

MEMORANDUM

Amended
Substitute
Agenda Item No. 5(L)

TO: Honorable Chairman Jose "Pepe" Diaz
and Members, Board of County Commissioners

DATE: October 18, 2022

FROM: Geri Bonzon-Keenan
County Attorney

SUBJECT: Ordinance relating to
development within flood
hazard districts, water control,
and flood criteria; amending
chapter 11C, division 1 of article
1 of chapter 24, and sections 28-
1, 28-13, 33-16.1, 33H-3, 33I-11,
33J-12, and 33K-12 of the Code;
adopting and authorizing the
recordation of revised Flood
Criteria Map and Water Control
Map; revising standards and
procedures for application of
such maps to development;
revising definitions and cross-
references; making technical
changes

Ordinance No. 22-141

The accompanying ordinance was prepared by the Regulatory and Economic Resources Department and placed on the agenda at the request of Co-Prime Sponsors Commissioner Eileen Higgins and Chairman Jose "Pepe" Diaz.



Geri Bonzon-Keenan
County Attorney

GBK/jp

Memorandum



Date: October 18, 2022

To: Honorable Chairman Jose “Pepe” Diaz
and Members, Board of County Commissioners

From: Daniella Levine Cava
Mayor

A handwritten signature in blue ink that reads "Daniella Levine Cava".

Subject: Ordinance Relating to Development Within Flood Hazard Districts, Water Control, and Flood Criteria; Amending Chapter 11C, Division 1 of Article 1 of Chapter 24, and Sections 28-1, 28-13, 33-16.1, 33H-3, 33I-11, 33J-12, and 33K-12 of the Code of Miami-Dade County, Florida; Adopting and Authorizing the Recordation of Revised Flood Criteria Map and Water Control Map; Revising Standards and Procedures for Application of Such Maps to Development; Revising Definitions and Cross-References; Making Technical Changes; Providing Severability, Inclusion in the Code, and an Effective Date

Executive Summary

This ordinance revises flood protection, floodplain, and environmental regulations, revises the County Flood Criteria Map and Water Control Map, revises standards and procedures for application of such maps to development, and implements technical changes to achieve higher regulatory standards to increase resilience and reduce future risks to our built environment from projected increases in sea level rise. The higher regulatory standards in this ordinance generally apply to new construction and substantial improvements to existing developments.

Proposed changes to the County Flood Criteria Map and the Water Control Map are a direct result of the hydraulic and hydrologic modeling conducted by the Department of Regulatory and Economic Resources’ Division of Environmental Resources Management (DERM) to study the interaction of groundwater, surface water, and the effects of sea level rise on the totality of the County’s watershed area. The proposed changes will require low lying developing and redeveloping properties to meet improved elevation standards as part of their submittals seeking to approve new development or substantial redevelopment of property. While not a part of this ordinance, this modeling activity also forms the technical basis for updates to the County’s Stormwater Management Master Plan, which is a planning and guidance document that includes updates, for example, to our short and long-term Capital Improvement Plans, and the County’s Inspection, Operations and Maintenance Plan for our stormwater infrastructure and assets.

Recommendation

It is recommended that the Board of County Commissioners (Board) approve the attached ordinance, which approves the revised County Flood Criteria Map and Water Control Map and amends Chapter 11C; Division 1 of Article 1 of Chapter 24; and Sections 28-1, 28-13, 33-16.1, 33H-3, 33I-11, 33J-12, and 33K-12 of the Code of Miami Dade County (Code).

Scope

This ordinance generally applies in the unincorporated areas and the portions of the incorporated areas where the County exercises jurisdiction over building permits, but the revisions to Chapter 24 and 28 apply Countywide, in both the incorporated and unincorporated areas. In addition,

municipalities may adopt or incorporate by reference the County Flood Criteria Map in their respective municipal codes.

Delegation of Authority

This ordinance amends various chapters of the Code, each of which may currently be implemented and enforced by particular County departments and divisions, such as DERM, the Department of Transportation and Public Works (DTPW), and the Development Services (Zoning) and Platting and Traffic Review Divisions of the Department of Regulatory and Economic Resources (RER), and their respective Directors. This ordinance does not change any such delegation or departmental authority. Upon approval of this ordinance by this Board, the respective departments and directors will have the authority to enforce the regulations contained within this ordinance.

Fiscal Impact/Funding Source

With respect to the enforcement and administration of this ordinance, approval of this item is not anticipated to create a negative fiscal impact to the County because it is not expected to require additional staffing resources or generate additional operational expenses.

The County, however, could incur increased costs for new construction and improvements to the County’s secondary canal system because the ordinance’s revised standards for minimum canal bank elevations and conveyance ratings of County water control facilities would apply to certain new construction and substantial improvements.

Improvements to the secondary canal system will be funded by DERM through annual revenue generated via the County’s Stormwater Utility Fees. State and federal grants and bond financing may be pursued to fund the necessary long-term secondary canal improvements.

Track Record/Monitor

The DERM Director or the Director’s designee will be responsible for monitoring the implementation of this ordinance.

Social Equity

Adoption of this ordinance is expected to result in the hardening of our built environment and added protection from flood risks for developing and redeveloping properties. The impact of the new County Flood Criteria Map will vary parcel by parcel. New development and substantial improvements to private and public parcels will be required to meet the new regulatory requirements, which will make individual properties more resilient long term as they build to the revised County flood criteria elevation standards. Implementation of the County flood criteria map is a flood protection measure, which will increase our community’s resilience and reduce risks from projected sea level rise.

Longer term, as properties develop and redevelop, improvements in elevation implemented lot by lot will ensure that properties will be at lower risk of flooding during rain events. Recognizing that there may be elevation differences between the new County flood criteria elevation and the existing ground elevation of an adjacent lot as redevelopment occurs, revisions to Chapter 11C that are being presented to the Board for approval in a separate ordinance require that adjacent properties not be negatively impacted by such redevelopment and provide that stormwater runoff

onto adjacent properties shall not be permitted. That separate ordinance will also require that lands to be filled shall be graded and harmonized as needed to match existing roads fronting the property.

