



# Memorandum

**TO:** City Manager, Mayor, Vice-Mayor & Commissioners  
Media Release

**FROM:** Priscilla Cygielnik, Director of Environmental Service *PC*

**BY:** Suzanne Horvath, Floodplain Administrator  
Alfonso Orellana, Plans Review Engineer

**DATE:** April 28, 2022

**RE:** Status of 2022 Broward County Local Mitigation Strategy for City of Deerfield Beach

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On January 16, 2018, by Resolution No. 2018/016, the City adopted and actively participates in the Broward County Multi-Jurisdictional Local Mitigation Strategy.

The City's annual progress plan specific to its participation and action in the implementation of the plan is attached to this memo. This document was prepared by City staff and reviewed, revised and approved by Administration.

This document will be distributed to the media and made available to the public for credit under the Community Rating System. Copies of this report and the Broward Count Local Mitigation Strategy are available from Environmental Services, Engineering, 200 Goolsby Blvd, Percy White Library Hillsboro Blvd. and posted on the City's website under press releases and flood zone information.

## CRS ACTIVITY 510

### 2022 CITY OF DEERFIELD BEACH PROGRESS REPORT ON ITS LOCAL MITIGATION STRATEGY

Date this report was prepared: **April 29, 2022**

Name of Community: **City of Deerfield Beach, Florida**

Name of Plan: **2017 Broward County Multi-Jurisdictional Local Mitigation Strategy**

#### **1. How can a copy of the original plan or area analysis report be obtained?**

A copy of the plan may be requested in hard copy from our offices located at:  
Deerfield Beach Environmental Services, Engineering Division, 200 Goolsby Blvd.  
Deerfield Beach, FL 33442.

A digital copy is available by request from [shorvath@deerfield-beach.com](mailto:shorvath@deerfield-beach.com)

Additionally, an electronic version of this plan is available from:

[https://www.broward.org/Emergency/Documents/Bc\\_ELMS\\_FINALSeptember2017updated1.pdf](https://www.broward.org/Emergency/Documents/Bc_ELMS_FINALSeptember2017updated1.pdf)

#### **2. Describe how this evaluation report was prepared and how it was submitted to the governing body, release to the media, and made available to the public:**

The Broward County Local Mitigation Strategy (LMS) was developed in 1997, 1998, 1999, and 2004, 2009, 2012 and 2017. It was first adopted in March 2000, a follow-up revision was then adopted by the Broward County Board of County Commissioners (BOCC) in April 2005 (Resolution #2005-344), and finally, the most recent official submission to FEMA was adopted by Resolution by the BOCC on January 5, 2010 (Resolution 2010-015). This document was reviewed by the Florida Division of Emergency Management for compliance and consistency with the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), as amended by Section 322 of the Disaster Mitigation Act of 2000 (P.L. 106-390); the National Flood Insurance Act of 1968, as amended by the National Flood Insurance Reform Act of 2004 (P.L. 108-264); and 44 Code of Federal Regulations (CFR) Part 201 – Mitigation Planning, inclusive of all amendments through September 16, 2009.

The City adopted the LMS plan by Resolution No. 2018/016 on January 16, 2018. The City provides annual updates to the City's projects which are included on the Broward County LMS list.

This memorandum is the City's annual progress report specific to its participation in the implementation of the plans' goals. This memorandum was prepared by City staff and was reviewed, revised, and approved by Administration.

This report is being submitted to the Commission and City Manager by email and will be available on the City's website. Digital copies and/or hard copies of this report will be available from the Environmental Services, Engineering Division.

- 3. Provide a description of the implementation of each recommendation or action item in the action plan or area analysis report, including a statement on how the project was implemented or not implemented during the previous year:**

## **Goal #1 – Protect human health, safety, and welfare**

### Objectives

- 1.1 Limit long-term public investment in areas identified as subject to repetitive damage from disasters.

The City of Deerfield Beach Stormwater Management program focuses on properly draining surface water to protect the environment. Our stormwater system includes residential swales, water retention ponds, underground pipes, canals, and lakes. By properly disposing of harmful materials and taking care of our properties, we can work together to protect our waterways.

