
Mayor

Robin L. Matusick  
**Robin L. Matusick**  
Paralegal

For the use and reliance only by the City of Edgewater, Florida. Approved as to form and legality by: Aaron R. Wolfe, Esquire  
City Attorney  
Doran, Sims, Wolfe & Kundid

Approved by the City Council of the City of Edgewater at a meeting held on this 3<sup>rd</sup> day of June, 2013 under Agenda Item No 8 C.

**RESOLUTION NO. 2013-R-45**

**A RESOLUTION OF THE CITY OF HOLLY HILL, FLORIDA,  
ADOPTING THE "2013 VOLUSIA COUNTY FLOODPLAIN  
MANAGEMENT PLAN"; PROVIDING FOR SEVERABILITY;  
PROVIDING FOR CONFLICTING RESOLUTIONS; AND  
PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, coastal and riverine flooding are significant threats to the safety of residents in the City of Holly Hill; and

**WHEREAS**, the National Flood Insurance Program provides federally supported flood insurance in communities that regulate development in floodplains; and

**WHEREAS**, the Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

**WHEREAS**, the adoption of the floodplain management plan is a requirement of the Community Rating System to receive credit for floodplain management planning; and

**WHEREAS**, the City of Holly Hill, in cooperation with Volusia County and the other municipalities in Volusia County, has participated in the preparation of the "2013 Volusia County Flood Plain Management Plan".

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF  
THE CITY OF HOLLY HILL, FLORIDA:**

**SECTION 1.** The City Commission of the City of Holly Hill hereby adopts the "2013 Volusia County Floodplain Management Plan".

**SECTION 2.** 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 3.** That all resolutions made in conflict with this Resolution are hereby repealed.

**SECTION 4.** That this Resolution shall become effective immediately upon its adoption.

The within and foregoing Resolution was read before the City Commission of the City of Holly Hill, Florida, at its regular meeting held in commission chambers at City Hall, 1065 Ridgewood Avenue, Holly Hill, Florida, on the 23<sup>rd</sup> day of July, 2013.

It was moved by Commissioner Moore and seconded by Commissioner Penny that said Resolution be adopted. A roll call vote of the Commission on said motion of the Resolution resulted as follows:

**ROLL CALL VOTE AS FOLLOWS: (Resolution 2013-R-45):**

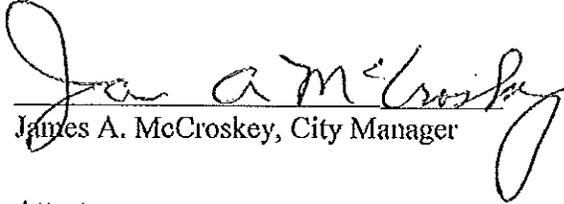
Mayor Roy Johnson	Yes
Commissioner John Penny	Yes
Commissioner Penny Currie	Absent
Commissioner Donnie Moore	Yes
Commissioner Elizabeth Albert	Yes

**ADOPTED THIS 23<sup>rd</sup> DAY OF JULY, 2013.**

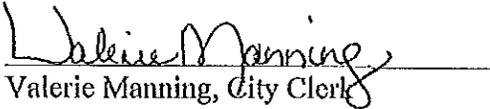
WHEREAS, the Mayor of the City of Holly Hill, Florida, has hereunto set his official signature, duly authorized by the City Clerk, and has caused the official seal of said City to be affixed, all at the City Hall in the City of Holly Hill, this 23<sup>rd</sup> day of July, 2013, for the purpose of authenticity as is required by law.

City of Holly Hill, Florida

  
Roy Johnson, Mayor

  
James A. McCroskey, City Manager

Attest:

  
Valerie Manning, City Clerk

**RESOLUTION NO. 2013-12**

**A RESOLUTION FOR THE ADOPTION OF THE "2013 VOLUSIA COUNTY FLOODPLAIN MANAGEMENT PLAN"; AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS**, coastal and riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

**WHEREAS**, the National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

**WHEREAS**, the Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

**WHEREAS**, in an effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents; and

**WHEREAS**, the adoption of the 2013 Volusia County Floodplain Management Plan, in alignment with the CRS Guidelines; and integration into the Local Mitigation Strategy supports this effort; and

**WHEREAS**, as adoption of the plan is a requirement of the Community Rating System; and

**WHEREAS**, The Lake Helen City Commission hereby considers the Floodplain Management Plan to be of the utmost importance to the citizens of Lake Helen.

**NOW, THEREFORE, BE IT RESOLVED** by the City Commission of the City of Lake Helen, Florida:

**Section 1** The foregoing recitals are hereby incorporated herein by reference

**Section 2** The City Commission for the City of Lake Helen hereby adopts the 2013 Volusia County Floodplain Management Plan in alignment with the CRS Guidelines and integration into the Local Mitigation Strategy

**Section 3** This Resolution shall become effective immediately upon its adoption

**PASSED AND DULY ADOPTED** this 8<sup>th</sup> day of August, 2013.

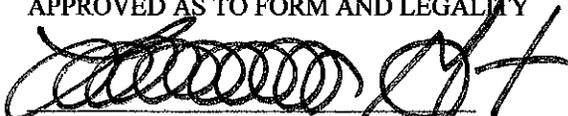
**ATTEST:**



KC Cichon, City Administrator

  
Buddy Snowden, Mayor

**APPROVED AS TO FORM AND LEGALITY**

  
Lonnie Groot, City Attorney

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**RESOLUTION NO. 30-13**

**A RESOLUTION OF THE CITY OF NEW SMYRNA BEACH,  
FLORIDA, ADOPTING THE 2013 VOLUSIA COUNTY  
INTEGRATED FLOODPLAIN MANAGEMENT PLAN;  
PROVIDING FOR CONFLICTING RESOLUTIONS; AND  
PROVIDING FOR AN EFFECTIVE DATE.**

*WHEREAS*, coastal and riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

*WHEREAS*, the National Flood Insurance Program provides federally supported flood insurance in communities that regulate development in floodplains; and

*WHEREAS*, the Community Rating System grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

*WHEREAS*, efforts have been made to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents; and

*WHEREAS*, the adoption of the 2013 Volusia County Integrated Floodplain Management Plan is in alignment with the Community Rating System Guidelines, and integration into the Local Mitigation Strategy supports this effort; and

*WHEREAS*, adoption of the plan is a requirement of the Community Rating System; and

*WHEREAS*, the City Engineer and Emergency Management Coordinator consider the Floodplain Management Plan to be of the utmost importance to the citizens of The City of New Smyrna Beach and recommends adoption of the Volusia County Integrated Floodplain Management Plan 2013.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF NEW SMYRNA BEACH, FLORIDA:**

**SECTION 1: Adoption of the Volusia County Integrated Floodplain Management Plan 2013. That the Volusia County Integrated**

35 Floodplain Management Plan 2013 is hereby adopted. The Plan is  
36 more particularly described as:

37 **SEE EXHIBIT "A" ATTACHED HERETO AND BY**  
38 **REFERENCE MADE A PART HEREOF.**

39 **SECTION 2: *Conflicting Resolutions.*** That all resolutions or  
40 parts thereof that are in conflict with this resolution are hereby  
41 rescinded or repealed.

42 **SECTION 3: *Effective Date.*** That this resolution shall take  
43 effect immediately upon its final adoption.

44 **APPROVED AS TO FORM AND CORRECTNESS:**

45   
46 **FRANK B. GUMMEY, III**  
47 **City Attorney**

48 **DATE:** 9/16/13

**RESOLUTION NO. 30-12**

**EXHIBIT "A"**

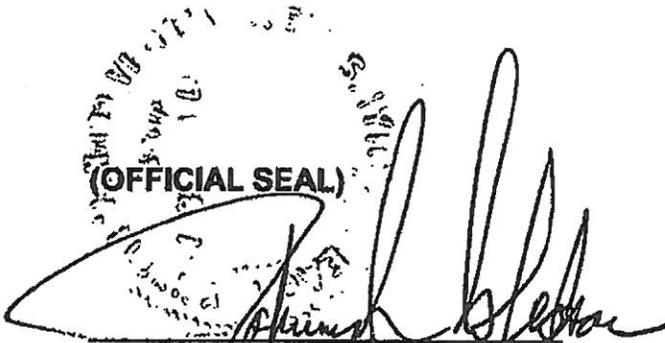
Exhibit "A," entitled *Volusia County Integrated Floodplain Management Plan 2013*, is available for review in the Office of the City Clerk.

The Within and Foregoing Resolution No. 30-13 as Introduced and read before the City Commission of the City of New Smyrna Beach, Florida, at its Regular Meeting held at City Hall in said City on September 24, 2013. Motion was made by Commissioner Jones, and seconded by Vice Mayor Grasty, that said Resolution be adopted.

A roll-call vote of the City Commission on said motion to adopt the Resolution resulted as follows:

MAYOR ADAM BARRINGER	Yes
VICE MAYOR JACK GRASTY	Yes
COMMISSIONER JUDY REIKER	Yes
COMMISSIONER JASON MCGUIRK	Yes
COMMISSIONER KIRK JONES	Yes

Whereupon, the Mayor of the City of New Smyrna Beach, Florida, has hereunto set his official signature, duly attested by the City Clerk, and has caused the Official Seal of said City to be hereunto affixed for the purpose of authenticity and as is required by law.

  
As City Clerk of the  
City of New Smyrna Beach,  
Florida

  
As Mayor of the City of New  
Smyrna Beach, Florida

RESOLUTION NO. 2013 - 02

A RESOLUTION OF THE CITY OF OAK HILL, VOLUSIA COUNTY, FLORIDA, ADOPTING THE "2013 VOLUSIA COUNTY INTEGRATED FLOODPLAIN MANAGEMENT PLAN"; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, coastal and riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

WHEREAS, the National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

WHEREAS, the Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

WHEREAS, in an effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents; and

WHEREAS, the adoption of the "2013 Volusia County Integrated Floodplain Management Plan", in alignment with the CRS Guidelines; and integration into the Local Mitigation Strategy supports this effort; and

WHEREAS, as adoption of the plan is a requirement of the Community Rating System; and

WHEREAS, the City of Oak Hill, Florida hereby considers the "2013 Volusia County Integrated Floodplain Management Plan" to be of the utmost importance to the citizens of Oak Hill, Florida.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF OAK HILL, FLORIDA:

Section 1. The City Commission of the City of Oak Hill hereby acknowledges that the recitals described above are true and correct and adhere to the criteria set by the Community Rating System.

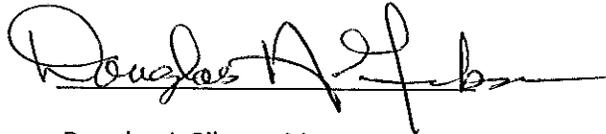
Section 2. Severability. If any portion of this resolution is for any reason held or declared to be unconstitutional, inoperative, or void, such holding shall not affect the remaining portions of this ordinance. If this resolution or any provisions thereof shall be held to be inapplicable to any person, property, or circumstance, such holding shall not affect its applicability to any other person, property, or circumstance.

Section 3. Effective Date. This Resolution shall become effective immediately upon its adoption.