The revisions in this ordinance would not affect all construction and project design, as the new regulatory standards would be triggered only with new development or with substantial improvements to existing development. For those projects for which these regulatory standards will apply, such types of construction projects already necessitate engineering design and construction services, and such projects would already have to build properties higher pursuant to existing Florida Building Code requirements for minimum finished building floor and freeboard elevations. Furthermore, higher ground elevations are often already needed to meet minimum slopes and ground cover for the installation of water, wastewater, electric, gas, and communication utilities. The updated County Flood Criteria Map elevations do not dictate the finished floor elevation (which is prescribed by the Florida Building Code) but instead govern the ground elevation of the lot, thereby increasing flood protection to the property, and will necessitate additional fill for some lots or portions of lots. Hence, costs associated with plans or construction work to meet these standards are not expected to be significantly affected.

Background

Newly developed properties and substantial improvements to existing developments must be designed to comply with Code requirements for flood protection, floodplain, and environmental regulations in effect at the time of platting and permitting.

This ordinance amends the County Flood Criteria Map and the County Water Control Map, both of which are attached to this ordinance as Exhibits 1 and 2, respectively, and will be recorded in the Plat Book of the Public Records of Miami-Dade County. Corresponding changes have been made to various Code provisions to implement and enforce these new maps and other regulatory updates. Full scale copies of the revised County Flood Criteria Map and County Water Control Map will be maintained on file with DERM in high resolution form and will also be available online as PDFs that can be downloaded from the County website.

This ordinance’s revised requirements will generally be triggered by development, including new construction and substantial improvements to existing structures. As provided in the ordinance, development permit or development order applications that require review for compliance with County Flood Criteria or the County Water Control Map and that are filed prior to the effective date of this ordinance would be reviewed under the prior versions of the Flood Criteria Map and Water Control Plan that were then in effect at the time of submittal.

With respect to the proposed County Flood Criteria Map, the map is designed to show the minimum required elevation of ground surface elevation for developed properties, crown and grade of roads, and secondary canal banks. Furthermore, seawalls and bulkhead crests shall be built to a minimum elevation of 6 inches above the County Flood Criteria applicable to the adjacent uplands. The revised County Flood Criteria Map and corresponding Code changes in this ordinance will revise the existing lot elevation standards to comport with future groundwater, surface water, and sea level rise hydrologic and hydraulic modeling scenarios. These revised

minimum elevation standards are based on comprehensive study and consideration. Attachment A of this memorandum provides technical information used as a technical basis to formulate these proposed regulatory updates, which support the County’s effort to increase resilience and reduce future risks posed by weather and flood events.

The County’s Water Control Map shows the locations of existing and planned water control facilities, including but not limited to the County’s secondary canal system. The stormwater canal system in Miami-Dade County is generally comprised of (1) a primary canal system under the jurisdiction of the United States Army Corps of Engineers (USACE), maintained and operated by the South Florida Water Management District (SFWMD), and (2) a secondary canal system under the jurisdiction, maintenance, and operation of Miami-Dade County. This secondary canal system is the subject of the Water Control Map. Tertiary drainage systems are not shown on the Water Control Map and are separately maintained by the County, municipal stormwater utilities, or other agencies.

With respect to the proposed Water Control Map, the revisions would incorporate minor adjustments made to the secondary canal system since the last amendment to the Water Control Map, which was in 1984.

Technical Basis for the County Flood Criteria Map and the Water Control Map

The County’s Stormwater Management Program, which has evolved over the last 30 years, addresses flood and water quality issues, as well as long-term hydrological changes, development and land use, and climate change. Since the initial numerical hydraulic and hydrologic stormwater models were started in 1993, the County’s Stormwater Master Plan has been regularly updated, and the last report was completed in 2021. The latest update to the Stormwater Master Plan includes modeling of system improvements that have mitigated historical surface water drainage challenges, and addressed hydraulic, hydrologic, and regulatory changes over time. The latest update to the County’s Stormwater Master Plan has been used to draft the updates to the County Flood Criteria Map and the Water Control Map.

Technical Peer and Agency Reviews

DERM engaged an independent engineering consulting team to conduct peer reviews of the Stormwater Master Plan hydrologic and hydraulic models, the Water Control Map and the County Flood Criteria Map. The Stormwater Master Plan models have been provided to FEMA for technical review and are being used as part of FEMA’s upcoming update of the Flood Insurance Rate Maps (FIRM) and Flood Insurance Study (FIS) for Miami-Dade County. The Stormwater Master Plan models have also been provided to the South Florida Water Management District (SFWMD) for technical review and are being used as part of their update to the Level of Service Study of the primary canals and tidal structures in Miami-Dade County.

Additionally, various County Departments, including DTPW, the Water and Sewer Department (WASD) and several RER Divisions and Offices, including DERM, Building, Planning, Development Services, and the Office of Resilience, as well as the South Florida Water Management District, have participated in technical reviews and provided comments on the Water

Control Map and the County Flood Criteria Map. DERM incorporated their input and suggestions into this ordinance.

Public Outreach

To provide information to the public and receive comments on the proposed map changes, DERM published a draft Water Control Map and draft County Flood Criteria Map and initiated a public comment period on October 22, 2021. No County Code provision or other applicable law required this public comment period, but DERM voluntarily provided this opportunity to facilitate public comment and involvement in the proposed changes. The public comment period was originally open through December 22, 2021, and was later extended through January 31, 2022, to capture all stakeholder input. Information pertaining to the public comment announcement, process, and extension was published online on the County’s website and promoted via social media. A direct email blast to over 34,000 individuals who had obtained County permitting services in the past was also used to send out the announcement of the public comment period and to announce a technical webinar held by DERM on November 4, 2021. DERM’s technical webinar discussed the draft Water Control Map and draft County Flood Criteria Map with interested parties, such as municipal representatives and engineering, construction, and development representatives. Since the hosting of the technical webinar, DERM has provided additional information to interested parties, including through promotion of the draft Water Control Map and the County Flood Criteria Map on social media and on the DERM webpage; and Further communications and discussions with interested stakeholders, industry and professional group representatives, and municipal and other agency representatives.

Communications and outreach on this important topic will continue through ordinance consideration and after its implementation as the County works with residents, community groups, the development and business communities, and other stakeholders, as well as our municipal partners and other government agencies who own and operate the primary canal system and the many tertiary drainage systems in our community that are managed privately or through municipal utilities.