- 1.2 Ensure the protection of critical facilities such as prohibitions on constructing critical facilities in high-hazard areas (which includes 100-year and 500-year floodplains prohibited by FEMA in 44 CFR Part 9 if federal funds are involved).

The City's Building official, in accordance with the Florida Building Code and ASCE 24, critical facilities will be set at min. 2 Ft. above FEMA established BFE elevation. Unless a more stringent local criteria requires a higher elevation, such as the Broward County Future 100 Year 2060 Flood Elevation.

- 1.3 Reduce or eliminate development in hazard prone areas such as floodplains (e.g., short term focus on 100-year floodplain and long-term 500-year floodplain).

The City has, in conjunction with Broward County Future 2060 100 Year Map, enforces the higher standard for Finish Floor elevations for areas of the City determined to be subject to sea level rise projections. This criterium, discourages development in those special flood hazard areas identified by the Year 2060 to require higher Finish Floor elevations than current FEMA's SFHA BFE established elevations maps.

- 1.4 Implement additional development restrictions in high-hazard areas especially as related to post-disaster redevelopment.

The City monitors and conducts surveys for shore erosion conditions via photographic and canal water elevations for pre-disaster vs. post-disaster evaluations and determine if additional restrictions and / or improvements are needed.

- 1.5 Consider the use of land acquisition programs for properties subject to development that are located in high-hazard areas.

Through the recently completed citywide Storm Water Management Study the City has been able to identify areas where existing public lands can be utilized for stormwater management purposes.

1.6 Coordinate with SFWMD to discuss what measures need to be taken to prepare and retrofit water control structures for sea level rise to maintain salinity barrier and offer flood protection.

The SFWMD has delegated to Broward County many of the Environmental Resources permitting activities and for that reason most of the City's coordination takes place with the Broward County Environmental Protection and Growth Management Department. Our Environmental Services Department on a regular basis partners with this agency in permitting of Surface Water management projects in the City.

**Goal #2: - To increase business, residential, and community awareness and implementation of hazard mitigation**

Objectives

2.1 Identify segments of the community most at risk and develop strategies that will ensure effective dissemination of mitigation information.

Segments of the community located in the older and coastal areas of the city. The City's Stormwater Master Plan (SWMP) has identified many of these areas and provided recommendations for improvements, several of which are currently being designed or being prioritized for further development. The development of the SWMP included a significant public outreach effort and information dissemination prior to adoption.

2.2 Implement a strategy to educate interest in obtaining disaster mitigation and preparedness training.

City employees continue to maintain their membership in floodplain management organizations. The City continues to conduct internal training of work staff on the importance of cleaning catch basins, culverts, exfiltration trenches, pollution control devices, and removing debris materials to prevent blockages.

2.3 Develop a single clearinghouse to disseminate accurate and consistent information relating to disaster mitigation.

The City's Grant Division serves as the clearinghouse for grants related to disaster mitigation. The City has hurricane and flood preparedness information on the City website and an informational brochure is mailed annually to all residents.

2.4 Maintain a profile of available funding sources for mitigation projects and make it available through the Broward County website.

The City continuously pursues funds through available grant sources from Federal and State resources such as the Hazard Mitigation Grant Program, Flood Mitigation Advanced Assistance, and the State Revolving Fund. The City has also received state appropriations and federal American Rescue Plan Act funds towards city stormwater management and flood resiliency priorities.

2.5 Create and maintain a listing of successfully mitigated projects to showcase best practices county-wide.

The City was a recipient of a South Florida APWA Stormwater Project of the Year for an innovative hydrodynamic separator installed on a 72-inch outfall at the Kingfisher Canal headwall. This is the first

structure of its kind installed within the City of Deerfield Beach and is a template for outfitting the City's numerous outfalls due to our coastal presence. Other showcased projects include neighborhood improvements highlighted in our stormwater master plan that have been facilitated by the passing of the 2018 stormwater utility fee.

2.6 Actively support the Private Sector Committee and help businesses identify mitigation opportunities for self-funding; particularly in areas identified as vulnerable in the 'hot spots' of Chapter 5.

