BISCAYNE BAY WATERSHED MANAGEMENT ADVISORY BOARD

Board Packet



Biscayne Bay Watershed Management Advisory Board

Board Package

Table of Contents

Agenda	Pg 3
Meeting Minutes and Adopted Resolutions from July 14, 2023	Pg 4
Welcome New Board Member	Pg 13
Elliot Stone Proclamation Background	Pg 14
Draft Impervious Ordinance Review	Pg 16
Wetlands Sunshine Meeting Notes and Presentation from June 6, 2023	Pg 83
Meeting Summary – August 25, 2023: Mayor's Science Roundtable Extreme Heat in Biscayne Bay	Pg 90
BBWMAB Policy Updates	Pa 94







AGENDA

BISCAYNE BAY WATERSHED MANAGEMENT ADVISORY BOARD (BBWMAB) MEETING September 15, 2023 – 9:00 am – 12:00 pm LOCATION – Stephen P. Clark Government Center, Commission Chambers, 2nd Floor 111 NW First Street, Miami, FL 33128

- 1. Roll Call
- 2. Reasonable Opportunity to be Heard
- 3. Approval of Agenda Actionable Item
- 4. Approval of Minutes for July 14, 2023 Actionable Item
- Proclamation recognizing Mr. Elliot N. Stone (requested by Dr. Todd Crowl) Sponsored by Miami-Dade County Commissioner Kevin Cabrera & Micky Steinberg and Chairwoman Danielle Cohen Higgins
- Update on Proposed County Ordinance #231337 Uses Permitted Agricultural Zoning District BBWMAB Chair, Commissioner Danielle Cohen Higgins
- 7. **Draft Impervious Ordinance Discussion** Marina Blanco Pape, Chief, Water Management Division RER-DERM
- 8. **Biscayne Bay Watershed Plan Overview** Irela Bagué, Chief Bay Officer
- 9. Update on Vacuum Truck and Stormwater Maintenance (requested by Brett Bibeau) Josiel Diaz-Ferrer, Assistant Director of Transportation & Public Works (DTPW)
- 10. Wetlands Discussion Lisa Spadafina, Director, RER-DERM
- 11. Future Agenda Items BBWMAB Chair, Commissioner Danielle Cohen Higgins
- 12. Adjournment BBWMAB Chair, Commissioner Danielle Cohen Higgins

Biscayne Bay Watershed Management Advisory Board

Stephen P. Clark Government Center Commission Chambers, 2nd Floor 111 NW First Street Miami, FL 33128

MINUTES July 14, 2023, 9:00 am

MEETING CALLED BY	Roll call was taken – Quorum established with sixteen members present and four absent. Absent Members: Erik Stabenau, John Alger, Dr. Joan Browder, Dave Doebler (attended via Zoom).	
MEMBER ATTENDEES	Chair - Commissioner Danielle Cohen Higgins Vice-Chair – Mayor Vince Lago Commissioner Kevin Cabrera Commissioner Micky Steinberg Commissioner Alex Fernandez Commissioner Rachel Streitfeld Mayor Tim Meerbott Brett Bibeau Staff support for Biscayne Bay Watershed Manager Officer Irela Bagué (CBO-OOR); Pamela Sweeney (F Jackson (CBO-OOR); Larissa Aploks (RER), and Ana	Dr. Todd Crowl Julissa Kepner Spencer Crowley, III, Esq. Jannek Cederberg Gerald McGinley Kevin Cunniff Roberto Torres Dr. Diego Lirman ment Advisory Board in attendance: Chief Bay EER-DERM); Marina Blanco-Pape (RER-DERM); Nancy Fiotte (CBO-OOR).