Jimmy Morales
Chief Operations Officer

Attachment A: Technical Information

ATTACHMENT A
Technical Information

The watershed numerical models cover an area of approximately 780 square miles of inland and coastal areas. Modeling is based on eleven watershed numerical models which account for current and future County hydrologic and hydraulic conditions. The watershed numerical models include the most updated data available for population growth, topography, sea level rise forecasts, land use, groundwater levels, rainfall volumes and peak intensity. The watershed numerical models cover all the areas having a direct impact on the urbanized portions of Miami-Dade County.

The County has successfully implemented a Stormwater Management Program which has adapted over time to changes of land use, infrastructure, hydrology and climate. The program goals include:

- Continuous improvement of Level of Service (LOS) for water quantity and quality
- County-wide improvements of stormwater drainage infrastructure
- Reduction of flood repetitive losses
- Reduction of pollutants entering major water bodies
- Meeting the goals and policies of the County’s Comprehensive Development Master Plan to continue adaptation to changing climate, hydrology, land use and infrastructure demands

In addition, the latest Stormwater Master Plan update provides analysis of the performance of the stormwater infrastructure for current and future conditions, with future forecasts of sea level rise, for a broad range of peak design storm events and best management scenarios for future climate adaptation. The analysis provides a better understanding of system deficiencies and the priorities of areas needing capital improvements; and facilitates inter-agency coordination, the development of changes to regulations, and updates to the capital budget and resources needed to implement future projects.

The surface water level for the 2060 scenario selected for the proposed County Flood Criteria Map and the Water Control Map updates is calculated using future sea level rise projections based on the Intermediate High curve projections promulgated by the National Oceanic and Atmospheric Administration (NOAA).

The proposed update of the County Flood Criteria Map was drafted using the highest elevation of:

1. Current Miami-Dade County Flood Criteria which is based on 10YR/24HR design event; or
2. Surface water levels for a 10YR/24HR event, 2060 future scenario with Sea Level Rise; or
3. Groundwater levels of a 10-yr recurrence event determined from more than 30 years (1990-2020) of observations of daily groundwater stages; or
4. Existing topography; or

5. When the elevations calculated for a location using criteria 1 through 4 above are lower than 6 feet NAVD88, the minimum elevation selected as the County Flood Criteria elevation on the map would be 6 feet NAVD88.

With respect to canals, the effective canal and control structure capacity is based on passing the rated design flood, typically established as a percent of the Standard Project Flood established by the USACE, with four distinct goals:

1. Maintain upstream flood design stage;
2. Restrict downstream flood stages and canal flow velocities to avoid excessive erosional impacts;
3. Convey sufficient discharge during low-flow periods to maintain minimum downstream stages; and
4. Prevent overtopping of control structures by wave action during a storm including tidal effects in coastal structures.

The storage and conveyance rating of the secondary canal system discharging to the primary conveyance system is bound, at the discharge point of connection, by the operational rating established by the USACE and SFWMD for the primary conveyance system. The results from the watershed numerical models were also utilized to draft the proposed update of the County Water Control Map.

The draft ordinance changes include the requirement that the elevation of secondary canal banks be the highest of:

1. County Flood Criteria elevation; or
2. Surface water levels from the 25-YR/72-HR design event with 2060 future model with SLR; or
3. Elevations as dictated by the Miami-Dade County Public Works Manual, Section D4; or
4. Existing topography; or
5. Higher regulatory standards such as those required within Cut and Fill areas.

New development and those with substantial improvements must demonstrate that drainage from neighboring properties into any County water control facility shall not detrimentally affect such water control facility.



MEMORANDUM

(Revised)

TO: Honorable Chairman Jose "Pepe" Diaz
and Members, Board of County Commissioners

DATE: October 18, 2022

FROM: 
Gen Bonzon-Keenan
County Attorney

SUBJECT: Amended
Substitute
Agenda Item No. 5(L)

Please note any items checked.

- ☒ "3-Day Rule" for committees applicable if raised
- ☒ 6 weeks required between first reading and public hearing
- ☒ 4 weeks notification to municipal officials required prior to public hearing
- ☐ Decreases revenues or increases expenditures without balancing budget
- ☐ Budget required
- ☐ Statement of fiscal impact required
- ☐ Statement of social equity required
- ☐ Ordinance creating a new board requires detailed County Mayor's report for public hearing
- ☒ No committee review
- ☐ Applicable legislation requires more than a majority vote (i.e., 2/3's present ____, 2/3 membership ____, 3/5's ____, unanimous ____, CDMP 7 vote requirement per 2-116.1(3)(h) or (4)(c) ____, CDMP 2/3 vote requirement per 2-116.1(3)(h) or (4)(c) ____, or CDMP 9 vote requirement per 2-116.1(4)(c)(2) ____ to approve
- ☐ Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required

Approved _____ Mayor
Veto _____
Override _____

Amended
Substitute
Agenda Item No. 5(L)
10-18-22

ORDINANCE NO. O-22-141

ORDINANCE RELATING TO DEVELOPMENT WITHIN FLOOD HAZARD DISTRICTS, WATER CONTROL, AND FLOOD CRITERIA; AMENDING CHAPTER 11C, DIVISION 1 OF ARTICLE 1 OF CHAPTER 24, AND SECTIONS 28-1, 28-13, 33-16.1, 33H-3, 33I-11, 33J-12, AND 33K-12 OF THE CODE OF MIAMI-DADE COUNTY, FLORIDA; ADOPTING AND AUTHORIZING THE RECORDATION OF REVISED FLOOD CRITERIA MAP AND WATER CONTROL MAP; REVISING STANDARDS AND PROCEDURES FOR APPLICATION OF SUCH MAPS TO DEVELOPMENT; REVISING DEFINITIONS AND CROSS-REFERENCES; MAKING TECHNICAL CHANGES; PROVIDING SEVERABILITY, INCLUSION IN THE CODE, AND AN EFFECTIVE DATE

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA:

Section 1. The memorandum referenced in the above recital is incorporated in this ordinance and is approved.

Section 2. Chapter 11C of the Code of Miami-Dade County, Florida, is hereby amended to read as follows:¹

¹ Words stricken through and/or [[double bracketed]] shall be deleted. Words underscored and/or >>double arrowed<< constitute the amendment proposed. Remaining provisions are now in effect and remain unchanged.

Chapter 11C - DEVELOPMENT WITHIN FLOOD HAZARD DISTRICTS

Sec. 11C-1. - Statement of legislative intent.