The City has numerous partnerships with private sector organizations to encourage employment within our underserved neighborhoods. These include business education sessions, an entrepreneurship program, and work force development programs such as the HireDFB Program, designed to encourage the hiring and retention of Deerfield Beach residents to jobs in the City and to help offset onboarding costs, and Ready2Work Program, designed to assist participants in maximizing access to careers with growth potential with the development of key skills.

2.7 Create and maintain a list of highly successful sea level rise adaptation projects to showcase best practices utilized in the South Florida region.

Flood resiliency is a focus of the City's Stormwater Master Plan. The city is focused on beach nourishment projects, sand dune re-establishment, as well as ensuring sea walls are constructed to Broward County's recently adopted seawall ordinance to mitigate for sea level rise.

2.8 Hotels, especially those high-rises in coastal mandatory evacuation zones should consider mitigation measures that allow guests and staff to shelter-in-place to protect guests, protect property, and reduce the pressure on shelters.

The City's Economic Development Department works with city owned hotels for emergency response. This was recently enacted during the Covid-19 pandemic and is a tool for emergency response during and after hurricane events.

2.9 With results from Housing Vulnerability Chapter of ELMS (soon to be added), work with municipalities to identify mitigation measures and state/federal funding available to residents in areas of highest vulnerability.

The City is actively in communication and coordination with neighboring municipalities and alert to state / federal funding opportunities to address the needs of the most vulnerable areas.

### **Goal #3: Increase community awareness and implementation of hazard mitigation.**

#### Objectives

3.1 Develop ongoing education and exercise curricula for public and private officials in the areas of hazard mitigation and emergency management.

The City participates in hazard mitigation and emergency management preparation classes available through federal FEMA ICS resource center, Broward County Sherriff's office, Broward County Highway Engineering as well as numerous other classes.

3.2 Support local training opportunities in hazard mitigation construction techniques for building officials, engineers, and other public officials.

The City's Code Officials and Inspectors stay current on all training opportunities available through Broward County Board of Rules and Appeals (BORA). City Engineers participate in ASFPM training as well as the requirements for ICS certification for EOC operations.

3.3 Support existing hazard mitigation training efforts.

City has initiated a Public Safety Office to Coordinate emergency management activities with contract service providers, city staff, and emergency management partners, review, update, and implement the Comprehensive Emergency Management Plan. Assign, record and plan training for all EOC staff in emergency management activities, exercises, and position specific roles, Disaster Debris Management Plan, and Continuity of Operations Plan.

Assigns, record and plan training for all EOC staff in emergency management activities, exercises, and position specific roles. Evaluate current public safety capital assets and infrastructure; develop long-range strategic plan, Assist in the development of the annual budget; monitor budget performance, and analyze local public safety statistics and trends; evaluate professional standards, legislation, technology, and best practices; implement programmatic and process improvements.

3.4 Maintain a profile of existing available resources for mitigation training projects.

ICS – EOC The City has established position specific FEMA training requirements for all Emergency operations Center personnel including courses from ICS Resource Center. In person instructions and directives meetings are conducted prior to anticipated disasters where function specific instructions are given to all EOC assigned personnel.

3.5 Partner with businesses to offer hazard mitigation classes for residents, especially at hardware and home improvement stores (see also Miami-Dade's "Mitigation for Misers").

City of Economic Development maintains relationships with city vendors to partner for workforce development to include HireDFB and Ready2Work Program and seek assistance prior to and after emergency events.

#### **Goal #4**

##### **Objectives**

4.1 Encourage local municipalities and eligible nonprofit entities to review site and building plans for hazard mitigation issues and to include storm hardening in the building plans, including retrofit and renovation, of all municipal structures. Link hazard mitigation considerations to each municipality's capital improvement funding process.

The City links capital improvement projects to hazard mitigation considerations and provides an annual update to those projects on the Local Mitigation Strategies Plan list.

The following capital projects are identified on the LMS list.

**CIP Project FL-01 West Deerfield – SW 32 Avenue & SW 34 Avenue Flooding Improvement Project**

The West Deerfield CIP Project was developed to address City and resident identified flooding issues confirmed by modeling and conceptual design was developed for to address chronic flooding due to flat grading and minimal swales. Improvement concepts include installation of a pump station along SW 34th Street which discharges to a force main outfall to the canal north of the existing outfall. Note that the 30% design effort was completed and design and permitting contracts have been approved by the City Commission.

**CIP Project FL-02: Wildwood of Deer Creek Flooding Improvement Project**

The Wildwood of Deer Creek CIP Project was developed to address City identified flooding issues confirmed by modeling and conceptual design was developed for to address chronic flooding due to flat grading and minimal swales, and long stretches between inlets. Improvement concepts include addition of inlets and tie-ins to existing pipes.

**CIP Project FL-12 SE 8 Street Flooding Improvement Project**

The SE 8th Street CIP Project was developed to address City and resident identified flooding issues confirmed by modeling and conceptual design was developed for to address chronic flooding due to flat grading and inconsistent/minimal swales. Improvement concepts include addition of new inlets and pipe connecting to drainage system on the west side of Somerset Academy Key Middle/High School that flows south to connect to SE 10th Street. Design and permitting contracts have been approved by the City Commission.

**CIP Project FL-22 East Deerfield (SE 8 Avenue) Flooding Improvement Project**

The SE 8th Avenue CIP Project was developed to address resident identified flooding issues confirmed by modeling and conceptual design was developed for to address chronic flooding. The 30% design effort was completed and design and permitting contracts have been approved by the City Commission.

**CIP Project FL-23 NW 45 Street & Crystal Lake Flooding Improvement Project**

The NW 45th and Crystal Lake CIP Project was developed to address City identified flooding issues and conceptual design was developed for to address chronic flooding due to flat grading and minimal swales improvement concepts for this CIP which include addition of an outfall to Sailboat Lake north of the intersection of NW 45th Street and Crystal Lake Drive and connecting to an existing outfall to Sailboat Lake on Crystal Lake Drive southwest of its intersection with Military Trail. Note that the 30% design effort has been completed and final design effort is currently underway.

Additionally, the city is seeking building hardening funds through Hazard Mitigation Grant Program for City Hall as identified in the City's capital program.

4.2 Encourage retrofitting of existing residential and business structures using disaster mitigation construction techniques.

The City's building official and Flood Plain Administrator reviews all residential and commercial structures to ensure flood mitigation techniques are employed consistent with flood zone hazards.



4.3 Encourage the development of hazard mitigation related building codes and inspection procedures.

The South Florida Building Code employs techniques for hazard mitigation associated with flood zone hazards. This code is strictly followed by the City's Building Code Official and Flood Plain Administrator.

4.4 Encourage local governments to implement prioritized hazard mitigation projects.

The City has a sitting member on the Broward County Water Control District 2 Advisory Board. The District encompasses approx. one half of the City of Deerfield Beach and provides stormwater control for many of our communities. This close contact with the District results in a free exchange of information and needs of the residents along the west part of the City facilitating the best coordination for projects, such as the West Deerfield 100 Acre neighborhood currently under design.

4.5 Maintain a profile of existing available funding sources for structural mitigation projects and make it available through the Broward County website, press releases (as applicable), and any Broward County newsletters available to the general public.

All application to available funding sources (HMGP, FMA, State Revolving Fund) – require that the City seek approval through Governing Body and be publicly noticed.

4.6 Encourage County and municipal agencies to identify mitigation needs for key facilities identified for post-disaster use in COOP plans and research ways and means to mitigate vulnerabilities.

Broward County has undertaken several flood plain studies and the conclusions have resulted in mitigation strategies and adoption of rules aimed at mitigation of present and future conditions affecting the groundwater levels and flood depths.

