

## Section Nine – Action Plan

The Floodplain Management Plan Committee reviewed numerous flood mitigation activities in Section 8 that could prevent or reduce the severity of the problems described in the hazard assessment of Sections 5 and the problem assessment of Section 6. Based upon the activities review documented in Section 8, the Action Items listed and described below were recommended and prioritized by the Committee.

These Action Items incorporate the following six categories of activities reviewed:

- ✓ Preventive measures
- ✓ Property protection
- ✓ Natural resource protection
- ✓ Emergency services
- ✓ Structural flood control projects
- ✓ Public information

### Prioritized Action Items

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1. Revise City ordinance to bring in line with CRS Class 8 prerequisites for residential freeboard to include a freeboard requirement for manufactured homes.

**Responsible Office:** CRS Coordinator, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** December 2021

2. Revise City ordinance to enhance freeboard requirements for commercial property and critical facilities.

**Responsible Office:** Building Official, Development Services Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** December 2021

3. Maintain the City's regulatory flood prevention standards. The Floodplain Manager will be responsible for identifying any proposed ordinance that could weaken the City's standards and will coordinate with other City staff and follow up as needed to assure the standards are not weakened.

**Responsible Office:** Building Official, Development Services Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This will be an ongoing policy.

4. Consider determination of a standard timeframe for cumulative substantial improvement and development of an SOP for assuring its ongoing implementation.

**Responsible Office:** Director, Development Services Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** December 2022.

5. Consider the relocation, mitigation or replacement of infrastructure currently present within the Coastal High Hazard Area, including Coastal A zones (and soon to be designated Priority Planning Areas and Adaptation Action Areas), where state funding is anticipated to be needed, as identified in the *Broward County Enhanced Local Mitigation Strategy* Priority Project List.

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** State funding, as identified in the *Broward County Enhanced Local Mitigation Strategy* Priority Project List.

**Timeframe:** Within six months following designation of Priority Planning Areas and Adaptation Action Areas.

6. Collaborate with the Southeast Florida Regional Climate Change Compact as it makes recommendations for land development standards with respect to low-lying coastal areas and Adaptation Action areas.

**Responsible Office:** Sustainability & Resiliency Officer, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This will be an ongoing policy.

7. Maintain the City's practice of denying development permits for projects that do not meet the design criteria for correcting existing drainage deficiencies, or do not meet future drainage requirements.

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

8. Incorporate into the City's review process for infrastructure planning an assessment of the appropriateness of public capital improvements in coastal high hazard areas as identified in the Coastal Management Element of the Comprehensive Plan.

**Responsible Office:** Director, Development Services Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

9. Continue to require that installation of stormwater management facilities made necessary by new development is the responsibility of the developer.

**Responsible Office:** Director, Development Services Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

10. Research the benefits of including base flood finished floor elevations on Certificates of Occupancy utilizing Broward County's new future flood maps to determine finished floor elevations for new construction to account for sea level rise and future flooding.

**Responsible Office:** Director, Development Services Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** September 2022

11. Include notification of grants, loans and service availability on all appropriate City media publications, seminars and websites that addressed flood mitigation.

**Responsible Office:** CRS Coordinator, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This will be an ongoing policy.

12. Collaborate with Florida Communities' Trust to assist with funds in acquiring properties in the SFHA.

**Responsible Office:** Director, Development Services Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

13. Encourage all property owners to purchase flood insurance.

**Responsible Office:** CRS Coordinator, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

14. Encourage flood proofing techniques in order to preserve and revitalize neighborhoods by considering the following forms of retrofitting for areas or buildings with major flooding issues:

- Elevation of structures by piers, posts and columns, and pilings
- Elevation of the lowest floor above the Florida Building Code elevation requirements
- Wet flood proofing (allowing water to enter uninhabited areas of the structure)
- Dry flood proofing (sealing the structure to prevent floodwaters from entering)
- Installation of flood walls (constructing a barrier around the structure to keep out floodwaters)
- Demolition (tearing down the structure and rebuilding with appropriate flood proof techniques or relocating the structure)
- Elevation of the main breaker or fuse box and other critical appliances
- Installation of flood resistant landscaping

