Appendix A

References Cited

REFERENCES CITED

Florida Department of Environmental Protection. June 2018. *Florida Adaptation Planning Guidebook.* Florida Adaptation Planning Guidebook (floridadep.gov). Florida Coastal Management Program. NOAA/US Department of Commerce.

University of Florida/Institute of Food and Agricultural Sciences (UF/IFAS). 2006. *Characterization of Florida Soil.*

Appendix B

Kickoff Meeting Minutes, Steering Committee Member List, and Draft Steering Committee Email Invitation

KICKOFF MEETING MINUTES

PROJECT:	St. Johns County FDEP Vulnerability Assessment
PROJECT NO.:	19270-207-01
MEETING DATE:	November 23, 2022
SUBJECT:	Kick-Off Meeting
PARTICIPANTS:	St. Johns County – Dick D'Souza, Westly Woodward, Mike Roberson Jones Edmunds – Mark Nelson, Jarrod Hirneise, Brett Cunningham, Justin Gregory, Alan Foley Taylor Engineering – Angela Schedel, Wendy Laurent, Stephanie Massey

The following are minutes for the St. Johns County Vulnerability Assessment Kickoff Meeting. The list of attendees is provided above.

- ***Reviewed the project goals as stated in the kickoff meeting agenda.***
- ***Reviewed project scope and FDEP Work Plan. Specific items of discussion included:***
    - ***Steering committee meeting style was discussed. These meetings will be held in-person with an option for attending the meeting remotely.***
    - ***Selection of Steering Committee members was discussed. Jones Edmunds provided thoughts and recommendations on potential Steering Committee members, which were cross-referenced with a list the County developed. The County will work on finalizing a list of Steering Committee members. The list of potential members was lengthy, the County may elect to separate the list into steering committee participants and project stakeholders. Project stakeholders will be contacted to solicit feedback throughout the project, but will not participate in the steering committee meetings. The County will finalize the list of stakeholders/steering committee participants by January 23rd, 2023.***
    - ***Public outreach meetings were discussed. These meetings will likely be held in-person only. County staff prefers small breakout groups or stations for participants to provide feedback as opposed to town hall style meeting. It will be important to reiterate that critical infrastructure is the focus of these analyses, not beach erosion/nourishment and the protection of private property.***
    - ***Acquisition and sources of background data were discussed.***
        - ***Jones Edmunds is compiling available local, state, and national datasets and will make those available for review by the County most likely in a web map.***
        - ***The County and Jones Edmunds will review the sources as part of a gap analysis.***
        - ***Dick is in the process of reaching out to the City of St. Augustine Beach to acquire the City's ICPR model.***
        - ***The County is in the process of updating its comprehensive plan. Future landuse changes will be incorporated in the updates. Jones Edmunds will coordinate with the County to acquire updated landuse layers.***
        - ***Mike mentioned the County's Entitlement Tracker as a potential source of data for future development.***
        - ***May be able to pull future development data from SJC Utility projections.***

        - ***Existing vulnerability assessments completed in the County were discussed. Jones Edmunds and Taylor will review these studies and their methodologies.***
        - ***City of St. Augustine has water and sewer infrastructure outside of its city limits. This will need to be accounted for in the assessment.***
    - ***Exposure analysis task was discussed.***
        - ***Jones Edmunds reviewed the FDEP required scenarios and flood sources that will be included in the analysis.***
        - ***Significant future development is anticipated in the Sixmile Creek and West Central Regional Model study areas. This will be accounted for in the model updates.***
        - ***Rainfall driven inundation models do not exist for Vilano Beach, Crescent Beach, and SJRWMD owned lands in the southeast part of the County. Flooding in these areas is primarily driven by coastal inundation.***
        - ***The City of St. Augustine will be excluded from the exposure analysis due to their FDEP funded vulnerability assessment that will be completed in parallel with the County's assessment.***
    - ***Sensitivity Analysis task was discussed.***
        - ***Specific sensitivity criteria will be developed for each asset type later in the project to determine the most sensitive assets. Feedback from the steering committee regarding these criteria will be needed.***
        - ***Additional elevation data collection may be required for the sensitivity analysis. Jones Edmunds can collect RTK GPS elevation data where assets are exposed to inundation and existing elevation data are not available.***
    - ***Identification of Focus Areas was discussed. Focus areas will be selected using the results from the exposure and sensitivity analysis. Focus areas will be ranked to determine where initial adaptation planning efforts should be focused. Feedback on the ranking criteria will be solicited from the steering committee.***
    - ***Adaptation Planning was discussed.***
        - ***Jones Edmunds reiterated that this is a preliminary adaptation planning effort, but enough projects should be generated to cover several years' worth of construction grant applications.***
        - ***Projects will be developed to maximize points based on FDEP's grant scoring criteria, defined in Rule 62S-8.***
        - ***The initial Adaptation Plan may also include non-structural recommendations, which could be capitalized and eligible for grant funding.***
        - ***It will be important to coordinate projects with the LMS for future FEMA funding opportunities.***
- ***The proposed schedule was reviewed briefly. The project should be completed well in advance of the grant deadline. Initial efforts will be focused on data collection. Exposure analysis will be completed early summer 2023.***
- ***Westly Woodward, Dick D'Souza, Mark Nelson, and Jarrod Hirneise will by the primary points of contact for the project.***

Steering Committee Members				
Name	**Organization**	**Department**	**Phone**	**Email**
Greg Caldwell	SJC	Public Works	904-209-0132	gcaldwell@sjcfl.us
Neal Shinkre/ Teri Shoemaker	SJC	Utilities	904-209-2703	nshinkre@sjcfl.us
Joe Giammanco	SJC	Emergency Management	904-209-0152	jgiammanco@sjcfl.us
Laura Nelson/ Kelly Wilson	SJC	Emergency Management	904-824-5550	lnelson@sjcfl.us
Jan Brewer	SJC	Environmental (GM)	904-209-0617	jbrewer@sjcfl.us
Teresa Bishop	SJC	Planning (GM)	904-209-0581	tbishop@sjcfl.us
Rob Dowling	SJC	Fire Rescue	904-209-1743	rdowling@sjcfl.us
Ryan Kane/ Jamie Baccari	SJC	Parks and Recreation	904-209-0324	rkane@sjcfl.us
Keith Oke	SJSO	Sheriffs Office	904-669-1261	koke@sjso.org
Jessica Beach	COSA	Public Works		jbeach@citystaug.com
Jason Sparks	COSAB	Public Works	904-471-1119	jsparks@cityofsab.org
Jamie Driggers	FDOT	Jacksonville	386-758-3722	james.driggersJR@dot.state.fl.us
Tom Frick / Doug Conkey	SJRWMD	CRO/ Governmental Affairs	904-730-6287	dconkey@sjrwmd.com
Corey Bowens/Mike Campbell	SJC	Land Management	904-209-0776	cbowens@sjcfl.us
Rocky Agbunag	SJC	Public Works	904-209-0273	ragbunag@sjcfl.us
Adam Tecler	SJC	Grants and Legislative Affairs	904-209-0545	atecler@sjcfl.us
Mike Roberson	SJC	Growth Management	904-209-0593	mroberson@sjcfl.us
Brennan Asplen	SJCSB	School Board		brennan.asplen@stjohns.k12.fl.us
Donald Bradshaw	SJC	Land Management/ Surveying	904-209-0770	dbradshaw@sjcfl.us
Duane Kent	SJC	Public Works	904-209-0113	rkent@sjcfl.us
David Williams	FERWCD	Flagler Estates		david.williams@windstream.net

Greetings!

This email is to formally invite you (or an assigned representative from your Department) to be a participant on the Steering Committee for the St. Johns County Vulnerability Assessment. We encourage you to name a primary participant and an alternate. As many of you already know, last year St. Johns County was awarded a planning grant through the Florida Department of Environmental Protection's (FDEP) Florida Resilient Coastlines Program to complete a comprehensive vulnerability assessment that meets the Florida State legislative requirements (Florida Statute [FS] 380.093). The County has agreed to a grant work plan with FDEP, executed a grant agreement, and selected a team of consultants to complete the technical work for the project, and work on the project has begun. A brief overview of the project is provided below.

- **Project Purpose –** Completing a Countywide comprehensive vulnerability assessment in accordance with the requirements outlined in FS 380.093. The vulnerability assessment will provide the County access to future FDEP grant funding opportunities to design/construct infrastructure improvements that protect vulnerable infrastructure.
- **Project Goals –** Identifying critical assets, identifying assets vulnerable to flooding from various sources under existing and future conditions scenarios, ranking/prioritizing vulnerable assets based on sensitivity to flooding and criticality, identifying focus areas for adaptation, identifying preliminary adaptation strategies/projects, and engaging the public throughout the process.
- **Project Schedule -** In accordance with the grant agreement with FDEP, completing the project by **March 31, 2024**.

One of the primary tasks in the grant agreement is identifying members to participate on a project Steering Committee (this is where you come in) and conduct up to three Steering Committee Meetings throughout the project. Attending these meetings will help ensure that your Departments' interests are represented in the assessment. If you intend to apply to Resilient Florida grant funding for an adaptation project, your vulnerable critical assets must be listed in the Vulnerability Assessment. The goals of the Steering Committee meetings are to:

- *Review the goals of the project.*
- *Review draft materials.*
- *Provide input for study direction.*
- *Identify geographic context.*
- *Review modeling methods.*
- *Identify available data and resources.*
- *Identify relevant assets.*
- *Review project findings and recommendations.*

We would like to invite your representative to attend the first Steering Committee Meeting, which will be held at ***XX:XX time*** on ***May 8th, 2023*** at ***Unidentified Location.*** At this meeting we will:

- *Review the project scope/goals.*
- *Review/discuss the data collection task.*
- *Review/discuss the proposed inundation modeling/mapping methodologies.*

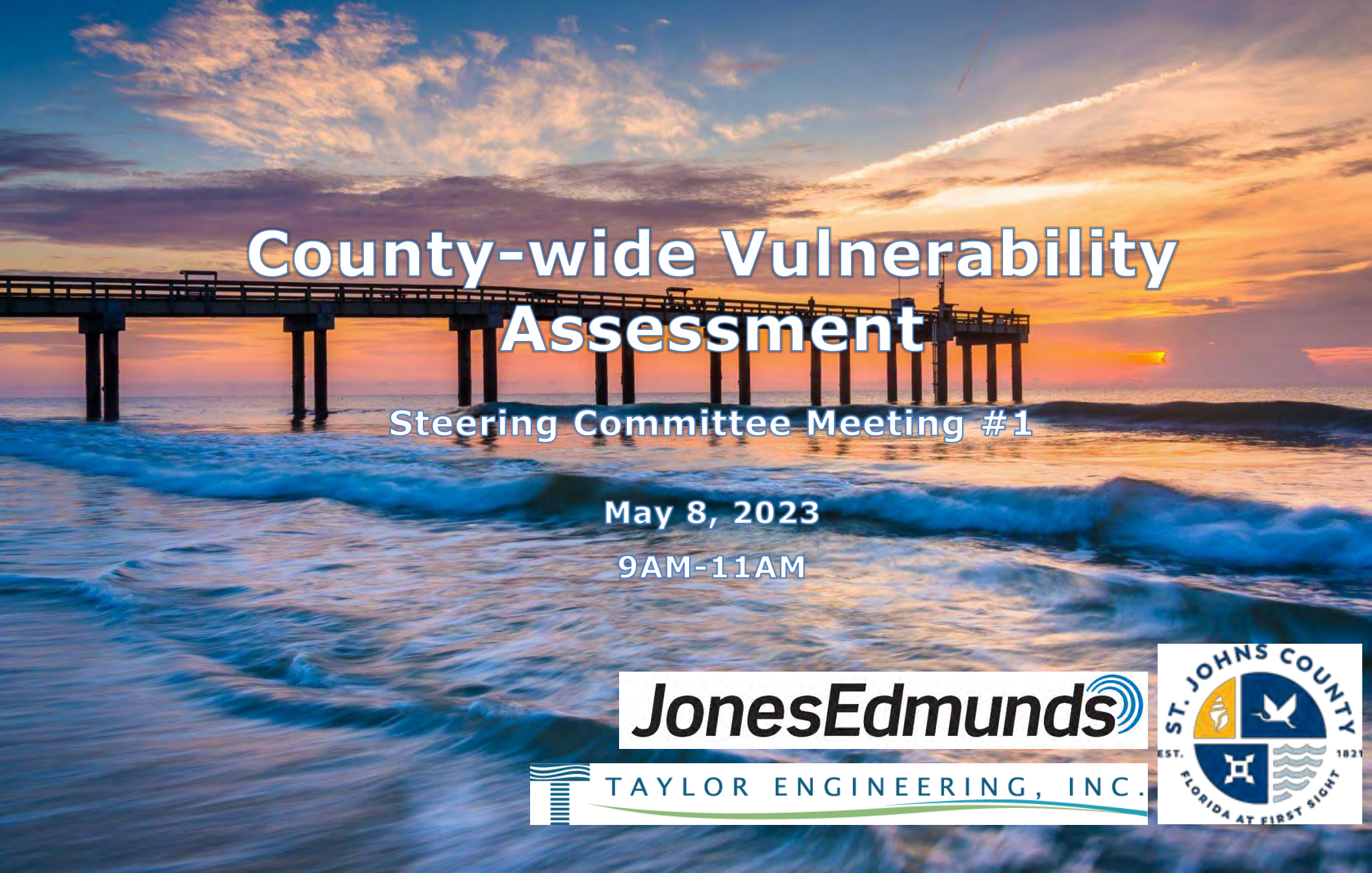
Please respond to this email to let us know who the representative and the alternate from your Department will be and if one of your representatives will attend. Please provide email addresses for any designees. If you are choosing to opt out of attending the meetings and will not be sending an alternate, please also respond to this email letting us know.

We look forward to working with you all throughout this process and providing an assessment that addresses the County's resiliency needs as best possible.

Thanks,

Appendix C

Steering Committee Meeting Presentations, Minutes, and Sign-In Sheets



County-wide Vulnerability Assessment

Steering Committee Meeting #1

May 8, 2023

9AM-11AM

JonesEdmunds

TAYLOR ENGINEERING, INC.

ST. JOHNS COUNTY
EST. 1821
FLORIDA AT FIRST SIGHT

- Review Project Background, Goals, and Scope
- Review/Discuss Data Collection Task
- Review/Discuss Proposed Inundation Modeling/Mapping Methods

- Introductions
- Project Goals, Background, and Scope
- Steering Committee Purpose/Goals
- Data Collection Review
- Exposure Analysis Review

Introductions

- Name
- Department/Organization
- Optional: What are you/your organization hoping to get out of this study? Is there a specific area of concern for your department?
- Optional: Provide an update on your organization's on-going resiliency planning efforts.

Project Goals

- Complete a County-wide VA that satisfies FDEP Resilient Florida Program guidelines and State Statutes (F.S. 380.093).
- Identify vulnerable critical infrastructure.
- Develop grant-fundable adaptation projects to protect the County's most vulnerable prioritized infrastructure.

ably with risk when measuring hazard impacts. NOAA provides a useful definition of vulnerability that informs the follow-on actions described later in this chapter (2010):

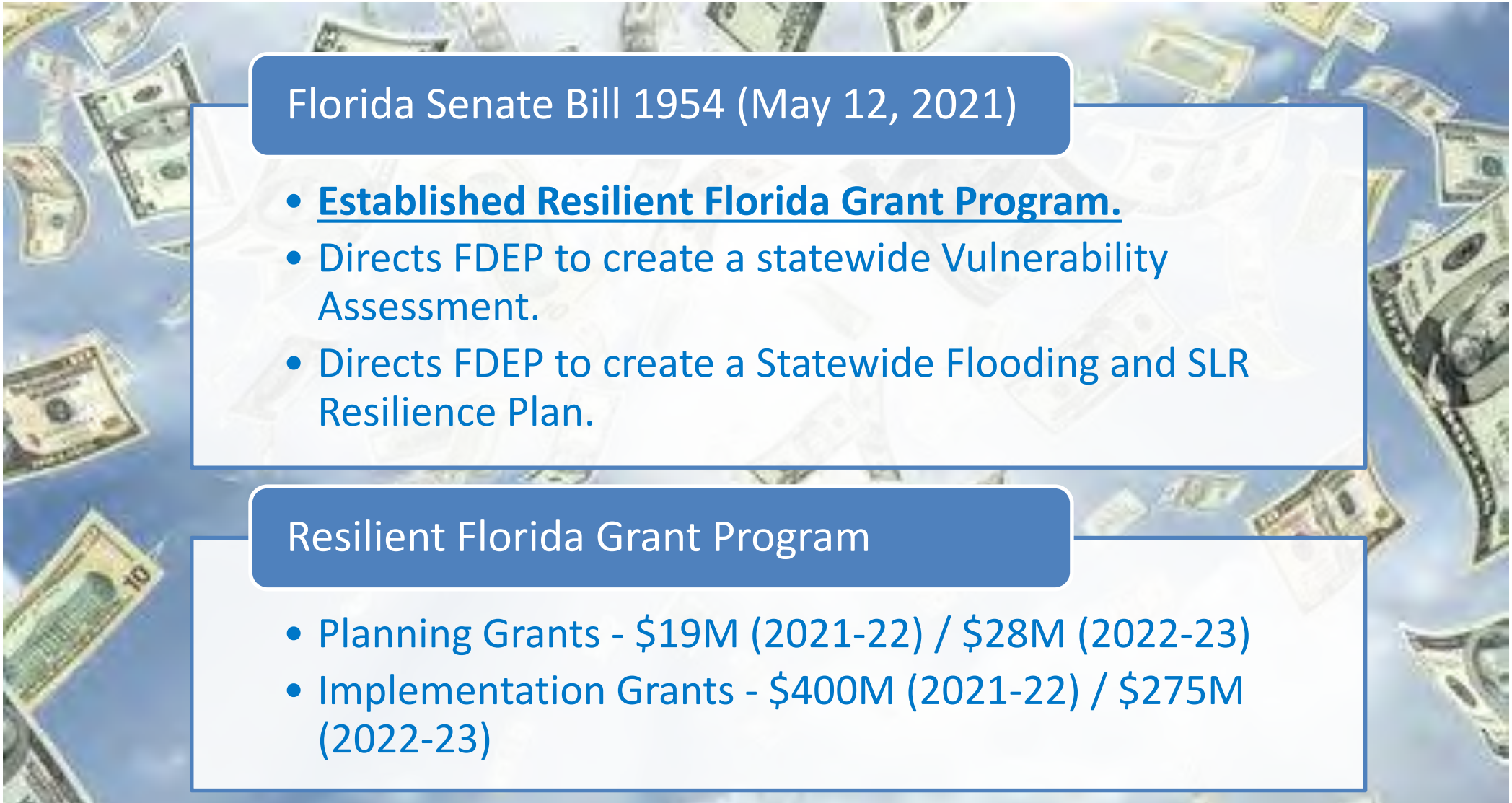
"The potential for loss of or harm/damage to exposed assets largely due to complex interactions among natural processes, land use decisions, and community resilience." [6]

Why do you need a Vulnerability Assessment?

A Vulnerability Assessment helps a community determine which structural and social assets are likely to be impacted by future coastal flooding and sea level rise.

Sea level rise = SLR
Vulnerability Assessment = VA

Resilient Florida Program Overview



Florida Senate Bill 1954 (May 12, 2021)

- **Established Resilient Florida Grant Program.**
- Directs FDEP to create a statewide Vulnerability Assessment.
- Directs FDEP to create a Statewide Flooding and SLR Resilience Plan.

Resilient Florida Grant Program

- Planning Grants - $19M (2021-22) / $28M (2022-23)
- Implementation Grants - $400M (2021-22) / $275M (2022-23)

F.S. 380.093 Overview

Established Requirements for FDEP Funded VAs

- Must encompass entire county or municipality*.
- Must include all “critical assets” owned or maintained by applicant.
- Use most recent LiDAR digital elevation model (DEM).
- Include depth of future high tide flooding and expected number of tidal flood days.
- Include depth of current and future storm surge flooding (100-year min.).
- Include depth of current and future rainfall-induced flooding (100-year & 500-year).
- Use NOAA 2017 intermediate-low and intermediate-high SLR projections.
- Include 2040 and 2070 planning horizons.

Funding Overview

Other Relevant Vulnerability Assessments

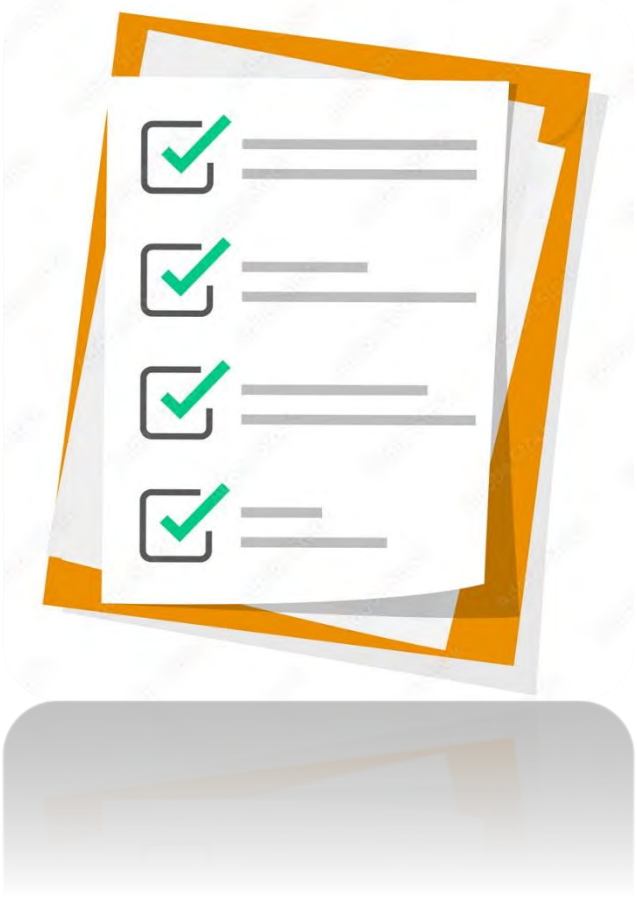
- City of St. Augustine FDEP VA (Kicked-off in April 2023)
- City of St. Augustine ACOE Back Bay Study (Kicked-off Feb. 2023 / Approx. Finish - 2028)
- City of St. Augustine Beach FDEP VA (Funding awarded, project has not started)

Implementation Grants

- Application Window – July 1 – Sept 1, 2023
- Comprehensive VA required for the 2024 funding cycle (Next Year)
- SJC awarded ~$900K in 2022 Cycle

Grant Work Plan Overview

- Kickoff meeting - Complete
- Project Admin. / Management – In Progress
- Public Outreach and Steering Committee Meetings – In Progress
- Acquire Background Data – In Progress
- Exposure Analysis – In Progress
- Sensitivity Analysis
- Identify Focus Areas
- Preliminary Adaptation Plan
- Final VA Report, Maps, and Tables



Steering Committee Purpose/Goals

- Review Project Goals
- Review Draft Materials
- Provide Input on Study Direction
- Identify Geographic Context
- Review Modeling Methods
- Identify Available Data and Resources
- Identify Relevant Assets
- Review Findings and Recommendations

Data Collection Review

Critical/Regionally Significant Assets

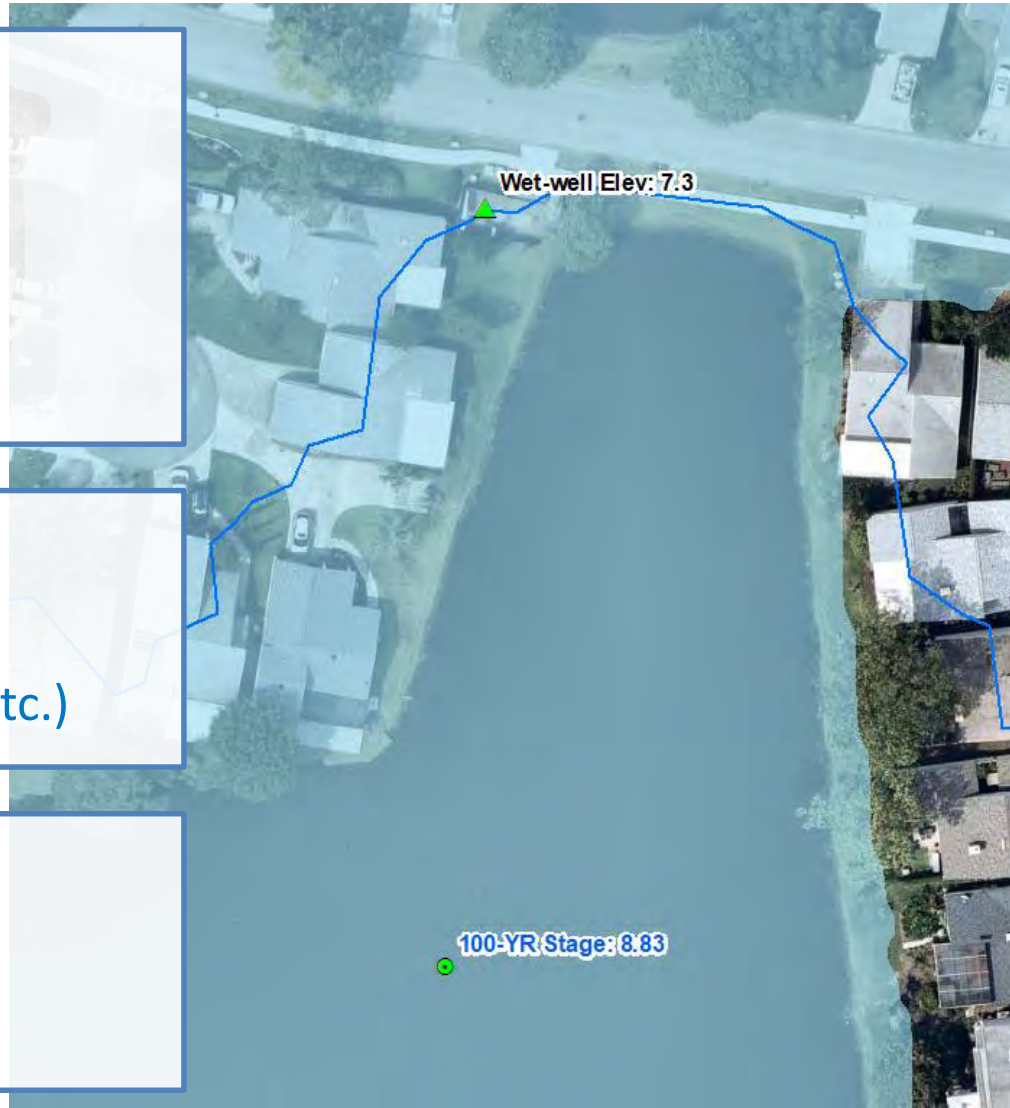
- Type (Ex.: Lift Station, Evacuation Route)
- Location
- Elevation (Ex.: Wet-well Top, FFE)
- Size/Capacity (Ex.: MGD, Area, etc.)
- Owner (SJC, SJCUD, JEA, etc.)