## **Goal #5**

### **Objectives**

5.1 In the Adaptation Action Areas, all regulatory agencies should discourage expenditures of public funds for infrastructure improvements that attract new residential development. [see Appendix H and Chapter 7, "County Comprehensive Plan" under "Plan Integration Efforts for more information on Adaptation Action Areas"]

On October 17, 2017, the Chair of the Marine Advisory Board (MAB) and City of Deerfield Beach (City) staff conducted a Coastal Management Workshop to introduce the City's Coastal and Waterway Division, as well as discuss important topics for the coastal community. City staff were directed, with the help of the MAB, to evaluate and produce an outline for the development of a Comprehensive Beach Management Plan (CBMP), which was presented at the April 18, 2018 follow-up workshop. By adoption of Resolution No. 2018/153 on September 17, 2018, the City Commission formally authorized the preparation of the CBMP to outline objectives, options, and actions over the short and long term that the City could adopt and undertake to sustain and improve the City's beaches. The plan presented herein has been developed under this authorization to achieve the objectives of the City Commission and the MAB.



The CBMP presents a comprehensive and workable plan to achieve the City's beach management goals, which are of critical importance to the future sustainability of the City's coastline. The City recognizes that the beach provides economic, environmental, storm protection, and recreational benefits.

To view the plan, click on the link below:

<https://www.deerfield-beach.com/DocumentCenter/View/17132/Beach-Management-Plan-with-Appendices>

On August 17, 2021, The City Commission adopted its first ever Comprehensive Beach Management Plan.

5.2 Develop strategies to reduce risk to healthcare patients and special needs medical populations within vulnerable areas, including land development code revisions to discourage the construction of new year-round residential facilities for treatment of special needs medical populations in Adaptation Action Areas.

The City's adopted Comprehensive Plan (CP) makes provisions under the Capital Improvements Element, Objective CIE 1.5 for guidelines governing the issuance of development orders and permits. These decisions will be based upon coordination of the development requirements included in the CP, the land development regulations, and the availability of necessary public facilities needed to support such development at the time needed. Such land use decisions will be coordinated with the Five Year Schedule of Capital Improvements which is designed to maintain the adopted level of service standards.

5.4 Encourage all municipalities to develop and maintain an all-hazard Comprehensive Emergency Management Plan (CEMP) that is consistent with other county plans and procedures.

Planning and Building Development maintain an Emergency Response Plan in cooperation and coordination with the Broward County Emergency Management Comprehensive Emergency Management Plan.

5.5 In areas identified by the vulnerability analysis as being a threat due to the presence of hazardous materials, local governments should encourage compatible land uses, and improve public safety.

The City's adopted Comprehensive Plan (CP) identifies "...ten known Superfund Amendments and Reauthorization Act (SARA) Title III facilities in Deerfield Beach that contain a threshold quantity of extremely hazardous materials."

Any changes to land use deemed necessary will be initiated by the Planning and Building Department will development though the building and zoning regulations strategies to mitigate and improve the public safety.

## **Goal #6 – Develop and enhance regional mitigation efforts**

### Objectives

6.1 Coordinate with other government agencies to develop regional mitigation efforts to include a variety of hazard related events and potential future sea level rise threats.

The City has a sitting member on the Broward County Water Control District 2 Advisory Board. The District encompasses approx. one half of the City of Deerfield Beach and provides stormwater control for many of our communities. This close contact with the District results in a free exchange of information and needs of the residents along the west part of the City facilitating the best coordination for projects, such as the West Deerfield 100 Acre neighborhood currently under design.

6.2 Work with SFWMD to upgrade and/or retrofit water control structures for flooding and changing sea level rise conditions.

The SFWMD has delegated to Broward County many of the Environmental Resources permitting activities and for that reason most of the City's coordination takes place with the Broward County Environmental Protection Growth Management Department. Our Environmental Services Department is on a regular basis in the permitting of Surface Water management projects in the City.

6.3 County should continue to work in collaboration with municipalities, adjacent counties and continue to focus on efforts to mitigate against sea level rise, especially in the face of a probable decrease in funding from state and federal government.

Broward County has undertaken several flood plain studies and the conclusions have resulted in mitigation strategies and adoption of rules aimed at mitigation of present and future conditions affecting the groundwater levels and flood depths.

## **Goal #7 – Promote mitigation partnerships and innovative methods of financing mitigation**

### Objectives

7.1 Develop effective partnerships with public and private sector organizations and significant agencies and businesses for future hazard mitigation efforts.