>>(a)<< The coastal areas of Miami-Dade County, Florida, are subject to flooding resulting in danger to life, loss of property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

>>(b)<< The Board of County Commissioners of Miami-Dade County, by Resolution No. R-671-69, adopted on May 28, 1969, expressed willingness to take action necessary to meet the objectives of the National Flood Insurance Act of 1968 within Miami-Dade County, Florida; and by Resolution No. R-912-70, adopted on July 24, 1970, reaffirmed its interest in securing flood insurance coverage under said act, and agreed to establish by December 31, 1971, measures required under the Federal Insurance Program. In August of 1970, the Federal Insurance Administration declared the entire area of Miami-Dade County eligible for federally assisted flood insurance, which insurance will mitigate the effects of damages from such natural disasters as hurricanes and severe storms and their attendant flooding.

>>(c)<< This chapter is adopted to insure the continued availability of said flood insurance; to comply with federally imposed requirements; and to protect the public health, safety and general welfare, by minimizing flood losses in the coastal areas of Miami-Dade County, and to require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters; control filling, grading, dredging and other development which may increase erosion or flood damage; and to insure that potential home buyers are notified that property is in a flood area.

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Sec. 11C-9. - >>Adoption of County Flood Criteria Map; amendments; general requirements; adjustments to minimum finished grade elevation; rules<< [[Rules]] for interpreting area boundaries >>on flood insurance rate maps<<.

~~[[The boundaries of the flood hazard areas shown on the official flood insurance rate maps may be determined by scaling distances.]]~~

>>(a) Adoption of County Flood Criteria Map. The Board of County Commissioners hereby adopts the County Flood Criteria Map shown on Exhibit 1, effective October 28, 2022, certified by the Clerk of the Board as a portion of this chapter, incorporated herein by reference, and transmitted to the custody of the Department; full scale copies of the Map shall be maintained on file with the Department. The County Flood Criteria Map supersedes the map recorded in Plat Book 120 at Page 13-1, 13-2, 13-3, 13-4 and 13-5 of the Public Records of Miami-Dade County.

(b) General requirements applicable to County Flood Criteria Map.

- (1) The purpose of the County Flood Criteria Map is to show the minimum standards for ground surface elevation for: developed properties; crown of road or, for arterials and collectors, edge of pavement; secondary canal banks; and the top elevation of seawalls and bulkhead crests.
- (2) The provisions of the County Flood Criteria Map are minimum standards. Other applicable regulations may require higher elevations, including, without limitation, required design standards for storm water drainage systems, water and wastewater systems, or onsite sewage treatment and disposal systems.
- (3) Elevations presented on the recorded County Flood Criteria Map are for illustrative purposes only. Contractors, engineers, developers, agencies, and other users of the County Flood Criteria Map should consult the full scale copies maintained on file with the Department, which shall also be available online.
- (4) A minimum elevation of 6.0 feet NAVD88 shall apply to all areas except where the County Flood Criteria Map indicates a higher elevation.
- (5) Notwithstanding any provision to the contrary, all

seawalls and bulkhead crests shall be built to a minimum elevation of 6 inches above the County Flood Criteria applicable to the adjacent uplands.

(c) Adjustments to minimum finished grade elevation.

(1) Development sites. In addition to the foregoing, the minimum finished grade elevation pursuant to the County Flood Criteria Map applicable to a specific development site shall be at least as high as the highest of the following public right-of-way elevations, as applicable:

- (i) the back of sidewalk elevation of the road fronting the property; or
- (ii) the elevation of the crown of road or street abutting such development site; or
- (iii) the highest edge of pavement of the road abutting such development site.

(2) Roads. If, as determined by the County public works department, the minimum finished grade elevation of an arterterial or collector road at the edge of pavement would cause stormwater runoff or discharge onto adjoining or adjacent parcels that are lower than the road, the minimum finished grade elevation of the road shall be the crown of road.<<

>>(d) Map interpretations.<< Required interpretations of >>the Flood Criteria Map and flood insurance rate maps<< ~~[[those maps for precise locations of said boundaries]] shall be made by the Director [[of the Miami-Dade County Department of Environmental Resources Management or his designee within the unincorporated areas of Miami-Dade County]].~~ Said interpretations >>may be appealed in accordance with section 24-11 and other provisions of chapter 24 governing appeals of the Director's decisions<< ~~[[shall be subject to review in accordance with Section 11C-12(j) of this Code]].~~

* * *

Section 3. Division 1 of Article 1 of Chapter 24 of the Code of Miami-Dade County, Florida, is hereby amended to read as follows:

ARTICLE I. - IN GENERAL

DIVISION 1. - GENERAL PROVISIONS

* * *

Sec. 24-5. - Definitions.

In construing the provisions of this chapter, where the context will permit and no definition is provided herein, the definitions provided in chapter 403, Florida Statutes, as may be amended from time to time, and in rules and regulations promulgated thereunder, as may be amended from time to time, shall apply. The following words and phrases when used in this chapter shall have the meanings ascribed to them in this section:

* * *

>>(68) County Flood Criteria Map shall be as defined in chapter 11C.<<

* * *

>>(345) Water Control Map or Water Control Plan shall mean the official map or maps of Miami-Dade County that show existing and proposed water-control facilities and their general locations and that are adopted by the Board of County Commissioners and recorded in a Plat Book or other official record book of the public records of Miami-Dade County.<<

* * *

Sec. 24-7. - Same—Duties and powers.

The duties, functions, powers>>,<< and responsibilities of the Director ~~[[of the Miami Dade County Department of Environmental Resources Management,]]~~ shall include the following:

* * *

(23) The Board of County Commissioners hereby authorizes the establishment of Countywide water control, coastal engineering>>,<< and wetlands management programs, and vests in the Director the administration of said programs >>as provided herein; this authority shall include implementation of the Water Control Plan<<. ~~[[A plat~~

~~showing existing and proposed water control facilities and their general locations is hereby adopted and made a part of this chapter, said plat being identified as amended plat of Miami-Dade County Water Control Plan recorded in August, 1972, in plat book 94, page 4. The amended water control plan may be further revised at any time by resolution of the Board of County Commissioners.]]~~ Authority for administering said >>programs<< [[program]] includes, but is not limited to, the power to:

- (a) Establish, adopt, and implement water control, coastal engineering>>_<< and wetlands management programs, >>including interpretations of the applicability of the water control plan to specific properties,<< as may be necessary or appropriate for >>flood<< prevention and >>flood<< control [[of floods]], drainage, water conservation, prevention of saltwater encroachment, protection against pollution, safeguard of water supplies, protection of beaches, shorelines, and wetlands areas>>_<< and the best use of all the water, shoreline>>_<< and wetland resources of Miami-Dade County.