It was moved by Commissioner Bittle and seconded by Commissioner Engele that said Resolution 2013 - 02, is passed on first reading. A roll call vote of the City Commission on said motion resulted as follows:

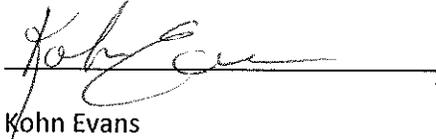
Mayor Gibson	<u>YES</u>
Vice Mayor Bracy	<u>ABSENT</u>
Commissioner Engele, Seat #1	<u>YES</u>
Commissioner Livingston, Seat #4	<u>Absent</u>
Commissioner Bittle, Seat#3	<u>YES</u>

Passed upon first reading this 13<sup>th</sup> day of MAY, 2013.



Douglas A Gibson, Mayor

ATTEST:



Kohn Evans

City Clerk/Administrator

Approved as to form and legality for the use and reliance of the City of Oak Hill, Florida, only.



Scott E. Simpson, City Attorney

**RESOLUTION NO. 2013-112**

A RESOLUTION OF THE CITY OF ORMOND BEACH ADOPTING THE 2013 VOLUSIA COUNTY FLOODPLAIN MANAGEMENT PLAN; AND SETTING FORTH AN EFFECTIVE DATE.

**WHEREAS**, areas of the City of Ormond Beach are vulnerable to coastal and riverine flooding that significantly threaten the safety of residents; and

**WHEREAS**, the National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

**WHEREAS**, the Community Rating System (CRS) rewards communities that exceed the minimum requirements of the NFIP that help citizens prevent or reduce flood losses; and

**WHEREAS**, the City of Ormond Beach actively participates in Volusia Prepares, the Local Mitigation Strategy (LMS) working group, and adopted the Volusia County Multi-jurisdictional LMS by Resolution 2005-55 on March 15, 2005; and

**WHEREAS**, in December 2012, the County of Volusia contracted with the East Central Florida Regional Planning Council (ECFRPC) to strengthen the Volusia County Multi-jurisdictional LMS and to develop and integrate individual municipal Floodplain Management Plans into the Volusia County Floodplain Management Plan; and

**WHEREAS**, the City Commission adopted Resolution 2013-35 supporting the planning process to update the Volusia County Multi-Jurisdictional Local Mitigation Strategy in alignment with the Community Rating System (CRS) guidelines; and

**WHEREAS**, the East Central Florida Regional Planning Council has completed the 2013 Volusia County Integrated Floodplain Management Plan (the "Plan") to be incorporated into the Volusia County Multi-jurisdictional LMS in accordance with the CRS planning process; and

**WHEREAS**, the City Commission finds the Plan consistent with its goals and objectives in reducing the potential for personal/property losses in flood-prone areas and ensuring the lowest possible flood insurance premiums for residents, now therefore,

**BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF ORMOND BEACH, FLORIDA, THAT:**

**SECTION ONE.** The City Commission hereby approves the City of Ormond Beach designated portions of the Plan, attached hereto and incorporated herein by reference, and hereby adopts the same as the official Floodplain Management Plan.

**SECTION TWO.** This Resolution shall take effect immediately upon its adoption.

**APPROVED AND AUTHENTICATED this 18th Day of June, 2013.**



**ATTEST:**

*J. Scott McKee*  
**J. SCOTT MCKEE**  
City Clerk

*Ed Kelley*

**ED KELLEY**  
Mayor

**RESOLUTION NO. 2013-08**

**A RESOLUTION BY THE TOWN COUNCIL OF THE TOWN OF PONCE INLET, FLORIDA ADOPTING THE APRIL 2013 DRAFT OF THE "VOLUSIA COUNTY FLOODPLAIN MANAGEMENT PLAN"; PROVIDING LEGISLATIVE FINDINGS; PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS**, Coastal and riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

**WHEREAS**, The National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

**WHEREAS**, The Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

**WHEREAS**, in an effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents, Volusia County contracted with East Central Florida Regional Planning Council to draft the revised Floodplain Management Plan (FMP) in alignment with the CRS guidelines; and

**WHEREAS**, The East Central Florida Regional Planning Council is also required to integrate the FMP into the Local Mitigation Strategy; and

**WHEREAS**, Town of Ponce Inlet staff has participated in the drafting of the Floodplain Management Plan.

**NOW, THEREFORE, BE IT RESOLVED THAT THE TOWN COUNCIL OF THE TOWN OF PONCE INLET, FLORIDA, AS FOLLOWS:**

**SECTION 1.** The above recitals are incorporated herein by reference as to the legislative findings of the Town Council.

**SECTION 2.** The Town Council of Ponce Inlet recognizes that participation in the Volusia County Floodplain Management Plan may improve the current level and CRS Rating within the Town of Ponce Inlet and Volusia County.

**SECTION 4.** The Town Council of Ponce Inlet hereby adopts the final draft of the Volusia County Floodplain Management Plan dated April 2013.

**SECTION 5.** This Resolution shall take effect immediately upon adoption.

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

Mayor Smith, Seat #1	Yes
Councilmember Milano, Seat #2	Yes
Vice-Mayor Hoss, Seat #3	Yes
Councilmember Perrone, Seat #4	Yes
Councilmember Lewis, Seat #5	Yes

Adopted this 16<sup>TH</sup> day of May, 2013.

Town of Ponce Inlet, Florida



  
Gary L. Smith, Mayor

ATTEST:



Jeaneen P. Clauss, CMC  
Town Manager/Town Clerk

RESOLUTION NO. 13- 68

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA; ADOPTING THE VOLUSIA COUNTY INTEGRATED FLOODPLAIN MANAGEMENT PLAN; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Coastal and Riverine flooding are significant threats to the safety of residents of Volusia County and its municipalities; and

WHEREAS, the National Flood Insurance Program (NFIP) provides federally supported flood insurance in communities that regulate development in floodplains; and

WHEREAS, the Community Rating System (CRS) grades the various community floodplain management programs and reduces flood insurance premiums in those communities that meet certain requirements; and

WHEREAS, in an effort to reduce the potential for personal/property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents, Volusia County has contracted with East Central Florida Regional Planning Council to draft the revised floodplain management plan in alignment with the CRS guidelines; and

WHEREAS, the East Central Florida Regional Planning Council has integrated the City data, attached as **Exhibit "B"** for the Floodplain Management Plan into the local mitigation strategy; and

WHEREAS, the Floodplain Management Plan has been completed.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA:

Section 1. That the City Council of the City of Port Orange hereby adopts the Volusia County Integrated Floodplain Management Plan as set forth on **Exhibit "A"**.

Section 2. This resolution shall become effective immediately upon adoption.

  
\_\_\_\_\_  
MAYOR ALLEN GREEN

ATTEST:  
  
\_\_\_\_\_  
Robin L. Ferwick, CMC, City Clerk

Adopted on the 1st day of October, 2013.

Reviewed and Approved:   
\_\_\_\_\_  
City Attorney

**EXHIBIT "A"**  
**THE**  
**2013 VOLUSIA COUNTY INTEGRATED FLOODPLAIN MANAGEMENT PLAN**

[http://www.ecfrpc.org/Programs-and-Projects/Emergency--Management/Volusia-County-Floodplain-Management-Plan-\(1\).aspx](http://www.ecfrpc.org/Programs-and-Projects/Emergency--Management/Volusia-County-Floodplain-Management-Plan-(1).aspx)

## RESOLUTION NO 13-10

### A RESOLUTION OF THE CITY OF SOUTH DAYTONA, FLORIDA AUTHORIZING THE ADOPTION OF THE ANNUAL PROGRESS REPORT TO THE LOCAL MITIGATION STRATEGY PLAN.

**WHEREAS**, the City of South Daytona is vulnerable to an array of natural hazards that can cause loss of life and damages to public and private property;

**WHEREAS**, the City of South Daytona desires to seek ways to mitigate situations that may aggravate such circumstances;

**WHEREAS**, the development and implementation of a local mitigation strategy results in actions that reduce the long-term risk to life and property from natural hazards;

**WHEREAS**, it is the intent of the City Council to protect its citizens and property from the effects of natural hazards by preparing and maintaining a local mitigation strategy;

**WHEREAS**, Volusia County originally facilitated the development of a multi-jurisdictional local mitigation strategy that includes the City of South Daytona in 2005 with input from the appropriate local and state officials; and

**WHEREAS**, the City of South Daytona is required under the planning effort of Activity 510 of the Community Rating System Annual for recertification, a written progress report of the activities in the Mitigation Strategy Plan.

**NOW, THEREFORE, BE IT RESOLVED THAT THE CITY COUNCIL OF THE CITY OF SOUTH DAYTONA HEREBY:**

**SECTION 1. Description of Actions.**

1. Adopts the updated Annual Progress Report for the Local Mitigation Strategy; and
2. Agrees to take such other official action as may be reasonably necessary to carry out the proposed actions of the 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.

**PASSED AND ADOPTED** upon first and final reading at a regular meeting of the City Council of the City of South Daytona held in the City of South Daytona, Florida, on the 30 day of July, 2013.

**SIGNED:**

  
\_\_\_\_\_  
GEORGE F. LOCKE, III  
Mayor

**ATTEST:**

  
\_\_\_\_\_  
JOSEPH W. YARBROUGH  
City Manager

## SOUTH DAYTONA MITIGATION ACTION PLAN

ITEM	PROJECT	2013 UPDATE ON PROJECT	June 7, 2013
1.	Additional Parking for Piggotte Center	Completed	
2.	Storm Shutters for Youth Activity Center	Completed	
3.	Purchase Variable Message Sign	Completed	
4.	Country Club Manor Drainage Improvements	Completed	
5.	City Hall Storm Shutters	Completed	
6.	Golfview Stormwater Retrofit	Completed	
7.	Lantern Park Stormwater Retrofit	This project was resurrected and the preliminary design was completed in March 2011 and funding for this project is currently being pursued. Projected construction to be within 5 years.	
8.	Reed Canal Reconstruction Design	Completed	
9.	Western Road Stormwater Improvements	Completed	
10.	Greenbrier Subdivision Stormwater Retrofit	Completed	
11.	Stevens Canal Outflow Pond	This project is the same project as described in Item #10 of this list.	
12.	Hardening Brian Ave Fire Station	Project Terminated. This station has been consolidated with the main fire station on Ridgewood Avenue and the improvements are no longer needed.	
13.	South Daytona EOC/Public Works	This project has been placed on hold due to the current economy. However, is still planned to be constructed within the next 5 years. The property has been purchased, SJRWMD permits and pond constructed as of this date. The City is actively pursuing grant monies for this project.	
14.	Reed Canal Basin Stormwater Treatment	Completed 2008	
15.	Shatter Resistant Glass Fire Station	Completed	
16.	Armor Screens for Fire Station	Completed	