The City of Deerfield Beach is situated at the boundary with Palm Beach County and the demarcation is the important Hillsboro Canal which is shared with the City of Boca Raton along the north shore of the canal. The Cities joined and contributed funds to the Florida Inland Navigation District, Hillsboro Canal Dredging (BR-DB-97-37) project. A project that was of mutual benefit.

7.2 Identify Alternative Financing for mitigation measures for locally funded actions beyond code, beyond county insurer requirements

Potential methods to develop local funding sources for flood mitigation the City has created and explores include:

- The City adopted the Stormwater Utility a fee-based fund in 2018.
- Using impact fees to help fund public projects to mitigate impacts of land development (e.g., increased runoff).
- Levying taxes to finance maintenance of drainage systems and capital improvements.

7.3 Evaluate use of Global Match credit to be tracked for potential use with HMGP projects

n/a

7.4 Utilize County personnel (EMD, OIAPS/Grants Management) in an effort to assist municipalities on obtaining grants or other funding for infrastructure repair/improvement projects especially those that improve drainage in areas historically prone to flooding or Repetitive Loss (RL) or Severe Repetitive Loss (SRL) properties.

City's Community Services Department supports Grant Writing etc..

## **Goal #8 – Lower flood insurance premiums through Community Rating System (CRS) activities**

### Objectives

8.1 Encourage 100% municipal participation in the CRS.

The City has been a part of the CRS Program since 1992. The City, adopted by Resolution No 2018/016, and actively participates in the Broward County Multi-Jurisdictional Local Mitigation Strategy. The City continues to participate in flood management programs and disseminate information and recommendations to Administration and residents.

8.2 Because the LMS Working Group recognizes that flood insurance premiums will continue to rise, pursue actions whenever possible which will result in CRS credit for the county and all municipalities within it.

The City has been actively and proactively reviewing the CRS regulations and latest revisions to improve the rating not just as a service for lowering the cost of insurance to the community but, also as a way to do our part in the hazard mitigation and the preservation of life and property.

## **Goal #9 – Encourage resilient infrastructure county-wide**

### Objectives

9.1 Utilize the LMS Project List to prioritize projects that encourage sustainable, resilient infrastructure and include as part of annual project list update process with revision of language on screening forms.

The City has and will continue to use this and future lists and forms for the best possible compliance with the LMS.

9.2 Utilize the LMS as a means to promote the incorporation of green infrastructure where and when possible, mitigate existing critical facilities and promote activities which address climate change concerns.

The City has established design criteria, specifically to a local activity center commonly referred to as Pioneer Grove, establishing a requirement for green infrastructure in that location where feasible. This is a goal of city projects and employed as a water quality best management practice.

#### **4. Discuss why any objectives were not reached or why implementation is behind schedule:**

All objectives are being pursued and various projects are at the final design stage.

#### **5. What are the recommendations for new projects or revised recommendations?**

The City continues implementation of the Stormwater and Flood Resiliency Master Plan recommendations and funds acquisition efforts. The City adopted the Master Plan in January 2022 as it was critical to establish a guiding document to contend with the City's aging infrastructure and environmental factors such as the sea-level rise and increased coastal salinity. The master plan allows the City to strategically identify improvements needed to meet current and long-term service level demands, and an ever increasing and more stringent compliancy requirement with regulatory statutes, specifically those that have been adopted due to climate and environmental changes. These capital recommendations then inform the Local Mitigation Strategy Hazard Mitigation list.

City staff provide services to mitigate potential flooding for the safety of all commercial and residential properties. Drainage structure cleaning and inspection services remove debris from catch basins and pipes throughout the City to prevent flooding. Street sweeping service ensures clean roadways and keeping roadway debris from blocking drains.

The Stormwater Fund represents 4% of the FY22-FY26 CIP to include major projects for Citywide Stormwater improvements, renewal and repair costs, and scheduled fleet replacements. Plans are to leverage available local funds with state and federal funds and loans to ensure steady progress in improvements to the citywide storm drain and flood resiliency infrastructure.