* * *

>>**Sec. 24-7.1. Adoption of Water Control Map; amendments; general requirements.**

- (a) Adoption of Water Control Map; purpose and intent. The Board of County Commissioners hereby adopts the Water Control Map shown on Exhibit 2, effective October 28, 2022, certified by the Clerk of the Board as a portion of this chapter, incorporated herein by reference, and transmitted to the custody of the Department; full scale copies of the Water Control Map shall be maintained on file with the Department.
 - (1) The purpose of the Water Control Map is to show the locations of current and planned water control facilities, including but not limited to canals, levees, dams, control structures, pump stations, drainage divides, and other drainage features of the Miami-Dade County Water Control system.
 - (2) The Water Control Map supersedes the amended plat of Miami-Dade County Water Control Plan recorded

in Plat Book 126 at Page 39-1, 39-2 and 39-3 of the
Public Records of Miami-Dade County.

- (b) General requirements applicable to water control facilities.
 - (1) Secondary canal banks shall be elevated to the highest of:
 - (i) County Flood Criteria;
 - (ii) Surface water levels from the projected 25-year, 72-hour storm event, and future sea level rise projections for the year 2060, based on the Intermediate High curve projections promulgated by the National Oceanic and Atmospheric Administration (NOAA);
 - (iii) Elevations as dictated by the County public works manual;
 - (iv) Existing topography; or
 - (v) Higher regulatory standards such as those required within cut and fill basins.
 - (2) Design and construction of water control facilities shall be done in such a manner as to comply with all applicable surface water quality standards.
 - (3) Drainage from neighboring properties into any County water control facility shall not be permitted unless approved in writing by the Director upon a determination that such drainage will not detrimentally affect such water control facility.
- (c) Information presented on the recorded Water Control Map is for illustrative purposes only. Contractors, engineers, developers, agencies, and other users of the Map should consult the full scale copies of the Water Control Map maintained on file with the Department, which shall also be available online.
- (d) Map interpretations. Required interpretations of the Water Control Map shall be made by the Director, subject to review of administrative decisions as provided in this chapter.<<

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Section 4. Section 28-1 of the Code of Miami-Dade County, Florida, is hereby

amended to read as follows:

Sec. 28-1. - Definitions.

For the purposes of this chapter, the following terms shall have the following meanings. When not inconsistent with the context, words used in the present tense include the future, words in the plural number include the singular, and words in the singular number include the plural. The word "shall" is always mandatory and not merely directory.

(a) >>County environmental resources department means the department as defined in section 24-5.

(b) County public works department or public works department means the public works department as defined in section 2-99.

(c)<< *Final plat* is the final tracing, map or drawing or chart on which the subdivider's plan of subdivision is presented to the governing body for approval, and which, if approved, will be submitted to the Clerk of the Circuit Court for recording.

>>(d)<<[[~~(b)~~]] *Flood criteria* >>means the County Flood Criteria Map as defined in chapter 11C<< [[~~is the minimum finished elevation required for all lands as established and shown on the flood criteria map recorded in Plat Book 53, pages 68, 69, and 70 of the public records of this County as the same may be modified from time to time~~]].

>>(e)<< [[~~(e)~~]] *Lot* is a portion of a subdivision or other parcel of land, however designated, intended as a single building site or unit for transfer of ownership or for development.

>>(f)<< [[~~(d)~~]] *The manual of public works construction* [[~~of the Department of Public Works~~]] is the >>manual of minimum standards for public works construction promulgated by the County public works department pursuant to section 2-100<< [[~~comprehensive set of specifications prepared by the County's Department of Public Works covering the minimum requirements for the design and construction of engineering works such as, but not limited to: Streets, roads and highways, sidewalks, filling and grading, excavating, harbors and docks, drainage installation and structures, water control work and water supply, paving installations,~~

~~curbs and gutters, bridges and overpasses and underpasses,
underground sewage collections and disposal systems,
underground utility line construction, levees, pumping
stations and similar works]]].~~

* * *

>>(p) Water control plan shall be as defined in chapter 24.<<

Section 5. Section 28-13 of the Code of Miami-Dade County, Florida, is hereby amended to read as follows:

Sec. 28-13. - Drainage.

- (a) >>Water control plan, flood criteria map, and developers' drainage plans<< ~~[[Master plan and manual of public works construction]]~~. The developer shall plan all drainage for >>the proposed<< ~~[[his]]~~ subdivision in accordance with the >>water control plan and the applicable flood criteria map<< ~~[[master plan entitled, "County Water Control Plan," recorded in Plat Book 64, page 114 and in accordance with the flood criteria map, recorded in Plat Book 53, pages 68, 69, and 70, or as such plan and map may be changed or modified]]~~. The drainage plans shall be subject to approval >>by the County environmental resources department and ~~by~~<< ~~[[of]]~~ the Public Works Department for compliance with ~~[[such]]~~ >>the flood criteria map, the water control<< plan >>, and for construction in public rights of way or on land that will be dedicated or otherwise provided for public use, the manual of public works construction<<.
- (b) Permit to construct or alter drainage ways >>; dedication required<<. No individual, partnership, or corporation shall construct, deepen, widen, fill, reroute, or alter any existing drainage way, ditch, drain, or canal without first obtaining a written permit from the >>County environmental resources department and the County public works department<< ~~[[County's Department of Public Works and/or the County's Department of Environmental Resources Management. Plans for all such work shall comply with the manual of public works construction of the County's Public Works Department, and all such work shall be done under the supervision and subject to the approval of the County's~~

~~Department of Public Works and/or the County's Department of Environmental Resources Management]].~~

>>(1) Design, construction, and alteration of drainage ways, ditches, drains, and canals is governed by chapter 24 and, for construction in public rights of way or on land that will be dedicated or otherwise provided for public use, the manual of public works construction.