**MITIGATION ACTION PLAN**  
**SOUTH DAYTONA MITIGATION ACTION PLAN**  
**June 7, 2013**

Item No.	Priority	Jurisdiction	Responsible Organization	Hazard(s)	Mitigation Technique Category	Initiative	Funding	Approved by LMS Working Group	Completion Date	Status
1		South Daytona	City of South Daytona	All	ES	Provide additional parking for Piggotte Center		8/1/2002		C
2		South Daytona	City of South Daytona	Wind	PP	Provide Storm Shutters for Youth Activity Center		8/1/1999		C
3		South Daytona	City of South Daytona	All	ES	Purchase a Variable Message Sign		12/1/2000		C
4		South Daytona	City of South Daytona	Flood	S	Country Club Manor Drainage Improvements		11/6/2003		C
5		South Daytona	City of South Daytona	Wind	PP	Storm Shutters for City Hall		10/13/2004		C
6 *		South Daytona	City of South Daytona	Flood	S	Golfview Subdivision Retrofit		10/13/2004	2008	C
7		South Daytona	City of South Daytona	Flood	S	Lantern Park Retrofit		10/13/2004	< 5 YRS	U
8		South Daytona	City of South Daytona	Flood	S	Reed Canal Reconstruction Design		10/13/2004		C
9 *		South Daytona	City of South Daytona	Flood	S	Western Road Stormwater Improvements		10/13/2004	2006	C
10 **		South Daytona	City of South Daytona	Flood	S	Greenbrier Subdivision Retrofit		10/13/2004	2012	C
11**		South Daytona	City of South Daytona	Flood	S	Stevens Canal Outflow Pond		9/13/2006	2010	C
12		South Daytona	City of South Daytona	Wind	PP	Hardening Brian Ave. Fire Station		9/13/2006	Closed	T
13		South Daytona	City of South Daytona	All	PP	South Daytona EOC Public Works Facility		1/10/2007	< 5 YR < 5 YRS	U
14		South Daytona	City of South Daytona	Flood	S	Reed Canal Basin Stormwater Treatment		9/10/2007	2008	C
15		South Daytona	City of South Daytona	Wind	PP	Shatter Resistant Glass to Fire Station		12/1/2000		C
16		South Daytona	City of South Daytona	Wind	PP	Armor Screening to Fire Station		12/1/2000		C

\* Project #6 and #9 are the same project

\*\* Project #10 and #11 are the same project

C = Completed    N = New    U = Updated  
D = Deferred    T = Terminated

**RESOLUTION 2013-217**

**A RESOLUTION OF THE COUNTY COUNCIL OF VOLUSIA COUNTY, FLORIDA RELATING TO THE VOLUSIA COUNTY INTEGRATED FLOODPLAIN MANAGEMENT PLAN; PROVIDING AN EFFECTIVE DATE.**

WHEREAS, coastal and riverine flooding are significant threats to the health and safety of the citizens of Volusia County and its municipalities; and

WHEREAS, the Volusia County Council recognizes the importance of reducing vulnerabilities to flood events for the overall good and welfare of the community; and

WHEREAS, Volusia County 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 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, Volusia County's 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 2013 Volusia County Integrated Floodplain Management Plan and integration into the Local Mitigation Strategy is an effort to reduce the potential for personal and property losses in flood-prone areas and ensure the lowest possible flood insurance premiums for residents supports 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 BY THE COUNTY COUNCIL OF VOLUSIA COUNTY, FLORIDA, IN OPEN MEETING DULY ASSEMBLED IN THE THOMAS C. KELLY ADMINISTRATION CENTER, DELAND, FLORIDA THIS ~~22nd~~ 26th DAY OF ~~AUGUST~~ September, 2013, AS FOLLOWS:**

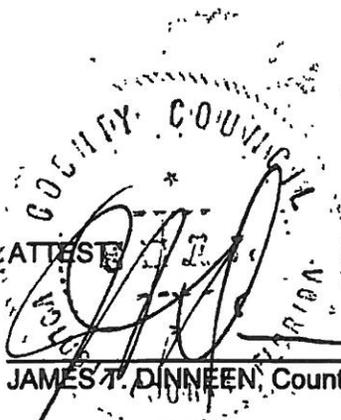
**Section I.**

- 1) The Volusia County Council hereby accepts and approves its designated portion of the Volusia County Integrated Floodplain Management Plan.
- 2) The Volusia County Council 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 strategy.
- 3) The Volusia County Council 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 county or its neighborhoods, and that they do not conflict with or duplicate the flood mitigation proposals made by the county itself.
- 4) The agency personnel of Volusia County are requested and instructed to pursue available funding opportunities for implementation of the proposals designated therein.
- 5) The agencies and organizations within Volusia County will, upon receipt of such funding or other necessary resources, seek to implement the proposals contained in the county's individual section of the Plan.
- 6) The Volusia County Council will continue to participate in the updating and expansion of the Volusia County Integrated Floodplain Management Plan in the years ahead.
- 7) The Volusia County Council will further seek to encourage the businesses, industries and community groups operating within Volusia County to also participate in the updating and expansion of the Volusia County Integrated Floodplain Management Plan in the years ahead.

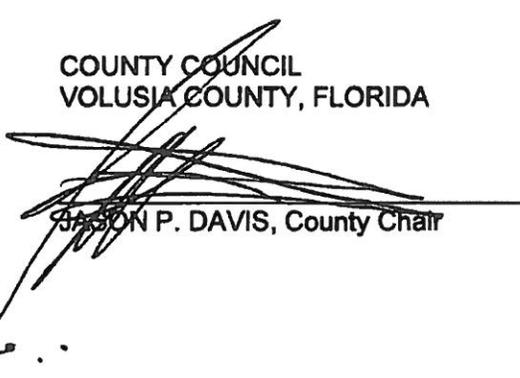
**Section II.**

This Resolution shall become effective immediately upon its adoption.

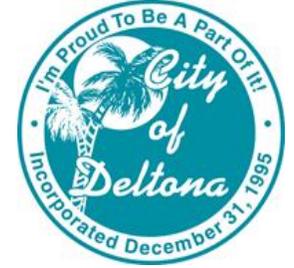
**DONE AND ORDERED IN OPEN MEETING.**

  
ATTEST  
JAMES T. DINNEEN, County Manager

COUNTY COUNCIL  
VOLUSIA COUNTY, FLORIDA

  
JASON P. DAVIS, County Chair

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2013 Volusia County Floodplain Management Plan

Prepared by the East Central Florida Regional Planning Council

## APPENDIX J: CONSEQUENCES BY HAZARD

The consequences by hazard can be found on the following pages of this report. Within this section, environmental, economic and societal issues associated with each hazard covered in this report are identified.