**Responsible Office:** Building Official, Development Services Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

15. Continue pursuing appropriate grants to enhance flood mitigation, including one or more of the following:

- Flood Mitigation Assistance Grant
- Hazard Mitigation Grant
- Pre-Disaster Mitigation Grant
- Repetitive Flood Claims
- BRIC Grants

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

16. Review City Code of Ordinances to assure sufficient strength of maintenance requirements for private stormwater management facilities.

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

17. Continue correcting localized drainage problems, including the following:

- The intersection of NW 7<sup>th</sup> Avenue and NW 3<sup>rd</sup> Court
- NW 2<sup>nd</sup> Avenue (between NW 7<sup>th</sup> Street and NW 9<sup>th</sup> Street)
- NW 7<sup>th</sup> Court (between NW 2<sup>nd</sup> Avenue and NW 3<sup>rd</sup> Avenue)
- NW 8<sup>th</sup> Street (between NW 2<sup>nd</sup> Terrace and NW 2<sup>nd</sup> Avenue)

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Community Block Development Grants

**Timeframe:** September 2022

18. Continue requiring open space standards for all development as specified by City ordinances. Requirement varies by development type and size but is required at some level for every type of development.

**Responsible Office:** Director, Development Services Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

19. Continue developing provisions that require or encourage low impact development.

**Responsible Office:** Director, Development Services Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** September 2022

20. Continue to pursue dune and coral reef restoration programs in order to maintain and enhance the natural buffers which help protect the city from coastal flooding and storm surge.

**Responsible Office:** Sustainability & Resiliency Officer, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

21. Continue the City's policy of encouraging designation, protection and maintenance of wetlands, mangroves and environmentally sensitive lands.

**Responsible Office:** Sustainability & Resiliency Officer, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

22. Identify privately-owned and public natural and beneficial areas in the City and consider expansion of the City's properties that are designated natural and beneficial areas which provide enhanced drainage capacity, recharge the aquifer, and help provide natural habitats and other ecosystem services for residents.

**Responsible Office:** Director, Development Services Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

23. Implement strict enforcement of best management practices for reducing erosion during development activity.

**Responsible Office:** Director, Development Services Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

24. Prioritize climate change adaptation and mitigation, including the City's participation in the Southeast Florida Regional Climate Change Compact by:

- exchanging data & knowledge
- participating in planning and implementation of regional action items
- leveraging collaborative Compact efforts

**Responsible Office:** Sustainability & Resiliency Officer, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

25. Continue implementation of Vulnerability Assessment and Adaptation Action Plan which includes:

- Flood Hazard Mapping with best available data,
- Flood Vulnerability and Loss Assessment,
- Flood Exposure Assessment,
- Flood Economic Loss Assessment,
- Future Precipitation Analysis,
- Qualitative Assessment of Groundwater Changes,
- Projected changes in shoreline,
- Strategy development and a cost benefit analysis.

**Responsible Office:** Sustainability & Resiliency Officer, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

26. Immediately prior to, during and after a hurricane or flood event, post pertinent information concerning major points of interest, such as bridge and road closures, evacuation orders, emergency shelter locations and electrical outages, utilizing the following media:

- City website
- Email notifications
- Television Government Access Channel
- Electronic message boards
- Social media posts
- Everbridge telephone contact system
- Public Service Announcements through local media



- Brochure handouts at Points of Distributions (PODs)
- Department of Health Emergency Health Inoculations

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

27. Integrate response to flooded homes with appropriate response organizations (County, State, Red Cross, faith-based organizations, other non-profit entities, CERT etc.)