(2)<< Rights-of-way for all such drainage works and maintenance thereof as prescribed by the manual of public works ~~[[and]] construction~~>>.<< ~~[[and]] the [[County]] water control plan, >>and all applicable local, state, and federal engineering standards,~~<< must be dedicated to the use of the public, such dedication to be made prior to any such construction or alteration if so required by the >>County environmental resources department<< ~~[[County's Public Works Department and/or the County's Department of Environmental Resources Management]].~~

>>(3) Subdivision applicants shall submit, for review and approval by the County's environmental resources department, signed and sealed hydrologic and hydraulic analyses completed by a professional engineer licensed in the State of Florida, demonstrating that the design and construction of the subdivision will not have a detrimental impact on the County's secondary canal system post development, as follows:

(i) For the secondary canal system's storage rating, the system's upstream and downstream banks shall not be overtopped based on minimum peak stages of the projected 25-year, 72-hour storm event, and sea level rise projections for the year 2060, based on the Intermediate High curve projections promulgated by the National Oceanic and Atmospheric Administration (NOAA); and

(ii) For the secondary canal system's conveyance rating, the required minimum conveyance capacity shall be met for the projected 25-year, 72-hour storm event, and sea level rise projections for the year 2060, based on the Intermediate High curve projections

promulgated by the National Oceanic and Atmospheric Administration (NOAA).

- (iii) Developments that do not meet the above-referenced storage or conveyance ratings shall be required to design, permit, and implement, at their own cost, such storage and conveyance system improvements as are necessary to mitigate their post-development impacts.<<

- (c) *Rights-of-way and easements.* Whenever any drainage way, stream, or surface drainage course is located or planned in any area that is being subdivided, the subdivider shall dedicate such stream or drainage course and an adequate right-of-way necessary for maintenance, future expansion >>₁<< and other purposes along each side of such stream or drainage course as is determined by uniform standards prescribed by the manual of public works construction.
- (d) *Storm water.* Adequate provision shall be made for the disposal of storm water subject to standards prescribed in the manual of public works construction>>, this chapter, and chapters 11C, 24, and 33<<.
- (e) *Contour map and drainage of adjacent areas.* A contour map shall be prepared for the area comprising the subdivision and such additional areas>>₁<< as may be required by the >>County environmental resources department and the County public works department<< ~~[[County's Department of Public Works and/or the County's Department of Environmental Resources Management]]~~, >>as<< necessary to include all watersheds >>that<< ~~[[which]]~~ drain into or through the property to be developed, provided that this map of the adjacent areas may be prepared from existing maps or other data available to and acceptable >>to the foregoing departments<< ~~[[by the County's Department of Public Works and/or the County's Department of Environmental Resources Management]]~~. >>(1)<< The design for drainage of the subdivision must be adequate to provide for drainage of adjacent water shed areas[[;]]>>.
- (2) Design<< ~~[[and design]]~~ of drainage structures must provide for drainage of adjacent water sheds after complete development of the total area.
- >>(3)<< Where ditches and canals are required, rights-of-

way shall be provided for future needs in accordance with uniform standards ~~[[prescribed in the County's manual of public works construction. Provided, however, that the developers may be permitted by the County's Department of Public Works and/or the County's Department of Environmental Resources Management]]~~ >>prescribed in the manual of public works construction and the Water Control Map.

- (4) Notwithstanding any other provision to the contrary, the foregoing departments may permit the relevant developer or owner<< to excavate>>, << ~~[[or]]~~ open, or construct necessary drainage ways and structures only of sufficient capacity to provide for existing drainage needs whenever >>the foregoing departments determine that<< the developed or undeveloped status of adjacent water sheds may so warrant >>limited drainage improvements<< ~~[[as determined by the County's Department of Public Works, and/or the County's Department of Environmental Resources Management]]~~.

- (f) *Off-site drainage.* Off-site drainage ~~[[shall be mutually coordinated by and between the subdivider]]~~ >>may be permitted, to the extent approved by all of the following: the County environmental resources department, the County public works department<<, and the plat division of the appropriate authority.

* * *

Section 6. Section 33-16.1 of the Code of Miami-Dade County, Florida, is hereby amended to read as follows:

Sec. 33-16.1. - Privately owned artificial lake slope provisions.

* * *

- (d) The placement of the following accessory improvements and landscaping shall be permitted waterward of the top of slope>>, as measured pursuant to the County Flood Criteria Map as defined in chapter 11C,<< on a residential lot, parcel

or tract, subject to the following conditions:

* * *

- (2) All docks on a single lot, parcel or tract collectively shall not exceed >>30<< ~~[[thirty (30)]]~~ percent of the subject lot's width as measured at the top of the slope ~~[[per Miami-Dade County Flood Criteria (D.C.F.C.) elevation]]~~; provided, however, a dock that is placed parallel to the lot and that does not extend more than six ~~[[6]]~~ feet beyond the water's edge may be built to the side setback lines.
- (3) No dock shall project further into the artificial lake more than one-half ~~[[1/2]]~~ the length of the lot's shoreline frontage as measured at the water's edge, or >>20<< ~~[[twenty (20)]]~~ percent of the lake width at its widest point, whichever is smaller. In no event shall a dock exceed >>50<< ~~[[fifty (50)]]~~ feet in length. For purposes of this section, the length shall be the perpendicular dimension measured from the water's edge to the farthest point of the dock extending into the lake.
- (4) In no event shall a dock be placed closer than >>100<< ~~[[one hundred (100)]]~~ feet to the opposite shore's top of slope ~~[[D.C.F.C. elevation]]~~.
- (5) A dock or a deck not exceeding >>18<< ~~[[eighteen (18)]]~~ inches above ~~[[D.C.F.C.]]~~ >>minimum finished grade<< elevation may be placed with a zero ~~[[0]]~~ foot side setback. A dock or a deck exceeding >>18<< ~~[[eighteen (18)]]~~ inches above ~~[[D.C.F.C.]]~~ >>minimum finished grade<< elevation shall conform to accessory building side setback requirements.

Section 7. Section 33H-3 of the Code of Miami-Dade County, Florida, is hereby

amended to read as follows:

Sec. 33H-3. - Definitions.

The definitions contained in Chapters 28, 33, and 33E shall apply to this chapter except as otherwise provided in the following definitions:

* * *

[[~~(t) Flood criteria means the minimum finished~~ >>grade<<
elevation required for all lands as established and shown on
the flood criteria map recorded in Plat Book 53, pages 68,
69, and 70 of the public records of this County as the same
may be modified from time to time.]]