RISK and VULNERABILITY (4.3.1)	 <i>People</i>	 <i>Property</i>	 <i>Environment</i>	 <i>Program Operations</i>
HAZARD/HIRA				
<i>Natural</i>				
Hurricanes/Tropical Storms	<p>According to the Volusia County Property Appraiser, over 45% of the County's population resides along the coast (205,000 people). The coastal region also leads the County in tourism. The large coastal population is highly vulnerable to the affects of a hurricane. Volusia County's worst hurricane season was 2004. Hurricanes Charley, Frances and Jeanne impacted Volusia County, back-to-back. Although Charley was the only storm to impact the County with hurricane-force winds, never-the-less these storms had a major impact on homes and infrastructure, and caused adverse human consequences. (Section V)</p>	<p>Volusia County's worst hurricanes on record were Hurricanes Charley, Frances and Jeanne in 2004. These back-to-back storms battered Volusia County with tropical storm force winds for weeks. Storms of this magnitude have the potential to destroy homes and infrastructure, injure and kill people in its path, and cause massive environmental consequences. Cumulatively the County experienced over \$560,000,000 in damages. Approximately 40% of homes were damaged. Based on the hazard analysis, Volusia County's annualized losses to residential buildings from Hurricanes is over \$280 million. For non-residential buildings, annualized losses total almost \$70 million. (Section V and VI)</p>	<p>Hurricanes do not only bring high winds to Volusia County, they also have the potential to produce inland flooding, tornadoes, storm surge, and significant beach erosion. These four hazards can severely impact the environment by downing trees, eroding sensitive coastal dunes and ecosystems, loss of sea turtle nests, and causing the runoff of debris and potentially hazardous materials into our waterways. Because erosion events were part of other hazard events (e.g., storm surge, hurricane, severe winter storm) the monetary damage for the erosion alone is unknown.</p>	<p>Program operations may be impacted by a hurricane. Historically, tropical depressions and tropical storms have not impacted the County's ability to perform it's day-to-day program and CEOC operations. Preparedness, response, and recovery efforts have been implemented with no additional strain to the County. In the case of a direct land-falling hurricane in Volusia County, program operations may become strained, especially if it is a major hurricane (Cat 3 or greater). In these situations we will rely on assistance from other counties through the Emergency Management Assistance Compact (EMAC) (mutual aid) or through the State and FEMA. In some cases, it may take several weeks or months to return program operations to a normal level. (VC CEMP)</p>
Floods	<p>According to FEMA, flooding is the most costly natural hazard in the U.S. and can cause long-term adverse psychological impacts. According to FloodSmart.gov, all 50 states are at risk to flooding and flash floods. Flash floods are particularly dangerous because they can quickly sweep cars off roadways, causing injuries and casualties to people in its path. (Volusia County does not experience true "flash flooding"). In addition to life safety, property can be damaged by just an inch of water (FloodSmart.gov). Homeowners insurance and renter's insurance does not cover flooding. A separate policy under the NFIP must be purchased. Citizens without flood insurance may not receive any assistance to repair their homes and property following an event. Countywide, there are 47,452 structures in the 100-year floodplain. For a map the 100-year floodplain, see Figure 5.10.</p>	<p>Property in low-lying areas or Special Flood Hazard Areas (100 year floodplain) are susceptible to damage from flooding (FloodSmart). Floods can destroy homes and businesses, erode property along creeks and rivers, and washout roads and bridges. In some cases, flooding is a secondary hazard from a hurricane event. Volusia County has experienced ten major flood events since 1994 resulting in over \$35,000,000 in insured flood losses. (Section V)</p>	<p>Flooding has the potential to put our environment at risk in different ways. Flooding erodes our river beds which causes sediments to enter the waterways, potentially clogging our stormwater systems. Floods can also bring hazardous materials/pollution into our waterways via runoff. The County's sensitive riparian ecosystems are often negatively impacted in this process. When Lake Okeechobee nears flood level, water is emptied directly into the intracoastal waterway. This water, rich in nutrients, results in algae blooms and oxygen depletion in our rivers, resulting in fish die-offs. Due to a lack of data on historical environmental impacts from flooding in Volusia County, we were unable to directly calculate the full cost.</p>	<p>In rare occasions, program operations may be impacted by a flood. The VCEOC does not sit in a Special Flood Hazard Area (SFHA), although much of the surrounding land, roadways, and access points do. Historically, the EOC has remained operational during flood events with no impact to program operations. County programs may become strained responding to local or statewide flooding events. In these situations we may rely on assistance from other counties and the state through the Emergency Management Assistance Compact (EMAC) and mutual aid agreements.</p>
Thunderstorms	<p>Severe thunderstorms are a common occurrence in Volusia County throughout the year. These are dangerous events capable of producing high winds, hail, tornados, and lightning. All citizens in Volusia County are at risk to the negative effects of thunderstorms. Downed trees, damage to homes, loss of electricity, and rarely, casualties are common byproducts of severe thunderstorms. (Section V and VI)</p>	<p>According to NOAA's Climatic Data Center, from 1996 - 2013, Volusia County had 120 severe thunderstorm/wind events, causing approximately \$142 million in property damage with zero fatalities. All property in Volusia County is at risk to the negative effects of thunderstorms. Downed trees, damage to homes, businesses, and infrastructure, and loss of electricity are common byproducts of severe thunderstorms. (Section V and VI)</p>	<p>Severe thunderstorms in Volusia County have historically had a minimal impact on the environment. In some cases, these storms can down trees and vegetation and cause localized flooding. Please see "Floods" above.</p>	<p>There is no risk to program operations from thunderstorms. VCEM's ability to respond to and manage the event should not be impacted. The VCEOC is equipped with two generators and redundant communication systems. In a catastrophic event, the VCEM may rely on outside support to maintain operations as stated in the above hazard examples.</p>
Tornados	<p>Tornadoes pose a great risk to people and structures. While Volusia County is not located in "tornado alley", people are at risk to the impacts of a tornado. From 1953 to 2009, Volusia County had 69 tornado events, responsible for 2 deaths and 107 injuries. (table 5.12) Not only can tornadoes threaten life safety, they can demolish homes and businesses, destroy infrastructure, and impact entire communities.</p>	<p>Tornadoes pose a great risk to property. From 1996 to 2013, Volusia County had 37 tornado events, responsible for over \$142,000,000 in property damage. Two fatalities and 128 injuries were reported. (Section V, NOAA Climatic Data Center) Tornadoes can reach wind speeds over 200mph, (although the most powerful tornado to impact Volusia County was an EF3) lifting homes and businesses off of their foundations, crippling infrastructure and creating automobile sized missiles. Entire communities may be destroyed.</p>	<p>Because of the vast range of wind speeds associated with tornadoes, the environment is at risk to a variety of impacts. Even an EF0 (65-85mph) can uproot trees and vegetation. In stronger tornadoes, debris will tossed miles away from the source, potentially entering our waterways. Hazardous materials may escape if vehicles are damaged or storage tanks are compromised.</p>	<p>Unless there is a direct impact from a tornado, there is no risk to program operations at the County level. Preparedness, response, and recovery efforts should not be impeded. The VCEOC would remain operational, supporting the local officials. In the case of a direct hit to the VCEOC, program operations would be minimally affected, as the building is hardened to withstand an EF-4 tornado.</p>
Wildfire	<p>Wildfires are one of the most common hazard events in Volusia County. Between 2000-2008, the average number of wildfires per year was 129 (Table 5.18). People and their property are at risk to the impacts of a wildfire. Wildfires can burn down trees, vegetation, homes and businesses. Smoke from wildfires can be detrimental to the health of citizens living in close proximity to the fires. Smoke and ash from wildfires can obscure vision and cause extended road closures.</p>	<p>Wildfires can destroy public and private property, ravish parklands, and disrupt the service of critical utilities. The most recorded wildfires in a 2-month period in Volusia County was 233 fires between June and July 1998; 163,000 acres burned. The fires threatened 29,000 homes, \$60,000,000 in timber was lost, and \$2,100,000 in property damage resulted. Both forested and urban areas are at risk to wildfires. (Section V and VI)</p>	<p>Though many wildfires are a natural process, the environment may be negatively impacted. Wildfires can start in urban or woodland areas. The national average size of a wildfires is 309.6 acres (NOAA Wildfire Report 2012). Not only are trees impacted by these fires, so are the native species of plants and animals. Smoke and ash from the fires can pollute waterways and the air.</p>	<p>There is a minimal risk to program operations posed by wildfires. Historically, the VCEOC has been impacted by a wildfire on two occasions, however the smoke intrusion was never severe enough to require COOP activation. If there was a wildfire at or near the VCEOC that caused air pollution or blocked access roads to the facility, program operations may become strained. In this situation, VCEM may activate our COOP Plan. In extreme circumstances, the VCEM may seek outside help through mutual aid agreements and EMAC.</p>
Drought/ Extreme Heat	<p>People are indirectly at risk to drought. Drought negatively affects agriculture and livestock, which impacts the food people eat. Farmers are the most directly impacted by the impacts of drought. Extreme heat is one of the leading causes of natural hazard deaths in the United States (International Journal of Health Geographics).</p>	<p>Property may be at high risk to drought under extreme circumstances. Extended periods of drought impacts agricultural products and farmlands. Crop losses may be significant. The fern industry may be adversely impacted. Volusia County experienced droughts in 1981, 1985, 1998, 1999, and 2000. (Section V and VI)</p>	<p>The environment is also at risk to drought and extreme heat. Without water, vegetation and sensitive ecosystems may be negatively impacted. Stream flows may be reduced, impacting riparian and riverine ecosystems. (Section V)</p>	<p>Program operations will not be impacted by drought conditions.</p>
Hail	<p>Everyone in Volusia County is at risk to hail. Hail can cause injuries and, in rare cases, death if people are outside during an extreme hail event. In Volusia County there have been no recorded fatalities or injuries reported from hail. (Section V) Hail is more harmful to homes and businesses as it can damage roofs and windows on buildings and vehicles.</p>	<p>Although hail storms do not typically cause widespread damage to property, if the size of the hailstones are great enough, hail can puncture roofs, break car windshields, dent bodywork, and damage windows. Total losses from the 78 hail events from 1996 - 2013 in Volusia County is over \$110,000. (Table 5.3). Because hail is formed during thunderstorms, see "Thunderstorms" for more information.</p>	<p>Although the entire County and environment is vulnerable to hail, there are no direct significant impacts to the environment. An example of an indirect impact may be vehicular accidents on roadways that leak gasoline and hazardous materials into roadways.</p>	<p>Program operations will not be impacted directly by hail. Because hail is formed during thunderstorms, see "Thunderstorms" for more information.</p>
NOAA Climatic Data Center	<p><a href="http://www.ncdc.noaa.gov/">http://www.ncdc.noaa.gov/</a></p>			

RISK and VULNERABILITY (4.3.1) (con't)	 People	Property	Environment	Program Operations
<b>HAZARD/HIRA</b>				
<i>Natural (Cont'd)</i>				
<b>Severe Winter Storms</b>	All of Volusia County is vulnerable to winter storms. Being in the southern portion of the nation, we rarely experience severe winter storm events, however there were two extended cold periods in the 1980's that froze many of the orange groves. (Section V) NOAA's Climactic Data Center has recorded 0 severe winter storms from 1996 - 2009. Historically the greatest impact of cold weather has been on the homeless population. Shelters have been opened during cold weather events for them.	All of Volusia County is vulnerable to winter storms. The greatest impact was to the orange groves and fern industry in the 80's. The fern industry was also impacted. No dollar amount of damage is available.	The environment is at risk to the negative effects of winter weather. Freezing temperatures can hurt crops and vegetation, particularly non-native species.	Program operations will not be impacted by winter weather.
<b>Lightning</b>	Everyone in Volusia County is at risk to lightning, as Florida is the lightning capitol of the U.S. Lightning can cause serious personal injuries and, in some cases, death. Since 1994, lightning has caused 1 death and five injuries. (Section V) Lightning is also harmful to homes and businesses, potentially sparking fires or destroying an electrical system. Beach goers, boaters, and golfers are at particular risk to lightning.	All of Volusia County is at risk to lightning. Lightning has caused over \$1,367,000 in property damage since 1996. (Table 5.8, NOAA Climactic Data Center) Lightning is responsible for causing numerous structure fires and wildfires in Volusia County, particularly during our dry season in the later winter/early spring.	The environment is vulnerable to lightning strikes. Lightning can spark fires, and if conditions are dry enough, lightning can spark a serious wildfire (Section V). See "Thunderstorms" and "Wildfires" for more information.	Program operations will not be impacted directly by lightning. If VCEOC is directly hit by lightning, we have redundant power, IT, and communication systems in place.
<b>Coastal Erosion</b>	Although there is no life-safety issue with coastal erosion, people living on the coastline of Volusia County are at risk to this hazard type. Because coastal erosion can be a result of tropical storms, hurricanes, and nor'easters, homes and structures built along the coastline may be damaged in a hurricane event. Homes may fall into the ocean and protective dunes may be destroyed.	All property along the coast of Volusia County is at risk to coastal erosion. Private properties in some areas lose inches or feet of beach each year to eroding coastlines. Coastal erosion has caused over \$400,000,000 in damages. (Table 5.13) For a map of critical erosion areas, see Figure 5.8.	The environment is extremely vulnerable to coastal erosion. Erosion can occur via wind or water. Erosion of soil and sand can lead to sedimentation in waterways, loss of habitat for coastal ecosystems, and changes in the coastal geomorphology. (Section V)	Program operations are not at risk to coastal erosion. The VCEOC is located 20 miles inland from the coast.
<b>Sinkhole</b>	Sinkholes are a natural and common geologic feature in areas with underlying limestone and other porous rock types that are soluble in water. There were 80 sinkholes in Volusia County between 1973 and 2005. (Table 5.12) People are at risk to sinkholes should the structure or car they are in be impacted by a sinkhole suddenly opening. No injuries from sinkholes have been recorded in Volusia County.	Property is at risk to sudden sinkhole formation, particularly in west Volusia County. In 2004, a sinkhole devoured a 160 foot section of Howland Boulevard in Deltona. It is estimated it took 1 million cubic yards of dirt to fill it.	The most important environmental issue with respect to sinkholes is the sensitivity of aquifers to groundwater contamination. The effect of man on sinkholes is most severe in cases where polluted surface waters enter sinkhole aquifers. Since they are natural holes, they are attractive sites for the dumping of trash and HAZMAT.	There are no risk to program operations from sinkhole formation.
<b>Tsunami</b>	The residents of the coastal region of Volusia County are at risk to a tsunami. In August 2008, a qualitative tsunami hazard assessment indicated that the U.S. Atlantic coast has a very low Tsunami risk based on low wave run-up, low tsunami hazard frequency, and no reported fatalities. That said, a tsunami event could potentially impact a significant portion of the coastal population. Fortunately there should be a minimum six hours advance notice, sufficient time to evacuate the vulnerable population.	Should a tsunami event impact Volusia County, severe or catastrophic damage could occur. Massive amounts of vegetative and construction debris would result, boats would be washed inland, power lines could collapse, and underground utilities could be destroyed. (Section V)	A tsunami event could be environmentally devastating. Vegetation in large stretches of the coast would be hurt substantially as saltwater-tolerant mangroves and grasses take over from other species. For rare animals with specific reproduction sites, like marine turtles, the tsunami's effects could spell extinction. Salt water intrusion into aquifers would occur. Sewage and other pollutants would contaminate ground water.	Program operations may be impacted by a tsunami. Although Volusia County has never experienced a tsunami, VCEM developed a tsunami response plan that indicated response and recovery efforts may become strained. We will rely on assistance from other counties through mutual aid, the State and FEMA. It may take months to return program operations to a normal level.
<b>Storm Surge</b>	Storm surge occurs when the water level of a tidally influenced body of water increases above the normal astronomical high tide and is associated with tropical storms and hurricanes. Storm surge is the biggest threat to people associated with a tropical cyclone. It is critical for those living in storm surge zones to evacuate when ordered to do so.	All of Volusia County's 48 miles of coastline are vulnerable to storm surge. (Figure 5.11) Billions of dollars of property are located in storm surge zones. The State of Florida has established a Coastal Construction Control Line (CCCL). To minimize property damage, no structures may be built seaward of this line. During several previous storm surge events, some parts of SR A1A were undermined.	Storm surge can be extremely detrimental to the environment, destroying turtle nesting sites, inundating coastal areas and rivers with saltwater, polluting ground water, and killing sensitive vegetative ecosystems.	Program operations may be impacted by a large storm surge event (Category 3 or higher hurricane). Although Volusia County has never experienced a large storm surge event, we have experienced many small-scale storm surge events that caused homes to flood and moderate coastal erosion. Some routine program operations were suspended until the VCEOC returned to a Level 3 (monitoring) status.
<b>Public Health Emergencies</b>	All Volusia County residents are at risk to public health emergencies such as a pandemic influenza, pneumonic plague, epidemic, food contamination, etc. The very young and the very old are especially vulnerable as their immune systems are fragile. Public health emergencies may be accidental, natural, or intentional. Several cases of dengue fever (DEN-1) have been reported in Martin County. None have been reported in Volusia County to date. Volusia County has experienced cases of imported malaria. Although rare, there have been cases of west Nile virus encephalitis in Volusia County. Fortunately WNV is asymptomatic in 80% of the cases.*	Property is not directly at risk to public health emergencies. In rare instances, agriculture may be the source of a deadly bacteria or virus that can spread to consumers.	The environment is likely not to be impacted by a public health emergency unless it is terrorism or HAZMAT related. See HAZMAT/terrorism sections for more information.	Program operations may be impacted by a public health emergency. Historically, influenza and other public health emergencies have not impacted the County's ability to perform it's day-to-day program and VCEOC operations. In the event that numerous VCEOC members were impacted by the event, a reduced staff may be used to operate the VCEOC. Virtual communications from home offices may be required if the situation escalated. In these situations, the VCEOC may rely on assistance from other counties through EMAC. In some cases, it may take several weeks or months to return program operations to a normal level.
<b>Citation</b>	*www.floridahealth.gov			