AGENDA TOPICS

REASONABLE OPPORTUNITY TO BE HEARD

Commissioner Danielle Cohen Higgins - Chair

	Chair Cohen Higgins welcomed the newest board member, Miami Beach Commissioner Alex Fernandez.
	Commissioner Fernandez stated he is very happy to be on the BBWMAB, representing the MDCLC and the residents of Miami Beach.
DISCUSSION	 Lauren Jonaitis – Tropical Audobon Society. Commented that she is happy to see both land use and zoning included in the Watershed Restoration Plan (WRP). She mentioned the recent Supreme Court decision changing the definition of adjacent water and affecting wetlands. She suggested adding a Wetlands Study to quantify how many acres of wetlands the County needs for resilience and water quality in the upcoming Agricultural study. Support of the Impervious Surfaces Ordinance and is very concerned about the proposed changes to the Agriculture Zone in item 4c.
	 Samantha Barquin – Miami Waterkeeper. Shared support of Impervious Surfaces Ordinance and the recommended changes to Chapter 24 to improve Stormwater operations and maintenance. Commended the County for outreach and education efforts.
	3. Scott Pollowitz – Friends of Biscayne Bay, intern. Stated that the Biscayne Bay Aquatic Preserve is one year away from celebrating its 50 th anniversary. The Bay's health has improved since the creation of the Aquatic Preserve and expressed concern over environmental protections being weakened like the recent SCOTUS decision reducing protections of wetlands. He is encouraged to see the WRP included on the agenda, especially regarding land use and zoning considerations. Supports the Impervious Surfaces legislation. Excited to partner with the County for the upcoming Ghost Trap Rodeo.

DISCUSSION Agenda was approved and adopted unanimously.

APPROVAL OF MEETING MINUTES

Commissioner Danielle Cohen Higgins - Chair

DISCUSSION	Meeting Minutes from the April 14, 2023, meeting adopted unanimously.
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BBWMAB GOALS AND OBJECTIVES / WATERSHED RESTORATION PLAN

Commissioner Danielle Cohen Higgins - Chair

Chair Cohen Higgins states that she wants to take a moment to do a refresher on the purpose and objectives of this Advisory Board. We have many issues affecting Biscayne Bay and she wants this Board to review those and decide as a body whether or not the issues are supportive of Biscayne Bay. We want to be action-oriented moving forward. We have seen many presentations and would like to see actions beginning with developing a comprehensive Watershed Restoration Plan. Chair recognized Spencer Crowley for comments. Mr. Crowley stated that he wants the County to focus on specific actions that help the Bay, including cleaning up the canals, stormwater system improvements, septic tank conversions, and maintenance. He does not feel that turning the Advisory Board into some kind of regulatory body is a good idea. He is concerned that these actions will diminish our focus. He cited the example of Lake Worth Lagoon in Palm Beach County. They are only focused on projects which directly affect the Lagoon and they have been successful.
the mandate which is clear in our ordinance. The focus is what is changing from presentations to passing recommendations to help our overall mission.
Mr. Crowley stated that he sees focusing on growth, development, zoning, and planning policies will divert the advisory Board from issues like stormwater maintenance and improvements. He reiterated that focusing on regulation is not helpful. The County can't regulate itself out of the problems we face in Biscayne Bay.
Chair Cohen Higgins asked the DERM Director, Lisa Spadafina, to address the Board to address the stormwater questions. Ms. Spadafina mentioned that several stormwater and flood management reports are coming before the Board of County Commissioners at their meeting on July 18. She highlighted the need for additional open spaces or using existing space to allow our stormwater to be managed better. Within the Impervious Ordinance, she stated that the re-certification for municipal systems will be critical to our success.
Chair Cohen Higgins stated that the Stormwater report included in the Board packet came as a recommendation from this body and connects to the Impervious Surfaces Ordinance. We now need to decide if we support these ordinances. They will positively impact Biscayne Bay.
The Chair made a motion to send a recommendation to the Mayor and the BCC regarding developing a Watershed Restoration Plan. Commissioner Kevin Cabrera seconded the motion. The motion passed 14 to 1. She requested that the Chief Bay Officer work with DERM to bring a Scope of Work and budget at their next meeting on September 15.