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

28. Advertise evacuation routes and shelter locations

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

29. Identify all critical facilities, including nursing homes and smaller (Type 1) home centers, located within SFHAs and make contingency plans for each, in the event of flooding. Confirm that all critical facilities have an up-to-date emergency plan that has been submitted annually to the State.

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

30. Continue exploring funding opportunities to retrofit critical facilities to be more flood and wind resistant.

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

31. Maintain and update vulnerable population list annually in May before the beginning of hurricane season. Recruit eligible residents to register their request for assistance prior to a disaster.

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

32. Develop a Stormwater Master Plan for the City that will identify, prioritize, and recommend funding for stormwater capital improvements.

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** City capital funds

**Timeframe:** September 2023

33. Continue to monitor conditions in the two problem areas that have recently undergone extensive capital improvement and drainage improvement projects. After assessing outcomes, determine if additional capital improvement projects are needed, or if completed projects are achieving satisfactory results. Incorporate observations into Stormwater Master Planning.

- NE quadrant
- SW quadrant

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** September 2021

34. Implement the following project listed in the Broward County Enhanced LMS Project List (2017):

- Replace Lift Station and install improved generator built to account for sea-level rise.

**Responsible Office:** Director of Utilities, Public Works Department, City of Hallandale Beach

**Possible Funding:** City capital funds

**Timeframe:** March 2022. Anticipated wet well installation date – July 21, 2021; Generator to be shipped by end of July 2021; Anticipated Construction Completion – February 1, 2022

35. Investigate feasibility of developing a swale maintenance program.

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** September 2022

36. Ensure that citizens know how to contact FEMA post-flood.

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.



37. Based on availability and prioritized needs, provide knowledgeable staff to assist citizens before, during and after a flood event to help them understand their repair/rebuilding/flooding/mitigation options.

**Responsible Office:** Building Official, Development Services Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

38. Assure annual distribution of *Broward County Hurricane Survival Guide* in multiple languages by posting the *Broward County Hurricane Survival Guide* on the City website in a location that is easily accessed by the community.

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

39. Implement the City's Program for Public Information Program, including Flood Insurance Promotion.

**Responsible Office:** CRS Coordinator, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

40. Develop early warning systems and social media applications to both inform residents and visitors of extreme high-tide events and raise overall awareness of sea level rise and climate change issues. Also consider roadway signage for tidal flooding zones.

**Responsible Office:** Sustainability & Resiliency Officer, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** September 2022

41. Initiate a public education campaign to educate residents, business owners, and policymakers on the merits of preserving open land as an "insurance policy" for adaptation to sea level rise in South Florida.

**Responsible Office:** Sustainability & Resiliency Officer, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** September 2022.

42. Undertake a public information campaign to educate residents and buyers about City SI/SD ordinances.

**Responsible Office:** Director, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** September 2022

43. Require realtors to provide written notification (to be signed by home buyers) about sea wall height requirements and sea level rise and other flood hazards.

**Responsible Office:** Sustainability & Resiliency Officer, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** December 2022

44. Educate residents on the care and proper use of swales. Undertake public outreach efforts to educate residents on benefits of swale maintenance and negative consequences of poor swale conditions.

**Responsible Office:** Director of Utilities, Public Works Department, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This is an ongoing policy, and the City will continue its current approach.

## Post Disaster Planning

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45. Maintain and update the City's recently completed *2020 Post-Disaster Redevelopment Plan* by:

- Integrating key long-term recovery roles and responsibilities into job descriptions
- Requiring review of this plan as part of the process of onboarding new employees
- Providing a copy of this plan to current key staff
- Offering an annual training on long-term recovery
- Appointing Disaster Recovery Team Coordinators at the start of hurricane season each year
- Reviewing plan annually and updating plan to reflect program evolution as needed

**Responsible Office:** Sustainability & Resiliency Officer, City of Hallandale Beach

**Possible Funding:** Staff time (operating budget)

**Timeframe:** This will be an ongoing policy, and the City will continue its current approach.