RISK and VULNERABILITY (4.3.1) (con't)	 People	Property	Environment	Program Operations
HAZARD/HIRA				
Human-Caused or Technological				
<b>Cyber Attack</b>	A successful cyber attack at the local level may negatively impact the public's ability to conduct business with the County. It's possible that they would be unable to pay utility or tax bills online. On a national scale, increased online control of critical infrastructure means greater vulnerability of electrical power grids, water and transportation systems, oil pipelines, refineries and power-generation plants.	Property is not at risk from a cyber attack.	The environment is not at risk from a cyber attack.	Should a cyber attack take down the County internet/intranet system, emergency management programmatic activities may experience a minor impact. Cyber infrastructure enables storage and transfer of massive amounts of knowledge to enable planning, resource allocation, personnel deployment, and coordination of emergency situations. The Volusia County Information Technology Department would activate its COOP in this situation.
<b>Civil Disturbance</b>	The public may be negatively impacted by a civil disturbance. If a civil disturbance were to occur during a major NASCAR event, bystanders may be injured or killed. Similar results may occur during Biketoberfest and Bikeweek when hundreds of thousands of motorcycle enthusiasts visit Volusia County.	Property is at risk to a civil disturbance. Rioters may damage both private and public property, disrupting the ability to respond to the situation and causing damages in the hundreds of thousands of dollars. Florida has experienced seven major riots, beginning with the 1923 Rosewood riot, then 1967 Tampa riots, 1980 Miami riots, 1982 Miami riots, 1987 Tampa riots, 1989 Tampa riots, and most recently the 1996 St. Petersburg riots.	The environment is at moderate risk to a civil disturbance. Rioters may burn vehicles and buildings, releasing toxic gas, fumes, and fluids onto roads.	Program applications will not be adversely affected by a civil disturbance.
<b>Coastal Oil Spill</b>	The impact of a coastal oil spill may impact those with pre-existing breathing difficulties living close to the coast. The VCHD and VC Environmental Management will monitor air, water, sediment, and waste generated by the cleanup operations.	Property is not directly at risk from a coastal oil spill.	The environment is at high risk to the impacts from a coastal oil spill. Refer to the "Volusia County Coastal Oil Spill Cleanup and Debris Removal Plan" beginning on page 7 for a description of the potential environmental impact from an oil spill.	Program applications will not be adversely affected by a coastal oil spill.
<b>Terrorist Attack</b>	The citizens of Volusia County are at risk to a terrorist attack every day. Volusia County is home to NASCAR and hosts hundreds of thousands of visitors every year for race events, motorcycle events, and other spectator events such "Wings and Waves" and the New Smyrna Beach "Balloon Fest." Volusia County is home to five colleges and universities with an international blend of students. The risk of terrorist attack include injury and death.	Property is at risk to a terrorist attack. A single explosion or dirty bomb could destroy multiple facilities and injure or kill hundreds of people.	The environment is at risk to a terrorist attack. A dirty bomb or large explosion could potentially contaminate a large area.	Program operations are at minimal risk to a terrorist attack. The VCEOC is a hardened, secure facility. Should a terrorist attack occur in Volusia County, additional resources may be necessary that would be requested through mutual aid agreements and the State. Routine program operations may be temporarily suspended.
<b>Mass Migration</b>	The citizens of Volusia County are at minimal risk to a mass migration event.	Property is not directly at risk from a mass migration event.	The environment is at minimal risk to a mass migration event.	Program operations are at minimal risk to a mass migration event.
<b>HAZMAT (fixed, mobile, and terrorism)</b>	The citizens of Volusia County are at risk to Hazardous Materials (HAZMAT) every day. HAZMAT can come from fixed or mobile sources, (facilities, trains, semi trucks) or can be intentionally used for harm in a terrorist act. Citizens may be impacted on roadways, at school, in their homes, through their food supply, or in public venues (large stadiums, athletic events, movie theaters, the Speedway, etc). The risks of hazardous materials may be illness, injury, or death. With 2 major interstate highways, 2 major rivers, and 2 railroads in Volusia County, hazardous materials incidents occur on a daily basis; fortunately, the vast majority of these involve minor petroleum spills or sewage discharges.	Property in Volusia County is at risk and vulnerable to the impacts of hazardous materials. Chemical spills, bioterrorism, WAD, cyber attacks, etc, all impact our property and infrastructure. A single explosion could devastate a facility or cluster of facilities. Homes and businesses could receive damage or even collapse. Hazardous materials can erode or corrode infrastructure as well.	The environment is highly vulnerable to hazardous materials, regardless if the release or spill is accidental, intentional, or natural. Hazardous materials can be spread through water, air, or the food supply. Once HAZMAT are in environmental systems, it may take days, weeks, months, or years to clean-up.	Program operations are at a minimal risk to HAZMAT. The VCEOC is not located in close proximity to any hazardous materials facilities. Volusia County Environmental Management, the lead agency for hazardous materials (ESF 10), would work closely with the Volusia County Fire Services HAZMAT team during a large HAZMAT event.
<b>Agroterrorism</b>	Agroterrorism is a term used to denote the deliberate introduction of disease-causing organisms and chemicals into the food supply through agriculture. It could impact the public if crops or agricultural foodstuffs contaminated with disease-causing organisms were to enter the food chain.	Agroterrorism could potentially impact crops and livestock. Losses could be in the millions of dollars.	Agroterrorism could have a negative impact on the environment from the standpoint of crop destruction.	Program applications will not be adversely affected by an agroterrorism event. If necessary, additional support would be requested through mutual aid and FDEM.

**Citations:**

US Census Bureau	<a href="http://www.census.gov">www.census.gov</a>
FEMA	<a href="http://www.fema.gov">www.fema.gov</a>
FloodSmart	<a href="http://www.floodsmart.gov">http://www.floodsmart.gov</a>
U.S. - Italy Research Workshop	<a href="http://training.fws.gov/CSP/Resources/conservation_science_web_series/information_page/dubow/Environmental_Effects_of_Extreme_Floods.pdf">http://training.fws.gov/CSP/Resources/conservation_science_web_series/information_page/dubow/Environmental_Effects_of_Extreme_Floods.pdf</a>
National Flood Hazard Layer	<a href="https://hazards.fema.gov/femaportal/wps/portal/NFHLWMSkmzdownload">https://hazards.fema.gov/femaportal/wps/portal/NFHLWMSkmzdownload</a>
NOAA Wildfire Report 2012	<a href="http://www.ncdc.noaa.gov/sotc/fire/">http://www.ncdc.noaa.gov/sotc/fire/</a>
Florida Riot History	<a href="http://www.connexions.org/CxLibrary/Docs/CxP-Riots_List.htm">http://www.connexions.org/CxLibrary/Docs/CxP-Riots_List.htm</a>