Topographic Data

- Most Recent LiDAR DEM (2018)
- Elevation Certificates
- Site Specific Elevation Data (ERPs, survey, etc.)

Flood Scenario-Related Data

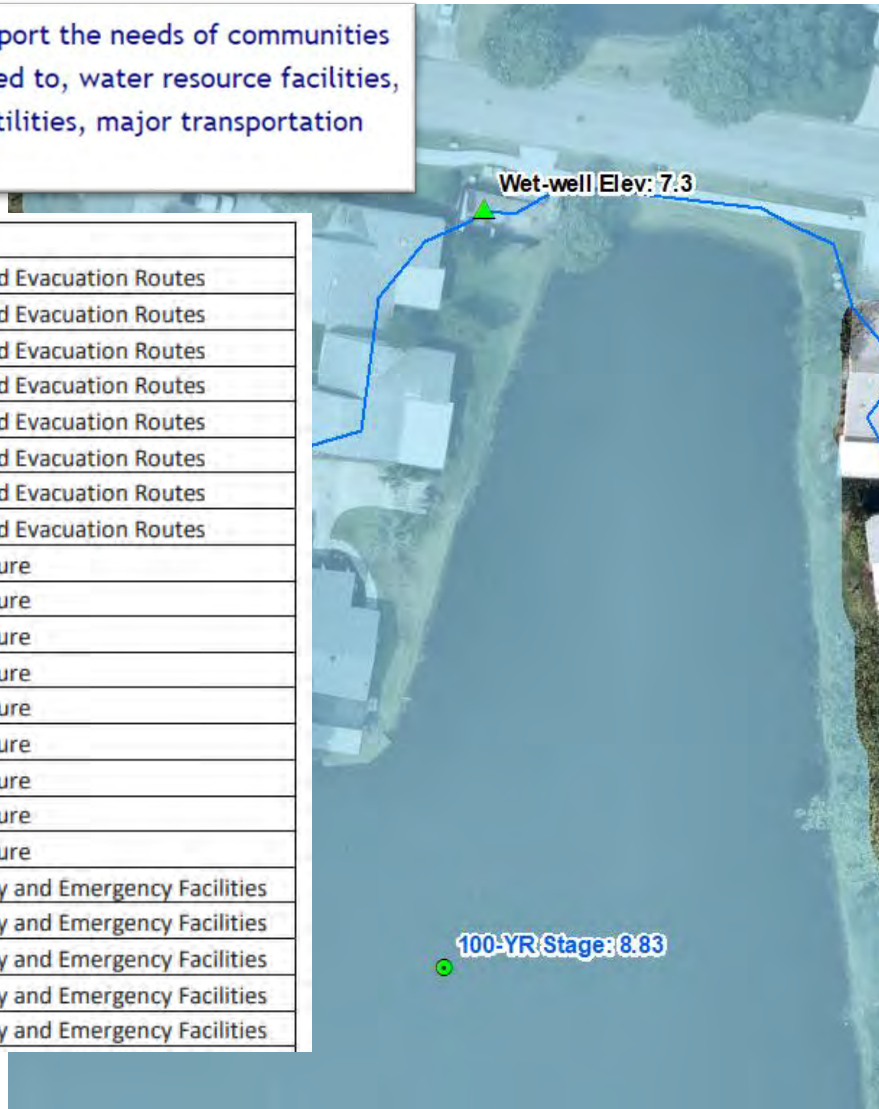
- Existing Coastal/Rainfall Models
- 2017 NOAA SLR Curves
- Rainfall Data



Critical/Regionally Significant Assets

(d) "Regionally significant assets" means critical assets that support the needs of communities spanning multiple geopolitical jurisdictions, including, but not limited to, water resource facilities, regional medical centers, emergency operations centers, regional utilities, major transportation hubs and corridors, airports, and seaports.

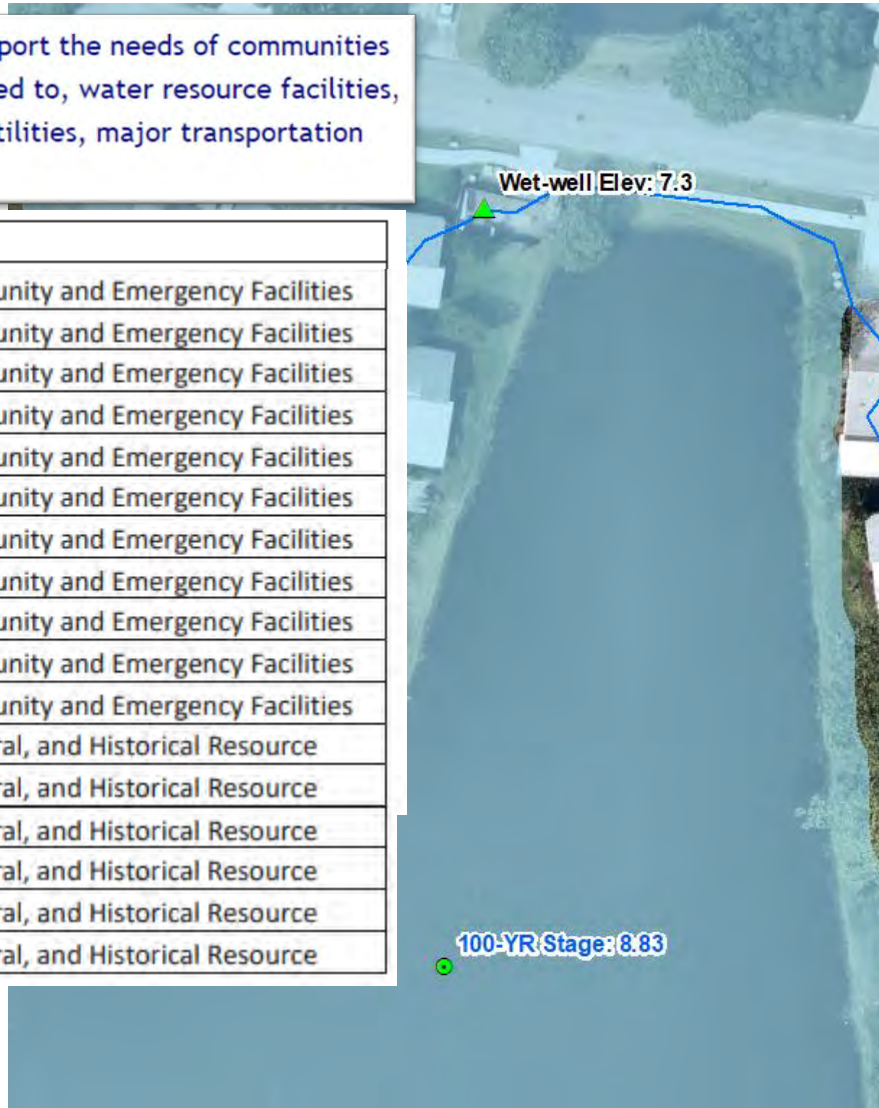
Asset Type	Asset Class
Airports	Transportation and Evacuation Routes
Bridges	Transportation and Evacuation Routes
Bus Terminals	Transportation and Evacuation Routes
Ports	Transportation and Evacuation Routes
Major Roadways	Transportation and Evacuation Routes
Marinas	Transportation and Evacuation Routes
Rail Facilities	Transportation and Evacuation Routes
Railroad Bridges	Transportation and Evacuation Routes
Wastewater Treatment Facilities and Lift Stations	Critical Infrastructure
Stormwater Treatment Facilities and Pump Stations	Critical Infrastructure
Drinking Water Facilities	Critical Infrastructure
Water Utility Conveyance Systems	Critical Infrastructure
Electric Production and Supply Facilities	Critical Infrastructure
Solid and Hazardous Waste Facilities	Critical Infrastructure
Military Installations	Critical Infrastructure
Communications Facilities	Critical Infrastructure
Disaster Debris Management Sites	Critical Infrastructure
Schools	Critical Community and Emergency Facilities
Colleges and Universities	Critical Community and Emergency Facilities
Community Centers	Critical Community and Emergency Facilities
Correctional Facilities	Critical Community and Emergency Facilities
Disaster Recovery Centers	Critical Community and Emergency Facilities



Critical/Regionally Significant Assets

(d) "Regionally significant assets" means critical assets that support the needs of communities spanning multiple geopolitical jurisdictions, including, but not limited to, water resource facilities, regional medical centers, emergency operations centers, regional utilities, major transportation hubs and corridors, airports, and seaports.

Asset Type	Asset Class
Emergency Medical Service Facilities	Critical Community and Emergency Facilities
Emergency Operation Centers	Critical Community and Emergency Facilities
Fire Stations	Critical Community and Emergency Facilities
Health Care Facilities	Critical Community and Emergency Facilities
Hospitals	Critical Community and Emergency Facilities
Law Enforcement Facilities	Critical Community and Emergency Facilities
Local Government Facilities	Critical Community and Emergency Facilities
Logistical Staging Areas	Critical Community and Emergency Facilities
Affordable Public Housing	Critical Community and Emergency Facilities
Risk Shelter Inventory	Critical Community and Emergency Facilities
State Government Facilities	Critical Community and Emergency Facilities
Conservation Lands	Natural, Cultural, and Historical Resource
Parks	Natural, Cultural, and Historical Resource
Shorelines	Natural, Cultural, and Historical Resource
Surface Waters	Natural, Cultural, and Historical Resource
Wetlands	Natural, Cultural, and Historical Resource
Historical and Cultural Assets	Natural, Cultural, and Historical Resource



Critical Asset Data Sources

National/Statewide Data Sources

- Florida Division of Emergency Management (FDEM)
- FEMA
- State Historic Preservation Office (SHPO)
- SJRWMD Land Use
- Open Street Map
- FDOT
- Microsoft Building Footprints
- Florida Fish and Wildlife Conservation Commission (FWC)
- Florida Natural Areas Inventory (FNAI)
- Google/Google Maps

County-Specific Datasets

- SJCUD GIS Asset Database
- JEA GIS Asset Database
- SJC Pavement Management Units (PMU's)
- SJC Stormwater Asset Database
- SJC Schools GIS Layer
- SJC Parks GIS Layer
- SJC Fire Station Layer
- SJC Healthcare Facilities Layer
- SJC Historic Sites Layers
- SJC Marina Layer
- SJC Tower Sites Layer
- SJC Bridges Layer
- SJC Parcels Layer

Homework

Review Webmap and Spreadsheet

- Have all critical assets been identified?
- Are there any assets that should be removed from the inventory?
- Are there additional data sources that should be used?
- Are there data sources that can be used to fill specific data gaps?

Please provide feedback by 5/22/2023

Provide feedback in Webmap or via email: jhirneise@jonesedmunds.com

https://jonesedmunds.maps.arcgis.com/apps/mapviewer/index.html?webmap=cddba40e5e5d4646a563fd4ac221734a

Username/PW: SJC_User / SJCU5er1234

Exposure Analysis

Purpose: Identify the depth of water (at each asset) caused by each sea level rise, storm surge, rainfall, and/or compound flood scenario.

Exposure Analysis: Requirements

Scenarios/Planning Horizons

- NOAA 2017 Intermediate-Low and Intermediate High
- Existing, 2040, and 2070 planning horizons

Tidal Flooding

- Existing and Future High Tide Flooding (MHHW)
- Geographically display the number of expected tidal flood days

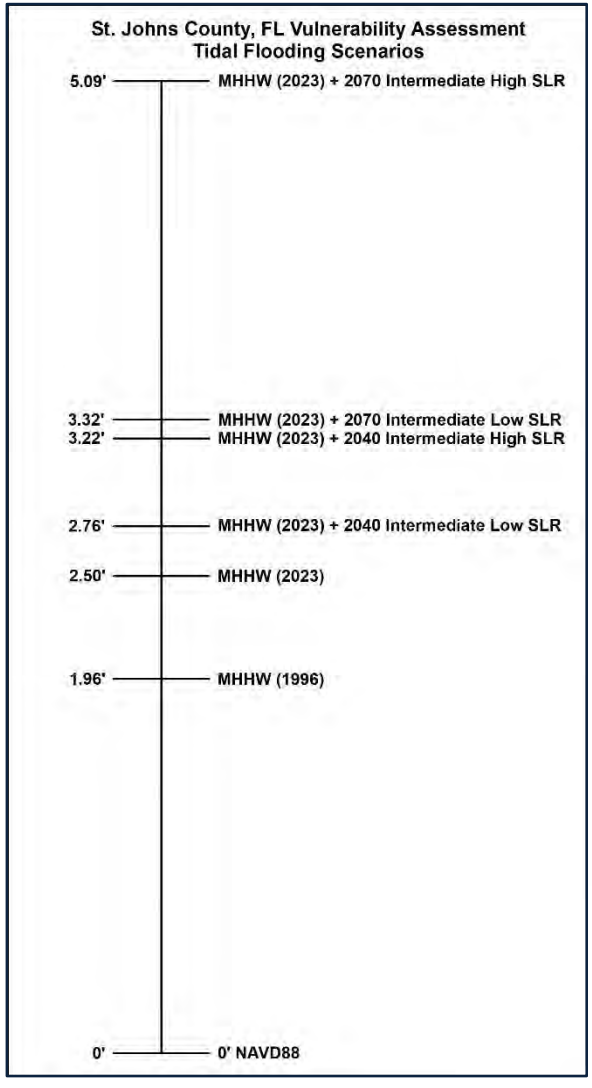
Current and Future Storm Surge Flooding

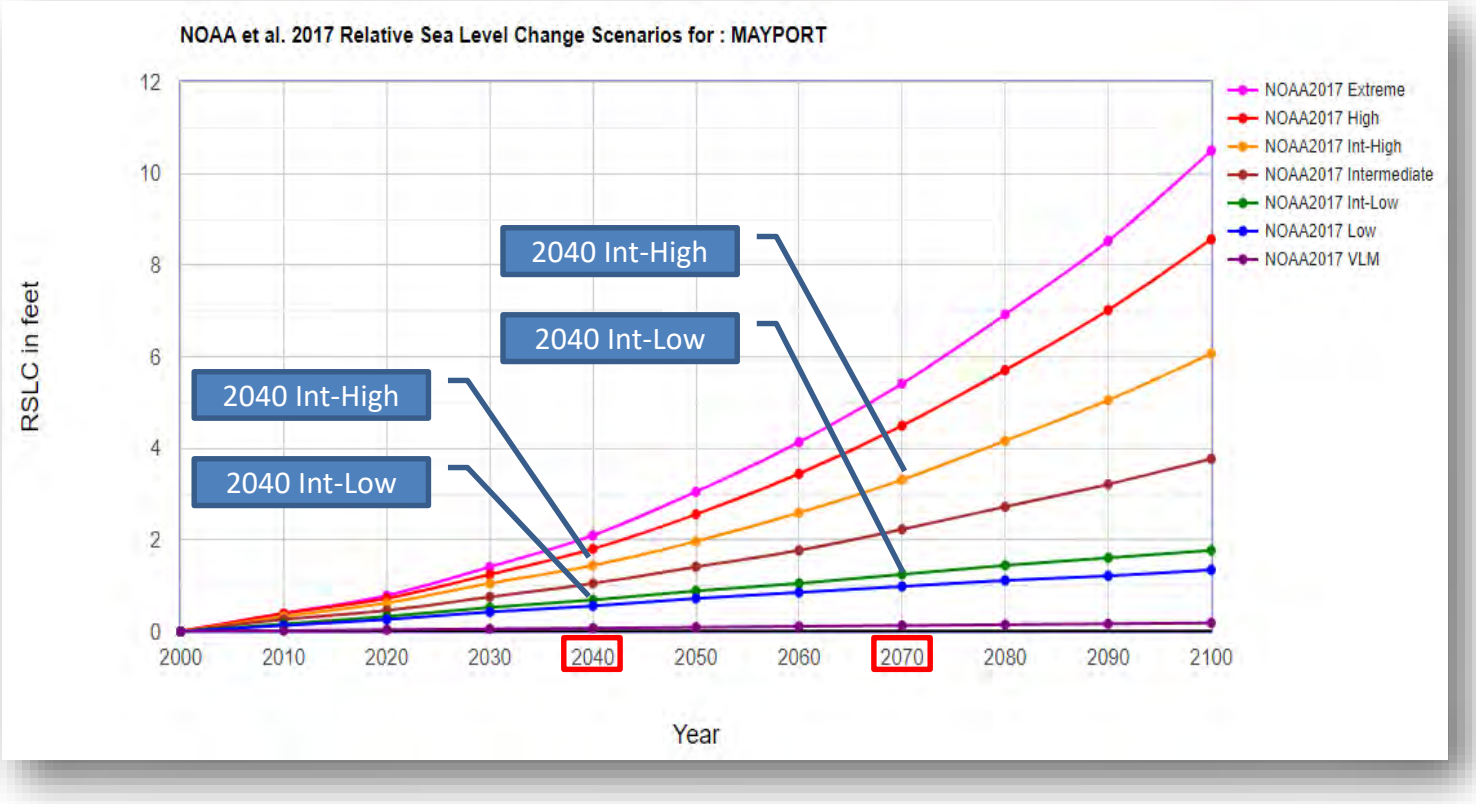
- Use NOAA or FEMA storm surge data
- Include 100-year flood event at a minimum

Current and Future Rainfall Induced Flooding

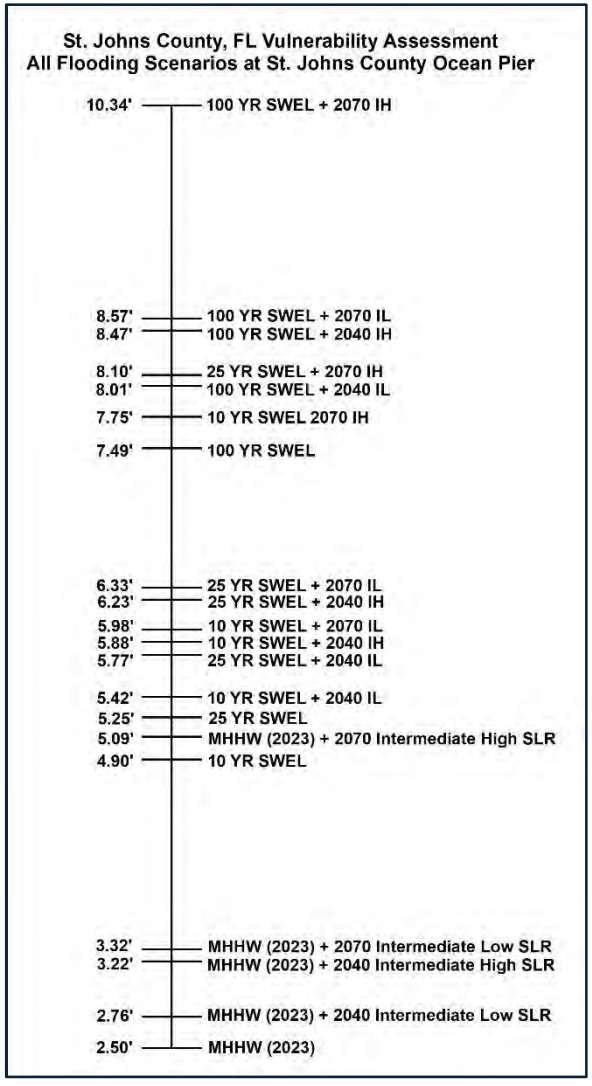
- Include 100-year and 500-year rainfall event
- Vary future boundary conditions based on SLR projections

Exposure Analysis: SLR Projections





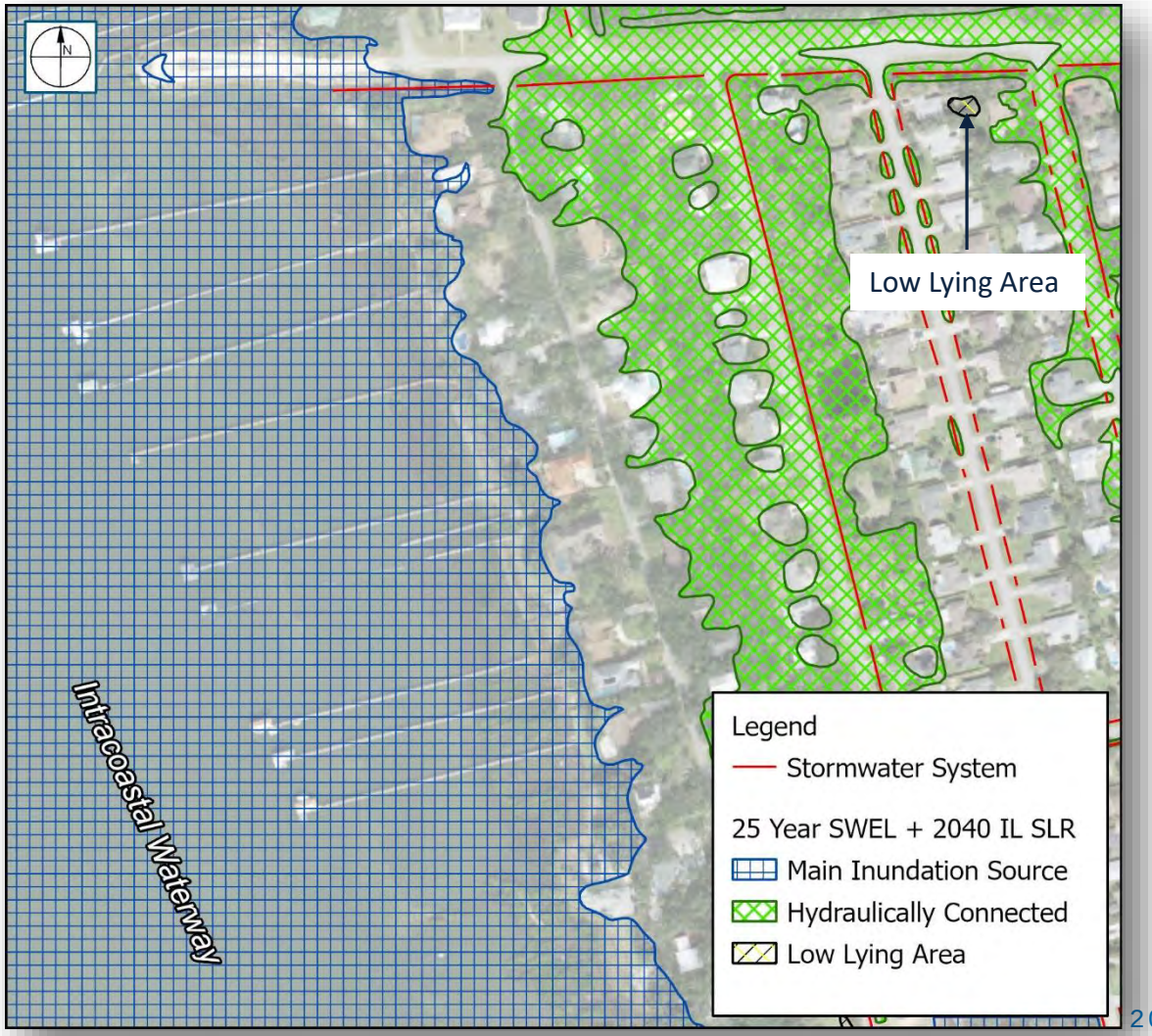
Exposure Analysis: Coastal Inundation



Sea Level Rise Projection	Sunny Day Flooding (MHHW)	10 Year Storm Surge	25 Year Storm Surge	100 Year Storm Surge
2023	X	X	X	X
2040 IL	X	X	X	X
2040 IH	X	X	X	X
2070 IL	X	X	X	X
2070 IH	X	X	X	X

Inundation Mapping – Modified-Bathtub Cleanup

- Automated cleanup in ArcMap
- Manual desktop cleanup by experienced GIS/engineering staff:
  - Classify inundation polygons as:
    - Main source of inundation
    - Connected to main source of inundation
    - Ponded low lying areas

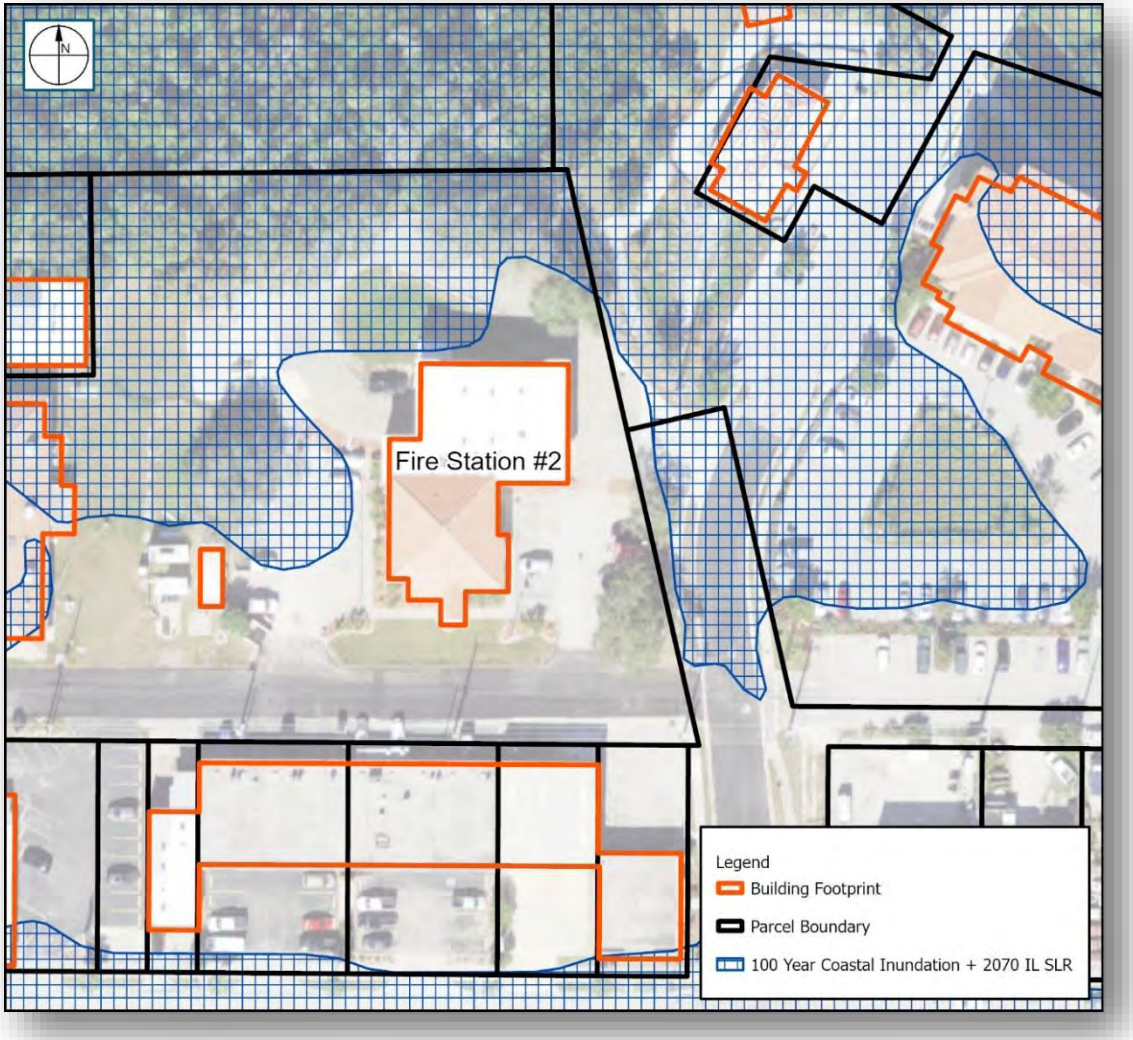


Exposure Analysis Example

- Intersection of critical assets with flood scenario
- Aids in selection of focus areas

Exposure Analysis Example

- Intersection of critical assets with flood scenario
- Parcel vs building footprint



Rainfall Flooding: Model Approach

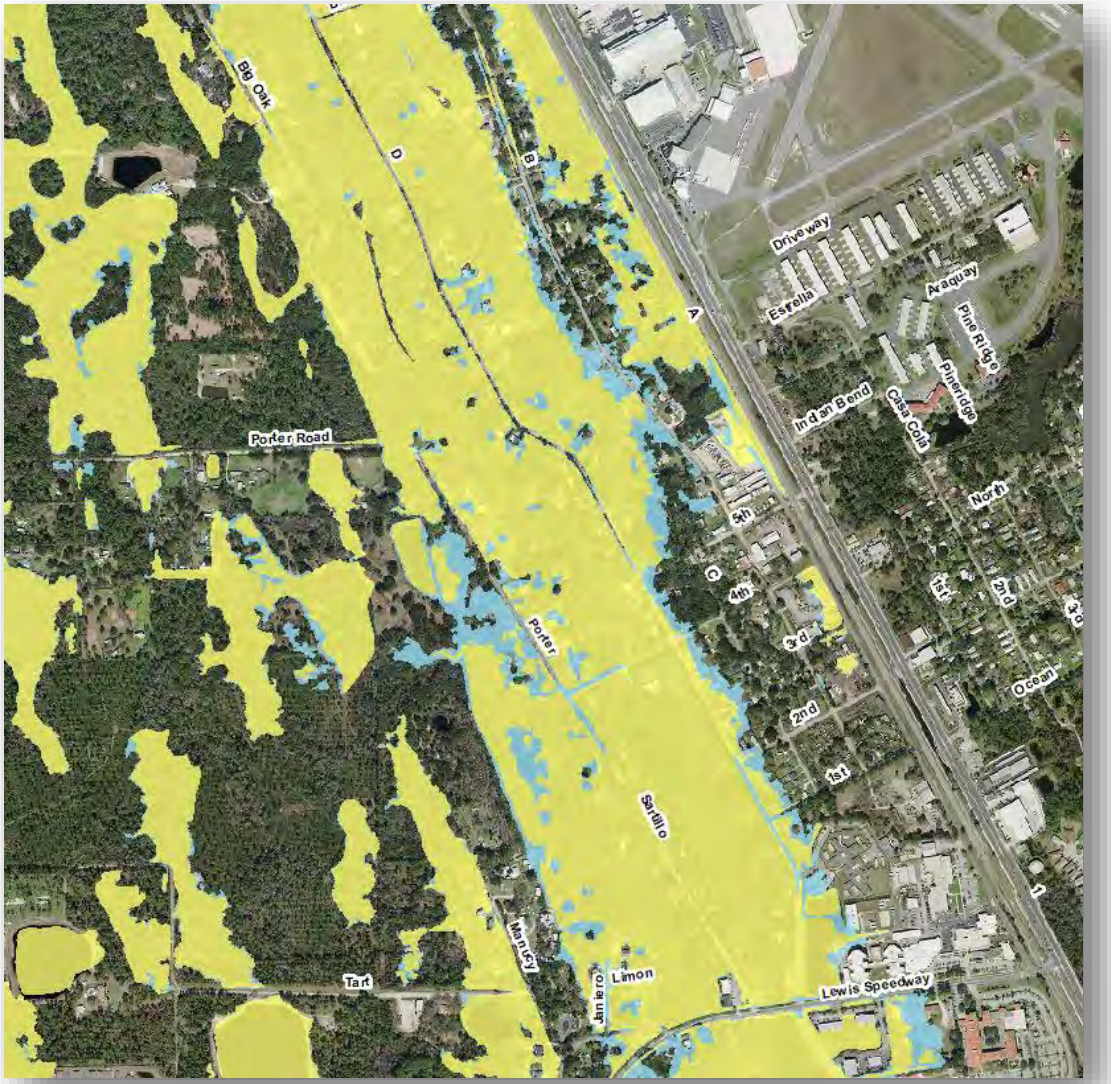
Countywide Regional Stormwater Model

- 25-, 100-, and 500-year/24-Hour Design Storm Events
- Modify Rainfall Depths for Future Conditions (100-yr/24-hr - ~10-11 in. → 15-16 in.)
- Modify Boundary Conditions for SLR (MHHW) (2.0 → 2.5 Existing → 3.2 NAVD - 2040 Int-High)
- Modify Runoff Parameters for Reduced Soil Storage
- Modify Runoff Parameters for Future Land Use As-needed

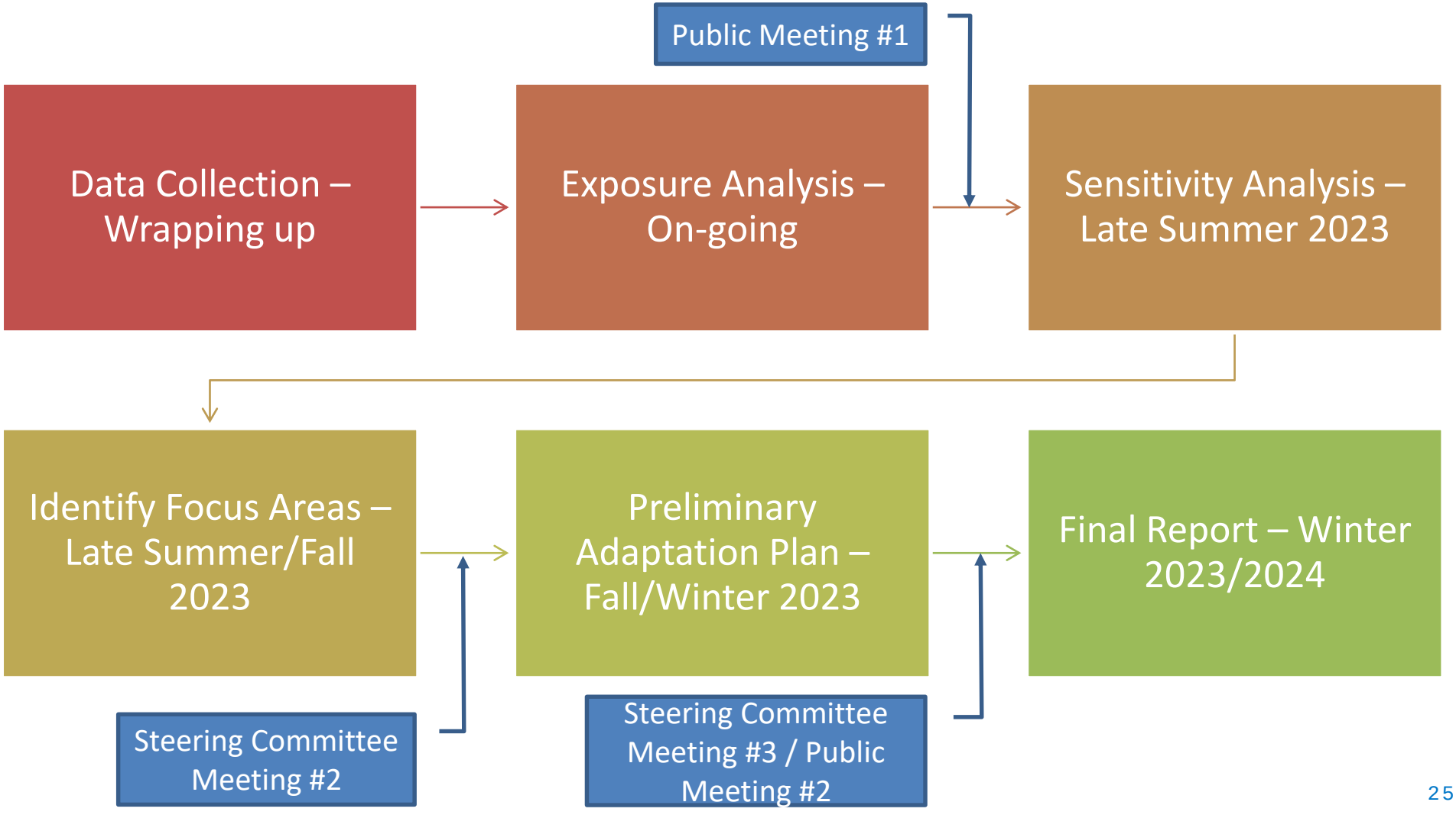
Rapid 2-D Inundation Model

- For Areas Not Covered by Regional Model

Rainfall Flooding: Inundation Example



Path Forward



Homework

Review Webmap and Spreadsheet

- Have all critical assets been identified?
- Are there any assets that should be removed from the inventory?
- Are there additional data sources that should be used?
- Are there data sources that can be used to fill specific data gaps?

Please provide feedback by 5/22/2023

Provide feedback in Webmap or via email: jhirneise@jonesedmunds.com

Questions/Discussion

St. Johns County Vulnerability Assessment
Monday, May 8, 2023
9:00 am - 11:00 am
St. Johns County Utilities Department
1205 State Road 16, St Augustine, FL 32084

FULL NAME	ENTITY	PHONE	EMAIL
DONALD BRADSHAW	COUNTY SURVEYOR	904-209-0770	DBRADSHAW@SJCFL.US
Tom Frick	SJRWMD	850-408-1117	tfrick@SJRWMD.com
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Mike Campbell	SJC	904-209-0778	mcampbell@sjcfl.us
Ryan March	SJC	904-209-0601	rmarch@sjcfl.us
PJ Webb	SJC Fire	904-209-1744	pwebb@sjcfl.us.
Kelly Wilson	SJC Emerg. Mgt.	904-824-5550	Kawilson@sjcfl.us
Larry Durden	Sheriff	904-209-1977	
Mike Robertson	SJC Growth Mgt	904-209-0993	MRobertson@SJCFL.US
JASON D. SPARKS	City of St Aug Bch	904 471-2122	JSPARKS@CITYOFSAB.ORG
RYAN KANE	PARKS & REC		rKane@sjcfl.us
DUANE KENT	ENG	904 417 0115	rkent@sjcfl.us
Tara Dodson	ENG.	904-814-2172	tdodsar@sjcfl.us
Jessica Beach	City of St Aug	904 2094227	jbeach@citystaug.com
Damon Douglas	SJC PR	904 209-0794	ddouglas@sjcfl.us
Stephen Hammond	SJC DR	904-826-9630	shammond@sjcfl.us

St. Johns County Vulnerability Assessment
Monday, May 8, 2023
9:00 am - 11:00 am
St. Johns County Utilities Department
1205 State Road 16, St Augustine, FL 32084

FULL NAME	ENTITY	PHONE	EMAIL
Jarrod Hirneise	Jones Edmunds	352-318-5895	Jhirneise@jonesedmunds.com
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Jon Brewer	SJC Growth Mgmt	904 209 0617	jbrewer@sjcfl.us
Dick D'Souza	SJC GROWTH MGMT	904-209-0792	ddsouza@sjcfl.us
Teri Pinson	STCUD	904-209-2604	tpinson@sjcfl.us
Christina Omran	SJC		comran@sjcfl.us

St. Johns County Vulnerability Study
Steering Committee Meeting #1
May 8, 2023, at the St. Johns County Utility Department

Attendees

Rocky Agbunag, St. Johns County Public Works
Jessica Beach, City of St. Augustine
Donald Bradshaw, St. Johns County Surveyor
Jan Brewer, St. Johns County Environmental
Tiffany Busby, Wildwood Consulting
Mike Campbell, St. Johns County
Tara Dodson, St. Johns County Environmental
Damon Douglas, St. Johns County Coastal Management
Dick D'Souza, St. Johns County Growth Management
Larry Durden, St. Johns County Sheriff's Office
Tom Frick, St. Johns River Water Management District
Stephen Hammond, St. Johns County Coastal Management
Jarrod Hirneise, Jones Edmunds
Ryan Kane, St. Johns County Parks & Recreation
Duane Kent, St. Johns County Engineering
Ryan Mauch, St. Johns County Environmental
Mark Nelson, Jones Edmunds
Christina Omran, St. Johns County
Teri Pinson, St. Johns County Utilities
Mike Roberson, St. Johns County Growth Management
Caitlyn Sargent, City of St. Augustine
Angela Schedel, Taylor Engineering
Jason Sparks, City of St. Augustine Beach
P.J. Webb, St. Johns County Fire Department
Kelly Wilson, St. Johns County Emergency Management
Westly Woodward, St. Johns County Growth Management

Introductions and Project Goals

Everyone introduced themselves and their organization or division.

The purpose of a vulnerability assessment is to help a community determine which structural and social assets are likely to be impacted by future coastal flooding and sea level rise (SLR). Mark reviewed the three primary project goals: 1). Complete a county-wide vulnerability assessment that satisfies the Florida Department of Environmental Protection (FDEP) Resilient Florida Program guidance and Florida Statutes (F.S.)(380.092 F.S.); 2). Identify critical infrastructure; and 3). Develop grant-fundable adaptation projects to protect the county's most vulnerable prioritized infrastructure.

Resilient Florida Program Overview

An overview of the Resilient Florida Program was provided that explained the program was created on May 12, 2021, in Florida Senate Bill 1954. This legislation directs FDEP to create a statewide vulnerability assessment and to create a statewide flooding and SLR resilience plan. The Resilient Florida Grant Program has provided $19 million in planning grants for fiscal years (FYs) 2022 through 2023 and $675 in implementation grants for the same FYs. Mark noted that it is critical to identify infrastructure as part of the St. Johns County Vulnerability Assessment to be prepared for the next year's funding cycle for implementation grants.

FDEP Requirements

Mark reviewed the requirements for FDEP-funded vulnerability assessments. These included guidance on the extent of the study (must encompass the entire county); include storm surge and rainfall-induced flooding depths; use the National Oceanic and Atmospheric Administration (NOAA) 2017 intermediate low and intermediate-high SLR projects; and include the 2040 and 2070 planning horizons.

Vulnerability Studies Currently Underway

Next, Mark provided a funding overview of the studies funded or underway. These include the following studies:

- City of St. Augustine FDEP Vulnerability Assessment.
- City of St. Augustine Back Bay Study with the U.S. Army Corps of Engineers.
- City of St. Augustine Beach FDEP Vulnerability Assessment.

Everyone should be aware that there are multiple studies underway in case there are questions. In particular, the City of St. Augustine's two studies may cause confusion as they are both underway simultaneously, but the federal Back Bay study has a much longer timeline and is focused on identifying where federal projects and funding are needed.

FDEP Vulnerability Grants

The FDEP FY 23 grant funding application window is from July 1 to September 1, 2023. A comprehensive vulnerability assessment is not required for this funding cycle but will apply to the FY 24 funding cycle. Mark added that St. Johns County was awarded $900,000 in the FY 22 funding cycle.

St. Johns County Vulnerability Assessment Workplan/Steering Committee Goals

Jarrod provided an overview of the FDEP grant-funded workplan and those items that are already complete or are in progress. He also reviewed the goals of the Steering Committee which include the following:

- Review project goals.
- Review draft materials.
- Provide input on study direction.
- Identify geographic context.
- Review modeling methods.
- Identify available data and resources.
- Identify relevant assets.

- Review findings and recommendations.

It was noted the importance of identifying the infrastructure in the plan so that those assets are eligible for future FDEP grant funding. Jarrod explained that two more Steering Committee meetings are planned as well as two public outreach meetings to support the development of the vulnerability assessment.

Jason asked how the priority of the assets would be determined. Mark responded that the priorities would be based on input from the Steering Committee.

Mark noted that the City of St. Augustine's study will cover any city infrastructure that is located outside the city limits. The priorities for the City of St. Augustine and City of St. Augustine Beach infrastructure will be in the city's vulnerability assessment, respectively. Any JEA infrastructure within St. Johns County will be included in the county's vulnerability assessment.

Tom noted that the St. Johns River Water Management District isn't creating its own vulnerability assessment, but you can identify critical district assets in your vulnerability assessment. If those assets are not identified, they will be ineligible for FDEP grant funding. Tom added that you do not need to identify every culvert in the county for the assessment, but if you want funding to work on a particular culvert, you want to make sure it is identified in the assessment. Angela commented that a recent amendment to the Resilient Florida Program allows water management districts to apply for FDEP funding as well as local governments.

Data Collection and Review

The data collection and review process was described. The data include critical/regionally significant assets, topographic data, and flood scenario-related data. A list of the critical/regionally significant assets was displayed. Next, the data sources for this information specific to St. Johns County was reviewed; national, state, and county data were used. However, if there are better or more recent data sources, the project team would like feedback from the Steering Committee as soon as possible.

Jarrod reviewed the Wepmap tool, and the information included there. He explained there for four types of asst categories, and you can turn on and off the categories. You can also review the information in table format. Jarrod explained that the homework assignment for the Steering Committee were the following items:

- Address if all the critical assets have been identified.
- Identify any assets that should be removed from the inventory.
- Identify any additional data sources that should be used.
- Identify data sources to fill specific data gaps.

Feedback from the Steering Committee members can be provided by commenting directly on the Webmap or by sending an email with narrative comments to jhirneise@jonesedmunds.com. Comments were requested by May 22, 2023. Westly offered

to send out an email with the list of data sources for the assets (spreadsheet format) and a Webmap link and login (Username: SJC_User / PW SJCU5er1234). You can also display imagery on the Webmap. Steering Committee members can add comments and edits using the tab in the bottom right of the Webmap. You can drop a comment pin and even add attachments if you wish.

Jarrod also reviewed the spreadsheet with the list of data gaps. Within the spreadsheet there are questions about the wastewater and drinking water facilities, for example. Please provide additional data on their capacity and other information that is marked as a data gap, if you are representing those assets.

A member asked what the definition is of a "medical facility." Jarrod responded that the assets include both public and private facilities, including nursing homes. The layer used is from St. Johns County. The assets include health care homes and pharmacies.

There was discussion about reviewing any facilities that Steering Committee members know are vulnerable to flooding, so those assets are included in the assessment.

A member asked how recently the data sources were pulled. The response was that the data were pulled from their sources within the last four months.

A member asked if there is a list of assets and Jarrod responded that there is a table based on the Webmap that we can send out to the committee members.

Exposure Analysis

Angela commented that Taylor Engineering will be responsible for the exposure analysis and coastal flooding analyses. She explained the purpose of the exposure analysis is to identify the depth of water at each asset caused by each SLR, storm surge, rainfall, and/or compound scenario. Angela also outline the requirements of the exposure analysis including the following components:

- Scenarios/planning horizons.
- Tidal flooding.
- Current and future storm surge flooding.
- Current and future rainfall-induced flooding.

The different scenarios generate a large number of projections. Angela reviewed the various projections.

The exposure analysis will include coastal inundation at various SLR projections. These include sunny day flooding, 10-year storm surge, 25-year storm surge, and 100-year storm surge. Inundation mapping will include automated cleanup in ArcMAP and manual desktop cleanup by experienced geographic information systems (GIS) staff. Angela describe a specific example of a fire station identified in the City of Venice (Florida) in their exposure analysis. The exposure analysis considered the building footprint but also the access to the building, which was very limited in the flooding models.

Rainfall Flooding Modeling

For rainfall flooding, Jarrod explained that Jones Edmunds team will use the countywide regional stormwater model. The process will modify runoff parameters for reduced soil storage and modify the land use to reflect future land uses, as needed. For areas in St. Johns County not covered by the regional model (e.g., Vilano/North Beach, south Ponte Vedra Beach, Crescent Beach) a rapid 2-D inundation model will be used.

A committee member asked how many times in the last 10 years we have had a 100-year storm. Angela responded that we came close to a 100-year event with Hurricane Matthew (2016). The storm magnitude varies by location but there are a few locations that have had one or two 100-year storms in recent years.

Jessica asked if you use the 1996 National Hydrography Dataset (NHD) as a starting point, how much SRL has occurred by 2023. Angela answered that it varies a lot by location. Over many data points, the average SLR is 1.96 inches. Angela offered to send Jessica some graphics showing the locations and the measured SLR.

Project Path Forward

Jarrod reviewed the path forward on the process to create the county vulnerability assessment. This included the estimated timing of two public meetings—one after the exposure analysis is completed and another after the draft plan is available. The additional Steering Committee meetings are planned for fall 2023 after the focus areas are identified and another meeting after the preliminary adaptation plan is completed in late fall or winter of 2023.

Jarrod reviewed the homework assignment, soliciting feedback on the assets and datasets by May 22, 2023. Mark added that they have a list of 10 projects with estimated costs that can be submitted for implementation grants in the upcoming cycle. For this cycle, the projects don't need to be included in a plan, but they will for the next cycle. For this grant cycle, as long as an asset can be identified as vulnerable, it is eligible for the grant funds.

A committee member asked if the required list of assets are defined in statute. Jarrod's response was yes.

A committee member asked what the format of the public meetings will be. Westly responded that the forum is still to be determined and the staff will work with administration to determine the best approach. The meetings may be held in the board meetings or as separate meetings. It has not been decided if they will be held as daytime or evening meetings. Mark added that we plan to ask the public about what assets are the most important to them. Westly stated that the team will let the Steering Committee know what is decided about the public meetings. Committee members will be welcome, but not required, to attend.

There were comments that the City of St. Augustine Back Bay study has monthly calls with the U.S. Army Corps of Engineers. It was noted that the St. Augustine Back Bay Study is $5-$6 million, five-to-seven year study, so it has a very different scale and timetable. There may be potential confusion about the public meetings for that project versus the St. Johns County Vulnerability Assessment, which will be completed in one year.

A committee member asked for clarification of the role of the members with the vulnerability assessment. The response was that the members can be immediately useful in identifying data sources and critical assets, and also later in the process for prioritizing projects later in the process.

There was discussion about the example of the identification of the City of Venice Fire Station and the importance of assessing not only the floor elevations but also the area around the parcel for access constraints. If you really want to have the most options for funding, include more critical assets in the vulnerability assessment. Someone added that having more critical assets can also be alarming for the general public to see such a long list of threatened assets.

Mark noted that the consulting team is trying to identify critical elevations that include floor levels and wet well elevations. It was noted that there will not be enough funding to address all the threatened assets. A committee member noted that neighborhood access is important even if the neighborhood itself is dry to provide access for emergency services.

Adjournment

The meeting ended at 10:24 am.

Action Items

Steering Committee members—Provide comments directly on the Webmap or by sending an email with narrative comments to jhirneise@jonesedmunds.com. Comments were requested by May 22, 2023.

Westly/Jarrod--Send out an email with the list of data sources for the assets (spreadsheet format) and a Webmap link and login (Username: SJC_User / PW SJCU5er1234). Include the asset table based on the Webmap.

Angela--Send Jessica some graphics showing the locations and the measured SLR.

Westly/Jarrod--Let the Steering Committee know what is decided about the forum of the public meetings and the meeting times.

County-wide Vulnerability Assessment

Steering Committee Meeting #2

Wednesday, February 7th, 2024

2:00PM-3:30PM

WILDWOOD CONSULTING INC.

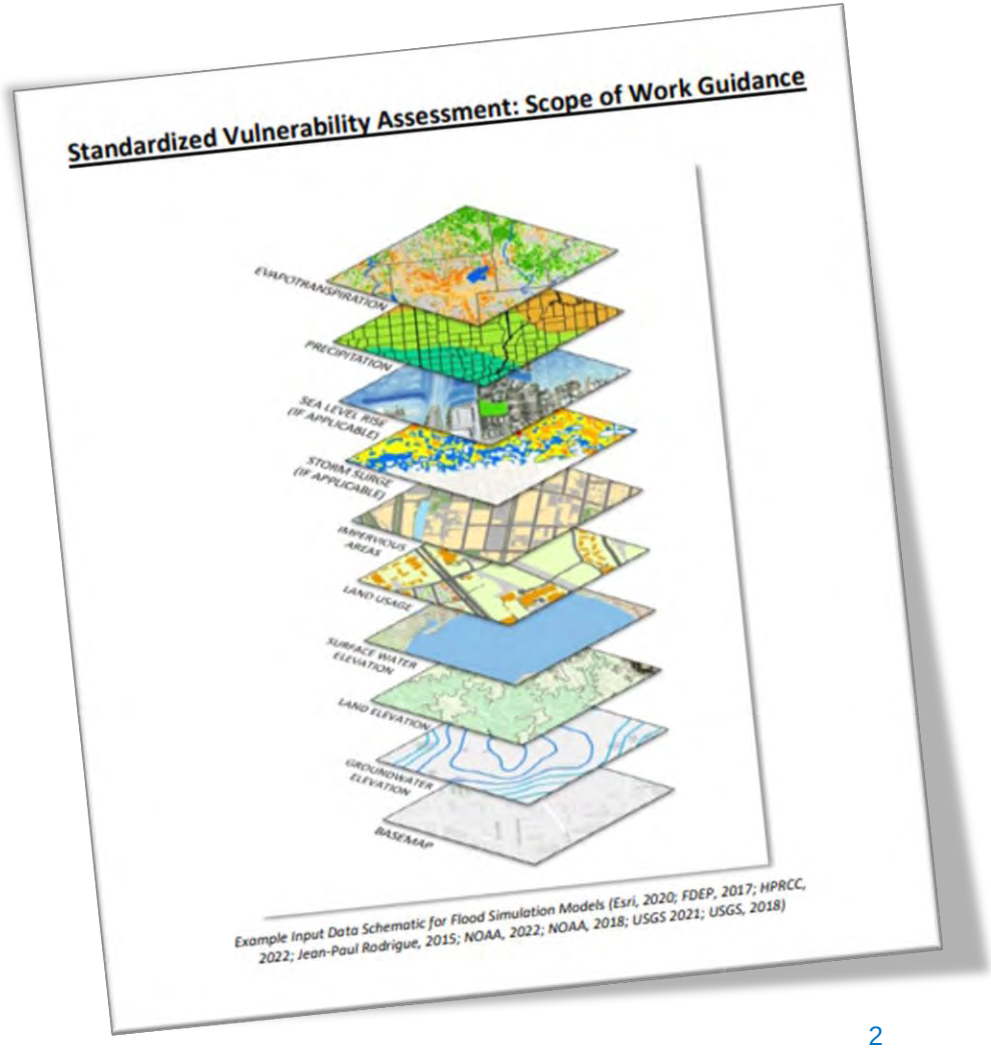
JonesEdmunds

TAYLOR ENGINEERING, INC.

ST. JOHNS COUNTY EST. 1821 FLORIDA AT FIRST SIGHT

Meeting Goals/Agenda

- Project Background, Goals, and Scope Refresher
- Review/Discuss Inundation Mapping Results
- Review/Discuss Prioritization of Vulnerable Critical Assets
- Review/Identify Focus Areas for Adaptation
- Brainstorm Adaptation Strategies



Project Goals

Complete a County-wide VA that satisfies FDEP Resilient Florida Program guidelines and State Statutes (F.S. 380.093).

ably with risk when measuring hazard impacts. NOAA provides a useful definition of vulnerability that informs the follow-on actions described later in this chapter (2010):

"The potential for loss of or harm/damage to exposed assets largely due to complex interactions among natural processes, land use decisions, and community resilience." [6]

Identify vulnerable critical infrastructure.

Why do you need a Vulnerability Assessment?

A Vulnerability Assessment helps a community determine which structural and social assets are likely to be impacted by future coastal flooding and sea level rise.

Develop grant-fundable adaptation projects to protect the County's most vulnerable prioritized infrastructure.

Sea level rise = SLR
Vulnerability Assessment = VA

Resilient Florida Program Overview

Florida Senate Bill 1954 (May 12, 2021)

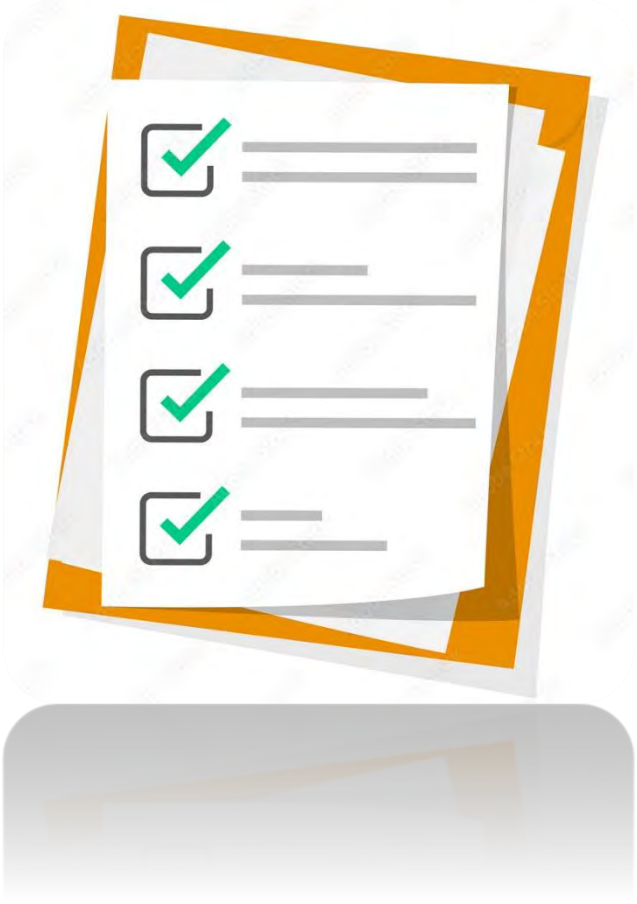
- Established Resilient Florida Grant Program
- Directs FDEP to create a statewide Vulnerability Assessment
- Directs FDEP to create a Statewide Flooding and SLR Resilience Plan

Resilient Florida Grant Program

- Planning Grants - $19M (2021-22) / $28M (2022-23)
- Implementation Grants - $400M (2021-22) / $275M (2022-23)
- Application Window – July 1 – Sept 1
- Comprehensive VA required for the 2024 funding cycle

Grant Work Plan Overview

- Kickoff meeting - Complete
- Public Outreach and Steering Committee Meetings – In Progress
- Acquire Background Data – Complete
- Exposure Analysis – Complete
- Sensitivity Analysis – In Progress
- Identify Focus Areas – In Progress
- Preliminary Adaptation Plan
- Final VA Report, Maps, and Tables



Steering Committee Purpose/Goals

- Review Project Goals
- Review Draft Materials
- Provide Input on Study Direction
- Identify Geographic Context
- Review Modeling Methods
- Identify Available Data and Resources
- Identify Relevant Assets
- Review Findings and Recommendations

Critical/Regionally Significant Assets

(d) "Regionally significant assets" means critical assets that support the needs of communities spanning multiple geopolitical jurisdictions, including, but not limited to, water resource facilities, regional medical centers, emergency operations centers, regional utilities, major transportation hubs and corridors, airports, and seaports.

Asset Type	Asset Class
Airports	Transportation and Evacuation Routes
Bridges	Transportation and Evacuation Routes
Bus Terminals	Transportation and Evacuation Routes
Ports	Transportation and Evacuation Routes
Major Roadways	Transportation and Evacuation Routes
Marinas	Transportation and Evacuation Routes
Rail Facilities	Transportation and Evacuation Routes
Railroad Bridges	Transportation and Evacuation Routes
Wastewater Treatment Facilities and Lift Stations	Critical Infrastructure
Stormwater Treatment Facilities and Pump Stations	Critical Infrastructure
Drinking Water Facilities	Critical Infrastructure
Water Utility Conveyance Systems	Critical Infrastructure
Electric Production and Supply Facilities	Critical Infrastructure
Solid and Hazardous Waste Facilities	Critical Infrastructure
Military Installations	Critical Infrastructure
Communications Facilities	Critical Infrastructure
Disaster Debris Management Sites	Critical Infrastructure
Schools	Critical Community and Emergency Facilities
Colleges and Universities	Critical Community and Emergency Facilities
Community Centers	Critical Community and Emergency Facilities
Correctional Facilities	Critical Community and Emergency Facilities
Disaster Recovery Centers	Critical Community and Emergency Facilities

Critical/Regionally Significant Assets

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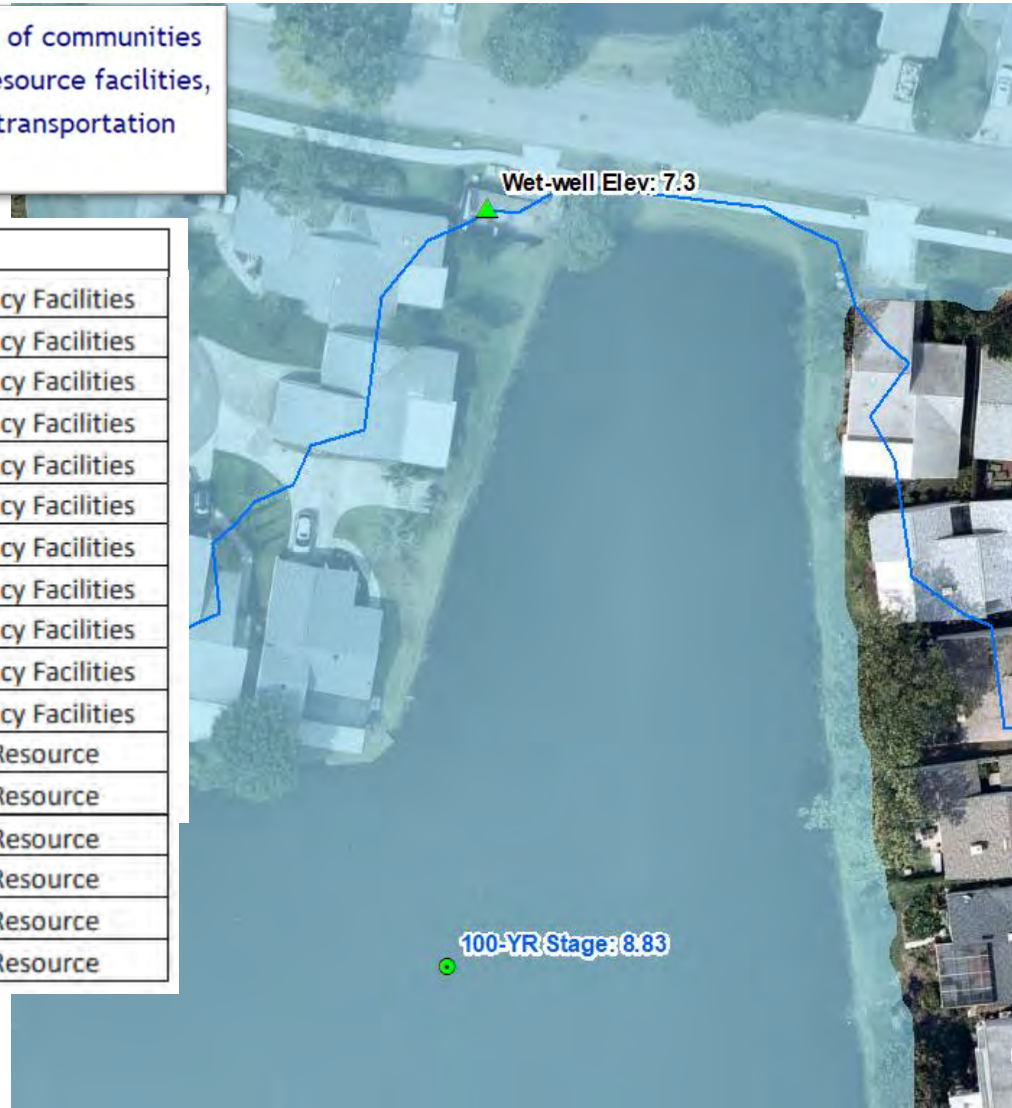
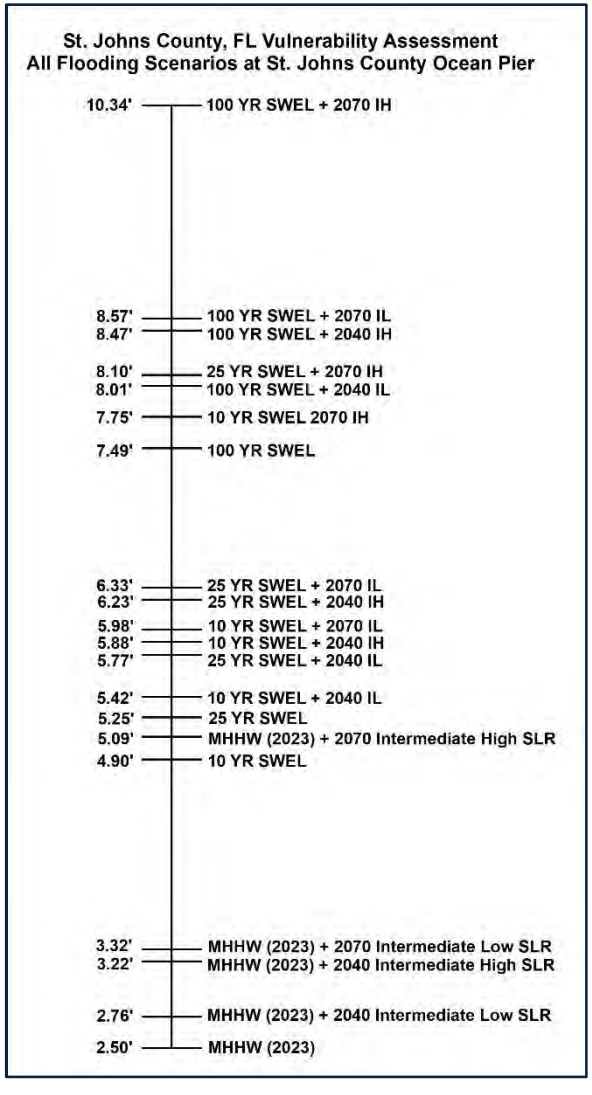
Asset Type	Asset Class
Emergency Medical Service Facilities	Critical Community and Emergency Facilities
Emergency Operation Centers	Critical Community and Emergency Facilities
Fire Stations	Critical Community and Emergency Facilities
Health Care Facilities	Critical Community and Emergency Facilities
Hospitals	Critical Community and Emergency Facilities
Law Enforcement Facilities	Critical Community and Emergency Facilities
Local Government Facilities	Critical Community and Emergency Facilities
Logistical Staging Areas	Critical Community and Emergency Facilities
Affordable Public Housing	Critical Community and Emergency Facilities
Risk Shelter Inventory	Critical Community and Emergency Facilities
State Government Facilities	Critical Community and Emergency Facilities
Conservation Lands	Natural, Cultural, and Historical Resource
Parks	Natural, Cultural, and Historical Resource
Shorelines	Natural, Cultural, and Historical Resource
Surface Waters	Natural, Cultural, and Historical Resource
Wetlands	Natural, Cultural, and Historical Resource
Historical and Cultural Assets	Natural, Cultural, and Historical Resource



Exposure Analysis

Purpose: Identify the depth of water (at each asset) caused by each sea level rise, storm surge, rainfall, and/or compound flood scenario.

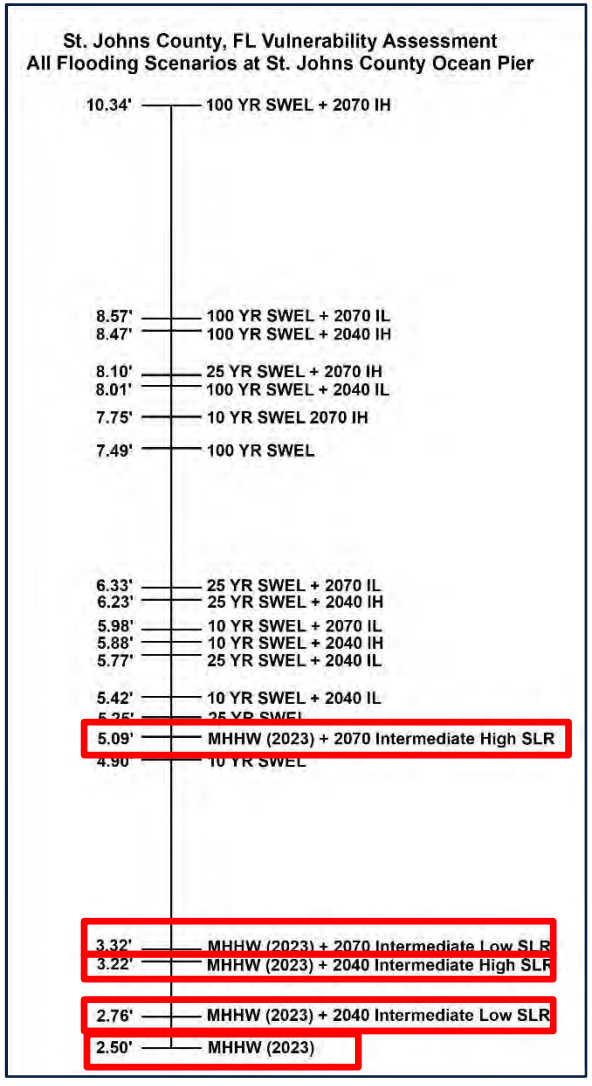
Exposure Analysis: Scenarios



Flooding Type	MHHW	10-Year	25-Year	100-Year	500-Year
Tidal/Sunny-Day Flooding					
Existing	X				
2040 Int-Low	X				
2040 Int-High	X				
2070 Int-Low	X				
2040 Int-High	X				
Rainfall Induced Flooding					
Existing			X	X	X
2040 Int-Low			X	X	X
2040 Int-High			X	X	X
2070 Int-Low			X	X	X
2040 Int-High			X	X	X
Storm Surge Flooding					
Existing		X	X	X	
2040 Int-Low		X	X	X	
2040 Int-High		X	X	X	
2070 Int-Low		X	X	X	
2040 Int-High		X	X	X	

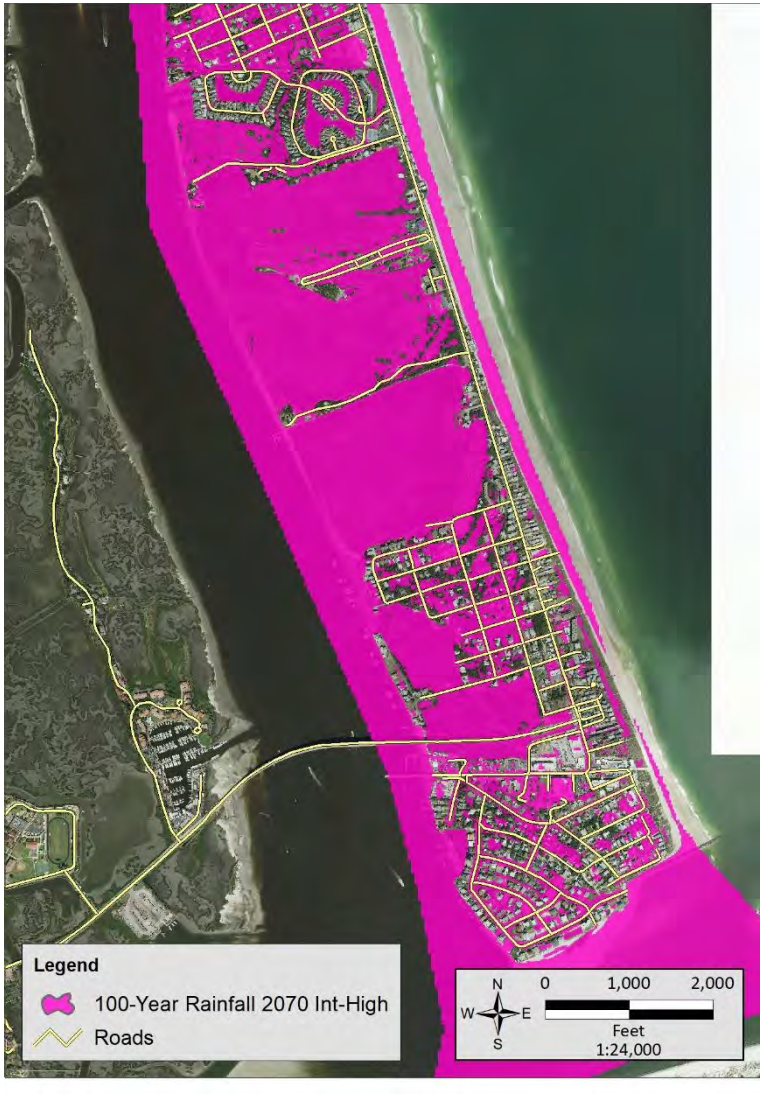
Exposure Analysis: MHHW Inundation Mapping

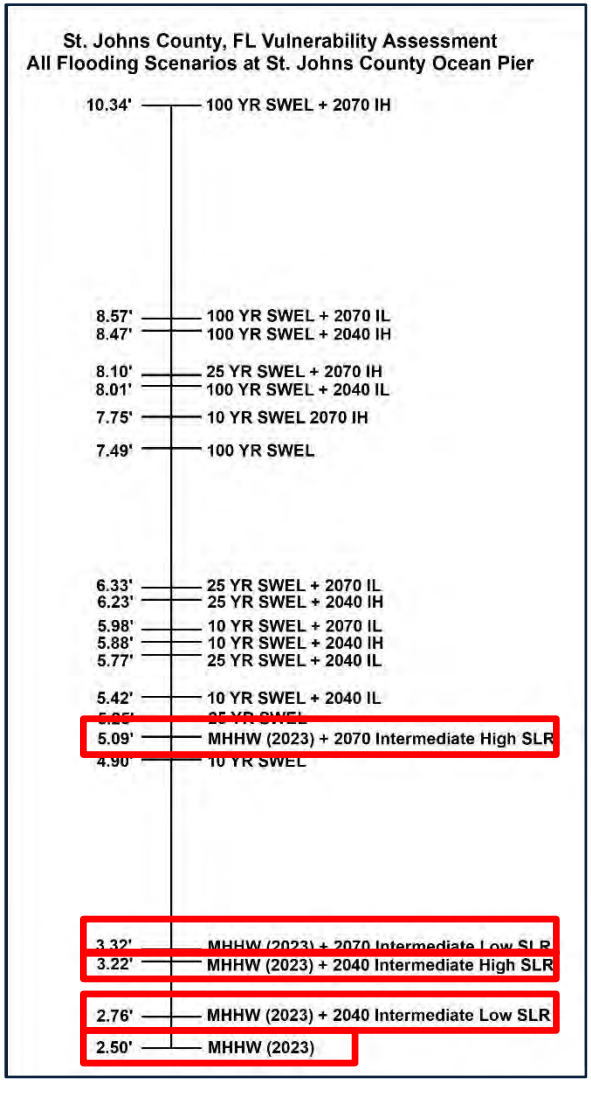
- Existing
- 2040 Int-Low
- 2040 Int-High
- 2070 Int-Low
- 2070 Int-High



Exposure Analysis: Rainfall Inundation Mapping

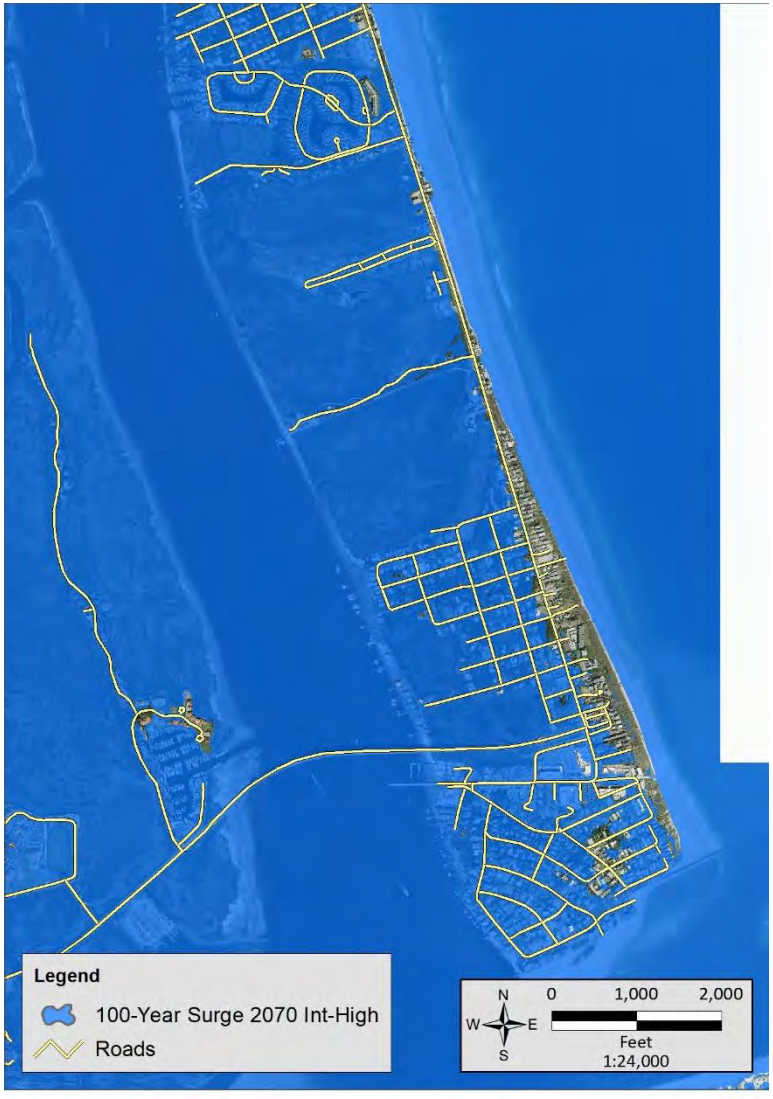
- Existing
- 2040 Int-Low
- 2040 Int-High
- 2070 Int-Low
- 2070 Int-High

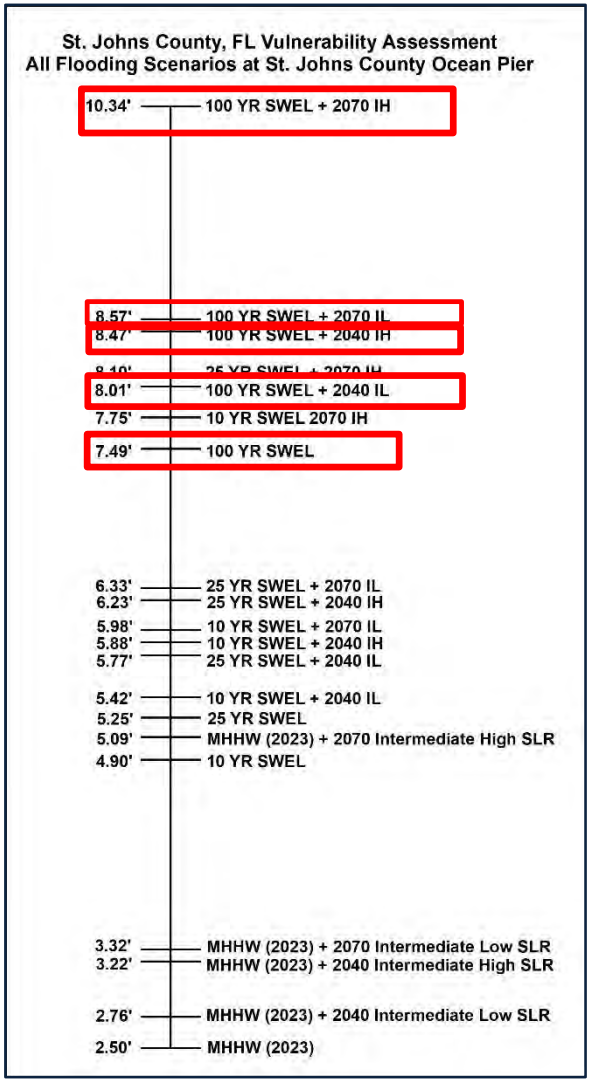




Exposure Analysis: Surge Inundation Mapping

- Existing
- 2040 Int-Low
- 2040 Int-High
- 2070 Int-Low
- 2070 Int-High





Sensitivity Analysis: Purpose/Goals

- Measure the impact of flooding on assets.
- Apply the data from the exposure analysis to the inventory of critical assets.
- Evaluate the impact of flood severity on each asset type at each flood scenario.
- Identify/Prioritize the most critical vulnerable assets.

Sensitivity Analysis: Results

Overall Risk Assessment	Critical Assets Affected (percentage of total assets or within each asset category)
None	0%
Low	<25%
Medium	25 – 50%
High	50 – 75%
Extreme	>75%

Asset Type	Total Number of Assets	Tidal Flooding					Rainfall Inundation													
		Tidal MHHW Existing Conditions	Tidal MHHW Int-Low 2040	Tidal MHHW Int-High 2040	Tidal MHHW Int-Low 2070	Tidal MHHW Int-High 2070	Rainfall 25-YR/24-HR Existing Conditions	Rainfall 100-YR/24-HR Existing Conditions	Rainfall 500-YR/24-HR Existing Conditions	Rainfall 25-YR/24-HR Int-Low 2040	Rainfall 100-YR/24-HR Int-Low 2040	Rainfall 500-YR/24-HR Int-Low 2040	Rainfall 25-YR/24-HR Int-High 2040	Rainfall 100-YR/24-HR Int-High 2040	Rainfall 500-YR/24-HR Int-High 2040	Rainfall 25-YR/24-HR Int-Low 2070	Rainfall 100-YR/24-HR Int-Low 2070	Rainfall 500-YR/24-HR Int-Low 2070	Rainfall 25-YR/24-HR Int-High 2070	Rainfall 100-YR/24-HR Int-High 2070	Rainfall 500-YR/24-HR Int-High 2070
Affordable Public Housing	91	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%	0%	1%	0%	0%	1%
Airports	4	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Bridges	118	0	0%	0%	0%	1%	2%	8%	15%	7%	14%	21%	7%	14%	21%	8%	17%	27%	8%	18%	30%
Colleges and Universities	33	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	6%	0%	0%	15%	0%	0%	15%
Community Centers	5	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Conservation Lands	3328	293	10%	12%	12%	16%	76%	80%	84%	80%	84%	88%	80%	84%	88%	81%	85%	89%	81%	85%	89%
Correctional Facilities	7	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	14%	0%	0%	14%	0%	14%	14%	0%	14%	14%
Disaster Debris Management Sites	11	0	0%	0%	0%	0%	9%	9%	18%	9%	18%	18%	9%	18%	18%	9%	18%	27%	9%	27%	27%
Disaster Recovery Centers	5	0	0%	0%	0%	0%	0%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Electric Facilities	11	0	0%	0%	0%	0%	0%	0%	9%	0%	9%	18%	0%	9%	18%	0%	9%	18%	9%	18%	18%
Emergency Medical Service Facilities	2	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Emergency Operation Centers	3	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fire Stations	17	0	0%	0%	0%	0%	0%	0%	6%	0%	6%	6%	0%	6%	6%	0%	6%	6%	0%	6%	6%
Ground Storage Tanks	19	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	5%	5%	0%	5%	11%	11%	11%	11%
Health Care Facilities	126	0	0%	0%	0%	0%	0%	2%	2%	1%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%
Historical and Cultural Assets	65	26	42%	42%	42%	46%	46%	49%	52%	49%	52%	57%	49%	52%	57%	49%	52%	58%	52%	55%	60%
Hospitals	8	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Law Enforcement Facilities	18	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	6%
Lift Stations	1149	0	0%	0%	0%	5%	6%	12%	19%	11%	19%	23%	11%	19%	28%	13%	21%	30%	17%	25%	32%
Local Government Facilities	37	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Marinas	10	0	0%	0%	0%	30%	0%	0%	0%	0%	10%	10%	0%	10%	10%	0%	10%	10%	10%	10%	10%
Military Installations	2	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Park Assets	654	0	0%	1%	1%	8%	4%	7%	10%	6%	10%	13%	6%	11%	16%	7%	12%	17%	11%	15%	20%
Parks	168	41	27%	28%	29%	33%	61%	65%	71%	65%	71%	74%	66%	71%	74%	66%	73%	76%	67%	72%	76%
Radio Communications Towers	180	0	0%	0%	0%	2%	4%	9%	17%	7%	17%	22%	7%	18%	22%	9%	19%	26%	11%	20%	28%
Railroad Bridges	4	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Risk Shelter Inventory	47	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Roads	5999	0	0%	0%	0%	2%	11%	18%	28%	16%	27%	37%	16%	28%	38%	18%	30%	40%	20%	31%	41%
Schools	134	0	0%	0%	0%	0%	0%	0%	1%	0%	1%	1%	0%	1%	1%	0%	1%	2%	0%	1%	2%
Solid and Hazardous Waste Facilities	77	2	4%	4%	4%	8%	10%	12%	16%	10%	16%	17%	10%	16%	18%	10%	16%	19%	12%	17%	19%
State Government Facilities	7	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14%
Step Tank/Grinder Station	524	0	0%	0%	0%	16%	6%	17%	30%	14%	28%	35%	16%	31%	44%	19%	35%	50%	34%	49%	58%
Stormwater Facility	14	0	0%	0%	0%	0%	14%	36%	57%	36%	50%	64%	36%	50%	64%	36%	57%	64%	36%	57%	64%
Surface Waters	78	77	99%	100%	100%	100%	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%	63%
Waste Water Facilities	209	0	0%	0%	0%	2%	8%	12%	16%	12%	16%	23%	12%	16%	24%	12%	18%	28%	14%	20%	30%
Water Distribution Pumps	24	0	0%	0%	0%	0%	4%	4%	8%	4%	8%	8%	4%	8%	8%	4%	8%	8%	8%	13%	17%
Water Supply Wells	55	0	0%	0%	0%	4%	0%	5%	9%	5%	9%	9%	5%	9%	11%	5%	11%	15%	13%	13%	20%
Water Treatment Plants	123	0	0%	0%	0%	2%	1%	3%	8%	2%	7%	11%	3%	8%	12%	4%	9%	15%	7%	11%	16%
Wetlands	8711	1620	19%	20%	21%	23%	76%	77%	79%	77%	79%	81%	77%	79%	81%	77%	80%	81%	78%	80%	82%

Sensitivity Analysis: Results

Overall Risk Assessment	Critical Assets Affected (percentage of total assets or within each asset category)
None	0%
Low	<25%
Medium	25 – 50%
High	50 – 75%
Extreme	>75%

Asset Type	Total Number of Assets	Storm Surge Flooding (SWEL)															FEMA 100-Yr Existing	Tidal Flood Days				
		Storm Surge 10-YR Existing Conditions	Storm Surge 25-YR Existing Conditions	Storm Surge 100-YR Existing Conditions	Storm Surge 10-YR Int-Low 2040	Storm Surge 25-YR Int-Low 2040	Storm Surge 100-YR Int-Low 2040	Storm Surge 10-YR Int-High 2040	Storm Surge 25-YR Int-High 2040	Storm Surge 100-YR Int-High 2040	Storm Surge 10-YR Int-Low 2070	Storm Surge 25-YR Int-Low 2070	Storm Surge 100-YR Int-Low 2070	Storm Surge 10-YR Int-High 2070	Storm Surge 25-YR Int-High 2070	Storm Surge 100-YR Int-High 2070		Tidal Flood Days Existing	Tidal Flood Days Int-Low 2040	Tidal Flood Days Int-High 2040	Tidal Flood Days Int-Low 2070	Tidal Flood Days Int-High 2070
Affordable Public Housing	91	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Airports	4	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Bridges	118	0%	0%	1%	0%	0%	1%	0%	0%	2%	0%	0%	2%	2%	2%	3%	1%	0%	0%	0%	0%	2%
Colleges and Universities	33	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Community Centers	5	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%
Conservation Lands	3328	13%	13%	17%	14%	14%	17%	15%	15%	18%	15%	16%	18%	18%	18%	20%	20%	13%	14%	15%	15%	18%
Correctional Facilities	7	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Disaster Debris Management Sites	11	0%	0%	0%	0%	0%	0%	0%	0%	9%	0%	0%	9%	9%	9%	9%	0%	0%	0%	0%	0%	9%
Disaster Recovery Centers	5	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Electric Facilities	11	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Emergency Medical Service Facilities	2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Emergency Operation Centers	3	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fire Stations	17	0%	0%	0%	0%	0%	12%	0%	0%	12%	0%	0%	18%	0%	12%	18%	0%	0%	0%	0%	0%	6%
Ground Storage Tanks	19	0%	0%	0%	0%	0%	5%	0%	0%	11%	0%	0%	11%	11%	11%	26%	0%	0%	0%	0%	0%	11%
Health Care Facilities	126	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	0%	0%	0%	2%
Historical and Cultural Assets	65	40%	40%	43%	42%	42%	43%	42%	42%	48%	42%	42%	48%	46%	46%	54%	40%	42%	42%	42%	43%	46%
Hospitals	8	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Law Enforcement Facilities	18	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	0%	0%	0%	0%
Lift Stations	1149	1%	1%	10%	2%	3%	14%	3%	5%	16%	4%	5%	17%	13%	15%	29%	10%	0%	1%	2%	2%	11%
Local Government Facilities	37	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%
Marinas	10	0%	0%	60%	10%	30%	100%	40%	40%	100%	40%	50%	100%	90%	100%	100%	70%	0%	20%	30%	30%	90%
Military Installations	2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Park Assets	654	4%	6%	12%	7%	8%	14%	8%	9%	16%	9%	10%	16%	14%	15%	22%	14%	2%	3%	5%	5%	12%
Parks	168	28%	29%	35%	30%	32%	36%	33%	33%	38%	33%	33%	39%	38%	38%	42%	33%	29%	29%	31%	31%	35%
Radio Communications Towers	180	1%	1%	7%	2%	2%	8%	2%	3%	11%	3%	4%	12%	8%	8%	18%	6%	1%	1%	1%	1%	7%
Railroad Bridges	4	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Risk Shelter Inventory	47	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Roads	5999	0%	0%	4%	1%	1%	6%	2%	2%	7%	2%	2%	8%	7%	7%	11%	4%	0%	0%	1%	1%	5%
Schools	134	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	1%	1%	8%	0%	0%	0%	0%	0%	2%
Solid and Hazardous Waste Facilities	77	5%	5%	8%	6%	6%	8%	6%	6%	8%	6%	6%	8%	8%	8%	8%	6%	4%	4%	5%	5%	8%
State Government Facilities	7	0%	0%	0%	0%	0%	14%	0%	0%	14%	0%	0%	14%	0%	14%	43%	0%	0%	0%	0%	0%	0%
Step Tank/Grinder Station	524	2%	4%	36%	7%	11%	45%	15%	18%	51%	16%	20%	52%	44%	47%	72%	29%	1%	2%	7%	9%	41%
Stormwater Facility	14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	21%	0%	0%	0%	0%	0%	0%
Surface Waters	78	99%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	97%	100%	100%	100%	100%	100%
Waste Water Facilities	209	0%	0%	2%	0%	0%	9%	0%	0%	18%	0%	0%	20%	13%	18%	35%	1%	0%	0%	0%	0%	11%
Water Distribution Pumps	24	0%	0%	0%	0%	0%	8%	0%	0%	21%	0%	0%	21%	13%	13%	25%	0%	0%	0%	0%	0%	8%
Water Supply Wells	55	0%	2%	4%	2%	2%	9%	2%	4%	11%	4%	4%	11%	11%	11%	16%	4%	0%	0%	2%	2%	11%
Water Treatment Plants	123	0%	0%	4%	0%	0%	6%	0%	1%	7%	0%	1%	7%	7%	7%	10%	4%	0%	0%	0%	0%	6%
Wetlands	8711	21%	21%	23%	22%	22%	23%	23%	23%	24%	23%	23%	24%	24%	24%	25%	30%	21%	22%	22%	23%	24%

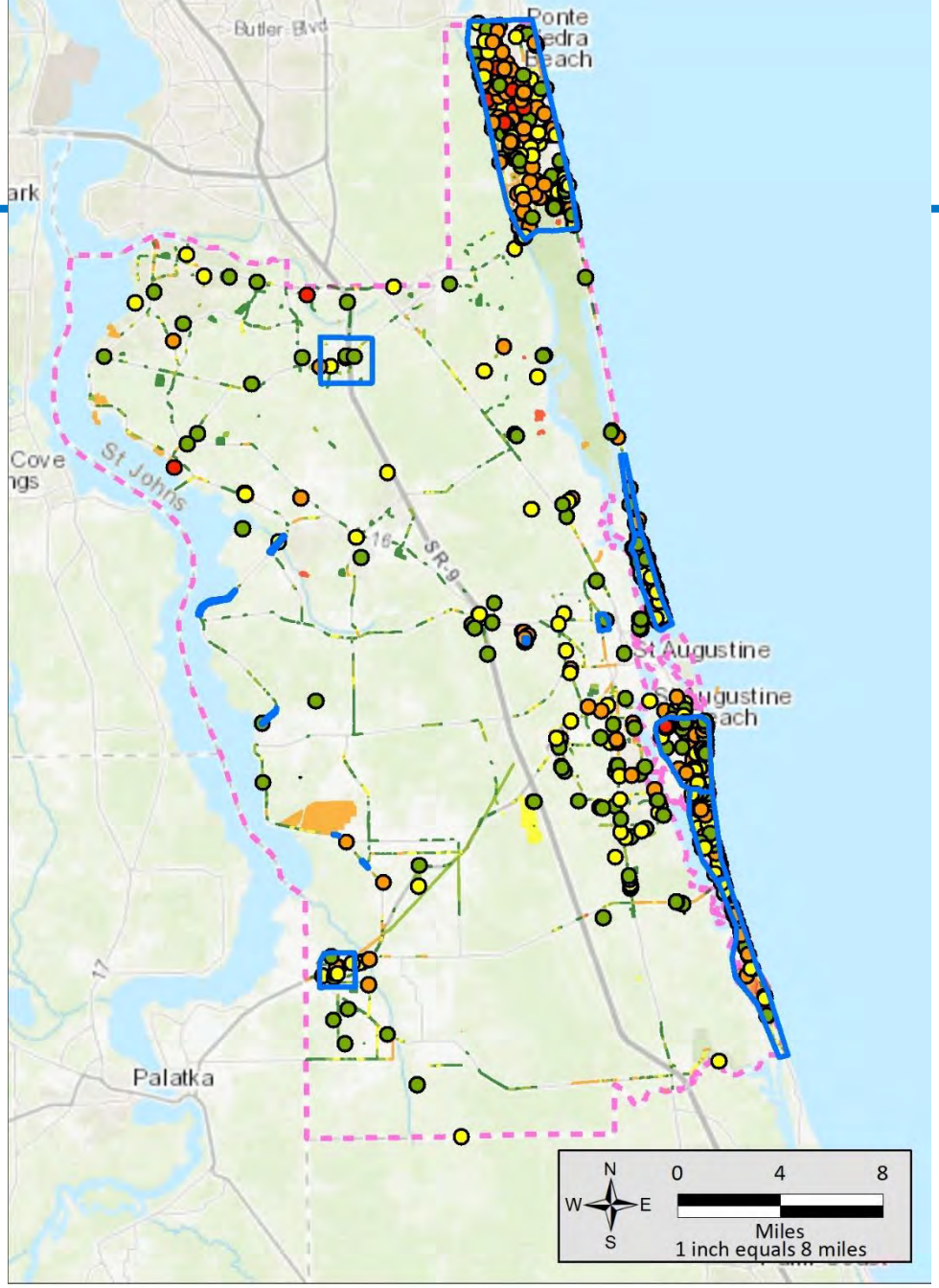
Vulnerable Asset Prioritization

Priority Rating	Number of Assets
N/A	15,081
Lowest	3,730
Low	1,076
Medium	982
High	1,101
Highest	107

				Flood Impact Categories								
Asset Type	Asset Name	Asset Owner	Exposure / Sensitivity Score	Environmental	Social	Economic	Flood Impact Score	Regional Significance	Community Feedback Score	Total Score	Rank	Priority Rating
Waste Water Facilities	Innlet Beach WWTF	St Johns County	4.8	5	5	5	10.0	5	5	84.0	1	Highest
Waste Water Facilities	Innlet Beach WWTF	St Johns County	4.6	5	5	5	10.0	5	5	80.5	2	Highest
Waste Water Facilities	Innlet Beach WWTF	St Johns County	4.6	5	5	5	10.0	5	5	80.5	2	Highest
Waste Water Facilities	Innlet Beach WWTF	St Johns County	4.4	5	5	5	10.0	5	5	77.0	4	Highest
Roads	SR A1A	FDOT	5.2	0	5	5	6.7	5	5	73.0	5	Highest
Waste Water Facilities	Anastasia Island WWTF	St. Johns County	4.1	5	5	5	10.0	5	5	70.9	6	Highest
Waste Water Facilities	Anastasia Island WWTF	St. Johns County	4.1	5	5	5	10.0	5	5	70.9	6	Highest
Roads	Ponte Vedra Blvd	St. Johns County	5.0	0	5	5	6.7	5	5	70.1	8	Highest
Roads	Mickler Rd	St. Johns County	4.9	0	5	5	6.7	5	5	68.7	9	Highest
Roads	Mickler Rd	St. Johns County	4.9	0	5	5	6.7	5	5	68.7	9	Highest
Lift Stations	224	St Johns County	6.9	3	5	3	7.3	0	5	67.9	11	Highest
Roads	Ponte Vedra Blvd	St. Johns County	4.7	0	5	5	6.7	5	5	66.6	12	Highest
Lift Stations	231	St Johns County	6.8	3	5	3	7.3	0	5	66.4	13	Highest
Roads	SR A1A	FDOT	4.7	0	5	5	6.7	5	5	65.9	14	Highest
Roads	County Road 13 N	St. Johns County	4.7	0	5	5	6.7	5	5	65.9	14	Highest
Roads	SR A1A	FDOT	4.5	0	5	5	6.7	5	5	63.0	16	Highest
Roads	SR A1A	FDOT	4.4	0	5	5	6.7	5	5	62.3	17	Highest
Lift Stations	211	St Johns County	6.3	3	5	3	7.3	0	5	62.0	18	Highest
Waste Water Facilities	Anastasia Island WWTF	St. Johns County	3.5	5	5	5	10.0	5	5	60.4	19	Highest
Waste Water Facilities	Anastasia Island WWTF	St. Johns County	3.5	5	5	5	10.0	5	5	60.4	19	Highest
Roads	SR A1A	FDOT	4.3	0	5	5	6.7	5	5	60.2	21	Highest
Roads	SR A1A	FDOT	4.3	0	5	5	6.7	5	5	60.2	21	Highest
Roads	A1A Beach Blvd	St. Johns County	4.3	0	5	5	6.7	5	5	60.2	21	Highest
Roads	A1A Beach Blvd	St. Johns County	4.3	0	5	5	6.7	5	5	60.2	21	Highest
Roads	A1A Beach Blvd	St. Johns County	4.3	0	5	5	6.7	5	5	60.2	21	Highest
Water Treatment Plants	MARSH LANDING WTP	SJCUD	4.1	1	5	5	7.3	5	5	60.1	26	Highest
Roads	SR A1A	FDOT	4.2	0	5	5	6.7	5	5	58.8	27	Highest
Roads	SR A1A	FDOT	4.2	0	5	5	6.7	5	5	58.8	27	Highest
Roads	SR A1A	FDOT	4.2	0	5	5	6.7	5	5	58.8	27	Highest

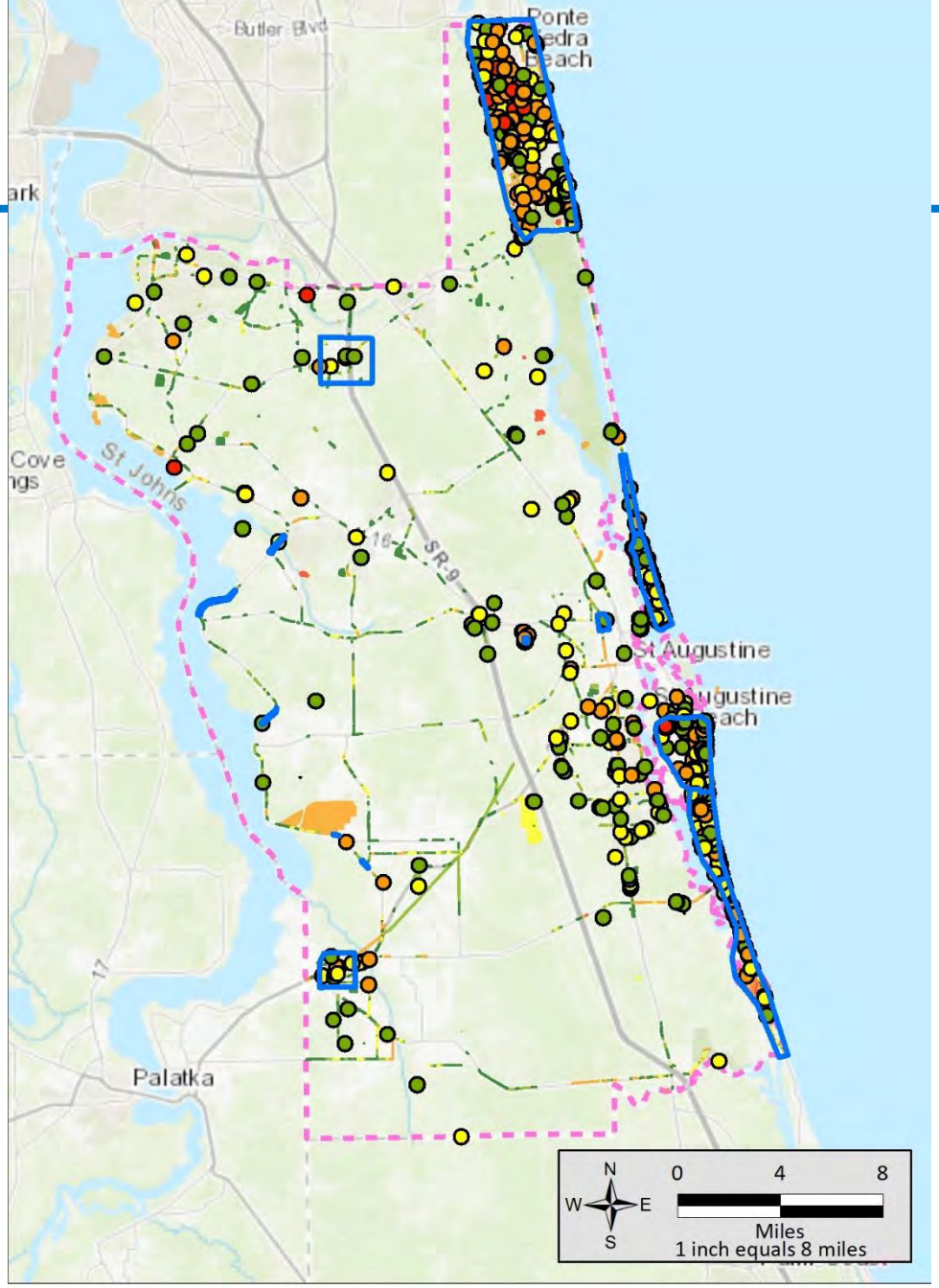
Draft Focus Areas

- Anastasia Island from COSAB to SR206
- Anastasia Island from SR206 to Matanzas Inlet
- Anastasia Island from SR312 to COSAB South Boundary
- Vilano/North Beach
- Ponte Vedra
- SR-16 / Lewis Speedway / Masters Drive
- Low Spots Along CR-13
- Hastings
- SR16 Wastewater Treatment Plant
- CR-210 @ I-95



Focus Areas Review

- Should additional areas be covered?
- Do vulnerable critical asset priorities make sense?
- Are there current/future CIP projects that should be considered in the focus areas?
- Are there specific adaptation projects/strategies that should be considered?



https://jonesedmunds.maps.arcgis.com/apps/mapviewer/index.html?webmap=cddba40e5e5d4646a563fd4ac221734a

Username: SJC_User
PW: SJCU5er1234

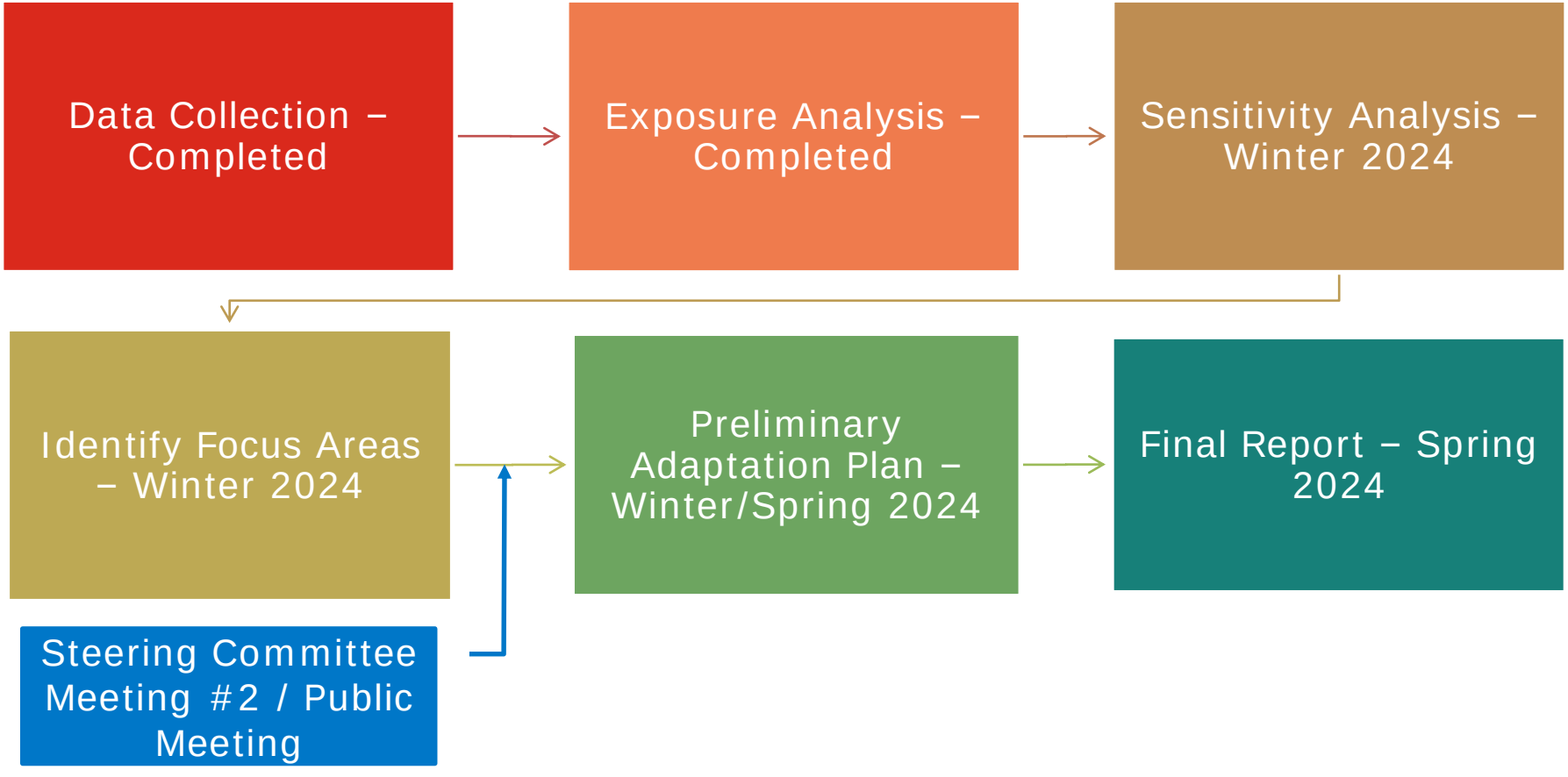
Next Steps

- Get feedback from Steering Committee on asset prioritization, focus areas, and adaptation projects (today).
- Update prioritization/focus areas as-needed.
- Present focus areas to the Board.
- Develop preliminary adaptation plan with high priority projects identified.
- Apply for FDEP implementation grant funding for high priority projects.
- Continue adaptation planning with additional FDEP grant funding.

Implementation Grant Scoring Criteria

- Project Will Score Higher If They:
  - Address flooding identified in a VA. (Additional points for compound flooding)
  - Reduce risk to a regionally significant asset.
  - Reduce risk of flooding in areas with higher percentage of vulnerable critical assets.
  - Include new or enhanced structures and/or natural system restoration/revegetation.
  - Have flooded in the last 3 years. (Need proof)
  - Have flooded more than 3 times in the past 5 years. (Need proof)
  - Have flooded more than 1-foot in the past 5 years, between 3-inches and 1-foot at least one time in the current year and the previous 3 years, at least one instance of sustained flooding for 7 or more days. (Need proof)
  - Have planning/design/permitting that has begun or is complete.
  - Enhance habitat or include nature-based solutions.
  - Have been awarded other State funding.
  - Exceed flood-resistant requirements in Florida Building Codes.
  - Include innovative technologies to reduce cost.
  - Are located in a financially disadvantaged community.

Path Forward



Questions/Discussion

WILDWOOD CONSULTING INC.

JonesEdmunds

TAYLOR ENGINEERING, INC.

ST. JOHNS COUNTY EST. 1821 FLORIDA AT FIRST SIGHT

St. Johns County Vulnerability Assessment: Steering Committee Meeting #2

Wednesday, February 7th, 2024
2PM – 3:30PM ET
St. Johns County Permit Center (Conference Room 2) / 4040 Lewis Speedway, St. Augustine, Florida 32084

ATTENDEE SIGN-IN SHEET

(PLEASE PRINT)

NAME	ENTITY/COMPANY	PHONE AND EMAIL
Mike Campbell	St. Johns County Land Management	PHONE: (904) 209-0778 EMAIL: mcampbell@sjcfl.us
DONALD BRADSHAW	ST. JOHNS COUNTY SURVEYOR LAND MANAGEMENT	PHONE: 904-209-0770 EMAIL: dbradshaw@SJCFL.US
Jessica Beach	City of St. Augustine	PHONE: (904) 209-4227 EMAIL: jbeach@citystaug.com
		PHONE: EMAIL:
		PHONE: EMAIL:
		PHONE: EMAIL:
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		PHONE: EMAIL:
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		Phone: EMAIL:

St. Johns County Vulnerability Assessment: Steering Committee Meeting #2

Wednesday, February 7th, 2024
2PM – 3:30PM ET
St. Johns County Permit Center (Conference Room 2) / 4040 Lewis Speedway, St. Augustine, Florida 32084

ATTENDEE SIGN-IN SHEET

(PLEASE PRINT)

NAME	ENTITY/COMPANY	PHONE AND EMAIL
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Jamie, Baccari	Parks & Rec	PHONE: 209-0377 EMAIL: JBaccari@SJCFL.US
Dick D'Souza	GROWTH MANAGEMENT	PHONE: 209-0792 EMAIL: ddsouza@sjcfl.us
Keith Oke	ST. JOHNS Co. SHERIFF'S OFFICE	PHONE: 904-669-1241 EMAIL: koke@sjso.org
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Teri Shoemaker	St Johns Co Utilities	PHONE: 904-209-2614 EMAIL: tshoemaker@sjcfl.us
Patrick Burger	Jones Edmunds	PHONE: 352 256 1689 EMAIL: pburger@jonesedmunds.com
Mark Nelson	Jones Edmunds	Phone: 352-377-5821 EMAIL: MNelson@jonesedmunds.com
TIFFANY Busby	Wildwood Consulting	Phone: 904-797-2721 EMAIL: tbusby@wildwoodconsulting.net

St. Johns County Vulnerability Assessment: Steering Committee Meeting #2

Wednesday, February 7th, 2024
2PM – 3:30PM ET
St. Johns County Permit Center (Conference Room 2) / 4040 Lewis Speedway, St. Augustine, Florida 32084

ATTENDEE SIGN-IN SHEET
(PLEASE PRINT)

NAME	ENTITY/COMPANY	PHONE AND EMAIL
Jarrod Hirnese	Jones Edmunds	PHONE: 904-744-5481 EMAIL: JHirnese@jonesedmunds.com
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Jan Brewer Jm Brewer	SJC Environmtal	PHONE: 904/209-0617 EMAIL: jbrewer@sjcfl.us
Michael Roberson	SJC/Growth Manager	PHONE: 904 209-0593 EMAIL: mroberson@SJCFL.US
Chris Stewart	SJC FIRE RESCUE	Phone: 904-209-1746 EMAIL: cwstewart@sjcfl.us
		Phone: EMAIL:

St. Johns County Vulnerability Study
Steering Committee Meeting #2
February 7, 2024 at 2 pm
St. Johns County Utility Department
St. Augustine, Florida

Attendees

Jaime Baccari, St. Johns County Parks & Recreation
Jessica Beach, City of St. Augustine
Donald Bradshaw, St. Johns County Surveyor
Jan Brewer, St. Johns County Environmental
Patrick Burger, Jones Edmunds
Tiffany Busby, Wildwood Consulting
Mike Campbell, St. Johns County
Amber Crumpler, St. Johns County Utilities
Dick D'Souza, St. Johns County Growth Management
Corryn George, St. Johns County Environmental
Jarrod Hirneise, Jones Edmunds
Duane Kent, St. Johns County Engineering
Patrick Lawson, Taylor Engineering
Ryan Mauch, St. Johns County Environmental
Laura Nelson, St. Johns County Emergency Management
Mark Nelson, Jones Edmunds
Keith Oke, St. Johns County Sheriff's Office
Michael Roberson, St. Johns County Growth Management
Teri Shoemaker, St. Johns County Utilities
Jason Sparks, City of St. Augustine Beach
Chris Stewart, St. Johns County Fire Rescue
David F. Williams, Flagler Estates Road & Water Control District/Flagler Estates CRA
Westly Woodward, St. Johns County Growth Management

Project Background, Goals and Scope Refresher

Everyone introduced themselves and their organization or division.

Jarrod Hirneise outlined the agenda and noted the purpose of a vulnerability assessment is to help a community determine which structural and social assets are likely to be impacted by future coastal flooding and sea level rise (SLR). The three primary project goals are: 1). Complete a county-wide vulnerability assessment that satisfies the Florida Department of Environmental Protection (FDEP) Resilient Florida Program guidance and Florida Statutes (F.S.) (380.092 F.S.); 2). Identify critical infrastructure; and 3). Develop grant-fundable adaptation projects to protect the county's most vulnerable prioritized infrastructure.

A reminder of the overview of the Resilient Florida Program was provided that explained the program was created on May 12, 2021, in Florida Senate Bill 1954. This legislation directs FDEP to create a statewide vulnerability assessment and to create a statewide

flooding and SLR resilience plan. The Resilient Florida Grant Program has provided $19 million in planning grants for fiscal years (FYs) 2022 through 2023, $400 million was available in the 2021-22 cycle and an additional $275 million in the 2022-23 cycle for implementation grants. Mark Nelson noted that it is critical to identify infrastructure as part of the St. Johns County Vulnerability Assessment to be prepared for the next year's funding cycle for implementation grants.

An overview of the grant work plan was briefly reviewed. In terms of a status update, the kickoff meeting; acquisition of background data; and the exposure analysis are now complete. The public outreach and steering committee meetings; the sensitivity analysis; and identification of focus areas are in progress.

Additionally, the Steering Committee's purpose and goals were reviewed. The large list of the types of assets that are considered "regionally significant assets," which was presented at the first meeting, was displayed and reviewed.

The results of the exposure analysis were presented. Both the 20 required scenarios and the additional 15 scenarios which were run were described. These include tidal flooding, rainfall induced, and storm surge flooding.

The purpose of the sensitivity analysis was explained. This information will be used to identify and prioritize the most critical public assets. A table showing the sensitivity analysis results was discussed. This included a draft prioritization of vulnerable assets. Based on the draft prioritization, several focus areas were apparent, including three areas of Anastasia Island; Vilano/North Beach; Ponte Vedra; County Road (CR)-13 low spots; Hastings; the wastewater plant on State Road 16; and the area near CR 210 and Interstate-95.

Review and Discussion

Q: It was noted that there were many private lift stations included as assets. Since the project is focused on public assets, should these be included in the report?
A: There was discussion about the importance of the private lift stations to move water to the public stormwater system. After discussion, it was recommended to keep the private lift stations in the dataset, because they influence the effectiveness of the public conveyances, but to remove the private stations from the assets mapped and described in this report to keep the focus on public assets.

Q: It was noted that the Flagler Estates area has all private wells for water supply and septic systems for treatment of domestic waste. When will adjustments be needed to address this situation in this low-lying area? Also, are Florida Department of Transportation (FDOT) roads included here as public assets?
A: The private wells and septic systems are important, and they are also privately owned assets. The focus for this report is on community (public) assets. Yes, FDOT roads are included as public/community assets.

Q: Can we include the Innlet Beach Wastewater Plant (in Ponte Vedra) on the list?
A: Yes, the consultants will add that asset to the list.

Comment: The prioritization scores are drafted and can be changed based on feedback. The scoring is based on the asset type, not individual considerations. Based on feedback, the team can customize scores for specific assets. It was added that the score can be changed, but the depth of flooding and flood frequency will not change. Feedback is welcome.

Q: How have projects been selected for grant funding? How highly prioritized does a project need to be to qualify for FDEP grants?
A: Currently, the county can apply for funding for any asset that is included on the list. However, there is a suggestion that the assets highest on the list will be the ones for which to seek funding. Jarrod reviewed the slide that outlined the FDEP grading criteria. He added that points are given if you can provide evidence of past flooding (e.g., photos or other evidence).

Q: Is there any procedure in place to get documentation of flooding that occurs after a storm event?
A: Yes, the county has a survey group and software that logs information and photos about flooding.

Q: What does it mean if a project is located outside one of the identified focus areas?
A: The FDEP scoring does not give weight to the focus area locations. Westly Woodward added that being located in a focus area helps to describe why the project should be funded but it is still possible to pursue projects outside the focus areas.

Q: Overall, do the project priorities make sense?
A: See discussion below.

Q: Near St. Augustine Beach, how was the project boundary line determined?
A: In general, the consultants used the jurisdictional boundaries. However, there are some areas or projects that were included when the service area is outside the jurisdiction. For example, St. Johns County Utilities has some assets in incorporated areas. We have the same situation in the City of St. Augustine plan—the city has some assets in the county. There was discussion about how some of the county roads are covered in the St. Augustine Beach Vulnerability Assessment.

Comment: It might help everyone's review process to focus on the bins where your particular assets are classified to see if they make sense to you. Also, we would like feedback if any assets were incorrectly classified.

Comment: In the storm sewer category, some are Environmental' s assets, and some correspond to Parks and Recreation's assets, and vice versa. Fort Matanzas is listed multiple times.

Q: Why are there so many duplications of assets?
A: It may be that there are multiple assets on a site—a building, a parking lot, a recreation area. It is possible that on one site there are various kinds of assets and with different elevations. You need to look at the asset details to determine the specific asset if there is more than one asset on a site.

Comment: We suggest holding a smaller meeting to review assets in the storm sewer categories.

Q: What is the schedule to present this to the Board of County Commissioners (BOCC)?
A: The draft information will go to the BOCC on February 20th; the draft information will include a presentation of the proposed focus areas and the adaptation plan. In the future, the BOCC will approve any FDEP grant applications.

Comment: This report is the thought process—the plan—to set us up for grant eligibility.

Q: What is the rest of the schedule to complete the St. Johns County Vulnerability Assessment?
A: The schedule is dictated by the grant. Mark Nelson noted that the City of St. Augustine will be asking for a grant extension, but the intent of the county is to meet the current grant deadlines.

Q: What is the amendment process for these plans?
A: These are the first plans of their type, so there is no current amendment process; there is no DEP guidance yet on plan amendments. It was noted that the Stormwater Master Plan must be updated every five years, so it is possible that the update schedule for these plans will be similar.

Q: Do we need to update the Comprehensive Plan with this information?
A: It is not required to update the county Comprehensive Plan with this information.

Q: When an asset is listed multiple times, are there various aspects of the asset that may be labeled?
A: Yes, for example Trout Creek Park is currently prioritized as a high priority but the pavilion at Trout Creek Park is prioritized as a medium priority. For the Sheriff's Department, different buildings are rated separately and may have different priority levels. More detail on each asset is better for this kind of plan.

Comment: Jarrod Hirneise reviewed the web map and how to see the details about the different assets.

Comment: The County Administration Building Parking Lot is not a critical asset. Why is it listed as so important?

A: There are some points that represent a general area. Let us know if it is not a high priority and we can adjust. This is a screening process, so we can adjust individual assets based on comments.

Comment: The Sheriff's Office will have comments, but we will share those comments with you offline. We have some questions such as why some of our assets are "N/A." It was noted by the consultants that assets that have N/A mean that they did not show flooding in the modeling.

Q: Some assets are on two lists—is that a problem?
A: There may be some assets that are a combination of state, county, and city assets. Try filtering for just county assets and see if that addresses the duplications.

Q: There is a proposed road extension of CR 305. Should we speak about that in this plan?
A: When the road is extended, it must meet the standards so the flooding concerns will be addressed when the road is designed. For this report, we are excluding future assets and focusing on current assets.

Comment: Feedback from the Steering Committee members can be provided sending an email with narrative comments to jhirneise@jonesedmunds.com. Information on the Web map link and login were provided. (Username: SJC_User / PW SJCU5er1234).

Action Items

Steering Committee Members—: The prioritization scores are drafted and can be changed based on feedback. The scoring is based on the asset type, not individual considerations. Based on feedback, the team can customize scores for specific assets. It was added that the score can be changed, but the depth of flooding and flood frequency will not change. It might help everyone's review process to focus on the bins where your particular assets are classified to see if they make sense to you. Also, we would like feedback if any assets were incorrectly classified. There may be some assets that are a combination of state, county, and city assets. Try filtering for just county assets and see if that addresses the duplications. Feedback is welcome. Provide comments by sending an email with narrative comments to jhirneise@jonesedmunds.com.

Consultants--Add the Inlet Beach Wastewater Plant (in Ponte Vedra) on the list.

Consultants--Hold a smaller meeting to review assets in the storm sewer categories.

All—Be aware of the upcoming schedule and grant process. The draft information will go to the BOCC on February 20th; the draft information will include a presentation of the proposed focus areas and the adaptation plan. In the future, the BOCC will approve any DEP grant applications.

Keith Oke—Share the Sheriff's Office's comments offline. We have some questions such as why some of our assets are "N/A." It was noted by the consultants that assets that have N/A mean that they did not show flooding in the modeling.

Appendix D

Public Outreach Meeting Agendas, Presentations, Minutes, and Sign-In Sheets

STEERING COMMITTEE MEETING #1 AGENDA

MEETING TIME: 9:00 AM – 11:00 AM ET

MEETING DATE: Monday May 8, 2023

LOCATION: St. Johns County Utility Administration Building / 1205 State Road 16, St. Augustine, FL 32084

1. Introductions
2. Project goals, background, and Scope
3. Steering Committee Purpose and Goals
4. Data Collection Review
5. Exposure Analysis Review

Project Contacts

- Westly Woodward - St. Johns County – Principal Resiliency Planning Analyst – Wwoodward@sjcfl.us
- Jarrod Hirneise - Jones Edmunds and Associates – Project Manager – Jhirneise@jonesedmunds.com
- Mark Nelson – Jones Edmunds and Associates – Senior Consultant / Vice President – Mnelson@jonesedmunds.com

County-wide Vulnerability Assessment

PUBLIC OUTREACH MEETING

September 29, 2023

3PM-5PM

Board of County Commissioners Auditorium

TAYLOR ENGINEERING, INC.

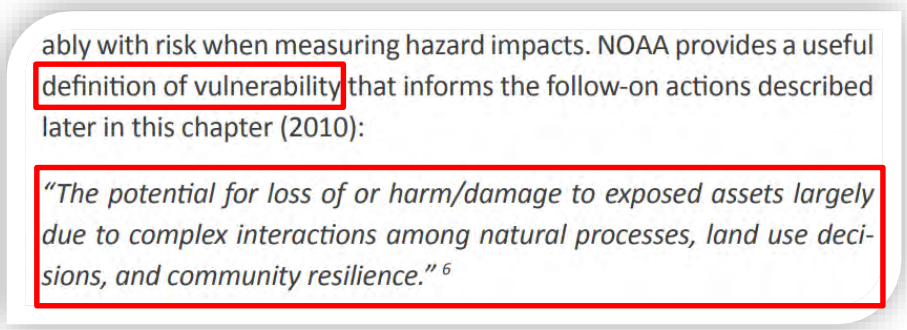
JonesEdmunds

Agenda

- Review Project Background, Goals, and Scope
- Review Data Collection Task
- Review Inundation Modeling/Mapping Approach
- Feedback from County Residents (Public Comment)

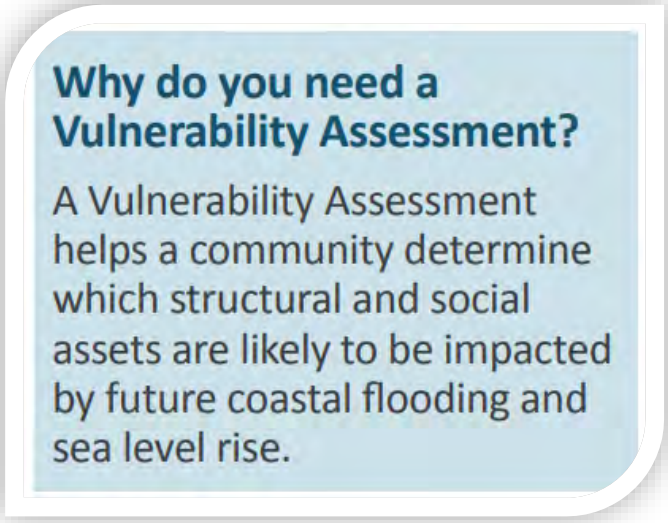
Project Goals

- Complete a County-wide Vulnerability Assessment that satisfies FDEP Resilient Florida Program guidelines and State Statutes (F.S. 380.093).
- Identify vulnerable critical community infrastructure.
- Develop grant-fundable adaptation projects to protect the County's most vulnerable prioritized infrastructure.



ably with risk when measuring hazard impacts. NOAA provides a useful definition of vulnerability that informs the follow-on actions described later in this chapter (2010):

"The potential for loss of or harm/damage to exposed assets largely due to complex interactions among natural processes, land use decisions, and community resilience." [6]



Why do you need a Vulnerability Assessment?

A Vulnerability Assessment helps a community determine which structural and social assets are likely to be impacted by future coastal flooding and sea level rise.

Fla. Dept. of Environment Protection = FDEP
Sea Level Rise = SLR
Vulnerability Assessment = VA

Resilient Florida Program Overview

Florida Senate Bill 1954 (May 12, 2021)

- **Established Resilient Florida Grant Program.**
- Directs FDEP to create a statewide Vulnerability Assessment.
- Directs FDEP to create a Statewide Flooding and SLR Resilience Plan.

Resilient Florida Grant Program

- Planning Grants - $19M (2021-22) / $28M (2022-23)
- Implementation Grants - $400M (2021-22) / $275M (2022-23)

F.S. 380.093 Overview

Established Requirements for FDEP Funded VAs

- Must encompass entire county or municipality.*
- Must include all “critical assets” owned or maintained by applicant.
- Include depth of future high tide flooding.
- Include depth of current and future storm surge flooding (100-year event).
- Include depth of current and future rainfall-induced flooding (100-year & 500-year events).
- Use National Oceanic and Atmospheric Administration’s (NOAA) 2017 intermediate-low and intermediate-high sea-level-rise projections.
- Include 2040 and 2070 planning horizons.

*County’s assessment will not include City of St. Augustine or City of St. Augustine Beach.

Funding Overview

Other Relevant Vulnerability Assessments

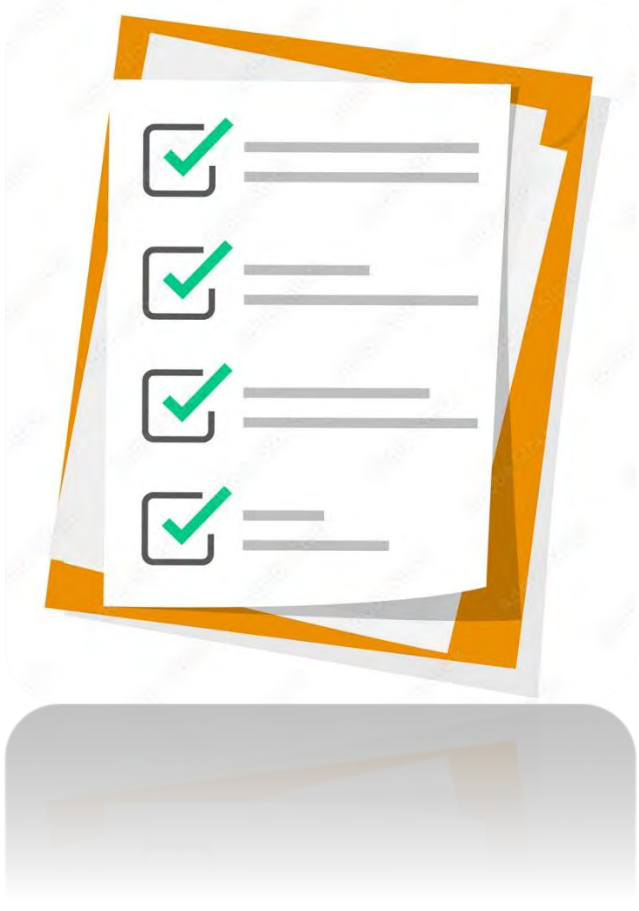
- City of St. Augustine FDEP VA (Kicked-off in April 2023)
- City of St. Augustine Army Corp of Engineers Back Bay Study (Kicked-off Feb. 2023 / Approx. Finish - 2028)
- City of St. Augustine Beach FDEP VA (Funding awarded, project has not started)

Implementation Grants

- Comprehensive VA required for the 2024 funding cycle (Next Year)
- SJC awarded ~$900K in 2022 cycle
- Applied for additional funding in 2023 cycle

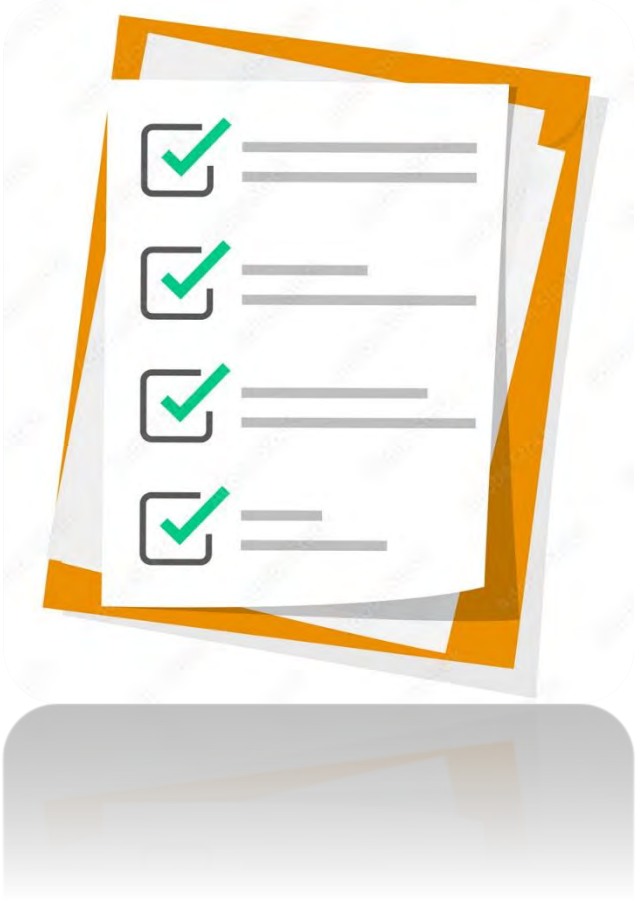
Grant Work Plan Tasks

- Public Outreach and Steering Committee Meetings
- Acquire Background Data
- Exposure Analysis
- Sensitivity Analysis
- Identify Focus Areas
- Preliminary Adaptation Plan
- Final Report, Maps, and Tables



Study Products/Outcomes

- Inventory of Critical Community Assets
- Existing/Future Extreme Event Flood Mapping
- Identification of Critical Community Assets Vulnerable to Flooding (Existing/Future)
- Prioritization of Vulnerable Critical Community Assets
- Identification of Focus Areas for Adaptation
- Preliminary Identification of Adaptation Strategies/Projects
- Summary Report, Tables, and Maps



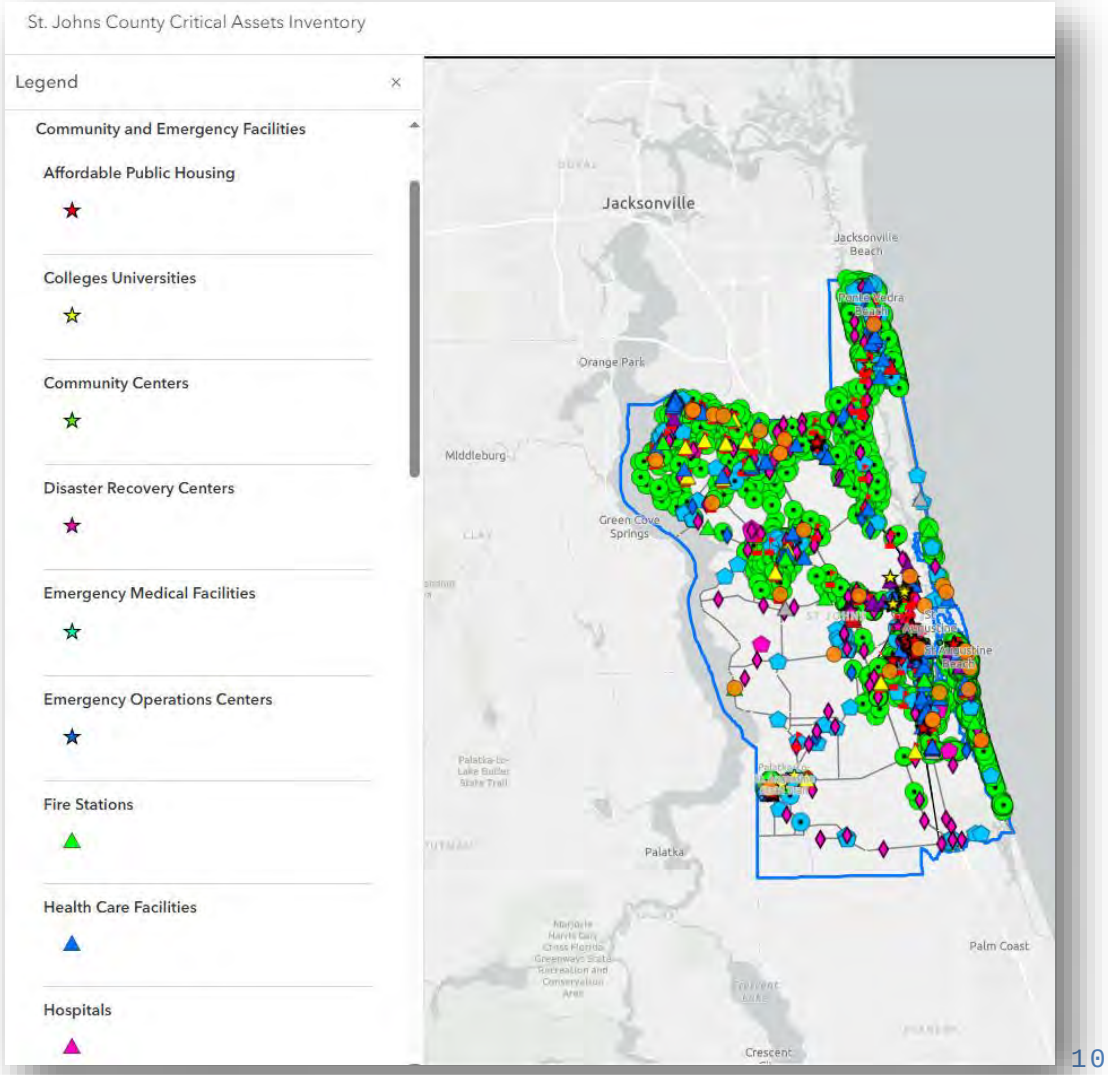
Data Collection: Critical Community Assets

Asset Type
Affordable Public Housing
Airports
Bridges
Bus Terminals
Colleges and Universities
Communications Facilities
Community Centers
Conservation Lands
Correctional Facilities
Disaster Debris Management Sites
Disaster Recovery Centers
Drinking Water Facilities
Electric Production and Supply Facilities
Emergency Medical Service Facilities
Emergency Operation Centers
Fire Stations
Health Care Facilities
Historical and Cultural Assets
Hospitals

Asset Type
Law Enforcement Facilities
Local Government Facilities
Logistical Staging Areas
Major Roadways
Marinas
Military Installations
Parks
Ports
Rail Facilities
Railroad Bridges
Risk Shelter Inventory
Schools
Shorelines
Solid and Hazardous Waste Facilities
State Government Facilities
Stormwater Treatment Facilities and Pump Stations
Surface Waters
Wastewater Treatment Facilities and Lift Stations
Water Utility Conveyance Systems
Wetlands

Data Collection: Critical Community Assets

- Mined from County, State, and Federal data sources.
- Inventory includes ~16,000 critical community assets.



Exposure Analysis

Purpose: Identify the depth of water (at each critical asset) caused by each sea level rise, storm surge, rainfall, and/or compound flood scenario.

Exposure Analysis: Requirements

Scenarios/Planning Horizons

- Intermediate-low and Intermediate-high Sea-Level-Rise (SLR) Projections
- Existing, 2040, and 2070 planning horizons

Tidal/Sunny Day Flooding

- Existing and future high tide flooding
- Number of expected tidal flood days

Current and Future Storm Surge Flooding

- Use existing storm surge data
- Include 100-year flood event at a minimum

Current and Future Rainfall Induced Flooding

- Include 100-year and 500-year rainfall event
- Vary future boundary conditions based on SLR projections

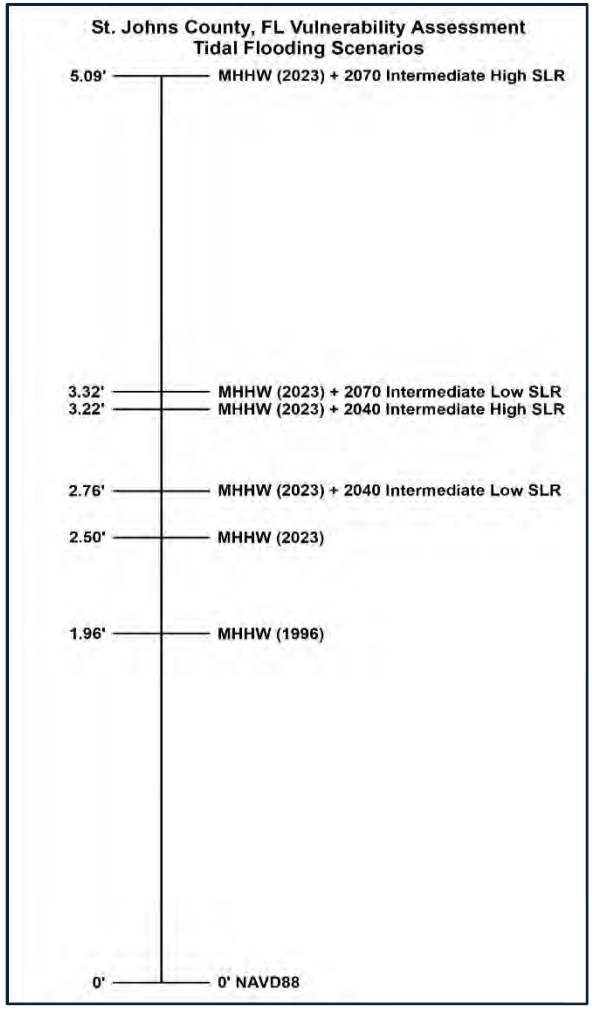
Exposure Analysis: Scenarios

- 20 scenarios are required by State Statute.
- The County is providing additional scenarios to help prioritize more vulnerable areas.

Flooding Type	MHHW	10-Year	25-Year	100-Year	500-Year
Tidal/Sunny-Day Flooding					
Existing	X				
2040 Int-Low	X				
2040 Int-High	X				
2070 Int-Low	X				
2040 Int-High	X				
Rainfall Induced Flooding					
Existing			X	X	X
2040 Int-Low			X	X	X
2040 Int-High			X	X	X
2070 Int-Low			X	X	X
2040 Int-High			X	X	X
Storm Surge Flooding					
Existing		X	X	X	
2040 Int-Low		X	X	X	
2040 Int-High		X	X	X	
2070 Int-Low		X	X	X	
2040 Int-High		X	X	X	

Notes: **Orange** highlighted cells indicate required scenarios.
MHHW = Mean Higher High Water

Exposure Analysis: SLR Projections



Existing | 2040 Int-Low | 2040 Int-High | 2070 Int-Low | 2070 Int-High

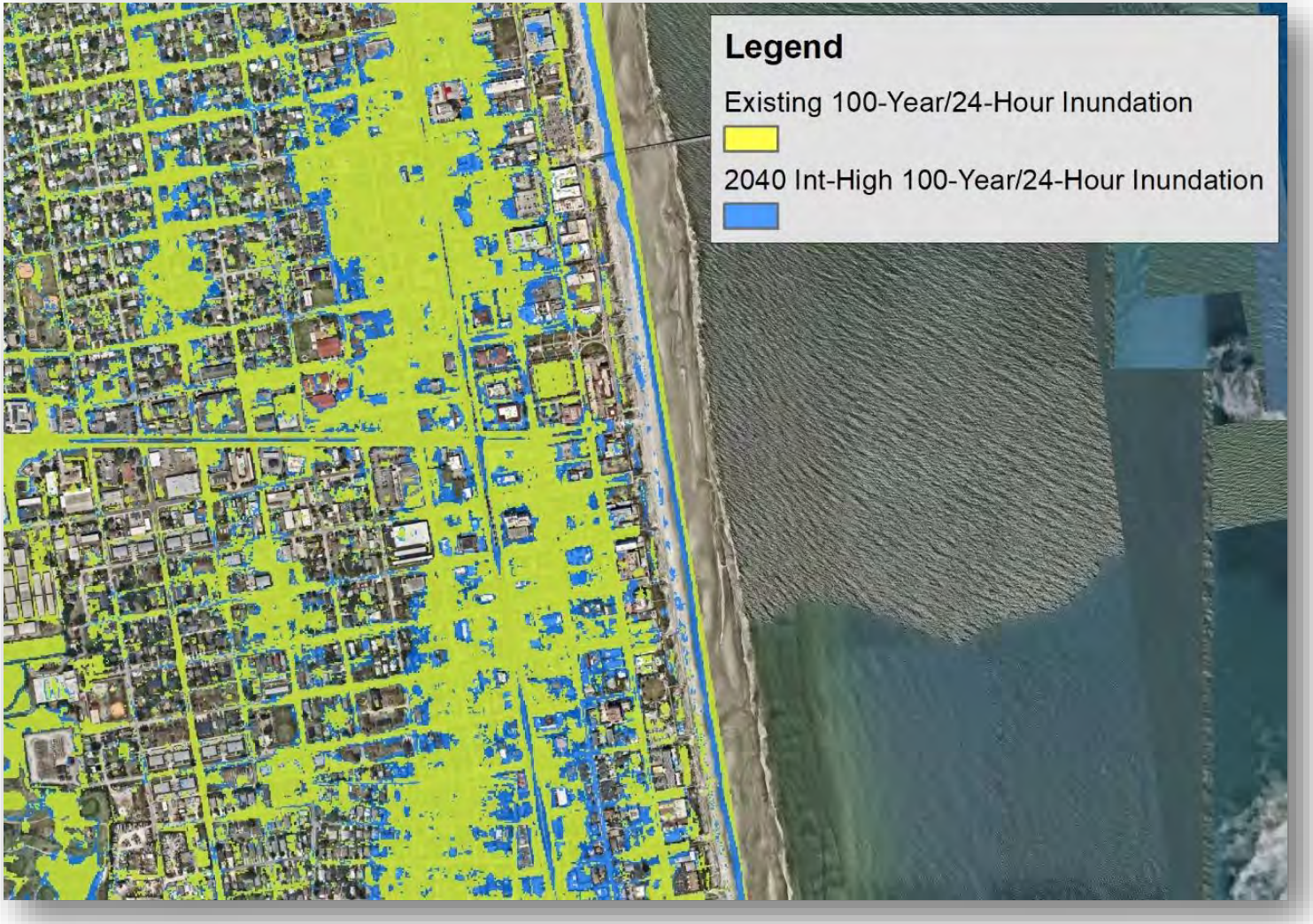
Red shaded areas represent MHHW inundation for corresponding planning horizon.

Rainfall Flooding: Model Approach

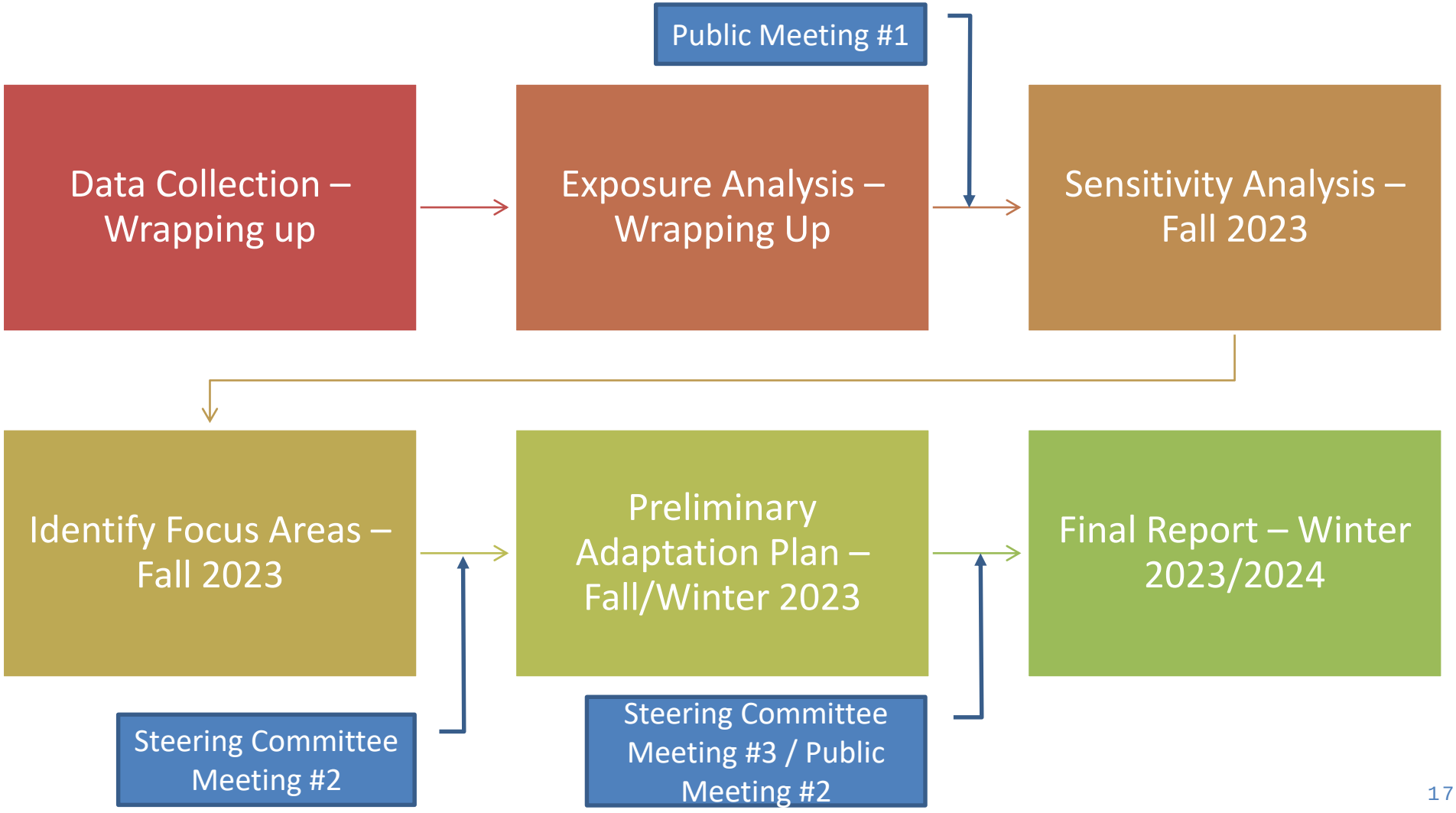
Countywide Regional Stormwater Model

- 25-, 100-, and 500-year/24-Hour Design Storm Events
- Modify Rainfall Depths for Future Conditions
- Modify Boundary Conditions for SLR
- Account for Known Future Land Use Changes

Rainfall Flooding: Inundation Example



Path Forward



Survey Feedback

Survey Feedback

- Select Top 10 critical community asset types (listed on slide 9).
- Free Response: Tell us about any specific areas of concern relative to flooding and sea-level-rise.

Please provide feedback by 10/27/2023

Provide feedback through a web survey by scanning the QR code on the meeting agenda or by filling out a paper survey at the meeting.

Public Comment Period

Three Minutes Per Speaker

Meeting minutes and presentation will be posted at sjcfl.us/FloodFacts/VA.aspx

Please Complete the Survey by Monday, October 27, 2023

Public Meeting Summary
St. Johns County Countywide Vulnerability Assessment Meeting
September 29, 2023
St. Johns County Auditorium, St. Johns County Administration Building
500 San Sebastian View
St. Augustine, Florida

Meeting Start Time

The meeting started at 3:05 pm.

Introduction

Westly Woodward, St. Johns County Growth Management Department, thanked everyone for attending the public meeting. The agenda included starting with a presentation explaining the project. She explained there would be time for public comment and also for questions about the presentation. The county staff and contractors were there to answer any questions that could be immediately addressed. There is also a survey available either hard copy or online to provide feedback on the most important community resources that should be addressed by the study. Anyone with questions or comments can email Westly at wwoodward@sjcfl.us.

Vulnerability Assessment Overview Presentation

Mark Nelson and Jarrod Hirneise, with St. Johns County contractor Jones-Edmunds, gave a presentation on the vulnerability assessment project. They were supported by contractors Michael DelCharco and Patrick Lawson from Taylor Engineering. Contractor Tiffany Busby with Wildwood Consulting was also present to assist with the meeting and with taking notes. A copy of the presentation is posted online on the county's project website at http://sjcfl.us/FloodFacts/VA.aspx.

Public Comment

During the public comment period the following comments and questions were posted.

Sacha Martin, resident of the Villages of Vilano, noted that State Road A1A was overrun with water and collapsed last year after a storm. Ms. Martin asked who is on the Steering Committee and what is their role? She also asked how do you predict the 100-year storm surge?

Tracy Gray, Arthur Street resident, noted that she lives in a 1960s-era neighborhood. Since Hurricane Matthew, during hard rains or high tides, they are experiencing more flooding than they did historically. The stormwater floods yards, carports, and houses. There is nowhere for the water to go. The driveways flood. She noted that she is encouraged to see maps of the potentially flooded areas. She is working with the St. Johns County Road & Bridge Department on flooding in her area. They have performed some work on the ditches by adding dirt and gravel to buttress the sides of the ditches. However, there is no percolation on the other ditches nearby. She added that she likes that there is an open-ended question on the survey, so residents can add comments on whatever they want. She also likes that the study is looking into the future.

Janet Patten, Crescent Beach resident, thanked everyone for the opportunity to speak. She identified herself as the President of the Port Matanzas Homeowner's Association. This is a 42-unit condominium complex near the Green Street Boat Ramp. Their property is experiencing flooding inside the detached garages and in their parking lot. The water enters the property from the boat ramp. The residents cannot leave their cars in the parking lot during storms without risking damage. They have experienced 12 inches of water in their garages during storm events. She has owned property since the 1970s and she is seeing the effects of sea level rise. The homeowner's association is currently adding two feet to their sea wall to protect their property. She looks forward to the results of this study.

David Wilkins, resident of Flagler Estates, made comments. Mr. Wilkins noted that he also participates with the American Red Cross. He has been through several hurricanes and relief efforts. He has observed a lot of rain-driven flooding near Deep Creek. He noted that he is the Vice President of the Board of Supervisors of the Flagler Estates Water and Sewer District. He is concerned that some plans back from the 1980s are still not put into practice. For example, installing flood gates for the river has not been done. There are opportunities to improve evacuation routes as there are currently some poor routes for evacuation. Mr. Wilkins noted that the population of Flagler Estates is rapidly growing; there are more than 200 recent new residents. It is possible that the size of the community could double. Also, the land use around Flagler Estates is changing. Most of the former land use around the area was silviculture but is now becoming orange groves, tangerine groves, and turfgrass fields. We need to consider these changes in land use and their effects on flooding.

Mark Nelson explained that the Steering Committee represents the different departments withing the county that have community assets as well as other public agencies that have or manage public assets. Examples of entities represented on the Steering Committee include the following: Public Works; Utilities; Parks & Recreation; Florida Department of Transportation; St. Johns River Water Management District; City of St. Augustine; City of St. Augustine Beach; and Florida Power & Light. Mr. Nelson added that this list is not exhaustive but should give everyone the idea of the kinds of organizations that have been invited to provide input into the community asset list and priorities.

Michael DelCharco explained how the storm surge scenarios are developed. He noted that running 20 scenarios is required by statute, but the county is running additional scenarios to understand additional situations. The sea level rise projections come from the National Oceanic and Atmospheric Administration (NOAA) using the 2017 Intermediate-Low and Intermediate-High projections. The storm surge flooding uses NOAA or the Federal Emergency Management Agency (FEMA) storm surge data. They run models from small to large storms and then run a statistical analysis along with the NOAA sea level rise inputs. He added that the 100-year storm event is not a 100 -year weather forecast. The 100-year storm is a storm event that has a one percent chance of happening. For sea level rise, they are looking at the 2040 and 2070 scenarios based on information from NOAA. Someone noted that this week with the harvest moon and the high tide, there was water over State Road A1A just from the tide. Mr. DelCharco responded that our modeling reflects those conditions. Mr. Nelson added that the Flagler Estates area and the low-lying area around Deep Creep also has our attention and will be carefully modeled.

Someone asked if maps will be generated by this project and will be available in the report. The response was that maps will be generated as part of the study and the report. For the second public meeting, a draft of the report will be presented, and draft maps will be part of the report.

Someone asked what part of the county is doing the modeling. Mr. Nelson responded that the county has been performing stormwater modeling through Public Works and through Engineering. This study is now using that prior information to help with the inland portion of the study. The current study and modeling is being done through the Growth Management Department.

Someone asked which shorelines are being reviewed. Mr. Nelson responded that the vulnerability assessment study is focused on critical community assets and infrastructure, so the study is not looking at coastal hardening and beach renourishment. Those kinds of features will be considered through other efforts. This assessment is focused on community assets and adaptation plans for those assets.

There were comments that the situation at Summer Haven is a desperate situation, and that coastal erosion is so important. State Road A1A already floods frequently, not just in storm events. It floods deeply, and that is a critical issue to Summer Haven residents. The resident commented that she has lived there six years, and the flooding has become dramatically worse over time. There have been a lot of studies of this flooding, and the results are similar. What happens after the recommendations are made? What will happened? We want to work with the county. We need partners because we can't do it ourselves. This is a broad issue. Summer Haven has 300 residences and State Road A1A is involved. It is a beautiful area. There is revenue from tourism and ecotourism. We hope our area will be looked at and that something will be done.

Ms. Woodward pointed out that it is a good question of how we make the Vulnerability Assessment actionable. She added that a project in our county plan can be potentially funded with state money. Mark Nelson added that the evacuation routes are a critical part of the analysis as are the adaptation strategies.

Survey Discussion

Ms. Woodward thanked everyone for coming to the meeting and invited anyone present to submit a paper survey or fill it out online. After the meeting, please encourage others to submit the online survey. Responses to the survey are due by October 27, 2023. The link to the survey is here: https://www.surveymonkey.com/r/SJCVulnerabilityAssesment.

Ms. Woodward reminded everyone that a draft report will be available for comment at the next public meeting, which is targeted to be held in the first quarter of 2024.

Adjournment

The meeting ended at 4:00 pm.

St. Johns County Vulnerability Assessment: Public Meeting

Friday September 29th, 2023
3PM – 5PMM ET
St. Johns County Commission Auditorium / 500 San Sebastian View, St. Augustine, FL 32084

ATTENDEE SIGN-IN SHEET
(PLEASE PRINT)

NAME	EMAIL	PHONE
Donna Robinson SADAKA	ccsadaka@yahoo.com	404-663-5938
Sacha Martin	Sachamartin@msn.com	904-501-5545
Michael Robertson	[illegible] SJCFL.US	904-209-0593
Jenny & Jerry WOUTERS	woutersfam@comcast.net	317-507-8155
Jessica Beach	jbeach@citystaug.com	904-209-4227
BOTH DARBY	LBCDARBY@GMAIL.COM	352-222-2963
J. F. O'Neill	joneill@sjcfl.us	904-814-2477

St. Johns County Vulnerability Assessment: Public Meeting

Friday September 29th, 2023
3PM – 5PMM ET
St. Johns County Commission Auditorium / 500 San Sebastian View, St. Augustine, FL 32084

ATTENDEE SIGN-IN SHEET

(PLEASE PRINT)

NAME	EMAIL	PHONE
TIFFANY Busby	tLBusby@wildwoodconsulting.net	904-797-7721
Tracy Gray	tgray1888@outlook.com	904 325-0499
LINDA Thomson	LindaFThomson@GMAIL.com	904-669-2169
Lia Sanson	lia.sanson@FloridaDEP.gov	904-380-8602
Sloane Stephens	sstephens@sjcfl.us	904-209-2402
JERRY WOUTERS	woutersfam@comcast.net	(317)354-5125
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St. Johns County Vulnerability Assessment: Public Meeting

Friday September 29th, 2023
3PM – 5PMM ET
St. Johns County Commission Auditorium / 500 San Sebastian View, St. Augustine, FL 32084

ATTENDEE SIGN-IN SHEET
(PLEASE PRINT)

NAME	EMAIL	PHONE
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Mark Nelson	mnelson@jonesedmunds.com	904-744-5401
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Patrick Lawson	plawson@taylorengineering.com	"

STEERING COMMITTEE MEETING #2 AGENDA

MEETING TIME: 2:00 AM – 3:30 PM ET

MEETING DATE: Wednesday, February 7th, 2024

LOCATION: St. Johns County Permit Center Conference Room 2 / 4040 Lewis Speedway, St. Augustine, FL 32084

1. Project Goals, Background, and Scope Refresher
2. Review / Discuss Inundation Mapping Results
3. Review / Discuss Prioritization of Vulnerable Critical Assets
4. Review / Identify Focus Areas for Adaptation
5. Brainstorm Adaptation Strategies

Project Contacts

- Westly Woodward - St. Johns County – Principal Resiliency Planning Analyst – Wwoodward@sjcfl.us
- Jarrod Hirneise - Jones Edmunds and Associates – Project Manager – Jhirneise@jonesedmunds.com
- Mark Nelson – Jones Edmunds and Associates – Senior Consultant / Vice President – Mnelson@jonesedmunds.com

Countywide Flood Vulnerability Assessment

Project Update
sjcfl.us

PRESENTATION AGENDA

Project Goals

Resilient Florida Program

Project Background

Draft Focus Areas

Next Steps

PROJECT GOALS

- Complete a Countywide Flood Vulnerability Assessment that satisfies FDEP Resilient Florida Program guidelines (F.S. 380.093).
- Identify critical community infrastructure vulnerable to flooding.
- Develop grant-fundable adaptation projects to protect the County's most vulnerable community infrastructure from flooding.

RESILIENT FLORIDA PROGRAM

Florida Senate Bill 1954 (May 12, 2021)

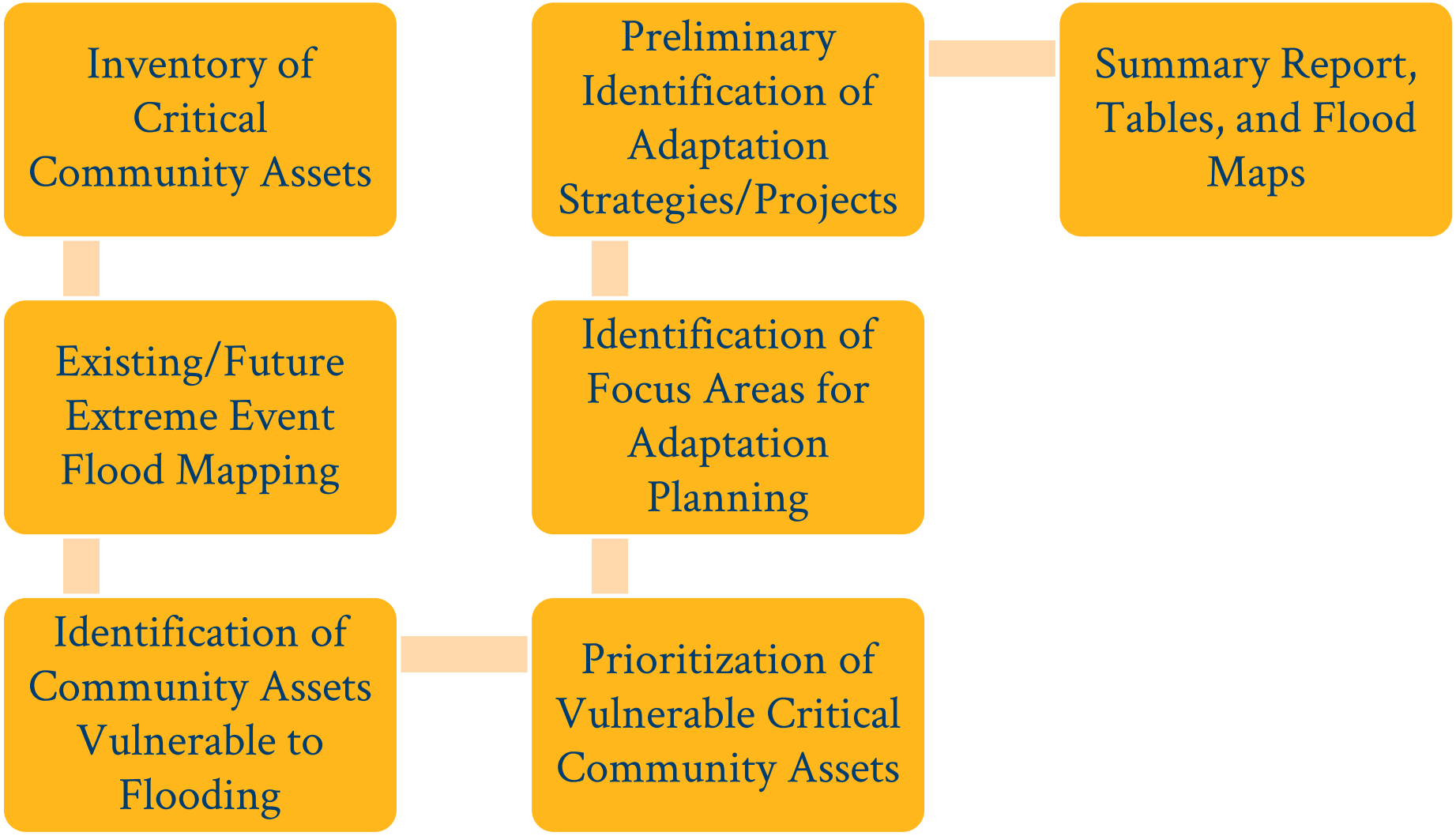
- **Established Resilient Florida Grant Program.**
- Directed FDEP to create a Statewide Vulnerability Assessment.
- Directed FDEP to create a Statewide Flooding and SLR Resilience Plan

Resilient Florida Grant Program

- Planning Grants (100% funded) – $19M (2021-2022) / $28M (2022-2023)
- Implementation Grants (50% Match) - $400M (2021-2022) / $275M (2022-2023)
- County has received $700k in Planning /~$900k in Implementation Grants

PROJECT BACKGROUND

Study Products / Outcomes



PROJECT BACKGROUND

Critical Community Assets

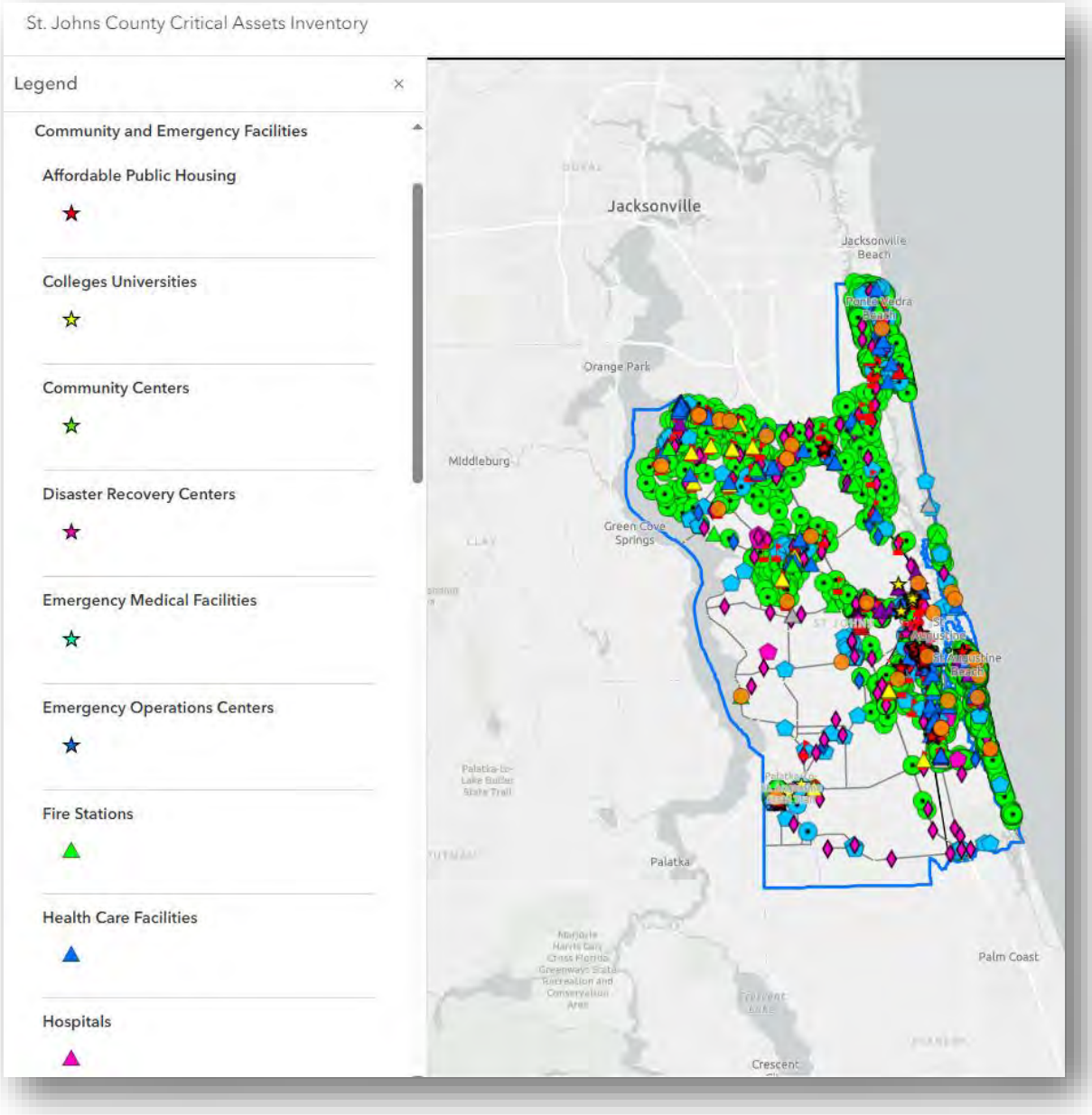
Asset Type
Affordable Public Housing
Airports
Bridges
Bus Terminals
Colleges and Universities
Communications Facilities
Community Centers
Conservation Lands
Correctional Facilities
Disaster Debris Management Sites
Disaster Recovery Centers
Drinking Water Facilities
Electric Production and Supply Facilities
Emergency Medical Service Facilities
Emergency Operation Centers
Fire Stations
Health Care Facilities
Historical and Cultural Assets
Hospitals

Asset Type
Law Enforcement Facilities
Local Government Facilities
Logistical Staging Areas
Major Roadways
Marinas
Military Installations
Parks
Ports
Rail Facilities
Railroad Bridges
Risk Shelter Inventory
Schools
Shorelines
Solid and Hazardous Waste Facilities
State Government Facilities
Stormwater Treatment Facilities and Pump Stations
Surface Waters
Wastewater Treatment Facilities and Lift Stations
Water Utility Conveyance Systems
Wetlands

PROJECT BACKGROUND

Critical Community Assets

- Mined from County, State, and Federal data sources.
- Inventory includes ~22,000 critical community assets.



PROJECT BACKGROUND

Flood Scenarios

- 20 scenarios are required by State Statute.
- The County is providing additional scenarios to help prioritize more vulnerable assets.
- Determine depth of flooding at every asset for each scenario.

Flooding Type	MHHW	10-Year	25-Year	100-Year	500-Year
Tidal/Sunny-Day Flooding					
Existing	X				
2040 Int-Low	X				
2040 Int-High	X				
2070 Int-Low	X				
2070 Int-High	X				
Rainfall Induced Flooding					
Existing			X	X	X
2040 Int-Low			X	X	X
2040 Int-High			X	X	X
2070 Int-Low			X	X	X
2070 Int-High			X	X	X
Storm Surge Flooding					
Existing		X	X	X	
2040 Int-Low		X	X	X	
2040 Int-High		X	X	X	
2070 Int-Low		X	X	X	
2070 Int-High		X	X	X	

PROJECT BACKGROUND

Asset Prioritization

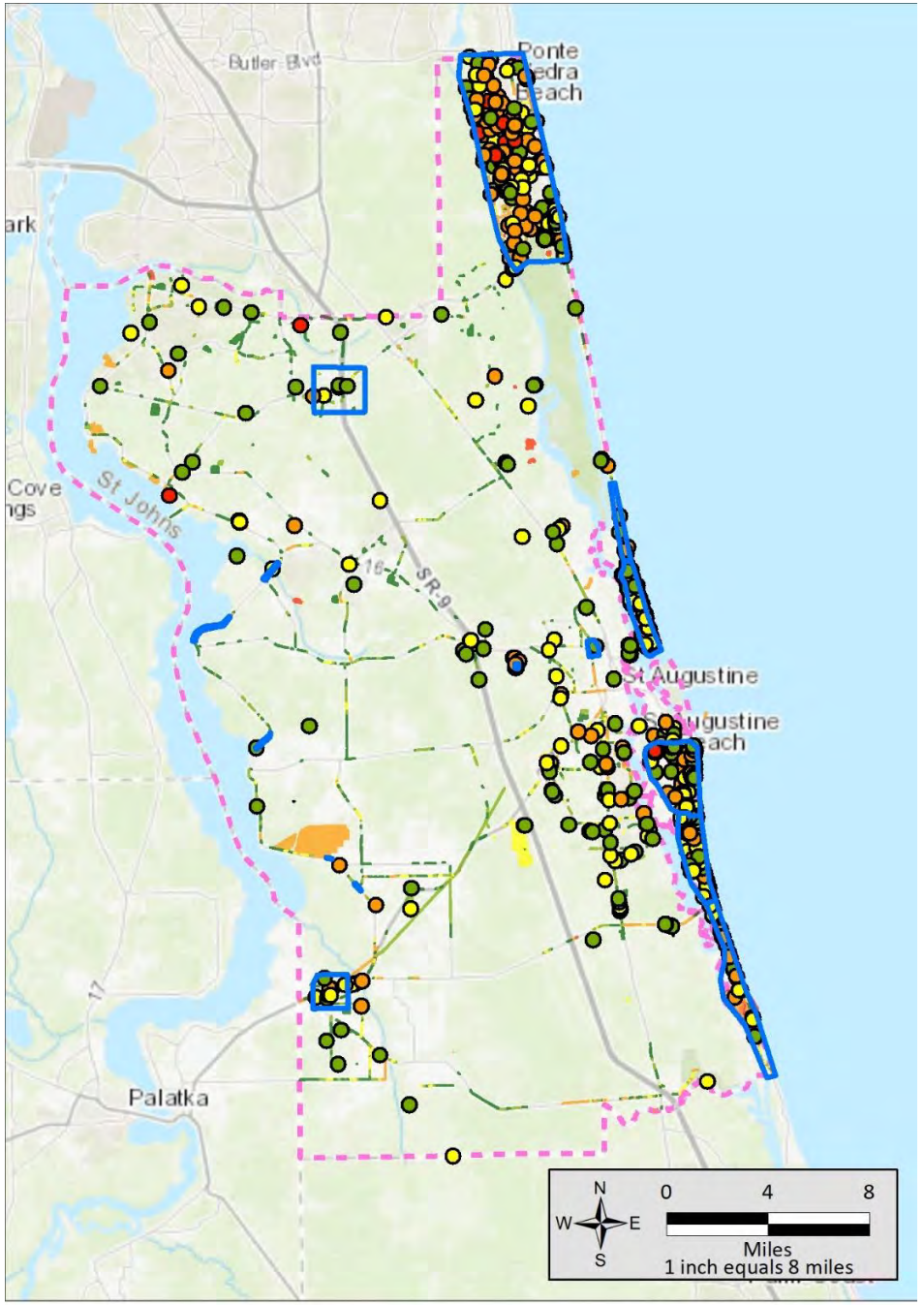
- Frequency of flooding.
- Sensitivity to the depth of flooding.
- Impact to the community.
- Regional significance.
- Community feedback survey.

Asset Type	Total Number of Assets	Priority Rating					
		Highest	High	Medium	Low	Lowest	Not Rated
Affordable Public Housing	91					4	87
Airports	4				2		2
Bridges	118		7	8	1	19	83
Colleges and Universities	33					6	27
Community Centers	5					1	4
Conservation Lands	3328		170	225	233	2061	639
Correctional Facilities	7				1		6
Disaster Debris Management Sites	11					3	8
Disaster Recovery Centers	5		1				4
Electric Facilities	11		1	1	1		8
Emergency Medical Service Facilities	2						2
Emergency Operation Centers	3						3
Fire Stations	17		2		1		14
Ground Storage Tanks	19		2			3	14
Health Care Facilities	126			2		10	114
Historical and Cultural Assets	65	19	11	10	4	7	14
Hospitals	8						8
Law Enforcement Facilities	18					3	15
Lift Stations	1149	10	139	120	81	191	608
Local Government Facilities	37					4	33
Marinas	10			6	2	2	
Military Installations	2						2
Park Assets	654		5	40	43	117	449
Parks	168		42	8	22	46	50
Radio Communications Towers	180		6	9	12	37	116
Railroad Bridges	4						4
Risk Shelter Inventory	47						47
Roads	5999	58	551	439	564	981	3406
Schools	134			2	4	12	116
Solid and Hazardous Waste Facilities	77	3	3	7	2	6	56
State Government Facilities	7					3	4
Step Tank/Grinder Station	524		104	82	82	172	84
Stormwater Facility	14		2	4	2	2	4
Surface Waters	78						78
Waste Water Facilities	209	17	37	12	13	26	104
Water Distribution Pumps	24		2	1	3		18
Water Supply Wells	55		5	4	1	3	42
Water Treatment Plant Assets	123	2	11	2	2	11	95
Wetlands	8711						8711
Total	22077	109	1101	982	1076	3730	15079

DRAFT FOCUS AREAS

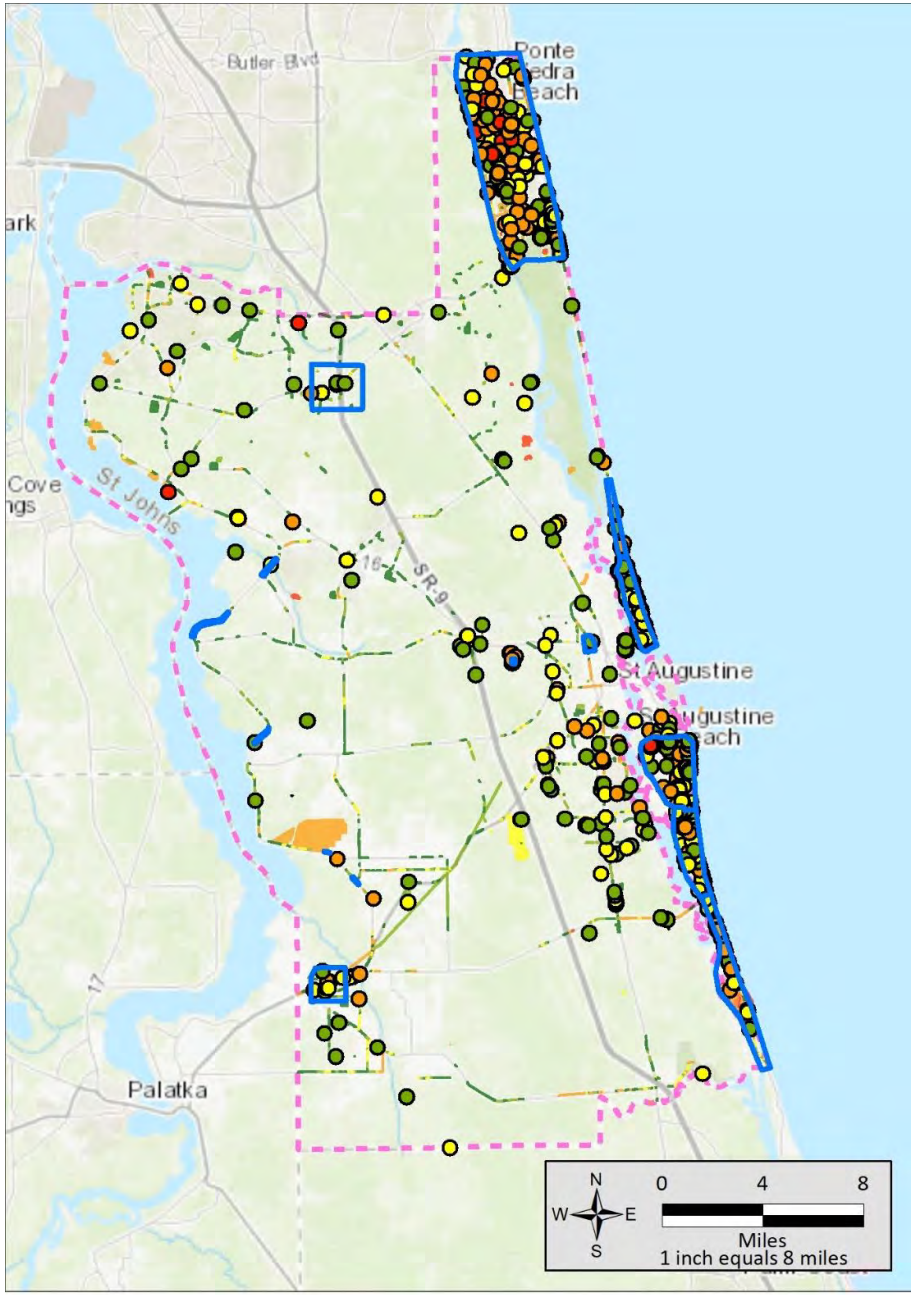
Adaptation Focus Areas

- Anastasia Island from COSAB to SR206
- Anastasia Island from SR206 to Matanzas Inlet
- Anastasia Island from SR312 to COSAB South Boundary
- Vilano/North Beach
- Ponte Vedra
- SR-16 / Lewis Speedway / Masters Drive
- Low Spots Along CR-13
- Hastings
- SR16 Wastewater Treatment Plant
- CR-210 @ I-95



NEXT STEPS

- Develop preliminary adaptation plan with high priority projects identified.
- Apply for FY25 FDEP implementation grant funding for high priority projects.
- Continue adaptation planning with additional FDEP planning grant funding.




ST. JOHNS COUNTY
EST.
1821
FLORIDA AT FIRST SIGHT

Public Meeting #2 Summary
St. Johns County Countywide Vulnerability Assessment Public Meeting #2
February 20, 2024
St. Johns County Auditorium, St. Johns County Administration Building
500 San Sebastian View
St. Augustine, Florida

Meeting Start Time

The meeting was held during a regularly scheduled County Commission meeting. The commission meeting started at 9:00 am with the VA public meeting portion of the agenda starting at approximately 11:00 am.

Introduction

Westly Woodward, St. Johns County Growth Management Department, started the meeting and provided some project background and a brief overview of the project purpose and goals. She explained that the project is 100% funded through the FDEP Resilient Florida Grant Program, which provides grant funding for flood resiliency studies and adaptation projects. She explained that the vulnerability assessment is required to be completed for the County to have access to future grant funding opportunities. Westly introduced the Jones Edmunds team of Mark Nelson and Jarrod Hirneise and turned it over to them to go through the PowerPoint presentation.

Vulnerability Assessment Overview Presentation

Mark Nelson, with St. Johns County contractor Jones-Edmunds, gave a presentation on the vulnerability assessment project. The presentation included a summary of the project goals, an overview of the Resilient Florida Grant Program, project background, a summary of the draft focus areas that have been identified, and a summary of the next steps for the project. Key points from the presentation are summarized below.

The assessment includes the following components:

- Inventory of Critical Community Assets.
- Existing/Future Extreme Event Flood Mapping.
- Identification of Community Assets Vulnerable to Flooding.
- Prioritization of Vulnerable Critical Community Assets.
- Identification of Focus Areas for Adaptation Planning.
- Preliminary Identification of Adaptation Strategies/Projects.
- Summary Report, Tables, and Flood Maps.

Thus far, about 22,000 critical community assets have been identified as part of the assessment through data mined from County, State, and Federal sources.

Critical community assets are being prioritized by several components, including the following:

- Frequency of flooding.

- Sensitivity to the depth of flooding.
- Impact to the community.
- Regional significance.
- Community feedback survey.

Preliminary focus areas for adaptation planning have been identified. These include the following areas:

- Anastasia Island from the City of St. Augustine Beach to State Road 206.
- Anastasia Island from State Road 206 to Matanzas Inlet.
- Anastasia Island from State Road 312 to City of St. Augustine Beach South Boundary.
- Vilano/North Beach.
- Ponte Vedra.
- State Road 16 / Lewis Speedway / Masters Drive.
- Low Spots along County Road 13.
- Hastings.
- State Road 16 Wastewater Treatment Plant.
- County Road 210 at Interstate 95.

The next steps in the Countywide Flood Vulnerability Assessment involve developing the preliminary adaptation plan with high-priority projects identified, applying for Fiscal Year 2024/2025 FDEP implementation grant funding for high-priority projects, and continuing adaptation planning with additional FDEP planning grant funding.

Public Comment

During the public comment period the following comments and questions were posted.

Commissioner Joseph asked how they could view results from the study and if they would be posted on-line once the project was completed. Westly Woodward responded that the final report, maps, and webmaps would be posted on the County's website.

Commissioner Joseph asked if the finding and data from this assessment would be incorporated into the County's comprehensive plan or strategic plan. Mike Roberson, St. Johns County's Growth Management director, explained that this is a specific grant established for resiliency and planning and would not go directly into the County's plans. The data will be available as a resource for the County to use during planning moving forward.

No further questions or comments were asked by the public.

Adjournment

The meeting ended at approximately 11:30 am.