* * *

Section 8. Section 33I-11 of the Code of Miami-Dade County, Florida, is hereby
amended to read as follows:

Sec. 33I-11. - Impact fee expenditures.

- (a) Expenditures from the impact fee shall include but not be
limited to:

* * *

- (6) Landscaping and site preparation, including
demucking[[,]] >>and<< filling [[~~to flood criteria~~]]
and compaction >>to comply with applicable
building and zoning codes and flood insurance laws
and regulations<<;

* * *

Section 9. Section 33J-12 of the Code of Miami-Dade County, Florida, is hereby
amended to read as follows:

Sec. 33J-12. - Impact fee expenditures.

- (a) Expenditures from the impact fee shall include but not be
limited to:

* * *

- (6) Landscaping and site preparation, including
demucking[[,]] >>and<< filling [[~~to flood criteria~~]]
and compaction >>to comply with applicable
building and zoning codes and flood insurance laws
and regulations<<;

* * *

Section 10. Section 33K-12 of the Code of Miami-Dade County, Florida, is hereby amended to read as follows:

Sec. 33K-12. - Impact fee expenditures.

- (a) Expenditures from the educational facilities impact fee accounts are authorized for the following:

* * *

- (9) Landscaping and site preparation for capital education facilities, including demucking[[,]>>and<< filling [[~~to flood criteria~~]] and compaction >>to comply with applicable building and zoning codes and flood insurance laws and regulations<<;

* * *

Section 11. *Applicability to pending applications.* Development permit or development order applications that require review for compliance with County flood criteria or the water control plan and that are filed prior to the effective date of this ordinance, and subsequent applications that are related to such development and that are filed within one year of the effective date of this ordinance, shall be reviewed pursuant to the County Flood Criteria Map recorded in Plat Book 120 at Page 13-1, 13-2, 13-3, 13-4 and 13-5 of the Public Records of Miami-Dade County and the Miami-Dade County Water Control Plan recorded in Plat Book 126 at Page 39-1, 39-2 and 39-3 of the Public Records of Miami-Dade County.

Section 12. Section 28-1 of the Code shall be renumbered pursuant to the revisions in section 4 above.

Section 13. Section 33H-3 of the Code shall be renumbered pursuant to the revisions in section 8 above.

Section 14. If any section, subsection, sentence, clause or provision of this ordinance is held invalid, the remainder of this ordinance shall not be affected by such invalidity.

Section 15. It is the intention of the Board of County Commissioners, and it is hereby ordained that the provisions of this ordinance, including any sunset provision, shall become and be made a part of the Code of Miami-Dade County, Florida. The sections of this ordinance may be renumbered or relettered to accomplish such intention, and the word "ordinance" may be changed to "section," "article," or other appropriate word.

Section 16. This ordinance shall become effective ten (10) days after the date of enactment unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

PASSED AND ADOPTED:

October 18, 2022

Approved by County Attorney as
to form and legal sufficiency:



Prepared by:



Dennis A. Kerbel
Abbie Schwaderer-Raurell

EXHIBIT 1

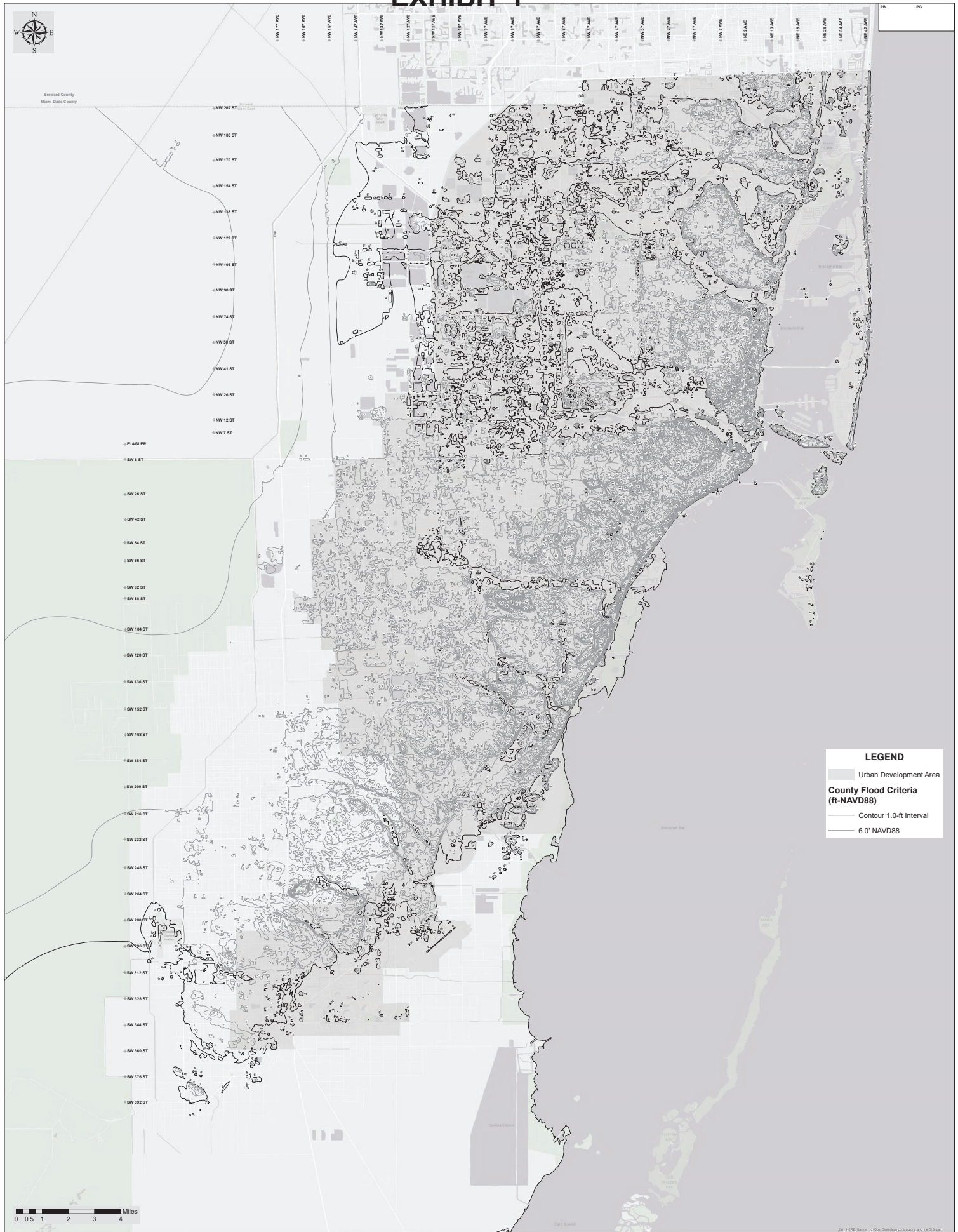
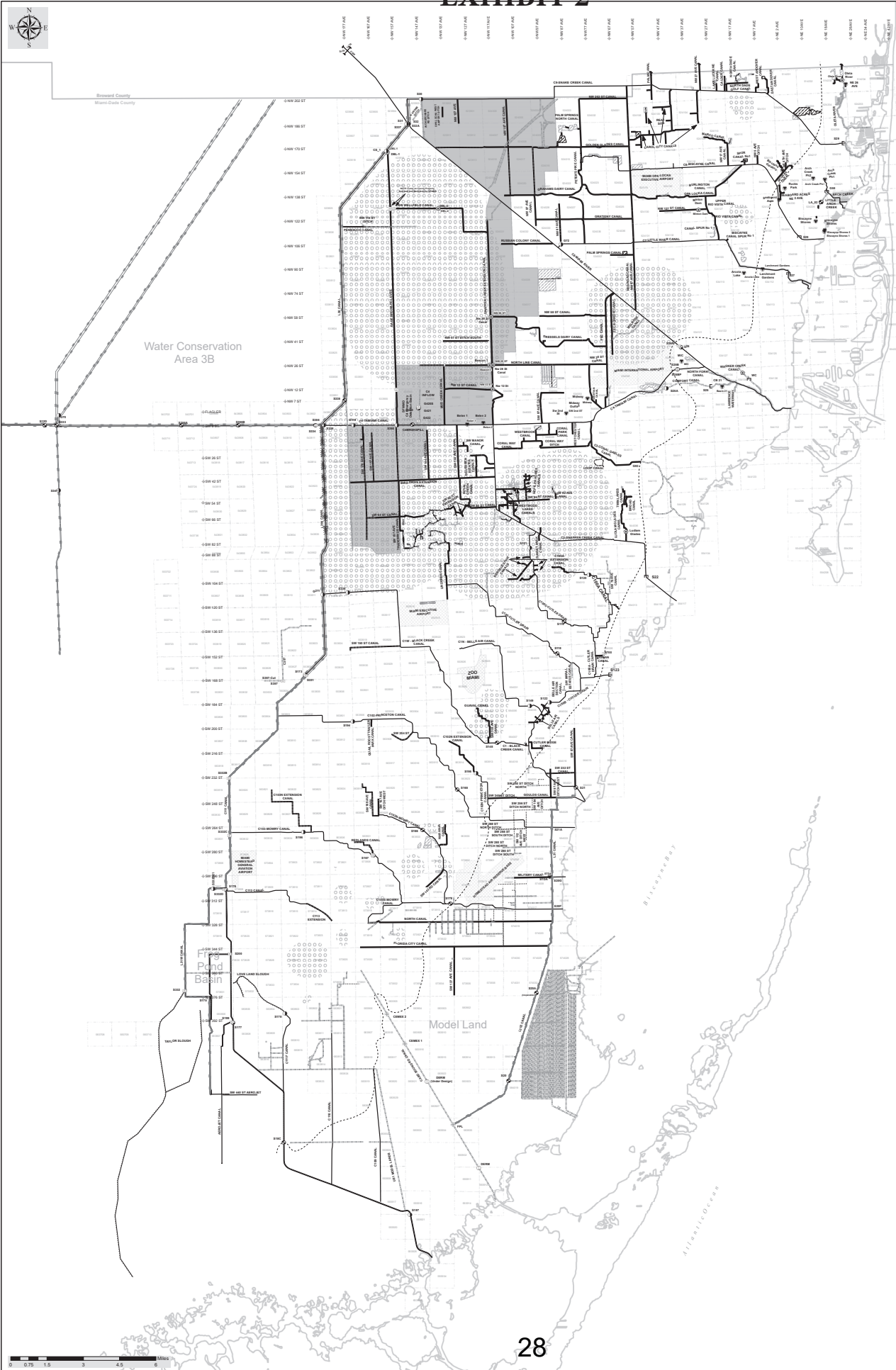


EXHIBIT 2



PB PG



LEGEND

- Strong
- - - - - Weak
- - - - - Section, Township, Range
- - - - - Seawater Intake Line 2018
- ▨ Facility with Regulated Stormwater Infrastructure
- ▨ Basin & Storm Trail Basin, and Bird Drive Basin (collectively referred to as Cut and Fill Basins)

MIAMI-DADE COUNTY EXISTING AND PLANNED WATER CONTROL SYSTEM

- Plug
- ⊕ Stormwater Pump Station
- ⊙ Control Structure
- Secondary Canals and Ditches
- Planned Secondary Canals and Ditches
- Other Waterways
- Miami-Dade County Flow Rights
- Flood Control Project Agricultural Ditch
- ▨ Lake Owned by Miami-Dade County

CENTRAL & SOUTHERN FLORIDA FLOOD CONTROL PROJECT

- ⊕ Plug
- ⊕ Water Control Structure
- ⊕ Stormwater Pump Station
- ⊕ Other Water Control Structures Maintained and Operated by SFWMD
- ⊕ Control with Gate Control Maintained and Operated by SFWMD
- ⊕ Control/Structure Owner Maintained and Operated by SFWMD
- ⊕ LTR Canals
- ⊕ Primary Canals (SUSAC), Maintained and Operated by SFWMD
- ⊕ Other Waterways Canals, Ditches, under the Jurisdiction and/or Maintained and Operated by other Agencies or Private Owners
- ▨ Lake Owned and/or Maintained by Other Agency or Private Owner



MIAMI-DADE COUNTY WATER CONTROL MAP

MIAMI-DADE WATER CONTROL MAP, HEREIN, AMENDS THE PLAT OF THE MIAMI-DADE COUNTY WATER CONTROL PLAN PREVIOUSLY RECORDED IN PB 126 PG 39 OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA