

CITY OF POMPANO BEACH - DRAFT ADAPTATION PLAN

AUGUST 2026

pompano beach
Florida's Warmest Welcome

SUBMITTED TO

City of Pompano Beach
100 W. Atlantic Blvd.,
Pompano Beach, FL 33060

SUBMITTED BY

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1. INTRODUCTION

The City of Pompano Beach is a low-lying coastal community in Broward County that is exposed to flooding from rainfall, sea level rise, storm surge, high tides, and rising groundwater. In 2025, the City completed a comprehensive Vulnerability Assessment to evaluate these conditions and identify vulnerable assets and areas. The City is developing this Adaptation Plan with funding support from the Florida Department of Environmental Protection's Resilient Florida Program under Grant Agreement No. 25PLN21. Consistent with the Florida Adaptation Planning Guidebook, the plan translates the vulnerabilities identified through the assessment into adaptation needs and recommended strategies that can inform City capital planning, operations, coordination, and future funding requests.

The Adaptation Plan primarily focuses on City-owned or City-managed facilities, infrastructure, property, and rights-of-way because these are the assets for which the City can most directly plan, fund, operate, maintain, or implement improvements. Regional, state, private, and other non-City systems are addressed where they affect City infrastructure, influence local flood conditions, or require coordination for a City project to function effectively. This is particularly important for roadways, canals, outfalls, shoreline infrastructure, water supply, and other systems that cross jurisdictional or ownership boundaries.

Adaptation needs and strategies were identified through review of the Vulnerability Assessment, GIS analysis, existing City plans and capital projects, available infrastructure information, and input from City staff and project stakeholders. Related assets and locations were grouped where they share a flood source, infrastructure dependency, geographic relationship, or implementation opportunity.

This Draft Adaptation Plan summarizes the plans and programs that support the City's adaptation efforts, reviews the Vulnerability Assessment findings that informed strategy development, and describes the approach used to identify and organize adaptation needs. The document then presents project sheets addressing critical facilities, bridges, lift stations, stormwater and drainage systems, City-owned roadways and seawalls, parks and water storage, beach access points, public boat ramps, and water supply. The project maps show the locations of the identified adaptation needs, and Appendix A provides a consolidated table of vulnerable assets and corresponding recommended strategies. The projects and strategies presented in this draft will be reviewed and prioritized during development of the final Adaptation Plan.

2. SUMMARY OF NEEDS

The Adaptation Plan identifies adaptation needs by integrating findings from the 2025 Pompano Beach Vulnerability Assessment with existing City capital improvement and stormwater programs, flood-mitigation initiatives, regional resilience planning, and stakeholder input. Each source provides a distinct component of the overall adaptation framework: the Vulnerability Assessment was used to identify exposed and vulnerable assets and systems; City plans and programs documented ongoing investments, implementation pathways, and known infrastructure needs; and County and regional planning efforts identified broader system dependencies and opportunities for coordinated implementation. Collectively, these sources helped define a

comprehensive portfolio of facility, access, drainage, shoreline, water-supply, transportation, and system-level adaptation needs for the City.

2.1 Flood Vulnerable Assets

The 2025 Vulnerability Assessment established the technical basis for identifying adaptation needs across Pompano Beach. The VA evaluated nine flood scenarios ranging from a 5-year, 24-hour rainfall event under current conditions, through the same event combined with NOAA intermediate-low and intermediate-high sea level rise projections for 2040 and 2070, to 100-year and 500-year, 72-hour rainfall events, both with and without corresponding storm surge. The results show that flood exposure is already widespread under more frequent rainfall conditions and increases substantially with event severity and compound flooding. Approximately 40% of City parcels intersect the modeled flood extent under the 5-year rainfall event, while nearly 77% are exposed under the 100-year rainfall-plus-surge event and approximately 79% under the 500-year rainfall-plus-surge event. The addition of storm surge to the 100-year rainfall event alone increases parcel exposure by approximately 15 percent.

The VA also demonstrates that the type of adaptation need varies geographically and by infrastructure system. Rainfall-driven flooding affects inland and coastal roadway corridors, stormwater systems, lift stations, parks, and low-lying areas, while sea level rise and elevated canal or tidal levels increasingly constrain gravity drainage near the Intracoastal Waterway and connected canals. Storm surge produces the most severe coastal and compound-flooding conditions and increases risk to transportation access, shoreline infrastructure, critical facilities, and wastewater systems. The VA identified increasing numbers of exposed critical and regional assets as event severity increases; for example, the 100-year rainfall event exposes 50 critical assets and 90 regional assets, while the most severe modeled condition substantially increases the number of exposed and highly sensitive regional assets. These results support adaptation measures that address not only direct inundation of an asset, but also access, drainage, power, controls, supporting infrastructure, and continuity of service.

The VA findings were used as the starting point for the Adaptation Plan master asset list (Appendix A) and were refined using through project team input, GIS review, existing plans, observed conditions, and current capital projects. The issues recorded in the master list show several recurring needs across Pompano Beach:

- insufficient drainage capacity and standing water
- tidal and canal overtopping
- combined rainfall, tidal, and storm-surge exposure
- loss of access to critical facilities
- flood exposure of wastewater infrastructure
- direct storm-surge pathways at beach access points
- insufficient stormwater storage
- and long-term water-supply reliability concerns.

These needs require different but coordinated adaptation solutions. Inland roadway and stormwater needs generally call for improved conveyance, swale restoration, temporary storage, inlet and pipe improvements, and selective exfiltration where groundwater conditions allow.

Coastal and canal-connected areas require additional consideration of high tailwater, backflow prevention, pumping, seawall or shoreline protection, and drainage behind raised barriers. Critical buildings, bridges, and lift stations require flood protection together with reliable access, backup power, protected electrical and control systems, and operational continuity. Parks and open spaces provide opportunities for distributed temporary storage, while beach-access, seawall, and water-access projects address coastal surge propagation pathways and overtopping. These asset- and system-specific needs provide the basis for the adaptation strategies and project groupings presented in the following section.

Table 1 summarizes the types of adaptation needs represented in the Adaptation Plan, the associated number of identified assets and locations, and the predominant adaptation strategy category (as described in **Figure 2)** reflected in the recommended actions.

Table 1 Adaptation Needs by Project Category

Adaptation category	Project Type	Assets/Locations
Protection	Beach access and street-end surge pathways	3
	City-owned seawall overtopping	21
Accommodation	Critical facilities and emergency access	4
	Bridge operability and emergency access	2
	Wastewater infrastructure and operational continuity	34
	Stormwater and roadway drainage	35
	Distributed storage in parks, open spaces, and swales	19
	Public boat ramp and water-access resilience	3
	Long-term water supply reliability	1
Total		122

2.2 Referenced Plans, Studies, and Programs

The City of Pompano Beach, Broward County, and regional plans and programs were reviewed to identify information directly applicable to development of the Adaptation Plan. The review focused on documented flood-vulnerable assets, existing adaptation policies, programmed capital improvements, known stormwater and mitigation needs, regional flood-management strategies, and water-supply resilience actions. Existing projects were also reviewed to identify where an identified vulnerability is already being addressed, where a current project provides an opportunity to incorporate additional resilience measures, and where an unmet need remains for the Adaptation Plan.

- **2025 Pompano Beach Vulnerability Assessment (VA):** The VA provided the initial screening of assets requiring flood mitigation. Government-owned assets identified with High vulnerability under one or more scenarios included fire stations, City Hall, bridges, and water reuse facility. The VA identified access as a separate operational vulnerability, including potential loss of access to Fire Stations 11, 24, 61, 63, and 114, and City Hall at the time of assessment. The VA also identified vulnerable lift stations and specifically noted recurring flooding at Lift Stations 20 and 21, with elevation or waterproofing of controls identified as an initial mitigation measure. Other recommendations included maintaining wastewater and stormwater systems to reduce flood-related failures, coordinating with vulnerable boat ramps and transportation operators, and addressing access to critical facilities during severe rainfall and compound flooding.

  The Adaptation Plan used these findings as an asset-screening basis rather than carrying every exposed asset forward as an individual adaptation project. VA results were cross-checked against ownership, current asset condition, City staff input, existing capital projects, and the mechanism causing the modeled flooding. This process resulted in project recommendations for critical facilities and emergency access, City-owned bridges, lift stations, City-owned roadways and seawalls, stormwater systems, beach and water-access facilities, parks and open-space storage, and water supply resilience.

- **Pompano Beach Comprehensive Plan and Climate Change Element:** The Climate Change Element establishes the policy basis for addressing local climate vulnerability within the broader Broward County and Southeast Florida regional framework and directs the City to implement adaptation, mitigation, and accommodation strategies. The Adaptation Plan used this framework to support incorporation of future flood conditions into infrastructure, redevelopment, land-use, drainage, and capital-investment decisions. The Comprehensive Plan framework also supports the use of AAAs to advance adaptation planning and funding. Consistent with this framework, the 2025 VA recommended designating the entire city as an AAA, recognizing the widespread nature of flood risk across Pompano Beach. Although this citywide designation provides flexibility for adaptation planning and funding, it does not distinguish geographic priorities. Within this broader framework, the Adaptation Plan identifies specific assets, corridors, and infrastructure systems for focused adaptation actions, including future-condition infrastructure design, resilient redevelopment and capital improvements, and stormwater and shoreline adaptation.

- **Five-Year Capital Improvement Plan (CIP):** The CIP was reviewed to identify capital projects that already address VA-identified needs or provide an implementation mechanism for incorporating future adaptation. Several projects directly overlap with Adaptation Plan recommendations. Fire Station Refurbishment [14-238] provides a capital pathway for incorporating flood protection and operational-continuity improvements at fire facilities. Seawall Rehab [07-946] and Seawall Assessment – City Owned [22-PW-004] directly support the AP's City-Owned Seawall Overtopping and Resilience Improvements project, while Canal Dredging [16-276] provides a related mechanism for maintaining conveyance within the City's connected drainage network.

The CIP also contains projects that overlap with the AP's roadway, stormwater, park, and waterfront recommendations. Projects such as Lyons Neighborhood Streets and Sidewalks [22-PW-003] support implementation of the broader Lyons Park stormwater and utility improvements identified in the 2013 SWMP, where the neighborhood was ranked as a high-priority flooding area. Hillsboro Inlet Park Improvements [23-PR-002] and Hillsboro Inlet Discharge Improvement Project [24-PW-002] were similarly used to coordinate the AP's boat ramp, shoreline, seawall, and waterfront-access recommendations with planned improvements at Hillsboro Inlet Park.

- **2013 Stormwater Master Plan:** The 2013 Stormwater Master Plan (SWMP) identified and ranked 25 study areas with documented drainage deficiencies and developed conceptual improvements using combinations of pipe upgrades, exfiltration, swales, drainage wells, storage, pumps, and outfall improvements. The plan also identified a system-wide issue that remains important to the AP: increasing tidal tailwater reduces the hydraulic gradient available at gravity outfalls, particularly in low-lying areas connected to the Intracoastal Waterway and tidal canals. Four SWMP areas were retained in the Draft Adaptation Strategies as priority areas for continued resilience integration per the City staff's feedback: Study Area 15 – Powerline Road and NW 33rd Street; Study Area 19 – NE 10th Street and Dixie Highway; Study Area 20 – US-1 and SE 15th Street; and Study Area 25 – SE 15th Avenue.
- **Broward County Local Mitigation Strategy (LMS) and City CRS Activity 510 Flood Mitigation Plan Progress Report:** The Broward County LMS was used to identify ongoing hazard-mitigation needs and regional flood-management issues applicable to Pompano Beach. The LMS notes reduced flood-protection levels in several Broward basins, including the C-14 and Pompano systems, as rising tidal levels reduce the discharge capacity of gravity-controlled structures. It also identifies shared drainage and water-management infrastructure, retrofit of flood-control structures for sea level rise, green stormwater infrastructure, resilient parks and open spaces, updated design criteria, and combined sea level rise/storm-surge analysis as regional mitigation actions.

  The City's 2026 CRS Activity 510 Annual Progress Report was used as a project-status check. The report identifies the Public Works Building Replacement as an unfunded/on-hold mitigation need; the New Fire/Emergency Operations Center as an active GO Bond project; the EOC Generator Retrofit as complete; Manhole Inflow Protectors as an ongoing operating program; and Mobility Hub and Generator Building Hardening projects as recently added LMS actions. For stormwater, the report documents completed, designed, or active projects at:

  - US-1 and NE 14th Street Causeway
  - North Riverside Dr and NE 14th St Causeway
  - Atlantic Boulevard and South Riverside Drive
  - NE 27th Avenue and NE 16th Street;
  - Powerline Rd and NW 33rd St;
  - SE 28th Avenue south of Atlantic Blvd;
  - NW 22nd Ct;
  - US-1 and McNab Rd;
  - NE 10th Street and Dixie Highway;
  - NE 3rd Avenue;
  - Pompano Park Pl and Andrews Ave
  - SE 15th Avenue (Snug Harbor).

The AP uses these status findings to focus on remaining gaps, future-condition performance, and resilience measures that can be incorporated into current designs. The report's continuing Tideflex valve program and planned 2027 Stormwater Master Plan Update were also carried forward as existing implementation mechanisms for tidal backflow protection and future drainage planning.

- **Broward Countywide Resilience Plan and Regional Coordination:** The Countywide Resilience Plan provided regional-scale flood-mitigation needs that extend beyond individual City assets. The regional strategy includes pump stations, storage areas, control structures, culvert improvements, roadway/swale conversions, seawalls, and drainage systems, with additional measures including increased pervious area, bioswales, stormwater storage, and canal operational improvements. The Pompano Beach screening presented as part of the Countywide planning effort identified approximately 753,331 feet of swales, 24.86 acres of storage areas, 58 miles of seawall at the 5-ft NAVD level, one pump-station project, nine control structures, and 13 drainage-behind-seawall projects, with longer-term consideration of raising the screened seawall system to 7 feet NAVD.

  The AP used these results to establish the regional context for several City strategies: distributed stormwater storage in parks and open spaces; restoration and expansion of City swales; roadway drainage and pervious-area improvements; coordinated canal and control-structure operations; pumping where elevated tailwater prevents gravity discharge; and integration of landward drainage with seawall raising. The Countywide Resilience Plan was especially important in framing tidally influenced roadways and shoreline areas as combined source-control, drainage, storage, and conveyance problems rather than treating roadway flooding or seawall overtopping as isolated asset deficiencies.

- **Southeast Florida Regional Climate Change Compact Regional Climate Action Plan 3.0 (2022):** The Regional Climate Action Plan provides a framework for coordinating climate adaptation across Southeast Florida. Relevant recommendations include incorporating future rainfall, groundwater, tidal, and sea level conditions into infrastructure planning and design; evaluating combined surface-water and groundwater impacts; and prioritizing adaptation projects through local capital improvement programs. The Plan also supports resilient transportation systems, protection of critical facilities, coordinated flood-control improvements, and expanded regional and distributed surface-water storage, including the C-51 Reservoir and interconnected urban storage systems. These strategies support the City's efforts to improve drainage, protect vulnerable roadways and facilities, increase stormwater storage, and coordinate adaptation investments with Broward County, the South Florida Water Management District, and other regional partners.

- **Broward County-wide Integrated Water Resource Plan Update (2019):** The IWRP was used primarily to develop the Citywide Water Supply Resilience project and the regional component of the water-storage strategy. The IWRP identifies four fundamental regional water-management actions: capture water that would otherwise be discharged to tide,

store water for later use, redistribute water for beneficial uses, and increase reuse of treated wastewater. It also identifies conservation, secondary-canal integration, aquifer storage and recovery (ASR), wetland rehydration, utility sharing, advanced wastewater treatment, and reverse osmosis as regional water-management tools, with increased emphasis on future conditions, saltwater intrusion, drought, extreme rainfall, flooding, and potential loss of wellfield capacity. These concepts were carried into the AP through reclaimed-water expansion, water conservation, aquifer recharge/ASR, regional interconnections, canal and storage coordination, and continued evaluation of alternative water supplies.

- **City of Pompano Beach Water Supply Facilities Work Plan 2025:** The Water Supply Facilities Work Plan identifies long-term water-supply strategies that support the Adaptation Plan, including protection and monitoring of the City's wellfields, expansion of reclaimed water, water conservation, alternative water supplies, and use of the C-51 Reservoir. The Plan identifies saltwater intrusion and sea level rise as important risks to coastal wellfield capacity and notes the City's intent to reduce reliance on the Eastern Wellfield while continuing to monitor movement of the saltwater interface. The City plans to continue expanding its reclaimed water system to offset potable-water demand and reduce reliance on traditional groundwater supplies. The Plan also identifies continued wellfield management and monitoring, additional water-storage opportunities, and optimization of the City's C-51 Reservoir allocation as important components of its future water-supply strategy. These measures provide additional flexibility as water demands, climate conditions, and source-water constraints change over time. These strategies were incorporated into the Adaptation Plan to support long-term water-supply reliability and resilience.

- **Broward County Climate Change Action Plan 2025:** The 2025 County Climate Change Action Plan reinforced the regional water-management recommendations incorporated into the AP. Specific objectives call for fully integrated water management; increased storage, recharge, pre-storm drawdown, and redistribution; greater pervious area and green infrastructure; regionalization and optimization of water supplies and wellfields; expanded stormwater and wastewater reuse; coordinated groundwater and surface-water monitoring; and future-condition analysis for water-resource planning. The Plan also directs implementation of the Countywide Resilience Plan and pursuit of regional stormwater solutions, including regional storage and C-51 coordination. These objectives were applied to the AP's Citywide water-supply, distributed-storage, canal-management, green-infrastructure, and regional-coordination strategies.

- **City of Pompano Beach Sustainability Project Portfolio and Implementation Plan (2022):** The Sustainability Project Portfolio provided supporting measures related to water conservation and resilient streets. The Portfolio establishes a long-term goal of reducing potable-water use by 40 percent from the 2019 baseline by 2050, which was incorporated into the AP's Citywide Water Supply Resilience project as a demand-management component. The Portfolio also identifies a Sustainable Streets Masterplan concept that

includes low-impact-development stormwater management, native and drought- or salt-tolerant landscaping, and consideration of extreme precipitation and sea level rise in street design. These measures support the AP's roadway, swale, green-infrastructure, and water-supply recommendations where they can be integrated with future streetscape and capital work.

The plans and programs reviewed helped identify specific strategies that are directly relevant to Pompano Beach's adaptation efforts. Key strategies identified in these existing planning efforts are summarized in **Figure 1.**

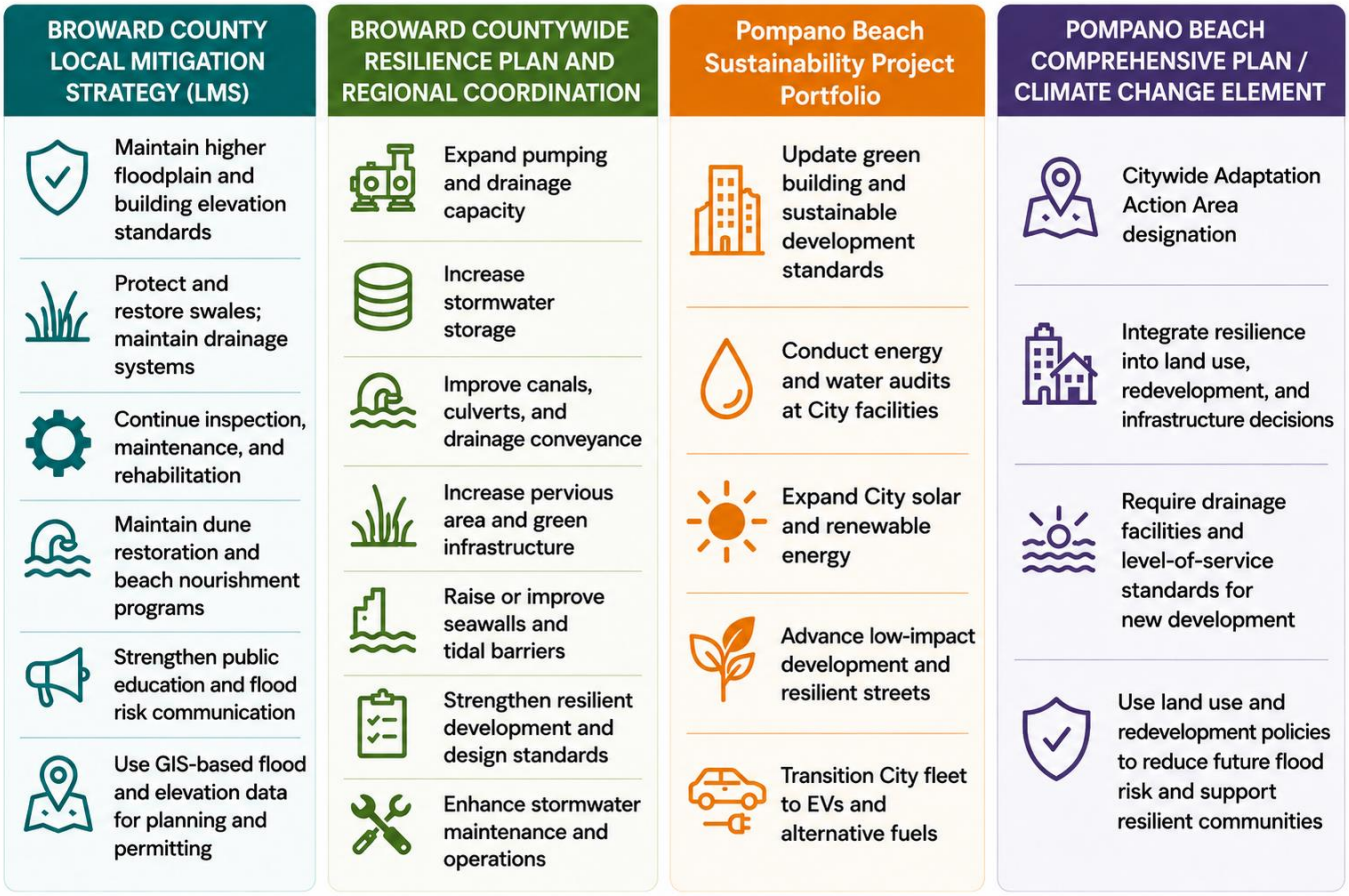


Figure 1 Summary of Adaptation Strategies Identified in Existing Plans and Programs

3. ADAPTATION STRATEGIES

The adaptation planning process demonstrated that infrastructure systems within the City are highly interconnected, and vulnerabilities cannot be fully understood by evaluating assets in isolation. While the Vulnerability Assessment identified individual facilities, roads, parks, beach access points, utility assets, and other infrastructure exposed to flooding hazards, subsequent review of local conditions, supporting plans, and stakeholder input highlighted the relationships between these systems and the broader impacts of flooding on community functions.

To translate these identified needs into potential actions, it is helpful to consider the range of adaptation approaches available. As shown in **Figure 2**, the Florida Adaptation Planning Guidebook groups adaptation strategies into Protection, Accommodation, Retreat, and Avoidance. Protection uses defensive gray, green, or hybrid measures to reduce flood impacts while landward assets remain largely unaltered. Accommodation modifies an asset, site, or land use so it can remain in place and continue to function under changing conditions. Retreat relocates or realigns vulnerable uses where protection or accommodation would not be effective, while Avoidance directs new development or long-lived investment away from hazard areas through policy or incentives.



Figure 2 Types of Adaptation Strategies

These categories are not mutually exclusive, and a project may incorporate more than one approach as it advances. The current project concepts primarily emphasize Protection and Accommodation; however, future implementation decisions could introduce Retreat or Avoidance elements. For example, relocating an existing function from an exposed site to a lower-risk location would represent Retreat, while using flood-risk information to guide the siting of a new or replacement facility could reflect Avoidance. Because the current project sheets do not identify or recommend specific relocation sites, they focus on resilient design, drainage, access, equipment protection, and operational continuity.

The potential overlap among strategy categories also reflects the interconnected nature of the infrastructure systems being addressed. Roadway flooding can disrupt transportation and limit access to fire stations, utilities, parks, and other public services, while seawall overtopping, beach-access surge pathways, and stormwater constraints can affect adjacent infrastructure and surrounding neighborhoods. Strategies were therefore evaluated based on both the vulnerability of the identified asset and the potential for improvements to reduce risks across connected systems.

Staff input also identified practical opportunities and constraints that influenced project development. Seawalls and backflow-prevention measures can reduce tidal inflow while limiting rainfall discharge, increasing the need to coordinate shoreline improvements with outfalls, storage, and pumping. Because the City is largely built out, parks, rights-of-way, redevelopment sites, and underground systems may provide opportunities for additional stormwater storage, while swale restoration, dune restoration, utility rehabilitation, and other ongoing programs offer opportunities to incorporate adaptation into planned work. These findings helped shape the master project list, project map, and individual project sheets by linking proposed actions to existing investments, connected infrastructure systems, and remaining implementation needs.

Based on this approach, the adaptation needs identified through the VA, stakeholder input, GIS analysis, and review of existing plans and capital projects were organized into project sheets and covered in Section 4. A comprehensive list of assets discussed in these project sheets and the summary of proposed adaptation strategies are presented in Appendix A . Related assets and locations were grouped where they share a flood mechanism, infrastructure dependency, or implementation opportunity. The table summarizes the full project portfolio, while **Figure 3** shows the project locations and their spatial relationships. These numbers can be cross-referenced with the master table in **Appendix A** to identify the corresponding asset and proposed project.

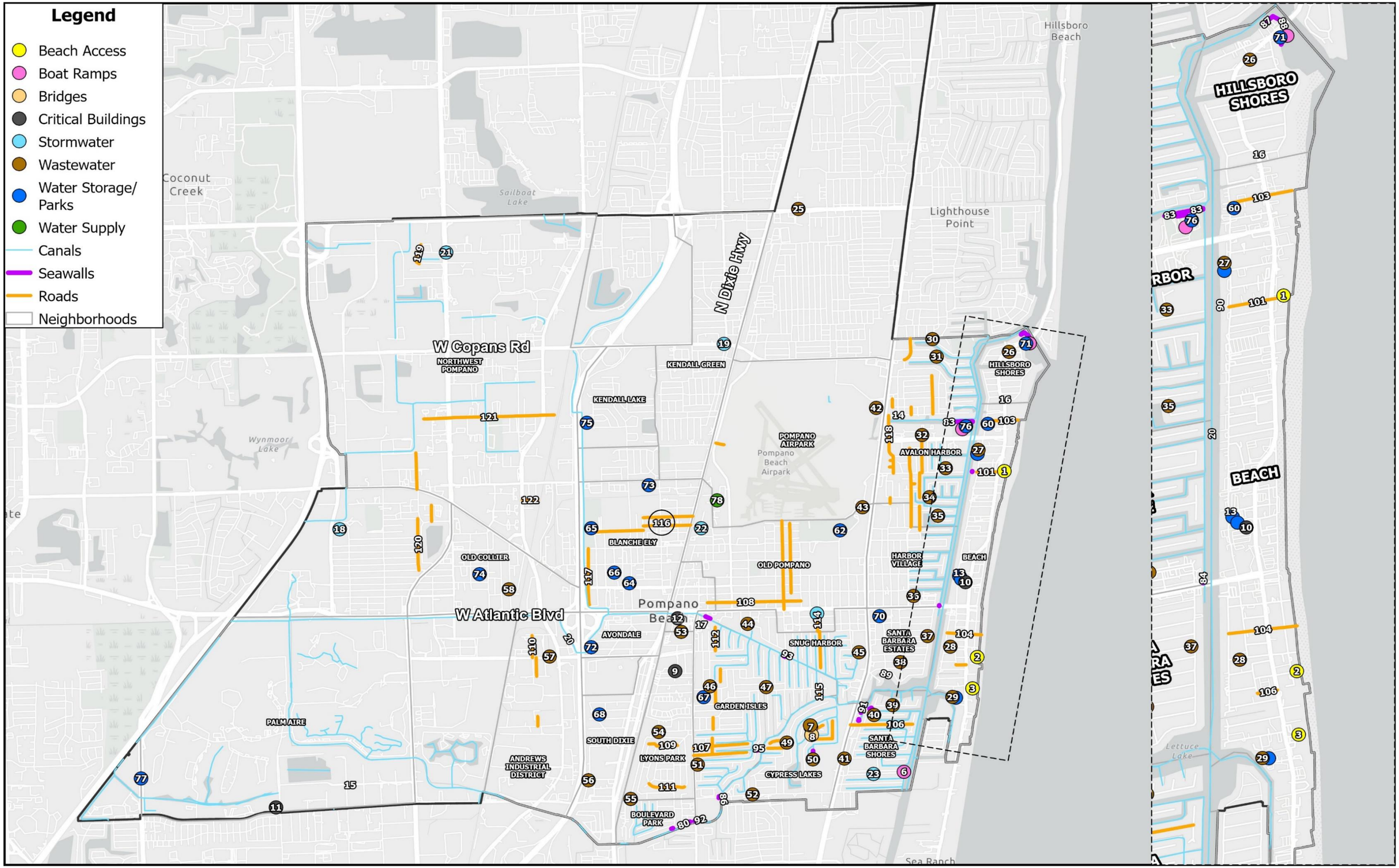


Figure 3 Proposed Adaptation Project Locations

Note: This map reflects the preliminary project list and does not account for projects that have since been completed or removed.

4. PROPOSED ADAPTATION PROJECTS

Project sheets on the following pages translate recommendations from existing plans and studies, together with the City of Pompano Beach Vulnerability Assessment findings, into an implementation-oriented format. Each sheet identifies:

- the project description
- project location(s) and assets/facilities included
- project benefits
- flood scenario(s) driving vulnerability
- observed or modeled flood depths where available
- potential funding sources
- alignment with existing plans and capital improvements

It should be noted that the project descriptions are planning-level and should be refined through field verification, survey, engineering design, property-owner coordination, environmental review, and cost estimating, as applicable.

4.1 Critical Buildings: Fire Station Flood Resilience and Emergency Access Improvements

LOCATIONS

- Fire Station 11: 109 N Ocean Boulevard, Pompano Beach, FL
  - Shown in Figure 3 with Map ID #10
- Fire Station 63: 120 SW 3rd Street, Pompano Beach, FL
  - Shown in Figure 3 with Map ID #9

NEED

- Compound flood protection at building and apparatus-bay entrances and for critical equipment
- Emergency response access planning for flood-prone routes serving Fire Station 11

ADAPTATION STRATEGY

- Floodproof vulnerable entrances and critical equipment at Fire Station 11 and incorporate flood protection into the Fire Station 63 replacement
- Evaluate targeted drainage improvements and pumping where feasible, alternate response routes, coordinated coverage from other stations, and higher-clearance emergency vehicles

PROJECT DESCRIPTION

Fire Stations #11 and #63 are critical emergency response facilities identified as highly vulnerable to compound rainfall and storm surge flooding. Maintaining the functionality and accessibility of these facilities during major flood events is important to support emergency response operations before, during, and after a storm. Fire Station #11 is built to Category 5 hurricane standards, but its location may create access challenges during major flooding. Fire Station #63 is an older facility planned for replacement, providing an opportunity to incorporate flood resilience into the design of the replacement facility.

The project should include field verification of finished-floor and critical equipment elevations, site drainage conditions, access constraints, and operational needs to determine whether additional flood resilience improvements are warranted. Where vulnerabilities are confirmed, targeted improvements may include site drainage modifications, protection or elevation of critical electrical and communications equipment, protection of backup power and fuel systems, and operational measures to address emergency access constraints, including pre-identified alternate response routes, coordinated response coverage from other stations, and evaluation of higher-clearance, flood-capable emergency vehicles. For Fire Station #63, flood-resilient design criteria should be incorporated into the planned replacement facility. For Fire Station #11, improvements should focus on confirmed site, access, and operational vulnerabilities.

Fire Stations #24 and #114 are also vulnerable under the compound rainfall and storm surge scenarios but are newer facilities built to Category 5 hurricane standards. As a result, additional facility-specific adaptation improvements are not prioritized at this time. However, where surrounding access roads are vulnerable to flooding, emergency access planning should consider alternate response routes, coordinated response coverage, and higher-clearance, high-water emergency vehicles, together with coordination with applicable drainage improvement projects.

ALIGNMENT WITH EXISTING PLANS: The City's Capital Improvement Plan includes the Fire Station Refurbishment [14-238] program, an annual program for improvements to City fire stations, with approximately $4.27 million programmed over FY 2021–2025. Proposed resilience improvements at Fire Stations #11 and #63 could be coordinated with future fire station refurbishment and capital improvements. The CIP also includes the Fire Station #114 (New Fire Station) project at the corner of SW 36th Avenue and McNab Road, which included construction of a new two-story, multi-bay station to reduce response times and enhance fire and emergency services. This investment supports the Adaptation Plan's approach of focusing additional facility-specific improvements on older or more vulnerable facilities while considering access and surrounding infrastructure needs at newer stations.

POTENTIAL FUNDING SOURCES: Resilient Florida; FEMA BRIC/HMGP; HUD CDBG-MIT/DR; local emergency management/capital funds.

PRIMARY HAZARDS: Extreme rainfall; storm surge; compound flooding

Table 2 Flood Depths at Fire Station Assets

Asset Name	Address	Approximate Road Elevation (ft)	100-Year, 72-Hour Rainfall + 100-Year Storm Surge Flood Depth (ft)	500-Year, 72-Hour Rainfall + 500-Year Storm Surge Flood Depth (ft)
Fire Station #63	120 SW 3rd St	8	3.5	3.7
Fire Station #11	109 N Ocean Blvd	9	3.5	6.5

4.2 Critical Buildings: City Hall Flood Resilience and Continuity Improvements

LOCATION: 205 NW 1st Street, Pompano Beach, FL

NEED

- Reliable access to the existing City Hall until government operations relocate to the new facility
- Consideration of flood exposure, drainage, and access in planning for future reuse of the existing City Hall site

ADAPTATION STRATEGY

- Incorporate future flood conditions into site drainage, access routes, critical-equipment protection, and continuity planning for the new City Hall
- Evaluate future reuse of the existing City Hall site in coordination with the Cultural Center and broader Civic Campus

PROJECT DESCRIPTION

The existing City Hall at 100 W Atlantic Boulevard is identified as highly vulnerable to compound rainfall and storm surge flooding. Although the facility itself is elevated, flooding of the surrounding site during severe events could restrict access and disrupt continuity of government operations. A subterranean canal may also contribute to site access constraints during severe rainfall and storm surge conditions.

A new City Hall is planned at 205 NW 1st Street as part of the New Downtown project. This project would focus on ensuring that the new facility is resilient to future flood conditions. Potential measures may include site drainage improvements, primary and alternative access routes, protection or elevation of critical electrical and communications equipment where warranted, backup power protection, and flood-specific access and continuity procedures. These measures are being incorporated into the planned facility and should continue to be evaluated against future flood conditions through final design and construction.

Following relocation, this project would also evaluate potential reuse of the existing City Hall site in coordination with the Cultural Center and broader Civic Campus. Depending on the selected future use, potential measures may include site grading or drainage modifications, changes to access and circulation, protection or elevation of utilities and equipment, and coordination of improvements across the Civic Campus. Where feasible, improvements should consider shared access and drainage conditions across the Civic Campus area rather than addressing City Hall in isolation.

Table 3 Flood Depths at City Hall

Asset Name	Address	100-Year, 72-Hour Rainfall + 100-Year Storm Surge Flood Depth (ft)	500-Year, 72-Hour Rainfall + 500-Year Storm Surge Flood Depth (ft)
City Hall	100 W Atlantic Blvd	3	4

The future City Hall site was not assessed in the previous vulnerability assessment. Therefore, flood depth information for the proposed location was obtained from Broward County's flood mapping portal[1] and used to provide a supplemental evaluation of potential exposure.

Table 4 Flood Exposure at Future City Hall

Address	25-Year Rainfall + 100-Year Storm Surge Flood Depth (ft)	100-Year Rainfall + 100-Year Storm Surge Flood Depth (ft)
205 NW 1st St	3	4

POTENTIAL FUNDING SOURCES: Resilient Florida; FEMA HMGP; CDBG-MIT; City/CRA capital funds

PRIMARY HAZARD(S): Extreme rainfall; storm surge; compound flooding

ALIGNMENT WITH EXISTING PLANS:

New Downtown City Hall Project and Civic Campus Planning: The City has approved the design of a new City Hall and selected a contractor for the new City Hall and parking garage.: The Adaptation Plan supports consideration of current and future flood conditions as the new facility proceeds through final design and construction.

4.3 Bridge Flood Resilience and Emergency Access Improvements

LOCATIONS:

- Bridge 69: 1000 SE 9th Avenue, Pompano Beach, FL
- Bridge 70: 1011 SE 9th Avenue, Pompano Beach, FL

NEED

- Maintain safe and reliable access across Bridges 69 and 70 along SE 9th Avenue during compound flooding, including flooding that may affect the bridge approaches and surrounding roadway.
- Reduce flood impacts on bridge approaches, drainage, structural elements, and utilities or lighting where applicable

[1] Broward County Scenario Viewer

Adaptation Strategy

- Improve drainage at the bridge approaches and provide backflow protection where needed to prevent high tidal water from entering the roadway drainage system.
- Evaluate nearby City-owned seawalls for low points or overtopping that may contribute to flooding at the bridge approaches.
- Improve flood resilience of the bridges, including structural elements, drainage features, and utilities or lighting where needed.
- Establish high-water inspection, traffic control, closure, and post-storm inspection procedures to support safe use during and after flood events.

Project Description

Bridge Nos. 69 and 70 are located along the SE 9th Avenue corridor and should be treated as a paired transportation and access-resilience project. Flooding of either bridge or its approaches could affect local circulation, emergency access, and post-storm recovery.

The Vulnerability Assessment indicates that Bridge 70 is exposed under all modeled flood conditions, with the highest modeled depths occurring under the 100-year and 500-year rainfall-plus-storm-surge conditions. Bridge 69 is exposed under the 2070 intermediate-high sea level rise condition with a 5-year, 24-hour rainfall event, as well as the 100-year and 500-year rainfall-only and rainfall-plus-storm-surge conditions. Both bridges are located in Flood Zone AE with a listed BFE of 7 ft. These results indicate that the adaptation strategy should focus on compound flooding, storm surge, tidal influence, drainage performance, and access along the bridge approaches, rather than the bridge structures alone.

The project should include field verification of bridge deck and approach elevations, structural conditions, roadway drainage, stormwater outfalls, nearby City-owned seawalls, utilities or lighting where present, and emergency access conditions. The assessment should also determine whether high tidal water, seawall overtopping, or restricted outfall drainage contributes to flooding at the bridge approaches. The VA results are planning-level and should be confirmed through site-specific survey, inspection records, and engineering evaluation before final design or cost estimating.

Based on the findings, targeted improvements may include improving drainage at the bridge approaches, providing backflow protection where tidal water can enter the drainage system, addressing low or vulnerable sections of nearby City-owned seawalls, and improving structural or utility components where needed. Localized tidal protection measures should only be considered where a specific overtopping pathway and a feasible protection location are confirmed. High-water inspection, traffic control, closure, and post-storm inspection procedures should also be established to support safe access during and after flood events.

Major bridge elevation or replacement should only be considered if detailed analysis confirms that these targeted improvements are not sufficient to address flooding and access risks.

Table 5 Bridge Assets, Scenarios at Risk, and BFE

Asset ID	Asset Name	Address	At-Risk VA Scenarios	Max Flood Depth	Flood Zone / BFE	Road Elevation
69	Bridges	1000 SE 9th Ave	5-year, 24-hour rainfall event-tidal 2070, 100-year and 500-yr, 72-hour + Surge	5.9 ft	AE / BFE: 7 ft NAVD88	4.61 ft-NAVD
70	Bridges	1011 SE 9th Ave	5-year, 24-hour rainfall event +Surge and tidal 2070, 100-year and 500-yr, 72-hour + Surge	6.7 ft	AE / BFE: 7 ft NAVD88	4.61 ft-NAVD

Note: The highest modeled depths are associated with compound storm-surge scenarios.

POTENTIAL FUNDING SOURCES : Resilient Florida; FEMA BRIC/HMGP; FDOT bridge, local agency, and transportation-resilience programs; City transportation/ stormwater capital funds; local bridge maintenance and emergency-management funding sources.

PRIMARY HAZARD(S): Extreme rainfall; storm surge; sea level rise/tidal flooding; compound flooding; tailwater/backflow effects; approach-road access disruption.

ALIGNMENT WITH EXISTING PLANS: City of Pompano Beach Vulnerability Assessment (2025), including critical asset sensitivity and flood scenario results; current Adaptation Plan critical asset screening; roadway resilience strategy; City bridge/transportation maintenance programming; stormwater and drainage improvement planning for tidally influenced areas. The City CIP uses an implementation and bundling framework where bridge rehabilitation, approach roadway, or stormwater scopes overlap.

The City's Capital Improvement Plan includes the Major Bridge Rehab [05-901] program, with approximately $500,000 programmed for rehabilitation or replacement of City-owned bridges. Future bridge improvements under this program are guided by annual FDOT bridge inspection findings and are intended to maintain structural integrity and safety. Proposed resilience improvements for Bridges 69 and 70 could be coordinated with future bridge rehabilitation or capital improvement activities so that flood resilience, approach drainage, structural protection, and reliable access are incorporated when bridge improvements are advanced.

Table 6 Bridge Asset Flood Depths

Asset ID	5-yr + 2070 IH SLR	100-yr Rainfall	100-yr Rainfall + Surge	500-yr Rainfall	500-yr Rainfall + Surge
69	1.6 ft	0.4 ft	5.9 ft	0.5 ft	6 ft
70	2 ft	1.2 ft	6.7 ft	1.3 ft	6.7 ft

4.4 Lift Station Flood Resilience and Operational Continuity Improvements

Location:

Citywide: 33 lift stations identified with flood exposure

- Lift Station 10: 3401 Spring Street
- Lift Station 11: 1201 N Riverside Drive
- Lift Station 20: 3212 SE 6th Street
- Lift Station 21: 1239 Hibiscus Avenue
- Lift Station 30: 2710 NE 24th Street
- Lift Station 31: 2734 NE 23rd Court
- Lift Station 33: 1450 NE 27th Avenue
- Lift Station 34: 1200 NE 28th Avenue
- Lift Station 35: 1031 NE 27th Terrace
- Lift Station 36: 2750 NE 9th Street
- Lift Station 37: 2601 NE 1st Street
- Lift Station 40: 2792 SE 3rd Street
- Lift Station 41: 601 SE 25th Avenue
- Lift Station 42: 2345 SE 8th Street
- Lift Station 43: 2225 SE 8th Court
- Lift Station 44: 1200 S Federal Highway
- Lift Station 50: 1799 N Federal Highway
- Lift Station 51: 2001 NE 10th Street
- Lift Station 60: 651 Pine Drive
- Lift Station 61: 2000 SE 5th Court
- Lift Station 62: 151 SE 5th Court
- Lift Station 63: 501 SE 5th Terrace
- Lift Station 64: 950 SE 9th Avenue
- Lift Station 65: 651 SE 10th Street
- Lift Station 66: 950 SE 12th Street
- Lift Station 67: 10 SE 12th Street
- Lift Station 68: 495 SE 15th Street
- Lift Station 70: 100 SW 2nd Street
- Lift Station 72: 300 SW 9th Street
- Lift Station 73: 699 SW 15th Street
- Lift Station 92: 901 SW 13th Court
- Lift Station 107: 299 NW 16th Avenue
- Lift Station 111: 1261 SW 3rd Street

Need

- Flood protection for electrical, control, and other critical lift-station components at exposed locations
- Reliable wastewater pumping and operational continuity during rainfall, compound flooding, and water-intrusion events

Adaptation Strategy

- Elevate or floodproof critical equipment and improve site drainage, sealing, and backflow protection based on site-specific flood conditions
- Maintain pumping continuity through backup power, bypass pumping, alarms, remote monitoring, and other redundancy measures

Project Description

Lift stations are essential to maintaining wastewater conveyance during and after flood events. The 2025 Vulnerability Assessment identified 33 lift stations with flood exposure. Although the exposed stations generally received Low vulnerability scores because lift stations typically include waterproofing and other adaptive-capacity measures, the VA also notes that these protections can fail and lead to maintenance and operational problems.

This project proposes a phased resilience program for the City's 33 flood-exposed lift stations, with adaptation measures assigned based on the modeled flood source, timing, and severity of exposure. Because the adaptation categories overlap, an individual lift station may require more than one resilience measure. All 33 stations are identified for future floodproofing/elevation based primarily on modeled exposure under the 5-year, 24-hour storm combined with the 2070 NOAA Intermediate-High sea-level-rise condition. Of these, six are identified as near-term priorities for floodproofing or equipment elevation, while 28 require site-level stormwater-control measures, such as improved grading, drainage, localized storage, or backflow protection.

The strategy should be implemented through site-specific rehabilitation packages. Final protection elevations and measures should be confirmed using surveyed site and equipment elevations, flood-entry pathways, groundwater conditions, drainage connectivity, access, power/communications vulnerability, and the ability to maintain wastewater pumping during flood events. The VA recommends elevating vulnerable lift-station controls above predicted flood levels and providing additional waterproofing where needed.

Project benefits include reducing water intrusion into critical wastewater infrastructure, maintaining pumping and telemetry during flood events, improving the reliability of electrical and control systems, reducing the risk of sanitary sewer overflows, reducing emergency maintenance and service disruptions, and strengthening backup-power readiness.

Adaptation Approach

Use a model-based, risk-tiered approach rather than applying the same upgrade to all 44 stations. The three strategy layers are selected by flood timing and source: protect/elevate critical systems where near-term flood exposure can reach equipment; keep stormwater out where rainfall and site drainage drive flooding; and maintain pumping continuity where flooding may persist or compound with storm surge. Strategies overlap, so a high-priority station may receive all three measures.

Priority Lift Stations

The lift stations were evaluated using modeled flood exposure from the Vulnerability Assessment (VA), current-condition flood depths from the Broward County 100-year rainfall-plus-storm-surge dataset, and observed conditions provided by City Utility staff. The evaluation indicates that resilience needs vary by location; therefore, the priority stations are organized into two groups based on the type of adaptation action recommended.

Priority Group – Control Panel and Electrical Floodproofing

- **Lift Station 21, 70, 72, and 107:** These stations experience observed flooding that can affect access and critical equipment. Lift Station 21 is susceptible to tidal flooding, while flooding at Lift Stations 70 and 72 can approach control panels and submerge wet wells

and valve vaults. Lift Station 107 is in a low-lying area subject to rapid flooding. The strategy focuses on raising or floodproofing vulnerable electrical and control equipment, sealing potential water-entry points, and maintaining reliable equipment access.

Other Lift Stations

- **Lift Stations for Future Floodproofing:** The flood-exposed stations should continue to be evaluated as sea-level rise and compound-flood conditions increase. Site-specific surveys should confirm whether projected flood elevations approach critical electrical or mechanical equipment before floodproofing or elevation improvements are programmed.
- **Site Drainage Improvements:** Stations exposed to rainfall, tidal flooding, or storm-surge conditions may require additional site-level protection from runoff and standing water. Potential measures include grading and localized drainage improvements, shallow swales or storage where feasible, sealing, and backflow protection.
- **Flood-Exposed Stations:** A total of 33 lift stations are exposed under the 100-year rainfall combined with 100-year storm-surge scenario, representing the most severe compound-flooding condition evaluated. Operational continuity measures are recommended for all exposed stations to reduce the risk of service interruption during major flood events. These measures should include reliable backup power, permanent or readily accessible bypass-pump connections, high-water alarms, and remote monitoring to support continued operation and rapid response during flooding.
- **New or Expanded Lift Stations:** For future or expanded stations identified through Utility Master Planning, avoid higher flood-risk locations where possible and provide reliable site drainage, flood-safe access, backup power, and redundant pumping or equipment.

Barrier Island/Southeastern Gravity Sewer Main Resilience

The gravity sewer resilience strategy should focus on the Barrier Island and southeastern tidal wastewater service area, where aging infrastructure, high groundwater, and tidal conditions may increase infiltration and inflow and place additional stress on the wastewater collection system. Rather than a citywide gravity-main rehabilitation program, the strategy should prioritize targeted inspection and rehabilitation of vulnerable gravity mains, service connections, and manholes, while confirming downstream lift-station and sewer capacity and evaluating system redundancy. The City's FY2026 capital program also includes annual gravity-main relining and sanitary sewer manhole rehabilitation.

- **Inspect and clean gravity mains:** Continue Jet Vac cleaning and CCTV inspection to identify blockages, cracks, broken pipe sections, root intrusion, and other conditions that may reduce sewer capacity or contribute to infiltration and inflow.
- **Reduce groundwater and tidal infiltration:** Target leaking or deteriorated gravity mains, service connections, and other potential infiltration pathways in areas affected by high groundwater and tidal conditions. Use appropriate rehabilitation methods, including trenchless rehabilitation where feasible.
- **Rehabilitate leaking manholes:** Seal and rehabilitate deteriorated manholes to reduce groundwater and stormwater entry into the collection system.

- **Prioritize vulnerable tidal-area infrastructure:** Focus rehabilitation on gravity sewer infrastructure within the Barrier Island and southeastern service area where high groundwater, tidal influence, aging infrastructure, or recurring system concerns indicate greater vulnerability.
- **Confirm downstream capacity:** Evaluate connected lift stations and downstream sewer capacity when prioritizing rehabilitation to confirm that improvements address system constraints and do not transfer capacity limitations downstream.
- **Evaluate redundancy and continuity:** Review available system redundancy and operational alternatives for the affected service area and identify opportunities to improve wastewater-service continuity where practical.
- **Coordinate with other City projects:** Coordinate gravity-main and manhole rehabilitation with planned roadway, drainage, utility, and other capital improvements to reduce repeated excavation and improve implementation efficiency.

PRIMARY HAZARD(S): High groundwater and tidal influence contributing to infiltration and inflow in gravity sewer infrastructure; extreme rainfall and compound flooding; storm surge; water intrusion into electrical and mechanical systems at six priority lift stations; potential wastewater service disruption and temporary loss of maintenance access.

POTENTIAL FUNDING SOURCES: Resilient Florida; FEMA hazard-mitigation programs; City Utility Renewal and Replacement Capital Fund (420); wastewater utility capital funds; and other eligible state or federal infrastructure-resilience programs.

ALIGNMENT WITH EXISTING PLANS

The City's Capital Improvement Plan includes the Wastewater - Lift Station Rehabilitation [08-968] program, an annual program for upgrading and rehabilitating lift stations as prioritized by the Utilities Department. A typical rehabilitation replaces major plumbing, mechanical and electrical components, with approximately $3.0 million programmed through the Utility Renewal and Replacement Capital Fund (420). Flood-resilience measures can be incorporated into future rehabilitation so electrical/control elevation, waterproofing, backup power, structural sealing, telemetry and site flood protection are addressed as part of planned capital upgrades.

4.5 Stormwater and Roadway Flood Resilience

LOCATION / PROJECT AREA

Road segments in the following neighborhoods (shown in **Figure 3**)

- Barrier Island / Intracoastal segments
- Garden Isles
- Cypress Cove
- Old Pompano
- Palm Aire
- Andrews Industrial District
- Civic Campus
- Lyons Park
- Garden Isles
- Snug Harver
- Blanche Ely
- Avalon Harbor
- Collier City
- Northwest Pompano

Need

- Improved roadway drainage and faster flood recovery at recurring rainfall-driven low points where inlet capacity, local conveyance, roadside swales, or drainage connections are inadequate.
- Additional temporary stormwater storage along roads where runoff cannot drain quickly, including restoration or expansion of roadside swales and use of available landscaped or open areas.
- Protection from direct canal or tidal overtopping where low seawalls, canal edges, or shoreline conditions allow water to enter roadway areas.

Adaptation Strategy

- Improve roadway drainage based on site conditions and flood source, using inlet/pipe upgrades, swales, shallow storage, and localized regarding for rainfall flooding, and shoreline/canal protection, backflow control, outfall upgrades, or pumping where tidal or high-tailwater conditions limit drainage.
- Coordinate drainage and flood protection improvements with utility hardening and existing capital projects, using pump-assisted drainage only where gravity drainage remains constrained

Project Description

The project brings together the final selected roadway and stormwater needs by neighborhood into a coordinated resilience program. It focuses on selected City-owned roadways affected by recurring flooding from heavy rainfall, localized roadway low points, limited drainage capacity, high groundwater, and, where applicable, tidal or canal conditions. Roadway segments are grouped by neighborhood and flood source so that each location can be addressed with the most appropriate drainage, storage, roadway, or source-control measure.

The City is also participating in Broward County's RAIN program, a real-time flood monitoring and early warning system. The initial phase includes up to 10 monitoring locations identified by the City and Broward County based on historical and current flooding conditions. Solar-powered monitoring units will collect water-level data and transmit real-time information to support roadway safety and emergency response (Figure 4). RAIN data will also support long-term stormwater planning, resilience investments, and potential grant opportunities.

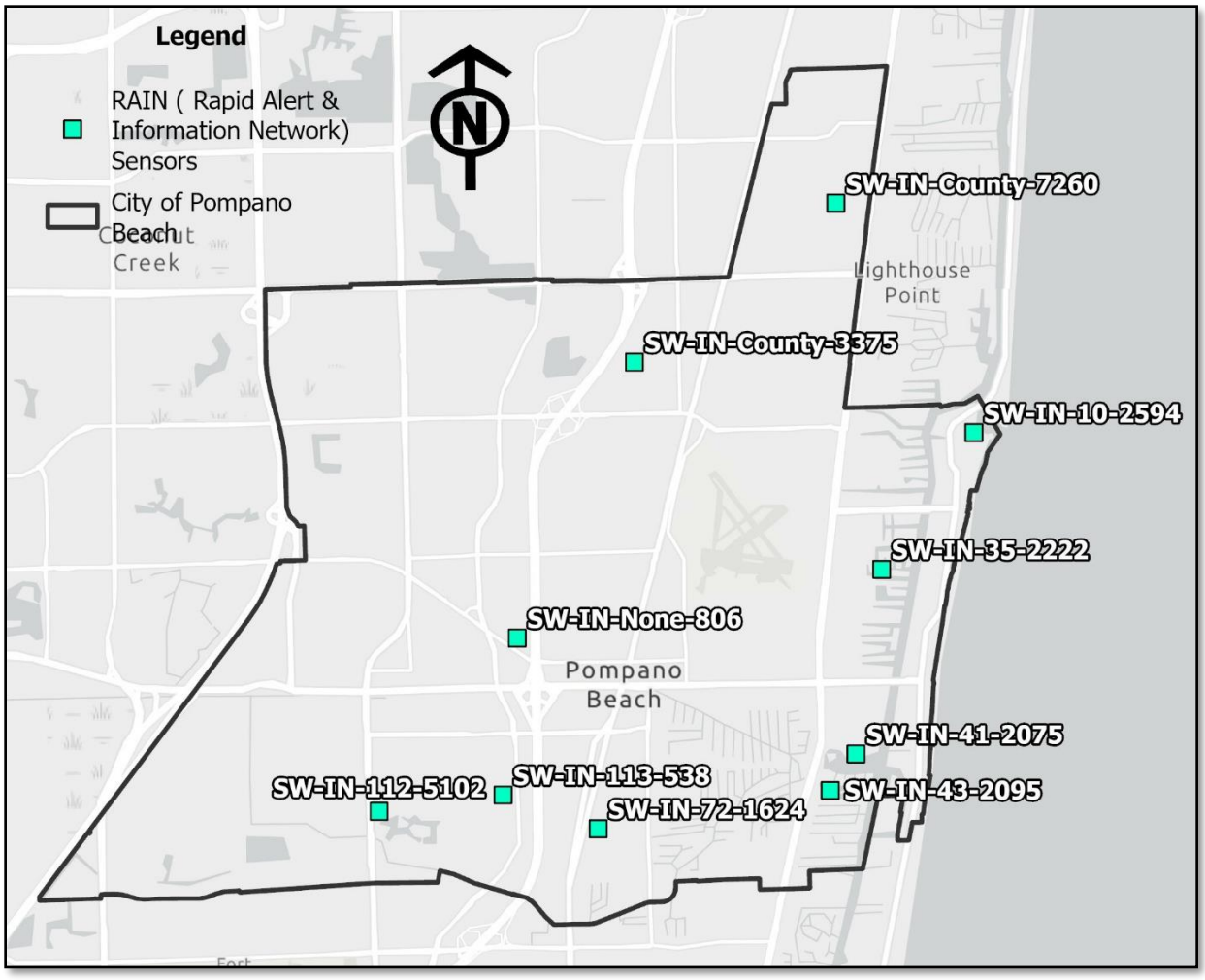


Figure 4: Location of 10 Rapid Alert and Information Network ("RAIN") sensors

Citywide Exfiltration Trenches & Shallow Storage

- **A citywide program** should prioritize restoring roadside swales and maintaining existing exfiltration systems, with new exfiltration added selectively where groundwater, soils, available storage depth, and drainage conditions support reliable drawdown. Existing trenches should be inspected and cleaned before expansion, with sediment pretreatment and accessible maintenance points incorporated to reduce clogging and maintain long-term performance. Preferred use: Higher-elevation inland rights-of-way where swales and exfiltration can provide effective temporary storage and infiltration. The 2013 SWMP generally used +5 ft NAVD as a screening threshold for exfiltration feasibility.

    - Supporting use: Areas with moderate groundwater constraints where swales, shallow storage, and limited exfiltration can reduce localized ponding but should connect to a reliable downstream drainage or overflow pathway.
    - Limited use: Low coastal, tidal, or persistently high-groundwater areas, where reduced subsurface storage can limit exfiltration effectiveness. In these

locations, conveyance, detention, backflow protection, and controlled discharge should generally serve as the primary measures.
    - Maintenance-first approach: Inspect, clean, and rehabilitate existing inlets, pipes, swales, and exfiltration trenches before adding new facilities, with routine sediment removal and defined inspection and maintenance cycles incorporated into the program.

Citywide Canal Resilience & Drainage Coordination

- **The Citywide canal strategy** should focus on keeping canals and connected stormwater systems working effectively during heavy rainfall and high-water conditions. Adaptation should identify the outfalls, culverts, and control structures connected to each canal, confirm canal ownership and operating responsibility, and check for sediment, erosion, damaged crossings, or other conditions that restrict drainage. Existing canals, outfalls, and drainage connections should be cleaned and repaired before larger improvements are considered.
- Where high canal or tidal water levels slow or block gravity drainage, adaptation should provide backflow protection, additional land-side storage, and improved drainage connections so runoff can be temporarily stored until the canal level drops. Culverts, canal banks, or control structures should be improved where they are limiting drainage. Pump-assisted drainage may be considered when high canal or tidal water levels prevent gravity drainage, but only after a suitable discharge location is identified and hydraulic analysis confirms that pumping will not increase flooding elsewhere. Any canal improvements should be coordinated with the responsible agency or property owner and designed so they do not increase flooding in nearby areas.

Barrier Island / Intracoastal Segments

- **NE 2nd Street** is primarily affected by overtopping of the adjacent City-owned seawall. Adaptation should focus on raising the seawall while maintaining land-side drainage so rainfall is not trapped behind the improved shoreline. Because the roadway is approximately 5 ft NAVD, roadway elevation is not considered a primary strategy.

- **NE 10th Street toward beach access** experiences localized drainage and access issues. Adaptation should increase pervious roadside area and temporary storage, improve roadway and shoulder grading, and strengthen drainage collection and discharge. Where high tidal or surge tailwater restricts gravity drainage, backflow protection and pump-assisted drainage may be considered. Localized roadway elevation should be reserved for any remaining access low point.

- **NE 14th and 16th Street at North Riverside Drive** are subject to seawall overtopping and high Intracoastal water levels. Adaptation should prioritize raising City-owned seawalls where overtopping is confirmed, improving roadway drainage and outfall capacity, and providing backflow protection. Once tidal inflow is controlled, temporary storage and pump-assisted drainage may be used where elevated Intracoastal water levels prevent gravity discharge. Pumping should be designed to overcome future tailwater conditions

and coordinated with the seawall and outfall improvements to avoid recirculation of tidal water. Available swale and storage areas should also be regraded and improved where feasible.

- **SE 10th Street and SE 11th Street** experience seepage and high-tailwater drainage constraints rather than primarily seawall overtopping. Adaptation should provide pump-assisted drainage with backflow protection, improve roadway inlets and collection, and add localized storage where feasible. SE 11th Street should receive greater attention because roadside storage is limited and standing water has been observed. Road elevation should be considered only for residual access low points.

- **SE 4th Street at South Riverside Drive** experiences tidal drainage constraints from high Intracoastal water levels. Adaptation should improve outfall and conveyance capacity, provide backflow protection, use pump-assisted discharge when gravity drainage is restricted, and regrade available roadside swales or storage areas.

- **NE 5th Court/NE 5th Street, NE 6th Street, NE 7th Street, NE 8th Court, NE 9th Street, NE 13th Street, NE 15th Street, SE 6th Street, SE 7th Street, SE 8th Street, and SE 12th Street east of South Ocean Boulevard** experience tidal seepage and high-tailwater conditions that can limit gravity drainage. Adaptation should improve roadway inlets and conveyance, provide localized storage or regrading where needed, and provide backflow protection where appropriate. Where high tidal water levels prevent gravity drainage, pump-assisted discharge to an adjacent canal or other suitable tidal receiving water through an existing or improved outfall may be evaluated. Confirmed seawall overtopping should be addressed separately through seawall improvements.

Cross Road between Harbor Village and Old Pompano

- **NE 2nd Street** experiences localized roadway ponding where drainage is limited by low points and high groundwater near the canals. Adaptation should improve inlet capture, short drainage connections, and roadway grading to move runoff out of the travel lane, while using available roadside or open areas for temporary stormwater storage. Where high canal water levels limit gravity drainage, backflow protection should be provided where needed to prevent canal water from flowing into the roadway drainage system. If gravity drainage remains inadequate, pump-assisted discharge to an adjacent canal through a suitable outfall may be evaluated.

Old Pompano

- **NE 12th Avenue** experiences localized rainfall-driven ponding. Adaptation should direct roadway runoff to a new stormwater storage area near the baseball field, such as a detention area or floodable green space, supported by improved inlets and drainage connections.

- **NE 11th Avenue / NE 1st Street** should use the nearby open parcel for stormwater storage. Acquire the open parcel on NE 11th Avenue for a detention pond and improve inlet and drainage connections to route runoff away from roadway low points. Where groundwater is high, prioritize surface storage over infiltration.

Palm Aire

- **SW 10th Street** is affected by combined canal overtopping and roadway-drainage limitation. Along Cypress Canal, evaluate a living shoreline or stabilized canal edge to reduce overtopping. Restore and regrade roadside swales and improve inlet and cross-drainage so rainfall can drain from the roadway and be temporarily stored within available roadside areas. Where high canal levels still prevent gravity drainage, consider controlled or pump-assisted discharge, with backflow protection where reverse flow from the canal is confirmed.

Andrews Industrial District

- **SW 14th Avenue** experiences recurring rainfall-driven ponding. Adaptation should focus on upgrading inlets and local drainage connections, improving downstream conveyance, and using available roadside space for shallow swales or temporary stormwater storage while maintaining drainage across driveway crossings.

Civic Campus

- **SW 1st Avenue** experiences localized rainfall-driven ponding near the SW 1st Avenue / SW 1st Court low point. Adaptation should focus on improving inlet capture and local drainage and using nearby landscaped areas for shallow detention or bioretention storage to temporarily hold runoff and reduce roadway ponding. Because the roadway is generally well maintained, broad reconstruction is not considered a primary need. The existing subterranean canal or drainage pathway at City Hall should also be confirmed and maintained to support drainage and preserve access during severe flooding, with backflow protection added only where reverse flow is confirmed. Localized roadway regrading may be considered where ponding remains after the drainage and storage improvements are implemented.

Garden Isles

- **SE 2nd Avenue, SE 2nd Ter, SE 10th Avenue, SE 7th Street, SE 8th Street, SE 10th Street, and SE 11th Street** experience combined rainfall and canal-related flooding. For SE 2nd Ave, SE 2nd Ter, SE 10th Avenue, SE 7th Street, and SE 8th Street, adaptation should improve roadway inlets and drainage connections and route runoff to Norwood Pines Park for temporary stormwater storage. SE 10th Avenue, SE 10th Street, and SE 11th Street should improve roadway inlets, drainage connections, and available roadside storage. Along SE 10th Avenue, raise or improve low private seawalls where overtopping contributes to roadway flooding, in coordination with waterfront property owners. Add backflow protection at canal-connected outfalls and consider permanent pump-assisted drainage where high canal levels continue to restrict gravity flow.

Cypress Cove and Snug Harbor

- **SE 10th Street, SE 11th Street, SE 10th Court and SE 15th Ave** are influenced by rainfall flooding combined with high canal levels that can restrict gravity drainage. Adaptation focus on improving roadway inlets and drainage connections, restoring and regrading roadside swales for temporary stormwater storage, and evaluating pump-assisted drainage where high canal levels prevent runoff from draining by gravity. Backflow or check-valve protection should be considered at canal-connected outfalls to prevent canal water from entering the drainage system.

  Confirmed canal or lake overtopping should be addressed by identifying low private seawall sections through survey and coordinating with affected property owners. Potential improvements may include raising or rehabilitating deficient seawall sections to reduce overtopping, while maintaining compatible adjoining seawall elevations to avoid redirecting flooding to nearby properties. Localized roadway regrading may be considered if ponding remains after drainage improvements are implemented.

Blanche Ely

- **NW 10th Street and NW 11th Street** experience localized rainfall-driven ponding and limited drainage capacity. Adaptation improve inlets and local drainage connections, restore roadside swales, and route runoff to nearby open parcels for stormwater storage by acquiring suitable open parcels for a retention pond. Maintain continuous drainage between the streets and storage areas, with localized roadway regarding only where ponding remains.

- **NW 10th Avenue** is influenced by drainage limitations and overtopping associated with the adjacent I-95 canal. Adaptation improve roadway inlets, roadside drainage, and land-side storage while coordinating with FDOT on any work affecting the canal. Discharge to the canal should not be increased without approval and controlled or pump-assisted drainage should be considered only where an acceptable discharge route is available.

Avalon Harbor

- **NE 23rd Avenue, NE 26th Avenue, and NE 27th Avenue** experience primarily rainfall-driven roadway ponding at localized low points. Adaptation focus on restoring, regrading, and where feasible enlarging roadside swales to increase temporary storage, together with improving inlet capture and local drainage connections. Raising the roadway crown is also recommended to promote drainage toward the roadway edges and help maintain a passable travel lane during and shortly after storm events.
  For NE 27th Avenue, improvements also incorporate applicable recommendations from the 2013 Stormwater Master Plan, including connection to the existing drainage system, selective exfiltration where site conditions are suitable, and evaluation of increased outfall capacity. All three roadways should be included in the upcoming Stormwater Master Plan update to confirm the final drainage improvements. Localized roadway regrading should be considered only where ponding remains after the swale and drainage improvements.

The 2013 SWMP[4] identified drainage limitations along NE 27th Avenue and recommended exfiltration improvements, connection to the existing drainage system, upsizing an existing 24-inch outfall to 36 inches, and swale regrading to provide additional storage. The Vulnerability Assessment carried forward this general approach through exfiltration trench and pipe-capacity improvements.

Kendall Green

- **NE 1st Avenue and NE 17th Court** experience rainfall-driven roadway flooding and prolonged ponding within the residential area. Adaptation focuses on improving collection and conveyance of roadway runoff through additional or upgraded drainage inlets and connections, restoring and regrading roadside swales to increase temporary stormwater storage, and correcting localized low points that contribute to standing water.

  Evaluation of the existing drainage system will confirm available conveyance and storage capacity and identify appropriate discharge or infiltration opportunities. Where gravity drainage is limited, potential improvements include additional subsurface storage, exfiltration, or other supplemental drainage measures. Roadway and swale grading improvements can be coordinated with driveway elevations and adjacent properties to reduce ponding without redirecting floodwater toward nearby homes.

Collier City

- **NW 23rd Avenue and NW 24th Avenue** experience localized rainfall-driven roadway ponding at low points. Adaptation should focus on improving inlets and local drainage connections, restoring roadside swales or shallow storage where space is available, and regrading localized low areas to move runoff off the roadway. Both streets should be included in the Stormwater Master Plan update to confirm the downstream drainage route and determine whether additional conveyance or connection to nearby storage is needed.

Northwest Pompano

- **NW 18th Street, NW 23rd Avenue, and NW 13th Street** experience localized rainfall-driven ponding and drainage limitations at roadway low points. Adaptation should focus on restoring and regrading roadside swales, improving inlets and local drainage connections, and using available roadside areas for temporary stormwater storage. Localized roadway or shoulder low spots should be corrected where needed to move runoff out of the travel lane and into the drainage system. These road segments should also be included in the Stormwater Master Plan update to confirm downstream drainage routes, available storage, and any additional drainage improvements. Broad roadway raising is not recommended as the primary strategy.

A1A Water Main Resilience

- **The A1A water main** located within a coastal roadway corridor exposed to tidal flooding, storm surge, rising groundwater, and future roadway and drainage modifications. The

adaptation strategy should focus on maintaining reliable potable water service and protecting vulnerable water-distribution infrastructure. Improvements should include assessment of pipe condition, cover, crossings, valves, and critical connections, with rehabilitation or replacement prioritized where condition or exposure warrants. Water-main improvements should be coordinated with planned roadway, drainage, and shoreline projects to address potential grade changes, avoid repeated construction, and maintain access to critical valves and connections. Final design should confirm emergency isolation capability and service redundancy.

PRIMARY HAZARDS: Frequent rainfall flooding, roadway low points, inadequate drainage and stormwater storage, shallow groundwater, high canal or tidal water levels, seepage, canal or seawall overtopping, tidal backflow, and combined rainfall and coastal flooding.

PROJECT BENEFITS:

- Reduced roadway flooding and ponding duration,
- Faster drainage and recovery after storms,
- Improved performance and longer service life of existing swales, drainage, exfiltration, and canal-connected systems.
- Reduced backflow from canals and tidal waters.
- Improved access to and from neighborhoods during and after storms.
- Better protection of water and reuse service continuity.
- Fewer repeated repairs and maintenance-related disruptions.
- Better coordination of resilience improvements with ongoing City capital projects.

ALIGNMENT WITH EXISTING PLANS:

2025 City of Pompano Beach Vulnerability Assessment, Broward County Resilience Plan, Broward County LMS, 2013 Stormwater Master Plan

4.6 City-Owned Seawall Overtopping and Resilience Improvements

LOCATION / SCREENING AREA:

City-owned seawall and tidal-barrier reaches identified through City screening, client interviews, VA sea level rise scenarios, and Broward County Priority Planning Areas (PPAs). The primary project focus is seawall segments susceptible to current or near-future tidal overtopping, with longer-term SLR scenarios and PPA overlap used to guide staging and future-proofing.

NEED

- Protection from tidal overtopping at City-owned seawalls where adjacent roads, bridges, parks, utilities, or other City assets may be affected
- Shoreline improvements that account for future sea level rise and associated landward drainage conditions

ADAPTATION STRATEGY

- Raise and rehabilitate City-owned seawalls where current or near-future tidal overtopping is identified

- Coordinate seawall improvements with drainage, backflow protection, and adjacent shoreline improvements where appropriate

Table 7 City-owned Seawall Locations and Corresponding Lengths at-Risk

Seawall Location / Name	Length (LF)
1710 SW 1 Ave SFWMD	123
1730 SW 1 Terr SFWMD	109
2000 SE 5 Ct	96
210 SW 18 CT SFWMD	63
Alsdorf Park	1,059
Atlantic Bridge West Side	21
Bill Keith Park	103
E McNab Road Bridge	70
Lake Santa Barbara Park	71
Pompano Beach ROW	51
Public Land City of Pompano Beach	167
S Cypress Road Bridge	112
SE 11 Avenue Bridge	59
SE 13 Street Park	160
SE 22 Avenue Bridge	103
SE 8 Court Bridge	86
SE 9 Ave	116
SE 9 Avenue Bridge North	208
SE 9 Avenue Bridge South	102

Note: *Lengths are the screened reach lengths provided in the City-owned seawall inventory.*

PROJECT DESCRIPTION

The project addresses City-owned seawalls where tidal water levels can overtop or bypass the shoreline barrier and affect public land, transportation access, parks, drainage systems, or other City assets. Because the primary failure mechanism is similar across the screened reaches, the core adaptation approach is also similar: raise deficient tidal barriers where needed, rehabilitate aging or deteriorated seawalls, improve structural and corrosion resistance, and maintain a continuous shoreline barrier without low gaps or weak transitions.

Final design elevations of the raised seawalls should compare the seawall crest to the applicable tidal/SLR design water-surface elevation and City requirements. Rainfall flooding behind the seawall should be evaluated separately to determine whether gravity drainage, backflow controls, storage, or pump-assisted discharge is needed after the shoreline barrier is raised. While seawall raising is the primary adaptation strategy for most locations, site-specific actions and considerations are provided in **Appendix A**.

Project benefits include reducing tidal overtopping and shoreline bypass, extending seawall service life through structural and corrosion-resistant rehabilitation, creating more consistent shoreline-barrier elevations, protecting critical assets and access behind seawalls, improving landward drainage performance where barriers are raised, and strengthening coordinated public/private shoreline resilience.

PRIMARY HAZARD(S): Tidal flooding and sea level rise; shoreline overtopping; rainfall trapped behind barriers; tidal backflow/high tailwater; erosion/scour; corrosion and deterioration.

POTENTIAL FUNDING SOURCES: Resilient Florida; FEMA mitigation programs; City General Capital Fund; Stormwater Utility funds for drainage, valves, storage and pumping; other eligible coastal-resilience programs.

ALIGNMENT WITH EXISTING PLANS

The City's CIP includes Seawall Rehab [07-946] for maintenance and reconstruction of approximately 2,000 LF of City-owned seawall, with about $700,000 programmed through the General Capital Fund (302). Adaptation work can be coordinated so future rehabilitation also addresses tidal-barrier elevation, structural condition, corrosion resistance, shoreline continuity, and drainage behind raised seawalls. The project also aligns with Broward County's Priority Planning Areas for Sea Level Rise, adopted February 23, 2021. The PPA identifies areas near or hydrologically connected to tidal water bodies at increased inundation risk under a 3.3-foot (40-inch) sea level rise scenario projected as soon as 2070; this is approximately 3.86 feet NAVD88 at the South Port Everglades tide station.

4.7 Water Storage/Parks: Utilizing Open Spaces & Parks as Water Storage Areas

LOCATIONS:

- Indian Mound Park
- Northeast 16th Street Park
- Scott A Winters Memorial Park
- Pompano Community Park
- North Riverside Park
- Annie Adderly Gillis Park
- Mitchell/Moore Park and Recreation Center
- Coleman Park
- Norwood Pines Park
- Fairview Park
- Oceanside Park
- McNab House and Botanical Gardens
- Hillsboro Inlet Park
- Novelty Park
- Hunters Manor Park
- Alsdorf Park
- Citywide Swales, and regional coordination with the C-51 Reservoir.

NEED

- Additional stormwater storage and improved drainage in flood-prone areas where existing systems have limited capacity during severe rainfall and compound flood events
- Opportunities to reduce localized flooding while maintaining the normal recreational and community functions of City parks and open spaces

ADAPTATION STRATEGY

- Use selected parks, open spaces, and swales as temporary stormwater storage through floodable landscapes, shallow storage, bioswales, grading, and drainage improvements
- Tailor improvements to site conditions and flood source, with coastal parks coordinated with shoreline, backflow, utility, and water-access resilience measures

PROJECT DESCRIPTION

This project aims to establish a distributed water-storage strategy that uses selected City parks, open spaces, and swales as temporary storage during severe rainfall and compound flood events while maintaining their recreational and community functions during normal conditions. Many of the identified parks are vulnerable under 100-year rainfall, 100-year rainfall + 100-year storm

surge, 500-year rainfall, and 500-year rainfall + 500-year storm surge, with several assets reaching High vulnerability.

Adaptation measures are tailored to each site's function, available open area, flood source, and surrounding infrastructure. Larger parks such as Pompano Community Park, Mitchell/Moore Park, Fairview Park, McNab Park, and Hunters Manor Park provide opportunities for broad shallow floodable lawns, depressional storage, bioswales, or subsurface storage beneath parking or recreational areas. Smaller neighborhood parks such as Indian Mound Park, Northeast 16th Street Park (currently under improvements), Scott A. Winters Memorial Park, North Riverside Park, Annie Adderly Gillis Park, Coleman Park, Norwood Pines Park, and Novelty Park may be better suited to localized grading, rain gardens, perimeter bioswales, and tree trenches. Citywide swales are treated as part of the same stormwater storage system through restoration of proper grading, removal of obstructions, increased maintenance, and expansion where right-of-way allows. City's Public Works staff specifically identified reshaping swales as a relatively straightforward action that can substantially improve localized drainage.

Coastal parks require a different approach. Oceanside Park, Hillsboro Inlet Park, and Alsdorf Park are influenced primarily by storm surge, tidal conditions, or compound coastal flooding. At these locations, floodable landscape areas can provide temporary storage, but adaptation also aims to address shoreline and seawall conditions, salt-tolerant vegetation, backflow prevention, protection of docks or water-access infrastructure, elevated electrical systems, and post-storm access. At Oceanside Park, living shorelines and adaptive elements might be implemented, which could offer public- private investment opportunities. Seawall improvements are proposed at Hillsboro Inlet Park and Alsdorf Park and the boat ramp and waterfront-resilience improvements identified in the relevant project sheet should be coordinated to provide comprehensive flood resilience at these parks.

McNab Park is a strong pilot location for stormwater and green infrastructure improvements because it is vulnerable under multiple rainfall and storm surge conditions, including high vulnerability during severe events. The park provides an opportunity to incorporate localized stormwater features such as bioswales, rain gardens, enhanced landscaping, and other LID measures while maintaining its recreational function. These improvements can provide temporary runoff storage, improve infiltration, and reduce runoff entering the surrounding drainage system.

Park



Figure 5 Example Conceptual Design at McNAB Park with Floodable Park and Rain Garden Elements

The project also considers the relationship between local storage and regional water-management investments. The project team identified C-51 Reservoir as part of the water-storage strategy and noted that regional storage can reduce pressure on local systems by retaining wet-season water that would otherwise be discharged eastward. Pompano Beach has a contractual allocation of 2 million gallons per day (MGD) from Phase I of the C-51 Reservoir, and Broward County's FY2026 materials indicate that Phase I is complete and fully allocated. The reservoir was developed to capture excess wet-season freshwater, store it, and make it available through the regional system for aquifer recharge and water-supply use; it also provides benefits related to reduced harmful coastal discharges and saltwater-intrusion management.

PRIMARY HAZARDS AND CONCERNS: Extreme rainfall; storm surge; tidal flooding; compound flooding; high groundwater; reduced drainage capacity; long-term water-supply stress

PROJECT BENEFITS:

- Reduced peak runoff
- Additional flood storage
- Reduced roadway flooding
- Improved stormwater quality
- Urban heat reduction
- More resilient parks
- Expanded green infrastructure
- Habitat and canopy benefits

ALIGNMENT WITH EXISTING PLANS:

2025 City of Pompano Beach Vulnerability Assessment, Broward County Resilience Plan, Broward County LMS

4.8 Beach Access and Street-End Surge Protection

LOCATIONS:

- NE 10th Street Beach Access
- SE 8th Street Beach Access
- SE 12th Street Beach Access
- Citywide public beach-access/dune system

Need

- Reduce storm-surge pathways through public beach-access openings and adjacent street ends
- Maintain public beach access and dune function while improving protection of nearby roads, drainage, and surrounding areas

Adaptation Strategy

- Restore and reshape dunes and beach-access paths to reduce direct ocean-to-street surge pathways
- Coordinate dune improvements with deployable barriers, street-end drainage, and adaptable coastal design measures

Project Description

This project reduces the ability of storm surge to move through public beach access openings and propagate inland along adjacent streets, while preserving public beach access and existing dune function. The three locations were selected through the Adaptation Plan screening and team review as locations where the access configuration, adjacent roadway, and dune system create opportunities for targeted surge protection. The project treats the beach access, dune, street end, and nearby drainage as one interconnected system, rather than adapting the pedestrian access point in isolation. The resilience issue near beach access points is often not loss of the beach access itself, but the access opening acting as a pathway for surge into the roadway and surrounding neighborhood.

City's Public Works staff identified restoration of dunes at City beach-access points as an ongoing priority and noted that many dune areas have eroded landward over time. The City has successfully pursued Broward County funding for dune restoration, but the City does not currently have a comprehensive dune master plan. This project proposes to establish a **Pompano Beach Dune Master Plan** that documents existing dune elevations, widths, vegetation, access openings, erosion conditions, ownership, permitting constraints, and locations where low points or direct street alignments create pathways for storm surge.

At locations where an access opening creates a direct line from the ocean to the street, the project incorporates angled dune entrances or a short dune "cap" across the street-end alignment, so surge does not have a direct pathway inland. This geometry is identified as a way to interrupt surge propagation while maintaining pedestrian access. SE 12th Street was noted as having particularly direct access between the beach and roadway, making access geometry an important component of the strategy.

Street-end improvements also increase the ability of the area to recover after coastal flooding through pervious pavement, localized storage, grading, and improved drainage connections. Deployable or temporary flood barriers provide an additional layer of protection at selected access or roadway openings during major storm-surge events. At SE 8th Street, the strategy also incorporates the adjacent open-space/floodable-park concept and a deployable barrier near the Briny Avenue intersection to reduce inland surge propagation while allowing the area to function normally outside of storm events.

The project also establishes an adaptive design standard for future sea level rise and changing storm frequency. Beach-access and dune designs incorporate current conditions together with the City's sea level rise and storm surge scenarios so improvements can be incrementally modified as coastal conditions change. The City's 2025 Vulnerability Assessment notes that higher baseline sea levels increase storm-surge elevations and that changing storm characteristics influence future surge exposure. Broward County's mitigation strategy likewise supports dynamically adaptive management, resilient design standards, maintenance of beaches, and incorporation of combined sea level rise and storm-surge impact into adaptation planning.

As part of the project, the City can prepare standard adaptable design details and permit-ready concepts for dune restoration, access realignment, dune caps, temporary flood barriers, vegetation, and associated street-end drainage. Design elevations, dune geometry, access configurations, and deployment thresholds are periodically updated as sea level rise projections, observed erosion, and storm frequency change. Permit strategies and existing authorizations are updated in parallel so the City can implement additional dune restoration or modify access configurations without restarting coastal permitting from the beginning after each major storm or change in design criteria. Activities seaward of the Coastal Construction Control Line require coordination with the Florida Department of Environmental Protection, making early design and permitting coordination an important component of implementation.

Adaptation Approach

- **Develop a Citywide Dune Master Plan**
  - Map dune elevations, widths, vegetation, erosion areas, access openings, ownership, and low points along the City shoreline. Establish target dune geometry and continuity at public beach-access locations and identify priority restoration reaches based on storm-surge pathways, erosion, public infrastructure, and access needs.
  - Restore dune elevation and continuity at the three public access points using compatible beach sand and native dune vegetation. Reinforce low or eroded areas that provide preferential pathways for surge while maintaining public access.
- **Redirect Surge at Beach Openings**
  - Reconfigure access paths so the pedestrian opening is not aligned directly with the street. Angled entrances and short dune caps interrupt direct ocean-to-road surge pathways while maintaining access to the beach. This concept came directly from the project-team review of the beach-access locations.
- **Deployable Surge Barriers**
  - Install connection points or deployable barriers at selected street-end/access openings for use before major surge events. The barriers supplement the dune system where permanent closure of an access opening is not practical.
- **Implement Adaptive Design for Sea Level Rise and Storm Frequency**
  - Establish adaptable dune elevations, widths, access geometry, and flood-barrier details based on current conditions and future sea level rise/storm-surge scenarios. Update design criteria as monitoring, observed conditions, and regional projections change.

- **Improve Street-End Drainage and Permeability**
  - Increase pervious surface, provide localized storage, adjust grading, and improve drainage at the landward side of each access. These measures reduce ponding and support faster drainage after overtopping or surge exposure. In addition to the dune, adapt the adjacent road and drainage system.
- **Maintain Permit-Ready Designs**
  - Develop standard coastal design details and coordinated permit packages for dune restoration, access realignment, vegetation, temporary flood barriers, and related drainage improvements. Maintain and amend designs and permit authorizations as coastal conditions and adaptation thresholds change.
- **Integrate Open-Space Storage at SE 8th Street**
  - Use available open space near the SE 8th Street access as a floodable landscape area that temporarily accepts coastal or rainfall runoff. Coordinate the storage area with the Briny Avenue barrier and street drainage so the improvements function as a combined surge-and-drainage system.

PRIMARY HAZARDS: Storm surge

PROJECT BENEFITS

- Reduced inland surge propagation
- Improved dune resilience
- Reduced roadway flooding
- Protected public beach access
- Faster post-storm drainage
- Reduced erosion at access openings
- Expanded coastal green infrastructure
- Improved coordination of dunes, roads, and drainage

PRIORITY / SEQUENCING

Advance the three sites under one survey/concept package. Evaluate SE 8th first for the floodable-forecourt/barrier concept; NE 10th as a compact dune-throat retrofit; and SE 12th as a combined dune-access, parking and recreational-use retrofit.

ALIGNMENT WITH EXISTING PLANS

Related CIP coordination opportunities include A1A Improvements (about $8.47 million), Oceanside Garage (about $28.85 million), completed Beach Lifeguard Towers/Headquarters Renovation, and Bay Drive Neighborhood Stormwater Improvements (about $4.29 million). These are related-program budgets, not assigned costs for this proposed beach-access project.

POTENTIAL FUNDING SOURCES

FDEP Resilient Florida and eligible beach/coastal-management programs; FEMA hazard-mitigation programs subject to current eligibility; City parks, transportation, stormwater and capital funds; other eligible coastal-resilience grants; Broward County Dune restoration/revegetation grants for public and private investments.

4.9 Public Boat Ramp and Water Access Resilience Improvements

LOCATIONS: Hillsboro Inlet Park Boat Ramp (2700 N Ocean Boulevard), Alsdorf Park Boat Ramp (2974 NE 14th St Causeway), SE 13th Street Park Pier (2596 SE 13th St)

NEED

- Reliable boat, vehicle, and pedestrian access at Hillsboro Inlet Park (located directly along the inlet near the bridge), and Alsdorf Park (adjacent to ICWW), when coastal and compound flooding affects the ramp, docks, parking, and trailer staging areas
- Protection of docks, utilities, electrical equipment, and shoreline infrastructure to support post-storm reopening

ADAPTATION STRATEGY

- Improve site drainage and access and retrofit docks and boarding structures with adaptable or floating systems where appropriate
- Elevate or floodproof utilities and electrical equipment, use corrosion-resistant materials, and coordinate seawall or shoreline improvements with planned park projects

PROJECT DESCRIPTION

Public boat ramps provide important recreational and water access and are closely connected to surrounding parks, parking and staging areas, docks, and roadway access. The Hillsboro Inlet Park Boat Ramp, Alsdorf Park Boat Ramp and SE 13th St Park Pier are identified as vulnerable across multiple flood scenarios, indicating that rainfall, elevated coastal water levels, and compound flooding may affect the ramp and surrounding park access.

This project would evaluate flood resilience needs at listed boat ramps. The evaluation should consider ramp and dock elevations, shoreline and seawall conditions, site drainage, parking and trailer staging areas, utilities and electrical equipment, and connections to surrounding park and roadway access. Where vulnerabilities are identified, potential improvements may include site drainage and access improvements, adaptable or floating dock systems, reinforcement of docks and boarding structures, elevation or floodproofing of vulnerable electrical and utility components, use of flood- and corrosion-resistant materials, and shoreline or seawall improvements. Living shoreline or hybrid shoreline treatments may also be considered where compatible with boating access and site conditions.

Boat ramps are water-dependent infrastructure. Adaptation improvements should therefore focus on enhancing the resilience of supporting infrastructure, maintaining park and water access, and supporting efficient post-storm recovery.

PRIMARY HAZARD (S): Extreme rainfall; tidal flooding; sea level rise; storm surge; compound flooding

ALIGNMENT WITH EXISTING PLANS:

Hillsboro Inlet Park Improvements [23-PR-002]: The City's CIP includes approximately $1.1 million for improvements at Hillsboro Inlet Park, including dock-related fencing and railing modifications to improve vessel access. Seawall repair and construction improvements are also

planned or underway. Proposed boat ramp resilience and stormwater discharge improvements should be coordinated with the seawall project and other ongoing waterfront improvements to provide an integrated approach to shoreline protection, drainage, and public access.

Hillsboro Inlet Discharge Improvement Project [24-PW-002]: The CIP also includes design and permitting to extend the jetty at Hillsboro Inlet to reduce turbidity at the beach and shoreline. While the project does not directly address boat ramp flooding, coordination should consider the relationship among inlet, shoreline, park, and water-access improvements.

4.10 Water Supply: Reuse Expansion, Wellfield Protection, and Regional Water Supply Coordination

LOCATION: Citywide

NEED

- Protect the City's long-term potable water supply and wellfield as saltwater intrusion, drought, changing rainfall patterns, and groundwater conditions affect the availability and reliability of the Biscayne Aquifer
- Maintain a reliable and resilient water supply by providing flexibility to respond to changing water demands, source-water conditions, and future climate conditions

ADAPTATION STRATEGY

- reclaimed-water use and water conservation to reduce potable-water demand and extend the beneficial use of the Biscayne Aquifer
- Protect the City's wellfield through groundwater and source-water monitoring and coordinated management of potential saltwater intrusion and other threats to water quality and availability
- Maintain treatment and operational flexibility to respond to changing source-water conditions and water-supply demands
- Coordinate with regional water-supply partners on alternative water-supply, storage, and interconnection opportunities that improve long-term supply reliability and redundancy

PROJECT DESCRIPTION

The Water Supply Resilience Project aims to protect Pompano Beach's long-term drinking-water supply through wellfield protection, reclaimed-water expansion, water conservation, source-water monitoring, treatment flexibility, and water-supply coordination. The project is intended to maintain the reliability of the City's water-supply system as saltwater intrusion, drought, changing rainfall patterns, groundwater conditions, and changing water demands affect the availability and quality of the City's source water.

During the interview with the City's Utilities Department, staff identified the reclaimed-water system as an important adaptation measure for reducing potable-water demand and supporting protection of the eastern Biscayne wellfield from saltwater intrusion. Staff reported that the existing strategy has been successful and identified expansion of the reclaimed-water system north and south of the existing service area and farther west, including areas beyond the current service area east of Dixie Highway, as a priority. Expanding reclaimed-water availability in these

areas would reduce reliance on potable water for irrigation and support the City's long-term wellfield-protection strategy.

Staff also emphasized maintaining the eastern wellfield for as long as practicable while continuing to improve the resilience and flexibility of the City's water-supply and treatment system. This includes continued monitoring of source-water conditions, water conservation, treatment flexibility as source-water conditions change, and coordination on water-supply interconnections and other opportunities that improve long-term reliability and redundancy. These strategies should be implemented in coordination with the City's Water Supply Facilities Work Plan to maintain consistency with the City's planned water-supply improvements and long-term water-supply needs.calls.

Adaptation Approach

- **Expand Reclaimed Water for Wellfield Protection**
  - Expand the OASIS reclaimed-water network north and south of the existing system and farther west, including areas beyond the current service area east of Dixie Highway, consistent with the direction provided by Utilities staff. Prioritize large irrigation users, parks, public facilities, commercial properties, and other users capable of replacing potable irrigation demand.
  - Incorporate reclaimed-water transmission, pumping, storage and treatment improvements needed to expand service and reinforce the freshwater conditions that protect the eastern wellfield. Utilities staff specifically identified this system as a successful saltwater-intrusion adaptation measure.
  - Pair reuse expansion with leak reduction, smart irrigation, water audits, efficient fixtures and other measures that reduce potable demand and extend existing source capacity. Pompano's Sustainability Project Portfolio established a long-term goal of reducing potable-water use by 40% from the 2019 baseline by 2050.
- **Develop Beneficial Aquifer Recharge / ASR Capacity**
  - Evaluate opportunities for beneficial aquifer recharge and/or Aquifer Storage and Recovery (ASR) where technically feasible and consistent with the City's long-term water-supply planning. Evaluation should consider hydrogeologic conditions, source-water quality, treatment requirements, regulatory requirements, operational needs, and potential benefits to water-supply resilience.
  - Potential source waters may include appropriately treated reclaimed water, captured stormwater, or other alternative water supplies. Further feasibility evaluation would be required to determine appropriate sources, locations, treatment requirements, and potential implementation.
- **Coordinate Reuse and Water-Supply Strategies**
  - Coordinate reclaimed-water expansion with the City's long-term water-supply and wastewater planning to identify opportunities to maximize beneficial reuse, reduce potable-water demand, and support protection of the City's wellfields.
  - Evaluate opportunities to increase beneficial use of available water resources, considering feasibility, water quality, regulatory requirements, infrastructure needs, and long-term costs.

- **Protect and Monitor the Biscayne Wellfield**
  - Expand chloride/salinity, groundwater-level, and water-quality monitoring around the City's vulnerable source-water areas and integrate available regional monitoring data to track changing groundwater conditions and saltwater intrusion.
  - Use monitoring results to inform wellfield operations, pumping strategies, source-water management, and the timing of future capital improvements needed to maintain long-term source-water reliability.
- **Strengthen Regional Potable-Water Interconnections**
  - Inspect, hydraulically test, rehabilitate, meter, and, where warranted, increase the capacity of potable-water interconnections with neighboring utilities to improve system redundancy and emergency water-supply capability.
  - Establish and periodically update operating protocols for droughts, treatment outages, contamination events, and other supply emergencies. Coordinate interconnection planning with neighboring utilities as part of the City's long-term water-supply resilience strategy.
- **Maintain Treatment and Source Flexibility**
  - Integrate the City's planned nanofiltration improvements with long-range source-water planning so the system can accommodate changes in raw-water quality and, if ultimately necessary, greater use or blending of alternative sources such as the brackish Floridan Aquifer. Maintaining the Biscayne source for as long as feasible remains valuable because Floridan water has higher chloride concentrations and generally requires more energy-intensive treatment.
- **Integrate C-51 and Regional Storage Opportunities**
  - Continue evaluating regional storage and alternative-water-supply opportunities, including the C-51 Reservoir, where they could improve dry-season water availability, system redundancy, or long-term water-supply reliability.
  - Coordinate with SFWMD and other appropriate regional partners as opportunities develop to determine feasibility, infrastructure requirements, costs, and potential benefits to the City.
- **Integrate Water Supply into Consumptive Use Permit and Capital Planning**
  - Incorporate selected reuse, recharge, interconnection, treatment, conservation, and alternative-water-supply projects into the City's long-term water-supply planning, Capital Improvement Program, and applicable Consumptive Use Permit activities.
  - Coordinate project timing, permitting, funding, and implementation with the City's Water Supply Facilities Work Plan so adaptation investments remain consistent with planned water-supply improvements and long-term water-supply needs.

KEY PARTNERS: Broward County Water and Wastewater Services, South Florida Water Management District (SFWMD), FDEP, neighboring water utilities

PRIMARY HAZARDS: Sea level rise-driven saltwater intrusion; drought and water shortage; changing rainfall patterns; rising groundwater; water-quality degradation; disruption of potable-water supply

Project Benefits

- Protect freshwater supply,
- Reduce potable demand
- Increase supply redundancy
- Improve water-supply reliability
- Increase alternative supply
- Improve drought resilience
- Reduce treatment burden
- Improve regional resilience
- Advance water conservation

Potential Funding Sources:

- **SFWMD Cooperative Funding Program – Alternative Water Supply** – Reclaimed-water expansion, aquifer storage and recovery, brackish-water wells, reverse osmosis treatment, and related alternative water supply infrastructure.
- **Florida Department of Environmental Protection (FDEP) Drinking Water State Revolving Fund (SRF)** – Potable-water treatment, interconnections, source-water protection, and other drinking-water system improvements.
- **FDEP Clean Water SRF** – Reclaimed-water and wastewater-side improvements that support reuse expansion.
- **U.S. Environmental Protection Agency (EPA) Water Infrastructure Finance and Innovation Act (WIFIA) Program** – Large bundled water infrastructure programs involving treatment, interconnections, reuse, wastewater, and stormwater improvements.
- **Broward County IWRP / Regional Cost Share** – Recharge, reuse, regional utility sharing, and alternative water-supply projects.
- **State Appropriations / Legislative Funding** – Interconnections, reuse-system expansion, and major utility capital improvements.
- **Utility Capital Improvement Program (CIP)** Local funding may support utility infrastructure improvements. Connection-fee revenue is expected to be limited because most identified needs relate to existing system conditions, and projected growth is approximately 1% annually.
- **Resilient Florida Program** – Potential fit for project components with demonstrated flood or sea level rise risk to critical water infrastructure

5. CONCLUSIONS

This draft Adaptation Plan translates the City's vulnerability findings, staff knowledge, existing plans, and capital initiatives into a portfolio of implementation-oriented projects. The project sheets address critical facilities and emergency access, bridges, lift stations, stormwater and drainage systems, City-owned roadways and seawalls, parks and distributed storage, beach and water-access facilities, and long-term water-supply resilience. Together, they provide a framework for moving from vulnerability identification toward project development and implementation.

A central finding of the planning process is that adaptation projects should not be developed in isolation. Roadway performance depends on adjacent drainage systems, canals, outfalls, seawalls, and groundwater conditions. Protection of fire stations, City Hall, bridges, and lift stations depends not only on the resilience of the facility itself, but also on reliable access, power, communications, and supporting infrastructure. Similarly, raising seawalls or installing backflow controls must be coordinated with landward drainage, storage, and pumping so that rainfall is not trapped behind protective barriers. The project sheets therefore emphasize coordinated improvements that address flood pathways, infrastructure dependencies, and continuity of service.

The recommended strategies include improvements that can be incorporated into existing capital and maintenance programs, as well as larger investments that will require additional planning and coordination. Potential measures include restoring swales and existing drainage features, protecting vulnerable electrical and control equipment, improving emergency access and operational continuity, expanding stormwater storage, strengthening shoreline protection, improving utility resilience, and coordinating long-term water-supply initiatives. Many of these measures can build on projects already planned or underway, allowing the City to incorporate resilience into future infrastructure, redevelopment, maintenance, and rehabilitation activities.

The project sheets establish the preliminary portfolio of adaptation projects that will be further developed through the final Adaptation Plan. The next phase will refine and prioritize the projects, develop planning-level cost estimates, identify potential funding sources, and establish recommended implementation timeframes and sequencing. This additional evaluation will consider the urgency of each need, benefits to critical services and infrastructure, project readiness, coordination with existing capital investments, and opportunities for projects to address multiple connected systems.

The final Adaptation Plan will provide the City with a practical roadmap for advancing the recommended strategies through capital planning, maintenance programs, redevelopment initiatives, operational procedures, regional coordination, and grant funding. This coordinated approach will allow Pompano Beach to build on its existing investments while progressively improving infrastructure performance, maintaining essential services, and strengthening the City's ability to prepare for and respond to changing flood conditions.

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7. APPENDIX A

Table of Vulnerable Assets & Adaptation Strategies

Note: This appendix reflects the preliminary project list and does not account for projects that have since been completed or removed.

Map ID	Asset Name	Street Address	Neighborhood	Project Category	Need for Adaptation / Issue	Adaptation Strategy
1	NE 10th Street Beach Access	Street end of NE 10th	Beach	Beach Access	Prevent storm surge propagation	Dune improvement, angle dune entrance, temporary surge barrier, improved street permeability
2	SE 8th Street Beach Access	Street end of SE 8th	Beach	Beach Access	Prevent storm surge propagation	Floodable park, flood barrier at Briny Ave intersection
3	SE 12th Street Beach Access	Street end of SE 12th	Beach	Beach Access	Prevent storm surge propagation	Angle dune entrance, temporary surge barrier, improved street permeability
4	Hillsboro Inlet Park - Boat Ramp	2700 N Ocean Blvd	Hillsboro Shores	Boat Ramps	Rainfall, tidal flooding, storm surge	Install adaptable or floating docks, use flood- and corrosion-resistant materials, repair nearby seawalls (CIP project)
5	Alsdorf Park Boat Ramp	2974 NE 14th St Causeway	Avalon Harbor	Boat Ramps	Storm surge impacts	Upgrade with flood- and corrosion-resistant materials, raise and maintain nearby seawalls
6	SE 13th Street Park Pier	2596 SE 13th St	Santa Barbara Shores	Boat Ramps	Storm surge impacts	Upgrade with flood- and corrosion-resistant materials, raise and maintain nearby seawalls
7	SE 9th Ave North Bridge	1000 SE 9th Ave	Cypress Cove	Bridges	Tidal flood overtopping	Temporary tidal flood barriers, improve bridge approach drainage, high-water inspection and closure thresholds
8	SE 9th Ave South Bridge	1011 SE 9th Ave	Cypress Cove	Bridges	Tidal flood overtopping	
9	COPB Fire Station 63	120 SW 3 Street	Lyons Park	Critical Buildings	Access issues during severe storms	Design replacement for future flood conditions; elevate critical building systems; improve resilient site drainage
10	COPB Fire Station 11	109 N Ocean Blvd	Beach	Critical Buildings	Access issues during severe storms	
11	COPB Fire Station 114	1499 SW 36 Avenue	Palm Aire	Critical Buildings	Access issues during severe storms	Asset itself is built resilient. Improve nearby roadway access; coordinate nearby drainage improvements; maintain emergency access during flooding
12	City Hall	100 W Atlantic Blvd	Civic Campus	Critical Buildings	Access issues during severe storms	
13	NE 2nd Street Improvements	NE 2nd Street & N Riverside Dr	Beach	Stormwater & Roadway Drainage	Tidal overtopping, rainfall	Raise City-owned seawall, improve inlet and roadside drainage
14	Reuse System NE Expansion Phase 1	Near 2400 NE 16th St	Avalon Harbor	Stormwater & Roadway Drainage	Service continuity concerns during severe storms	Protect valves and improve valve access, and coordinate with roadway drainage work.
15	Gateway Drive Stormwater Improvements	Gateway Drive & SW 30th Ave	Palm Aire	Stormwater & Roadway Drainage	Frequent flooding	Restore swales and exfiltration, and maintain controlled discharge to the C-14 Canal
16	Pompano Beach SR-A1A Water Main Improvements	SR A1A & Dow St Intersection	Hillsboro Shores	Stormwater & Roadway Drainage	Frequent flooding	Protect valves and improve valve access
17	SW 2nd St Stormwater Improvements	SW 2nd St & SW 1st Ave	Garden Isles	Stormwater & Roadway Drainage	Frequent flooding	Repair existing drainage, add backflow protection and storage, and consider pumping
18	Exfiltration Trenches	City-wide	City-wide	Stormwater & Roadway Drainage	Standing water	Rehabilitate existing trenches and add new exfiltration based on site conditions
19	NE 3rd Avenue Stormwater Improvements	NE 3rd Avenue near E Copans Rd	Kendall Green	Stormwater & Roadway Drainage	Frequent rainfall flooding	Add inlets and exfiltration, regrade swales, and connect to the NE 10th Street drainage system.
20	Canals	City-wide	City-wide	Stormwater & Roadway Drainage	Overtopping during high tide and severe storms	Maintain canal drainage and add backflow protection or pumping where needed.
21	Study Area 15: Powerline Road / NW 33rd	Powerline Road / NW 33rd	Northwest Pompano	Stormwater & Roadway Drainage	Standing water	Add shallow exfiltration/storage and improve swales
22	Study Area 19: NE 10th St / Dixie	NE 10th St / Dixie	Old Pompano	Stormwater & Roadway Drainage	Standing water	Add shallow exfiltration and regrade swales
23	Study Area 20: US-1 / SE 15th Street	US-1/ SE 15th Street	Santa Barbara Shores	Stormwater & Roadway Drainage	Standing water	Rehabilitate and expand exfiltration, and regrade swales.
24	Study Area 25: SE 15th Avenue	SE 15th Avenue	Old Pompano	Stormwater & Roadway Drainage	Standing water	Upgrade outfall pipes, regrade swales, and add backflow protection.
25	Gravity Mains	City-wide	City-wide	Wastewater	Infiltration due to standing water	Reduce infiltration/inflow and restore sewer capacity through targeted rehabilitation.

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26	Lift Station 10	3401 Spring St	Hillsboro Shores	Wastewater	Tidal Flooding (shoreline overtopping); 100-year surge flooding	Raise or floodproof electrical and control equipment, improve site drainage, and protect the station with local barriers against tidal flooding
27	Lift Station 11	1201 N Riverside Dr	Beach	Wastewater	Tidal Flooding (shoreline overtopping); 100-year surge flooding	
28	Lift Station 20	3212 SE 6th St	Beach	Wastewater	100-year surge flooding; potential increased volumes due to infiltration in tidal zone	Raise or floodproof electrical and control equipment, seal openings, improve site drainage, reduce infiltration, and provide backup power and bypass pumping.
29	Lift Station 21	1239 Hibiscus Ave	Beach	Wastewater	Tidal Flooding	Improve site drainage and backflow protection, and raise or floodproof electrical and control equipment
30	Lift Station 30	2710 NE 24th St	Avalon Harbor	Wastewater	Tidal Flooding	Improve site drainage and raise or floodproof electrical and control equipment during upgrades
31	Lift Station 31	2734 NE 23rd Ct	Avalon Harbor	Wastewater	Tidal Flooding	Raise or floodproof electrical and control equipment during future upgrades
32	Lift Station 33	1450 NE 27 Ave	Avalon Harbor	Wastewater	Rainfall, Storm Surge	Improve site drainage for storm surge, and provide backup power and bypass pumping.
33	Lift Station 34	1200 NE 28th Ave	Avalon Harbor	Wastewater	Rainfall, Storm Surge	
34	Lift Station 35	1031 NE 27th Ter	Avalon Harbor	Wastewater	Tidal Flooding	Raise or floodproof electrical and control equipment during future upgrades.
35	Lift Station 36	2750 NE 9th St	Avalon Harbor	Wastewater	Tidal Flooding	
36	Lift Station 37	2601 NE 1st St	Harbor Village	Wastewater	Tidal Flooding	
37	Lift Station 40	2792 SE 3rd St	Santa Barbara Estates	Wastewater	Tidal Flooding, standing water	Floodproof electrical and control equipment, improve site drainage, add backflow protection, and provide backup power and bypass pumping
38	Lift Station 41	601 SE 25th Ave	Santa Barbara Estates	Wastewater	Tidal Flooding, standing water	
39	Lift Station 42	2345 SE 8th St	Santa Barbara Shores	Wastewater	Tidal Flooding, standing water	
40	Lift Station 43	2225 SE 8th Ct	Santa Barbara Shores	Wastewater	Rainfall, Storm Surge	Improve site drainage and raise or floodproof electrical and control equipment during upgrades
41	Lift Station 44	1200 S Federal Hwy	Santa Barbara Shores	Wastewater	Rainfall, Storm Surge	
42	Lift Station 50	1799 N Federal Hwy	Pompano AirPark	Wastewater	Rainfall, Storm Surge	
43	Lift Station 51	2001 NE 10th St	Old Pompano	Wastewater	Rainfall, Storm Surge	
44	Lift Station 60	651 Pine Dr	Snug Harbor	Wastewater	Tidal Flooding, Rainfall, Storm Surge	Improve site drainage and backflow protection, and raise or floodproof electrical and control equipment.
45	Lift Station 61	2000 SE 5th Ct	Snug Harbor	Wastewater	Tidal Flooding, Rainfall, Storm Surge	Improve site drainage and raise or floodproof electrical and control equipment during upgrades
46	Lift Station 62	151 SE 5th Ct	Garden Isles	Wastewater	Rainfall and Storm Surge	Improve site drainage and raise or floodproof electrical and control equipment during upgrades
47	Lift Station 63	501 SE 5th Ter	Garden Isles	Wastewater	Tidal Flooding and Storm Surge	Raise or floodproof electrical and control equipment during future upgrades.
48	Lift Station 64	950 SE 9th Ave	Cypress Cove	Wastewater	Tidal Flooding, Rainfall, Storm Surge	Improve site drainage and raise or floodproof electrical and control equipment during upgrades
49	Lift Station 65	651 SE 10th St	Cypress Cove	Wastewater	Tidal Flooding, Rainfall, Storm Surge	
50	Lift Station 66	950 SE 12th St	Cypress Cove	Wastewater	Tidal Flooding, Rainfall, Storm Surge	Improve site drainage and raise or floodproof electrical and control equipment.
51	Lift Station 67	10 SE 12th St	Garden Isles	Wastewater	Tidal Flooding, Rainfall, Storm Surge	
52	Lift Station 68	495 SE 15th St	Cypress Cove	Wastewater	Tidal Flooding, Rainfall, Storm Surge	
53	Lift Station 70	100 SW 2nd St	Lyons Park	Wastewater	Tidal Flooding, Rainfall, Storm Surge	
54	Lift Station 72	300 SW 9 St	Lyons Park	Wastewater	Tidal Flooding, Rainfall, Storm Surge	Improve site drainage and raise or floodproof electrical and control equipment during upgrades
55	Lift Station 73	699 SW 15th St	Lyons Park	Wastewater	Tidal Flooding, Rainfall, Storm Surge	
56	Lift Station 92	901 SW 13th Ct	South Dixie	Wastewater	Tidal Flooding, Rainfall, Storm Surge	

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57	Lift Station 111	1261 SW 3rd St	Andrews Industrial District	Wastewater	Tidal Flooding, Rainfall, Storm Surge	
58	Lift Station 107	299 NW 16th Ave	Old Collier	Wastewater	Tidal Flooding, Rainfall, Storm Surge	Improve site drainage and backflow protection, and raise or floodproof electrical and control equipment.
59	Indian Mound Park	1232 Hibiscus Ave	Beach	Water Storage/Parks	Use as water storage area during severe storms	Localized floodable lawn; perimeter bioswales; flood-tolerant landscaping
60	Northeast 16th Street Park	NE 16th St & N Riverside Dr	Beach	Water Storage/Parks	Use as water storage area during severe storms	Shallow landscape storage; salt-tolerant planting. Ongoing drainage improvements
61	Scott A Winters Memorial Park	1199 N Riverside Dr	Beach	Water Storage/Parks	Use as water storage area during severe storms	Floodable open space; bioswales; elevate/protect sensitive park equipment
62	Pompano Community Park	1660 NE 10th St	Old Pompano	Water Storage/Parks	Use as water storage area during severe storms	Large-area floodable park storage; subsurface storage evaluation; controlled drainage
63	North Riverside Park	143 N Riverside Dr	Beach	Water Storage/Parks	Use as water storage area during severe storms	Raise seawall, floodable landscape areas; coordinate with NE 2nd St drainage improvements project
64	Annie Adderly Gillis Park	601 Martin Luther King Blvd	Blanche Ely	Water Storage/Parks	Use as water storage area during severe storms	Localized depressional storage; rain gardens; resilient recreational surfaces
65	Mitchell/Moore Park and Recreation Center	901 NW 10th St	Blanche Ely	Water Storage/Parks	Use as water storage area during severe storms	Multipurpose floodable fields; subsurface storage beneath paved areas; protect electrical/recreation equipment
66	Coleman Park	480 NW 7th Ter W	Blanche Ely	Water Storage/Parks	Use as water storage area during severe storms	Shallow floodable lawn; perimeter bioswales; improved site drainage
67	Norwood Pines Park	570 S Cypress Rd	Garden Isles	Water Storage/Parks	Use as water storage area during severe storms	Distributed landscape storage; rain gardens; resilient planting and park equipment
68	Fairview Park	801 SW 8th St	South Dixie	Water Storage/Parks	Use as water storage area during severe storms	Divert run-off from roads during heavy rain; floodable park basin; increase pervious area; controlled detention and discharge
69	Oceanside Park	109 N Ocean Blvd	Beach	Water Storage/Parks	Use as water storage area during severe storms	Floodable coastal landscape; salt-tolerant planting; protect electrical systems and coordinate shoreline protection, living shoreline elements for public-private investment
70	McNab House and Botanical Gardens	2250 E Atlantic Blvd	Santa Barbara Estates	Water Storage/Parks	Use as water storage area during severe storms	Shallow detention/floodable lawn; improve drainage to surrounding roads; evaluate subsurface storage
71	Hillsboro Inlet Park	2700 N Ocean Blvd	Hillsboro Shores	Water Storage/Parks	Use as water storage area during severe storms and high tide	Coastal floodable areas; backflow protection; shoreline/seawall coordination; resilient utilities and access
72	Avondale Park	225 SW 6th Ave	Avondale	Water Storage/Parks	Use as water storage area during severe storms	Depressional storage; bioswales; increased pervious area and controlled drainage
73	Novelty Park	351 NW 14th St	Blanche Ely	Water Storage/Parks	Use as water storage area during severe storms	Localized floodable lawn; rain gardens; improved drainage connections
74	Hunters Manor Park	1801 NW 4th St	Old Collier	Water Storage/Parks	Use as water storage area during severe storms	Floodable recreation areas; perimeter swales; detention and controlled release
75	Weaver Park	800 NW 20th St	Kendall Lake	Water Storage/Parks	Use as water storage area during severe storms and heavy rainfall	Pilot floodable park; broad shallow storage basins; bioswales; controlled conveyance; protect I-95 edge
76	Alsdorf Park	2901 NE 14th St	Avalon Harbor	Water Storage/Parks	Use as water storage area during severe storms	Floodable waterfront landscape; protect access/electrical systems; shoreline and dock coordination. Coordinate with FIND for adaptation against storm surge
77	Citywide Swales	City-wide	Palm Aire	Water Storage/Parks	Insufficient capacity	Regrading and expanding swales, increased maintenance frequency
78	Water Treatment Plant	301 NE 12th St	Pompano AirPark	Water Supply	Sea level rise; saltwater intrusion; drought and water shortage	Expand reclaimed water and aquifer recharge; protect wellfields from saltwater intrusion; strengthen regional interconnections and alternative water supply
79	Seawall at 1710 SW 1 Ave	1710 SW 1 Ave	Boulevard Park	Seawalls	Overtopping during high tide, sea level rise	Raise and rehabilitate seawall
80	Seawall at 1730 SW 1 Terr	1730 SW 1 Terr	Boulevard Park	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall
81	Seawall at 2000 SE 5 Ct	2000 SE 5 Ct	Snug Harbor	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall
82	Seawall at 210 SW 18 CT	210 SW 18 CT	Boulevard Park	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall

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83	Seawall at Alsdorf Park	2901 NE 14th St	Avalon Harbor	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall, coordinate efforts with boat ramp project (Map ID 5)
84	Seawall at Atlantic Bridge West Side	Near 3109 E Atlantic Blvd	Harbor Village	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall
85	Seawall at Bill Keith Park	220 NW 31st Ave	Snug Harbor	Seawalls	Overtopping during high tide, sea level rise	Raise and harden seawall for toe scour, living shorelines for surrounding canal banks that are non-seawalled
86	Seawall at E McNab Road Bridge	E McNab Road & Cypress Club Dr	Cypress Cove/Garden Isles	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall to prevent bridge overtopping
87	Seawall at Hillsboro Inlet Marina	2700 N Ocean Blvd	Hillsboro Shores	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall, coordinate efforts with boat ramp project (Map ID 4)
88	Seawall at Hillsboro Inlet Park	2700 N Ocean Blvd	Hillsboro Shores	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall, coordinate efforts with boat ramp project (Map ID 4)
89	Seawall at Lake Santa Barbara Park	2290 SE 7th St	Santa Barbara Estates	Seawalls	Overtopping during high tide, sea level rise	Reinforce seawall, allow overtopping during severe storm to use Lake Santa Barbara Park as temporary storage. Do not raise seawall to prevent diverting flooding to residential parcels
90	Seawall at Pompano Beach ROW	Near N Riverside Dr & NE 10th St	Avalon Harbor/ Beach	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall
91	Seawall at Public Land City of Pompano Beach	SE 21st Terrace, Near 868 S Federal Hwy	Santa Barbara Shores	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall
92	Seawall at S Cypress Road Bridge	S Cypress Road & Cypress Club Dr	Boulevard Park/Garden Isles	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall along with the private seawall at 1711 S Cypress Rd for continuity
93	Seawall at SE 11th Avenue Bridge	SE 11 Avenue Bridge & SE 6th Terrace	Garden Isles/Snug Harbor	Seawalls	Overtopping during high tide, sea level rise	Raise along with replaced bridge
94	Seawall at SE 13th Street Park	2596 SE 13th St	Santa Barbara Shores	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall, coordinate efforts with boat ramp project (Map ID 6)
95	Seawall at SE 22nd Avenue Bridge	Near 800 SE 22nd Avenue	Garden Isles/Santa Barbara Shores	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall to prevent bridge overtopping
96	Seawall at SE 8 Court Bridge	SE 8th Court & SE 22nd Ave	Santa Barbara Shores	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall to prevent bridge overtopping
97	Seawall at SE 9th Ave	SE 9th Ter & SE 12th St	Cypress Cove	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall
98	Seawall at SE 9th Ave Bridge North	1000 SE 9th Ave	Cypress Cove	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall to prevent bridge overtopping
99	Seawall at SE 9th Ave Bridge South	1011 SE 9th Ave	Cypress Cove	Seawalls	Overtopping during high tide, sea level rise	Raise the seawall to prevent bridge overtopping
100	NE 5th Ct, NE 5th St; NE 6th St; NE 7th St; NE 8th Ct; NE 9th St; NE 13th St; NE 14th St; NE 15th St; SE 6th St, SE 7th St, SE 8th St, and SE 12th St	Barrier Island / Intracoastal segments	Beach, Avalon Harbor, Harbor Village	Stormwater & Roadway Drainage	Tidal flooding, rainfall - proximity to ICWW and Atlantic Ocean	Upgrade roadway drainage and raise low seawall sections where canal or tidal overtopping occurs
101	NE 10th St	Barrier Island	Beach	Stormwater & Roadway Drainage	Tidal flooding, rainfall - proximity to ICWW and Atlantic Ocean	Improve roadway drainage and add temporary stormwater storage on-site
102	SE 12th St	Barrier Island	Beach	Stormwater & Roadway Drainage	Tidal flooding, rainfall - proximity to ICWW and Atlantic Ocean	Improve roadway drainage and add temporary stormwater storage on-site
103	NE 16th St	Barrier Island	Beach	Stormwater & Roadway Drainage	Tidal flooding, rainfall - proximity to ICWW and Atlantic Ocean	Upgrade outfall conditions, add pumped drainage
104	SE 4th St	Barrier Island	Beach	Stormwater & Roadway Drainage	Tidal flooding, rainfall - proximity to ICWW and Atlantic Ocean	Upgrade outfall conditions, add pumped drainage
105	SE 6th St; SE 7th St; SE 8th St	Barrier Island / Intracoastal segments	Beach	Stormwater & Roadway Drainage	Tidal flooding, rainfall - proximity to ICWW and Atlantic Ocean	Improve drainage and raise low seawall segments where overtopping occurs

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106	SE 9th St	Barrier Island / Intracoastal segments	Santa Barbara Shores, Beach	Stormwater & Roadway Drainage	Tidal flooding, rainfall - proximity to ICWW and Atlantic Ocean	Connect drainage system to the existing outfall and add backflow protection.
107	SE 10th St; SE 11th St	Barrier Island, Garden Isles, Cypress Cove	Barrier Island, Garden Isles, Cypress Cove	Stormwater & Roadway Drainage	Canal overtopping, seepage, high-tailwater	Raise private seawalls (public-private partnership), increase drainage capacity
108	NE 12th Ave; NE 11th Ave / NE 1st St area	Old Pompano	Old Pompano	Stormwater & Roadway Drainage	Insufficient drainage capacity	Improve inlet and drainage connections, land acquisition (NE 11th Ave) for detention pond
109	SW 10th St	Palm Aire & Lyons Park	Palm Aire & Lyons Park	Stormwater & Roadway Drainage	Insufficient drainage capacity	Stabilize the canal edge and improve roadway drainage
110	SW 14th Ave	Andrews Industrial District	Andrews Industrial District	Stormwater & Roadway Drainage	Insufficient drainage capacity	Upgrade drainage pipes and regrade swales
111	SW 14th St	Lyons Park	Lyons Park	Stormwater & Roadway Drainage	Insufficient drainage capacity	Upgrade drainage pipes and regrade swales
112	SE 2nd Ave	Garden Isles	Garden Isles	Stormwater & Roadway Drainage	Insufficient drainage capacity	Route runoff to Norwood Pines Park
113	SE 10th Ave	Garden Isles canal-side reaches	Garden Isles	Stormwater & Roadway Drainage	Canal overtopping	Raise private seawalls (public-private partnership), increase drainage capacity
114	SE 15th Ave	Snug Harbor	Snug Harbor	Stormwater & Roadway Drainage	Canal overtopping	Add pumped drainage
115	SE 10th Ct	Cypress Cove	Cypress Cove	Stormwater & Roadway Drainage	Canal overtopping	Add pumped drainage
116	NW 10th St; NW 11th St	Blanche Ely inland reaches	Blanche Ely inland reaches	Stormwater & Roadway Drainage	Insufficient drainage capacity	Route runoff to nearby open parcels, land acquisition for retention pond
117	NW 10th Ave	Blanche Ely, adjacent to I-95/FDOT canal	Blanche Ely, adjacent to I-95 FDOT canal	Stormwater & Roadway Drainage	Canal overtopping, rainfall	FDOT coordination, local drainage/storage
118	NE 23rd Ave; NE 26th Ave; NE 27th Ave	Avalon Harbor low-point segments	Avalon Harbor	Stormwater & Roadway Drainage	Insufficient drainage capacity, low point at the highlighted segment	Raise crown of the road at intersections and add roadside swales, improve inlet capacity
119	NW 23rd Ave	Collier City & Northwest Pompano	Collier City & Northwest Pompano	Stormwater & Roadway Drainage	Insufficient drainage capacity, low point at the highlighted segment	Raise crown of the road at intersections and add roadside swales, improve inlet capacity
120	NW 24th Ave	Collier City	Collier City	Stormwater & Roadway Drainage	Insufficient drainage capacity, low point at the highlighted segment	Improve inlets and roadside swales
121	NW 18th St	Northwest Pompano	Northwest Pompano	Stormwater & Roadway Drainage	Insufficient drainage capacity, low point at the highlighted segment	Regrade low spots and improve inlets
122	NW 13th St	Northwest Pompano	Northwest Pompano	Stormwater & Roadway Drainage	Insufficient drainage capacity, low point at the highlighted segment	Regrade roadway and restore swales