CONSEQUENCES (4.3.2)	 The Public	Responders	Continuity of Operations & delivery of services	Property, facilities & infrastructure
HAZARD/HIRA				
Natural				
Hurricanes/Tropical Storms	<p>The public may face extreme consequences from hurricanes and tropical storms. Hurricanes have the potential to injure and kill people, destroy residences and businesses, and interrupt water, power, and sewer services necessary to return to a normal way of life. Regardless if citizens have insurance or receive assistance, the recovery process from a major hurricane may be very costly and take weeks, months, or years to complete and have serious psychological impacts.</p>	<p>Responders may face extreme difficulties when responding to a hurricane or tropical storm event. Hurricanes can down trees and power lines, destroy critical infrastructure such as local EOCs, fire stations, and hospitals, and damage bridges, roadways, and government buildings critical for response and recovery operations. Responders may have to rescue citizens isolated without resources. Responders should be aware of their risks at all times.</p>	<p>In an extreme event, such as a major hurricane, there may be an impact on delivery of routine program operations as the focus will be on response/recovery to the event.</p>	<p>There are numerous potential consequences that may result from a hurricane or tropical storm. Property along the coast and in storm surge areas may be severely impacted or destroyed. County facilities along the coast in storm surge zones have been identified. Critical infrastructure such as utilities, roadways, bridges, hospitals, EOCs, Police/Fire/EMS stations may be damaged or destroyed in an event.</p>
Floods	<p>The public may face extreme consequences from flooding and/or flash floods (although Volusia County does experience true "flash flooding"). Floods have the potential to injure and kill people, especially those who drive through flooded roadways. Floods can destroy residences and businesses, and interrupt water, power, and sewer services necessary to return to a normal way of life. Regardless if citizens have flood insurance or receive assistance, the recovery process from a flood may be very costly and take weeks, months, or years to complete.</p>	<p>Responders may face difficulties when responding to a flood event. Floods can destroy homes, businesses, and critical infrastructure such as local EOCs, fire stations, and hospitals. Floods can wash out bridges and roadways, as well as destroy government buildings critical for response and recovery operations. Responders may have to perform swift water rescues to citizens trapped in flooded areas. (This occurred during Tropical Storm Fay). Responders should be aware of their risks at all times.</p>	<p>The VCEOC is not located in a SFHA; however, many access roads may be impacted by flooding. In an extreme flood event, there may be an instance when access to the VCEOC is difficult. If something like this should occur, EOC personnel may be transported by VCSO's helicopter assets or all terrain vehicles.</p>	<p>There are numerous potential consequences that may result from a flood. Property in the floodplain or other low-lying areas may be severely impacted or destroyed. County facilities in the floodplain have been identified. Critical infrastructure such as utilities, roadways, bridges, and Police/Fire/EMS stations may be damaged or destroyed in an event.</p>
Thunderstorms	<p>The public may face some minor consequences from a thunderstorm. Thunderstorms have the potential to injure and/or kill people, damage residences and businesses, and interrupt power service. These impacts are very minimal compared to hurricanes and floods. It is important for beach goers to leave the beach when a thunderstorm approaches. Boaters and golfers should seek shelter. Recovery from a thunderstorm event may take several days.</p>	<p>Responders may face some difficulties when responding to a thunderstorm event. Trees may be down, blocking critical roadways and access points. Power lines may also be down in roadways or on private property creating a dangerous situation. Localized flooding may make some roads impassible.</p>	<p>VCEMD does not anticipate any issues maintaining operations and the delivery of services following a thunderstorm. In a catastrophic event, VCEMD has a COOP Plan in place that could be activated and implemented at any time.</p>	<p>Consequences to property, facilities, and infrastructure from thunderstorms are minimal. Downed trees and power lines are typical consequences from thunderstorms. Roofs and windows of homes and businesses may be damaged. Power service to residences and critical facilities may be impacted in the short-term.</p>
Tornados	<p>All of the public in Volusia County is at risk to tornados. Tornados are a common occurrence in Volusia County. The public could face serious consequences from a touchdown, particularly mobile home residents. Tornados can be deadly. Common consequences are damage to homes and businesses, interruption of utility services, and devastation to the local economy.</p>	<p>Responders may face significant difficulties responding to a tornado touchdown. Search &amp; rescue operations may be required. Communication systems may be destroyed. In an extreme event, road signs and landmarks may be missing when trying to navigate to citizens in need. Power lines, debris, and trees may block roadways and access points. Responders should exercise extreme caution.</p>	<p>VCEMD does not anticipate any issues maintaining operations and the delivery of services in the event of a tornado in the County. If there is a widespread tornado outbreak, or if the VCEOC is directly hit by a tornado, it may be necessary to move to the alternate EOC location or function from another location to maintain operations during the event. For more information, see the VCEMD COOP Plan.</p>	<p>All property in Volusia County is at risk to tornados. The consequences to property, facilities, and infrastructure from a tornado may be catastrophic. Depending on the scale of the tornado, damage could be minimal or cataclysmic. Historically, Volusia County's greatest magnitude tornado was an EF3. An EF3 can cause extensive damage, level well constructed homes and buildings, uproot trees, and throw heavy vehicles. Public infrastructure and utilities may be demolished.</p>
Wildfire	<p>The public will feel the direct consequences of a wildfire if their home or place of employment is in the wildfire impact zone. Homes and businesses may be destroyed in a fire, utility service could be interrupted, and access to roadways may be limited. The public may also be impacted by air pollution from the wildfires.</p>	<p>Responders will be directly impacted by a wildfire. Wildfires may change directions quickly as the wind and environmental elements change. Wildfires are often difficult to control and may take numerous resources to do so. Inhalation of smoke and fumes may pose a health risk to firefighters.</p>	<p>VCEMD does not anticipate any issues maintaining operations and the delivery of services during a wildfire. In an event that directly impacts the VCEOC, VCEMD has a COOP Plan in place that could be activated and implemented at any time.</p>	<p>Property, facilities, and infrastructure in the wildfire zone may be significantly impacted. Homes and businesses may be destroyed in a fire, utility service could be interrupted, and access to roadways may be limited.</p>
Drought/Extreme Heat	<p>Consequences of drought and extreme heat on the public are not always direct. Agriculture will be the most directly impacted by drought. The public's food supply may be impacted. If water restrictions are implemented by government, residential lawns and gardens will be impacted.</p>	<p>Responders will not be impacted by drought. In extreme heat, caution should be exercised for first responders. Responders must be sure to maintain adequate hydration.</p>	<p>Historically VCEMD has not had any issues continuing operations and delivering services during droughts or extreme heat events.</p>	<p>Homes, businesses, critical facilities and infrastructure should not be significantly impacted by drought and extreme heat. In some drought situations, river flows may be reduced and impact hydrologic processes such as irrigation capacities, and tourism related businesses (lakes, golf courses, etc). The St Johns River Water Management District may prohibit lawn irrigation, which may impact residences and golf courses. Wells may fall to dangerously low levels.</p>
Hail	<p>Consequences of hail on the public include possible injuries and, in extremely rare cases, death. Hail may indirectly cause public injury if it results in automobile accidents. Because hail is a product of thunderstorms, see "Thunderstorms" for more consequences to the public.</p>	<p>Consequences of hail on responders is minimal. Hail is typically a very brief event due to physics of the atmospheric conditions in Volusia County that are required to make hail. Responders should remain inside during hail storms. Because hail is associated with thunderstorms, see "Thunderstorms" for more information.</p>	<p>VCEMD will not have any issues continuing operations and delivering services during hail events. See "Thunderstorms" for more information.</p>	<p>Hail has the potential to damage property, facilities, and infrastructure. Large hail can puncture roof tops, windshields, vehicles, windows, and other outdoor structures. Because hail is associated with thunderstorms, see "Thunderstorms" for more information.</p>

CONSEQUENCES (4.3.2) (con't)	 The Public	Responders	Continuity of Operations & delivery of services	Property, facilities & infrastructure
HAZARD /HIRA				
Natural				
Severe Winter Storms	Consequences to the public from winter weather include cold temperatures and the potential loss of power. The major impact of severe winter storms in Volusia County is on the homeless population. Shelters may need to be opened during severe winter storms.	Responders will not be adversely impacted from a severe winter storm, as the duration is limited in Volusia County.	Program operations will continue during a winter weather event. If there is a power outage, VCEMD has redundant power, IT, and communication systems in place to maintain operations. VCEMD will continue to coordinate the statewide response throughout the entire winter weather event.	The greatest potential impact of cold weather is on the County's agricultural industry. Orange groves may freeze. The fern industry could be seriously impacted. This could result in lost jobs, most of which are held by migrant workers.
Lightning	Consequences of lightning on the public include possible injuries and, some cases, death. Lightning may strike homes and businesses, potentially sparking a fire or damaging electrical systems. Because lightning is a product of thunderstorms, see "Thunderstorms" for more consequences to the public.	Consequences of lightning on responders are minimal. Lightning may spark building and housing fires, requiring immediate response. When possible, responders should remain inside if there is lightning. Because lightning is associated with thunderstorms, see "Severe Thunderstorms" for more information.	VCEMD will not have any issues continuing operations and delivering services during lightning events. In the event of a lightning strike to the building, VCEMD has a backup power generator, redundant communication systems, and has a IT failover system in place. See "Severe Thunderstorms" for more information.	Lightning has the potential to damage property, facilities, and infrastructure. Lightning can spark fires and destroy electrical systems. From 1996 - 2013, NOAA's Climatic Data Center reports there has been 1 fatality, 20 injuries, and \$1.37 million in property damage caused by lightning in Volusia County. Because lightning is associated with thunderstorms, see "Severe Thunderstorms" for additional information.
Storm Surge	Consequences of storm surge on the public could be devastating. During storm surge, sea water inundates low lying areas of coastal regions drowning human beings and livestock, erodes beaches and embankments, destroys vegetation and reduces soil fertility.	Consequences of storm surge on responders would be similar to those encountered during a major hurricane.	If there were a major storm surge event, routine program operations may be impacted to a similar extent as during a major hurricane.	Storm surge has the same potential impact on property, facilities, and infrastructure as do major hurricanes.
Coastal Erosion	The public faces numerous consequences to coastal erosion. Coastal erosion plagues many of the public beaches in Volusia County. In addition to the loss of public beaches, private property and homes could be destroyed. Homes could into the ocean in some rare instances.	Responders will not be impacted by coastal erosion.	VCEMD will not have any issues continuing operations and delivering services due to coastal erosion.	Properties, facilities, and infrastructure along the coastline may be impacted by coastal erosion. Coastal erosion can cause homes to fall into the ocean. Critical utilities and roadways may be impacted if the beaches erode and water is able to inundate their systems. Tax revenue may be impacted.
Tsunami	Consequences of a tsunami on people would be similar to those of a major storm surge event.	Consequences of a tsunami on responders would be similar to a major storm surge event.	The impact of a tsunami on program operations would be similar to a major storm surge event.	The impact of a tsunami on property, facilities, and infrastructure would be similar to that experienced during a major storm surge event.
Sinkhole	Consequences of a sinkhole on people would be minimal. Should a major sinkhole form on or near a major roadway,, it's possible cars may drive into it before responders arrive.	Consequences of a sinkhole on responders would be minimal.	There would be no impact on program operations from a sinkhole.	The impact of a sinkhole on property, facilities, and infrastructure would be minimal. The most expensive sinkhole event was the sinkhole that opened on Howland Blvd in Deltona. Approximately 1 million cubic yards of dirt was needed.
Public Health Emergencies	Consequences to the public from public health emergencies (influenza, plague, food contamination, etc) are vast. The public may experience temporary illness, long-term illness, or even death. Hospitals and doctor's offices may become crowded, patients may experience long lines, and pharmaceuticals may be limited. In 2009, the H1N1 pandemic swept the U.S. Vaccinations, medications, and education materials were provided to the public to minimize the impacts of the flu. (CDC H1N1 Flu)	Responders may also feel the consequences of public health emergencies. They may be exposed to the risk and become ill. Responders may have to wear protective gear and receive vaccinations to mitigate their risk. For more information on a Public Health Emergency Response, refer to the VCHD pandemic flu annex.	In an extreme event, such as a widespread public health emergency, there may be an instance when the VCEOC is impacted. If the VCEOC becomes contaminated, it may be necessary to move to our alternate EOC location or function from another location to maintain operations during the event. For more information, see the VCEM COOP Plan.	It is unlikely that the consequences of a public health emergency would impact property, facilities, or infrastructure.

CONSEQUENCES (4.3.2) (con't)	 The Public	Responders	Continuity of Operations & delivery of services	Property, facilities & infrastructure
HAZARD /HIRA				
Human-Caused or Technological				
<b>Terrorist Attack</b>	The public is at risk to a terrorist attack. NASCAR events typically have over 100,000 spectators. Bikeweek/Biketoberfest draw 500,000 participants. We have 5 colleges and universities, and most have stadiums. Shopping malls are plentiful. The consequences of a terrorist attack may be serious injury, death, and psychological impairment.	Responders are at risk to a terrorist attack. It's possible responders could be injured or killed attempting to rescue survivors from buildings. Secondary devices are always a concern.	Continuity of operations would not be seriously impacted by a terrorist event. The CEOC is a secure, hardened facility. If there were a direct attack on the CEOC, it would be limited to the lobby area. In such a case, it may be necessary to move to our alternate EOC for a short period.	Property, facilities, and infrastructure are all at risk to a terrorist attack. Since 9/11, the County and its municipalities, as well as colleges and universities, have taken tremendous effort to increase security and educate the public about terrorist attacks.
<b>Cyber Attack</b>	The impact on the public from a cyber attack could be substantial in a worst-case scenario. If the grid were to be taken out, an extended period of power outage would cause food to spoil. Medication that requires refrigeration could be lost. People dependent on ventilators and oxygen concentrators could be impacted.	Responders would not be impacted by a cyber attack.	Continuity of operations would not be seriously impacted by a cyber attack. Information contained on the County web site would be unavailable.	The impact of a cyber attack on property, facilities, and infrastructure would be minimal.
<b>Civil Disturbance</b>	The impact on the public from a civil disturbance would be limited to those taking part in the civil disturbance and those in the vicinity of the event.	Responders may be impacted by a civil disturbance. It's possible that responders could be injured or killed by those instigating the civil disturbance. Responders must exercise extreme caution when dealing with a civil disturbance.	Continuity of operations would not be seriously impacted by a civil disturbance. The VCEOC is a secure facility. In extreme events, mutual aid would be requested from adjacent counties.	The impact of a civil disturbance on property, facilities, and infrastructure could be substantial. Homes and businesses could be burned. Facilities could be damaged. Streets may be blocked.
<b>Mass Migration</b>	The impact on the public from a mass migration event would be minimal.	The impact on responders to a mass migration event would be limited to those responders managing the mass migration population.	Continuity of operations would not be seriously impacted by a mass migration event. In a large event, mutual aid would be requested from adjacent counties.	The impact of a mass migration event on property, facilities, and infrastructure would be minimal.
<b>Coastal Oil Spill</b>	The impact of a coastal oil spill on the public would be minimal. Persons with pre-existing breathing issues may be impacted by fumes. Volusia County Environmental Management and the VCHD will monitor air quality.	Responders may be impacted by a coastal oil spill. Appropriate PPE will have to be worn at all times to prevent contamination.	Continuity of operations would not be impacted by a coastal oil spill.	It is unlikely that a coastal oil spill will have an impact of property, facilities, or infrastructure. Oil may contaminate docks and boats if were to enter through Ponce de Leon inlet.
<b>Agroterrorism</b>	The public may be adversely impacted by an agroterrorism event. If food or agriculture is infected with a disease causing organism, it may make its way into the food chain. The effects could impact hundreds or thousands of citizens.	Responders may be impacted by an agroterrorism event if they are exposed to food or agricultural products infected with a disease causing organism.	Continuity of operations would likely not be impacted by an agroterrorism event.	It is unlikely that an agroterrorism event would have an impact on property, facilities, or infrastructure.
<b>HAZMAT (fixed, mobile and terrorism)</b>	The public will be immediately impacted by the consequences of a Hazardous Materials (HAZMAT) release/spill/explosion. HAZMAT can come from fixed or mobile sources, or can be intentionally used for harm in a terrorist act. Citizens may be impacted on roadways, at school, in their homes, through their food supply, or in public venues (large stadiums, athletic events, movie theaters, etc). The consequences of hazardous materials may be illness, injury, or death. In a major event (such as a radiological release, explosion, or chlorine spill), citizens may be displaced from their homes until the site is cleaned.	Responders face the immediate consequences of HAZMAT incidents. They must determine the type of material released/spilled, and decide on the appropriate response and cleanup of the material. The County has a variety of response teams to include HAZMAT, RMAT (radiological material), and EOD (bomb squad). These responders are specially trained to deal with these incidences and they are provided protective gear to reduce their vulnerability to the hazardous materials.	In the event of a HAZMAT release/spill or Terrorist act, there may be an instance when the VCEOC is impacted. If the VCEOC is damaged or the delivery of services is interrupted, it may be necessary to move to our alternate EOC location or function from another location to maintain operations during the event. For more information, see the VCEMD COOP Plan.	Property, facilities, and infrastructure will be significantly impacted by a HAZMAT incident. Especially in the event of an explosion, homes, businesses, industries, and infrastructure may be damaged or destroyed. In addition, most mobile hazmat releases are caused by traffic accidents, which can destroy vehicles, roadways, and signage.
<b>Citations:</b>				
CDC H1N1 Flu	<a href="http://www.cdc.gov/h1n1flu/">http://www.cdc.gov/h1n1flu/</a>			
VCHD Public Health Preparedness	<a href="http://www.floridahealth.gov/chd/Volusia/HurricaneInformation.html">http://www.floridahealth.gov/chd/Volusia/HurricaneInformation.html</a>			
CSIRO impacts of an oil spill	<a href="http://www.csiro.au/Outcomes/Oceans/Hot-ocean-topics-index/Environmental-impact-of-oil-spills.aspx">http://www.csiro.au/Outcomes/Oceans/Hot-ocean-topics-index/Environmental-impact-of-oil-spills.aspx</a>			
U.S. States & Territories National Tsunami Hazard Assessment: Review and Update	<a href="http://nthmp.tsunami.gov/2012tsuhazworkshop/abstracts/Dunbar-Weaver_abs.pdf">http://nthmp.tsunami.gov/2012tsuhazworkshop/abstracts/Dunbar-Weaver_abs.pdf</a>			

CONSEQUENCES (4.3.2) (con't)	 Environment	Economic condition of the Jurisdiction	Public Confidence in governance
HAZARD/HIRA			
Natural			
Hurricanes/Tropical Storms	Consequences to the environment include erosion of critical dunes, impacts to sensitive coastal ecosystems, downed trees and vegetation, and polluted waterways from the runoff of debris and hazardous materials. VC Environmental Management and the VCHD will take the lead on the monitoring and cleanup of any adverse environmental impacts.	Hurricanes and tropical storms have impacted Volusia County in the hundreds of millions of dollars. The 2004 hurricanes were the largest, most costly disaster. The economic impact to affected jurisdictions has been significant. In any hurricane event, the impact to tourism is millions of dollars a day. It may take several years to recoup the economic costs of a single hurricane event.	Maintaining public confidence in emergency management and County Government is vital. To ensure the public is prepared for a hurricane, VCEMD has completed the following: 1) Video Disaster Preparedness Guide available on the website, 2) Surveys capturing behavioral patterns are conducted after every hurricane evacuation out to gauge the level of preparedness and evacuation compliance, 3) Numerous public presentations, 4) VCEMD prepares for hurricane season with a countywide media campaign through VC Community Information and the Daytona Beach News Journal 5) In the event of a hurricane, the PIO section has premade materials for use in VCEMD's comprehensive social media program; 6) Throughout the year VCEM provides preparedness information via the County's weekly video magazine broadcast on WDSC. All of these programs are in place to instill public confidence in government, even in times of a disaster. For more information, see the ECFRPC Behavioral Analysis documenting evacuation order compliance.
Floods	Environmental consequences to flooding are vast. Flooding may erode river beds, causing sediments to enter the waterways, clogging our water management systems & waterways downstream. Floods can bring hazardous materials or pollution into waterways via runoff. Riparian ecosystems are negatively impacted with the introduction of sediments, pollutants & nutrients. VCHD and VC Environmental Management will monitor the waterways and riparian areas for any adverse impacts.	From 1994 - 2009 there were 11 major flood events in Volusia County causing over \$100,000,000 in damages. (Table 5.14) As of 2010, repetitive losses in the County total almost \$36,000,000 (Table 5.15). The impact of flooding on transportation, agriculture, business continuity, and government services is substantial. Mitigation practices can reduce the impact of flooding on our economy. It is also important that citizens and businesses purchase flood insurance so they can be operational in a short amount of time.	Education, mitigation activities, and awareness are key components to maintaining public confidence in government during a disaster. In conjunction with FEMA, NOAA, USACE, FDEM, and the Florida Department of Insurance, the County provides information on floods and flood insurance to the public. During the NFIP mapping process, citizens were invited to participate and learn about flood risks. VCEMD has distributed over 5,000 NOAA weather radios to mobile home residents to alert them of flood events. VCEMD has premade media products for their social media campaign if there is an event. Additionally, VCEMD has managed 38 Flood Mitigation Assistance grant projects, mitigating homes against future flood losses. This serves to build public confidence in governance.
Thunderstorms	Thunderstorms in Volusia County have historically had few consequences to the environment. In some cases, these storms can down trees and vegetation and cause localized flooding. Please see the "Floods" above. No major consequences to the environment are expected.	Consequences to the economic condition of the County will be minimal. The County has numerous thunderstorms throughout the year. The annual cost of damage to property and infrastructure is minimal.	Public confidence in government will not be impacted by severe Thunderstorm Events. In the case of a catastrophic storm, VCEMD has premade media products for distribution on our webpage and or on our social media outlets (@VCEMDergencyinfo). NOAA weather radios will also send out important information to citizens so they can educate themselves and find resources after the event.
Tornadoes	Because of the vast range of wind speeds associated with tornadoes, consequences to the environment vary greatly. Even an EF0 (65-85mph) can uproot trees and vegetation. In stronger tornadoes, debris will be tossed miles away from the source, potentially entering our waterways. Hazardous materials may escape if vehicles are damaged or storage tanks are compromised. VC Environmental Management and VCHD would monitor the environment for adverse impacts.	Tornadoes are typically a local disaster. The County's economy may only be minimally impacted by a tornado event. If a large outbreak occurred, there could be a greater economic effect. If a small community was hit by a severe tornado, the entire community & local economy could be devastated. Local assistance through the County COAD, especially the American Red Cross, would be utilized.	Public confidence in government will not likely be impacted by a tornado event. If there is a countywide tornado outbreak, VCEMD has premade media products for distribution or on social media outlets (@VCEMDergencyinfo). NOAA weather radios will also send out important information to citizens so they can educate themselves and find resources after the event. Some local communities have tornado sirens and community safe rooms to protect their citizens.
Wildfire	Although wildfires are a natural process, the environment may be negatively impacted. Not only are trees impacted by these fires, so are the native species of plants and animals. The smoke and ash from the fires can pollute waterways and our air. The VC Fire Services and VCHD will monitor the air and water quality in an event.	Wildfires are typically a local disaster and the County's economy should not be impacted to a large extent. If a large fire does occur and cannot be controlled quickly, there could be a greater economic effect. The Coke Zero race was postponed one year due to smoke from wildfires. If a small community was hit by a wildfire, the local economy could be devastated. Local assistance through the County COAD, especially the American Red Cross, would be utilized.	Public confidence in government will likely not be impacted by a wildfire event. If a large wildfire occurs that cannot be quickly controlled, VCEMD has premade media products for distribution and through social media outlets (@VCEMDergencyinfo). NOAA weather radios will also send out important information to citizens so they can educate themselves and find resources after the event. In 1998, 29,000 homes were at risk from the wildfires. Only 6 homes, 1 mobile home, and 2 businesses were lost. This success serves to bolster public confidence in governance. (5.14.3)
Drought/ Extreme Heat	Environmental consequences of drought & extreme heat are significant. Drought reduces the availability of water, reduces crop yields, & impacts our local ecosystems. Droughts may result in an increase in wildfires. For instance, the 1998 drought contributed directly to the wildfires that burned over 163,000 acres. (Section V)	Drought has the potential to significantly impact the County's economy. The annual economic impact of Volusia County's agriculture and natural resources industries is \$781 million. An extended period of drought could seriously impact this.	Public confidence in government will likely not be impacted by a drought or extreme heat event. Droughts are common in Florida and Volusia County. Insurance and assistance programs are widely available to farmers.
Hail	There are no known direct consequences on the environment from Hail. See "Thunderstorms" for more information.	Consequences to the economic condition of the County will be minimal to non-existent, as hail is a fairly uncommon event. The County has very few hail events each year. The annual cost in damages is minimal. Most of the damages from hail are covered under homeowners insurance and auto insurance & therefore do not impact local economy.	Public confidence in government will not be impacted by a hail event. See "Thunderstorms" for more information.

CONSEQUENCES (4.3.2) Part 2	Environment	Economic condition of the Jurisdiction	Public Confidence in governance
<b>HAZARD/ THIRA</b> <i>Natural</i>			
<b>Severe Winter Storms</b>	Consequences to the environment from winter weather are minimal. Non-native plant species may be impacted.	The economic condition of the County may be impacted by an extended cold spell. The fern industry would be impacted the most.	Public confidence in government will likely not be impacted by a winter weather event. Winter weather is not a common occurrence in Volusia County.
<b>Lightning</b>	Consequences to the environment from lightning are minimal. The greatest impact is lightning-generated fires. In the case of a fire, see "Wildfires" for more information. Also see "Severe Thunderstorms" since lightning is associated with this hazard type.	Consequences to the economic condition of the County will be minimal to non-existent. Most of the damage resulting from lightning strikes are covered under homeowners insurance, & therefore do not impact the local economy.	Public confidence in government will not be impacted by a lightning event. See "Thunderstorm" for more information.
<b>Storm Surge</b>	Consequences to the environment from storm surge could be devastating. Salt water intrusion into sensitive estuaries could destroy ecosystems. Salt water would intrude into the aquifer, our source for drinking water. Storm surge would spread sewage from septic systems.	Consequences to the economy from a storm surge event are potentially devastating. Homes and businesses would be destroyed. The property tax base would suffer. Tourism, a main driver of our economy, would be impacted.	Public confidence in government may be impacted depending on the speed of recovery. If the recovery process is perceived to going too slowly, public confidence in the government would be lessened. This is a real possibility considering that the public expects immediate response from the government. Public confidence in government suffered in the wake of hurricanes Katrina and Sandy.
<b>Coastal Erosion</b>	There are several consequences to the environment from coastal erosion. Coastal erosion by wind or water can deplete the coastal ecosystems. Protective dunes on the shore may be reduced or washed away in hurricanes and high surf. Eroded sands and soil can enter water and sewer systems, causing issues for the public and environment.	Coastal erosion is very costly and can burden local economies. Beach nourishment is extremely costly, approximately \$2.00/cubic yard.	Public confidence in government should not be impacted by coastal erosion. Rapidly eroding beaches remain a high priority for nourishment.
<b>Tsunami</b>	The consequences to the environment from a tsunami would be similar to that of storm surge.	The consequences to the economy would be similar to that of storm surge.	Public confidence in government may be impacted to a similar extent to that of storm surge.
<b>Sinkhole</b>	The most important current and future environmental issue with respect to sinkholes is the sensitivity of sinkhole aquifers to groundwater contamination. The effect of man on sinkholes is most severe in cases where polluted surface waters enter sinkhole aquifers.	There will not be a major impact to the economy due to a sinkhole event.	Public confidence in government should not be impacted by a sinkhole event.
<b>Public Health Emergencies</b>	Consequences to the environment from a public health emergency are unlikely. Unless the event is terrorism or HAZMAT related, there will be no direct impact. See HAZMAT below for more information.	The economic condition of the County may be impacted by a widespread public health emergency. If a significant percentage of the population becomes ill, they will not be able to go to work or spend money. The economy will be directly impacted by both of these factors. With vaccinations and early detection of pandemics and other public health issues, the impacts can be minimized.	Public confidence in governance may be minimally impacted by a public health emergency. In Volusia County, Environmental Management and the VCHD monitors air & water quality, tracks potential influenzas & other contagious viruses/bacteria, and provides education & outreach on health. VCHD advertises their public health preparedness capabilities online to show transparency to the public. VCHD also runs hospital preparedness programs and hosts healthcare coalitions & partnerships. In a widespread event, VCHD is prepared to meet the needs of the public. Therefore, public confidence in government should only be minimally impacted in a major event.

CONSEQUENCES (4.3.2) Part 2	 Environment	 Economic condition of the Jurisdiction	 Public Confidence in governance
HAZARD/HIRA <i>Human-Caused or Technological</i>			
<b>Terrorism</b>	The environment could be impacted by a terrorist event, particularly if a dirty bomb were used. A large explosion at a facility could release large amounts of asbestos and other toxic materials that would be carried by the wind and possibly enter lakes and rivers.	In the event of a large terrorist attack, the economy would be negatively impacted. Tourism would certainly be impacted to a serious degree.	Public confidence in government would be impacted by a terrorist event. If there were a large event at a large gathering of people (the Speedway, for example) and there were numerous deaths and injuries, the public would perceive that government's ability to detect and prevent terrorist attacks was unsatisfactory. Even if there were a small event, the public would expect the government to have had advance information. A dedicated public affairs effort would be necessary to try to regain the public's confidence.
<b>Cyber Attack</b>	Consequences to the environment would not result from a cyber attack.	The economic condition of the County may be impacted by a cyber attack. Citizens may not be able to use computers to order goods and services or pay bills online. Online delivery of public services may be diminished.	Public confidence in government may be impacted by a cyber attack, particularly if major systems such as the electrical grid are impacted. The public may perceive that the government did not take sufficient steps to prevent the attack, and that recovery from the attack is taking too long.
<b>Civil Disturbance</b>	Minimal consequences to the environment may result from a civil disturbance in the form of smoke and hazardous fumes from fires.	The economic condition of the County may be impacted by a civil disturbance. If there were a large event, tourists may be hesitant to visit Volusia County due to the perception that it is not safe to do so. Homes, businesses, and critical facilities may be damaged and require expensive repairs. If large numbers of businesses were impacted, tax revenue would be impacted.	Public confidence in government may be impacted by a civil disturbance. If the government is unable or takes too long to bring the civil disturbance under control, the public may perceive that government is not able to deal with this type of event.
<b>Mass Migration</b>	There would be no consequences to the environment from a mass migration event.	The economic condition of the County should not be impacted by a mass migration event.	Public confidence in government may be impacted by a mass migration. If the government is unable or takes too long to manage the event by efficiently organizing processing, screening, and housing the migrants, the public may perceive that government is not capable of dealing with a mass migration event.
<b>Coastal Oil Spill</b>	There would be serious consequences to the environment from a coastal oil spill. Sensitive ecosystems would be damaged. Turtle nesting sites may be destroyed. The sand would be contaminated.	The economic condition of the County would be seriously impacted by a coastal oil spill event. During the Deep Water Horizon oil spill, tourism in Volusia County suffered as people thought all of Florida was impacted. All of our charter fishing industry would be devastated. If a coastal oil spill were to occur here, tourism would cease. Businesses located on the peninsula may have to permanently shut down. Tax revenue would be severely impacted.	Public confidence in government would be impacted by a coastal oil spill event. Clean-up and environmental restoration is likely to take months or years to accomplish. The public would get frustrated with the pace of the recovery. Volusia County PIO would be constantly reassuring the public that government, in cooperation with private industry, was doing everything it could to recover from the spill.
<b>Agroterrorism</b>	There may be serious consequences to the environment from an agroterrorism event. If a disease-causing agent were introduced into the agricultural areas of the County, millions of dollars in damage could result.	The economic condition of the County would be seriously impacted by an agroterrorism event. Agriculture is a \$781 million a year business in Volusia County.	Public confidence in government may be impacted by an agroterrorism event. If the event spread throughout the County and impacted multiple farms, the public may perceive that government is not able to manage an agroterrorism event.

<p><b>HAZMAT (fixed, mobile and terrorism)</b></p>	<p>The environment is likely to experience significant consequences from a HAZMAT incident. Sensitive ecosystems could be destroyed or significantly disturbed. Hazardous materials can be quickly spread through water, air, or the food supply. Once HAZMAT are in our environmental systems, it may take days, weeks, months, or years to clean-up.</p>	<p>Depending on the size of the incident, the County's economy could experience enormous consequences. As reported by the Huffington Post, the BP oil spill in 2011 has cost approximately \$40 billion to clean up. This would be a worst-case scenario. More common incidents such as HAZMAT spills on highways or releases at chemical facilities impact the economy if an industry or transportation routes are shut down.</p>	<p>Public confidence in governance may be impacted by a HAZMAT incident. In small, localized events, VCEMD does not believe there would be any impact on public confidence. These events happen on a regular basis. In a major chemical release, radiological release, or terrorist incident, citizens may be inclined to lose confidence in governance. In these instances, VCEMD is prepared to draft and issue media products for distribution on our webpage (<a href="http://www.volusia.org/emergency">www.volusia.org/emergency</a>) or on our social media outlets (@vcemergencyinfo).</p>
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<p><b>Citations:</b></p>	
<p>Volusia County Agriculture</p>	<p><a href="http://www.volusia.org/services/community-services/extension/agriculture/">http://www.volusia.org/services/community-services/extension/agriculture/</a></p>
<p>FL Department of Agriculture SART</p>	<p><a href="http://www.freshfromflorida.com/Divisions-Offices/Marketing-and-Development/Education/For-the-Community/Video-and-Audio/Livestock-and-Animals/Video-Script-SART-State-Agricultural-Response">http://www.freshfromflorida.com/Divisions-Offices/Marketing-and-Development/Education/For-the-Community/Video-and-Audio/Livestock-and-Animals/Video-Script-SART-State-Agricultural-Response</a></p>
<p>FL Drought Status</p>	<p><a href="http://www.plantmaps.com/interactive-florida-drought-conditions-map.php">http://www.plantmaps.com/interactive-florida-drought-conditions-map.php</a></p>
<p>Beach Nourishment Study</p>	<p><a href="http://coastal.tamug.edu/AM/ComparisonofBeachNourishmentalongtheU.S.Atlantic,GreatLakes,GulfofMexico,andNewEnglandShorelines/index.html">http://coastal.tamug.edu/AM/ComparisonofBeachNourishmentalongtheU.S.Atlantic,GreatLakes,GulfofMexico,andNewEnglandShorelines/index.html</a></p>
<p>Environmental Impact</p>	<p><a href="http://response.restoration.noaa.gov/oil-and-chemical-spills/oil-spills/how-oil-harms-animals-and-plants-marine-environments.html">http://response.restoration.noaa.gov/oil-and-chemical-spills/oil-spills/how-oil-harms-animals-and-plants-marine-environments.html</a></p>