DRAFT IMPERVIOUS SURFACES ORDINANCE REVIEW

	The Chair welcomed Marina Blanco-Pape to lead a discussion on the draft Impervious Surfaces ordinance. Ms. Blanco-Pape stated that the ordinance will introduce several requirements for municipal stormwater utilities and others who manage stormwater, including sharing of maintenance records; assessments of the overall system; and permitting requirements for non-structural impervious surfaces on residential and multi-family properties. She also mentioned that DERM is not only looking at the regulatory aspect of this but also has a 30-year Capital Improvement Plan (CIP); updated our stormwater master plan, and updated County flood criteria as well. Ms. Blanco-Pape and the team are open to comments and discussion on the draft.
	Chair Cohen Higgins - Stated that areas of the County have been overdeveloped, and there isn't enough green space, and we need the help of our municipalities.
	Mayor Lago – Mentioned legislation recently passed in Coral Gables, which incentivizes density and creates green space. He is happy to show the Board what the City of Coral Gables has been doing in this area for the last ten to fifteen years. These actions minimize stress on the bay.
	Roberto Torres – Spoke of the need to protect and create more nature-based opportunities.
	Mayor Meerbott – Mentioned that Cutler Bay already has an ordinance in place regarding impervious surfaces and assigns a percentage of green space required. They are making positive changes in the City and are happy to see it go county-wide.
DISCUSSION	Commissioner Streitfeld – Mentioned that North Bay Village has a limit to lot coverage and is in the process of amending its ordinance and asked what aspects of the ordinance are binding for municipalities. She also asked what will compel private property owners to come into compliance so that they cannot use adjacent properties or public right of way for drainage. Commissioner Streitfeld also asked which rainfall data the County used.
	Marina Blanco-Pape – Responded that the ordinance will apply to all municipalities. If their standards are higher, that's great, and if they don't have a way to effectively regulate small residential lots to the same or better standard, the County will work with them to review to help them achieve them. Existing properties will need to be retrofitted to manage all stormwater on site. They are not allowed to drain into adjacent properties. As for data, they modeled current and future conditions using data available from NOAA and USGS, including sea level rise projections and future land use.
	Commissioner Streitfeld – Commended staff on the effort and was very impressed with the draft legislation.
	Brett Bibeau – Cited page 7 of the memo of the stormwater report from Mayor Levine Cava, which identifies the three main ways to improve stormwater systems: street sweeping, removing trash, and maintaining systems. He requested an update on these items at the next board meeting. Chair Cohen Higgins agrees with the request.
	Spencer Crowley – Asked where does the ordinance apply? Will it apply to FDOT, for example. He expressed concern about roadways that have stormwater systems discharging into the Miami River. On top of that, he believes that we need to be concerned with runoff from all of our roadways, including state roadways.
	Ms. Spadafina – Answered that FDOT, as a state agency, is subject to some of our regulations but the County is pre-empted by the state from issuing environmental permits to FDOT. She also stated that DERM does coordinate with FDOT on some road projects, including the I-395 site, which has flooded into the bay when it rains. They also coordinate with DEP, and we get good responses from both agencies, but we could do more, especially with FDOT.
	Jannek Cederberg – Questioned data regarding water level, mean high water level, which is old and outdated. How is data regarding Sea Level Rise (SLR) being updated? Ms. Blanco-Pape responded that the County updated all SLR data a couple of years ago. Updates should use the 2060 SLR scenario. Public Works roadways are using 2060 criteria as well.
	Commissioner Fernandez – Asked that smaller cities be brought along in this process and suggested that the CBO or RER attend the next League of Cities meeting to present the draft ordinance.
	Spencer Crowley – Asked how the draft ordinance interacts with the MS4 permit process.
	Marina Blanco-Pape - Responded that the County continues to be responsible for the outfalls via Class II permits. What does change is the quality of the discharge from the outfalls. These discharges cannot

degrade receiving waters or have floatable debris in them. Her goal is to include a summary in our next board packet, brief with the League of Cities, get the full support of this advisory Board, and then bring it to the BCC.
Chair Cohen Higgins – Asked that all board members wishing to make comments to the draft ordinance send them to the Chief Bay Officer.

PROPOSED COUNTY ORDINANCE #231337 – AGRICULTURAL ZONING DISTRICT

Commissioner Danielle Cohen Higgins, Chair

	The Chair provided some background on a proposed County Ordinance item 231337, which went before the Board for first reading at the previous board meeting, and which changes uses permitted in the Agricultural Zoning District. While there are many parts of the ordinance, the section concerning directly the Biscayne Bay watershed and our groundwater is Section 33-279.3 (6)(a) -(6), which deals with the maximum number of vehicles allowed for storage on a single lot in the agricultural zone.
	Lourdes Gomez, Director RER, presented some context and background regarding this section. The Department worked for many years to address the issue of illegal truck parking in southern Miami-Dade, specifically in the agricultural area. Two years ago, the BCC passed an updated ordinance and solved the problem by creating a limit of two trucks for five acres (or as stated in the ordinance 4 vehicles per acre). This new proposal is effectively undoing those regulations and limitations. So this means the County won't have a handle on what the effects are and where the vehicles are. We go from a limited number of vehicles allowed to park and be stored to virtually unlimited numbers.
DISCUSSION	Ms. Spadafina – Stated that DERM is concerned about having pervious areas where you'll have these hazardous materials, like a truck parking facility. All of those things are regulated strictly within the Urban Development Boundary (UDB). These things go right into the groundwater, which impacts drinking water. We don't want stormwater runoff to move these pollutants into the canals and the bay.
	Commissioner Streitfeld – Asked if the ordinance is approved in the current state, what will happen with regulating truck parking? Ms. Gomez – that is why we made the code change two years ago because it was so hard to enforce and tell the difference between commercial or agriculture work.
	Dr. Todd Crowl – Stated that PFAS are found in all these petroleum-based products. We need to keep that in mind; we don't want more of them in our environment.
	Commissioner Fernandez – Related actions were taken many years ago to address this ongoing problem. He asked clarifying question regarding the process for requiring commercial trucks parking in agricultural areas. Supports businesses in the agricultural zone but does not want the problem of excessive truck parking to return.

FUTURE AGENDA ITEMS

Commissioner Danielle Cohen Higgins, Chair

DISCUSSION	Chair Cohen Higgins - Asked the board members if they were interested in bringing an item regarding wetlands for discussion, given the high level of interest from advocacy groups and the public. She requested that the Chief Bay Officer include this item in the September board meeting.
	Brett Bibeau – Requested an update on the street sweeping and stormwater drain maintenance program with a focus on the frequency.
	Spencer Crowley – Mentioned that the County Parks Department finalized a water access plan which was funded by a FIND grant. He requested that the presentation be made at a future board meeting. Chair Cohen Higgins agreed and asked that he get the presentation from Parks.
	Commissioner Streitfeld – Stated that there are press reports regarding a private floating club on the Bay. The Arkhaus project will be built next to Bird Key and is causing concern for North Bay Village and

Miami Beach. While understanding that no permit has been issued at this time, she requested a discussion item regarding commercial uses on Biscayne Bay at a future board meeting.
Commissioner Streitfeld – Made a motion to recommend to the Board of County Commissioners to oppose the draft ordinance #231337 regarding permitted uses in the Agricultural Zoning District at second reading. Commissioner Cohen Higgins seconded the motion. The motion passed 13 – 1.
Dr. Todd Crowl – Requested an update on the three pilot stormwater projects funded by FDEP last year. Marina Blanco-Pape stated that the projects are under construction and should be completed by October 2023. She mentioned that her team did exhaustive water quality assessments prior to installation and will then do an assessment post-installation. DERM is looking for effective solutions and practical to maintain innovations. Currently, we have three products to test and will be looking at five locations for new products.
Mayor Vince Lago – Requested a Sunshine meeting with Commissioner Cohen Higgins to discuss two ideas to promote septic to sewer conversions. Chair Cohen Higgins agreed to do the meeting and will bring back the results to the Board if appropriate.
Commissioner Alex Fernandez – Requested an update at a future meeting regarding the trust fund created to help fund septic to sewer conversions.

ADJOURN

Commissioner Danielle Cohen Higgins - Chair

DISCUSSION The Chair thanked the BBWMAB and staff for their work. The meeting was adjourned at 11:26 am.

RESOLUTION NO. 23-02

RESOLUTION OF THE MIAMI-DADE COUNTY BISCAYNE BAY WATERSHED MANAGEMENT ADVISORY BOARD PROVIDING RECOMMENDATION

WHEREAS, the Miami-Dade County Biscayne Bay Watershed Management Advisory Board may make recommendations to the Board of County Commissioners and the County Mayor pursuant to section 2-2444 of the Code of Miami-Dade County; and

WHEREAS, at its July 14, 2023, meeting, the Biscayne Bay Watershed Management Advisory Board made the following recommendation,

NOW, THEREFORE, BE IT RESOLVED BY THE MIAMI-DADE COUNTY BISCAYNE BAY WATERSHED MANAGEMENT ADVISORY BOARD that it recommends that the County Mayor direct appropriate staff to develop a Scope of Work and budget for the Biscayne Bay Watershed Plan for the Biscayne Bay Watershed Management Advisory Board review and recommended next steps.

The foregoing resolution was offered by Chairwoman Danielle Cohen Higgins and was seconded by County Commissioner Kevin Marino Cabrera, and upon being put to a vote, the vote was as follows:

> Chair Danielle Cohen Higgins aye Vice Chair Vince Lago aye

Commissioner Rachel Streitfeld	aye
Commissioner Alex Fernandez	aye
Commissioner Micky Steinberg	absent
Commissioner Kevin Cabrera	aye
Julissa Kepner	aye
Jannek Cederberg	aye
Diego Lirman	aye
Kevin Cunniff	aye
Dave Doebler	absent

Joan Browder	absent
Mayor Tim Meerbott	aye
Brett Bibeau	aye
Todd Crowl	aye
John Alger	absent
Gerald McGinley	aye
Roberto Torres	aye
Spencer Crowley	nay
Erik Stabenau	absent

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The above action was taken by the Biscayne Bay Watershed Management Advisory Board at its public meeting the 14th day of July, 2023.

I hereby certify that the above information accurately reflects the action of the Board.

Commissioner Danielle Cohen Higgins, Chair Biscayne Bay Watershed Management Advisory Board

RESOLUTION NO. 23-01

RESOLUTION OF THE MIAMI-DADE COUNTY BISCAYNE BAY WATERSHED MANAGEMENT ADVISORY BOARD PROVIDING RECOMMENDATION TO THE BOARD OF COUNTY COMMISSIONERS REGARDING PROPOSED COUNTY ORDINANCE

WHEREAS, the Miami-Dade County Biscayne Bay Watershed Management Advisory

Board may make recommendations to the Board of County Commissioners pursuant to section 2-

2444 of the Code of Miami-Dade County; and

WHEREAS, at its July 14, 2023, meeting, the Biscayne Bay Watershed Management Advisory Board's agenda included the following discussion item:

"Proposed County Ordinance #231337 Uses Permitted Agricultural Zoning District Sec. 33-279.3(6)(a) - (6) Maximum number of distribution vehicles. (a) >> Amount allowed as of right for storage on the subject property. The number of distribution vehicles allowed shall not be limited;" and

WHEREAS, the Biscayne Bay watershed Management Advisory Board held such

discussion,

NOW, THEREFORE, BE IT RESOLVED BY THE MIAMI-DADE COUNTY BISCAYNE BAY WATERSHED MANAGEMENT ADVISORY BOARD that it recommends that the Board of County Commissioners not adopt the proposed County ordinance identified as Legistar #231337.

The foregoing resolution was offered by Commissioner Rachel Streitfeld and was seconded

by County Commissioner Cohen Higgins, and upon being put to a vote, the vote was as follows:

Chair Danielle Cohen Higgins aye Vice Chair Vince Lago aye

Commissioner Rachel Streitfeld	aye
Commissioner Alex Fernandez	aye
Commissioner Micky Steinberg	absent
Commissioner Kevin Cabrera	absent
Julissa Kepner	aye
Jannek Cederberg	aye
Diego Lirman	aye
Kevin Cunniff	aye
Dave Doebler	absent

Joan Browder	absent
Mayor Tim Meerbott	aye
Brett Bibeau	aye
Todd Crowl	aye
John Alger	absent
Gerald McGinley	aye
Roberto Torres	aye
Spencer Crowley	nay
Erik Stabenau	absent

The above action was taken by the Biscayne Bay Watershed Management Advisory Board at its public meeting the 14th day of July, 2023.

I hereby certify that the above information accurately reflects the action of the Board.

Commissioner Danielle Cohen Higgins, Chair Biscayne Bay Watershed Management Advisory Board

Biscayne Bay Watershed Management Advisory Board

Welcome New Board Member

Jerry Menéndez Greater Miami Chamber of Commerce



Read more about Jerry Menéndez here



FIU News



One of FIU's Institute of Environment buoys

Campus & Community

Longtime university supporter gives back to help save the bay

By Contributing Writer

October 14, 2022 at 9:57am

By Kenneth Setzer MA '97

Longtime FIU supporter Elliot Stone cares deeply about the health of the environment. The founder of Royal Castle Builders, LLC, Stone is a Miami native who sees the powerful, positive results of serving his community.

That's why when FIU's Institute of Environment needed to add a buoy to its Biscayne Bay and Florida Bay monitoring system, Stone stepped in with a \$50,000 gift.

"The work that FIU is doing to understand and protect our local environment is uniquely valuable," says Stone. "Whether in Biscayne Bay, the Keys, or the Everglades, FIU is leading the way for us to live harmoniously in these very special ecosystems. I am honored to do a small part in furtherance of this all important mission."



In recognition of Stone's generosity, FIU is naming the buoy the Royal Castle Companies & Singer Management LLC, Buoy.



Elliot Stone

An advocate of the university, Stone also supports FIU athletics and the Jewish Museum of Florida–FIU, among several other areas at the university. He is also a member of the FIU Foundation Board of Directors and established the Senator Richard B. Stone Public Policy Scholarship Endowment to help students interested in serving the public. The endowment honors his late father, who served Florida as a U.S. senator and the nation as an ambassador.

The buoy – made possible by Stone's gift – will play a crucial role in FIU's efforts to protect and preserve the Biscayne Bay and Florida Bay.

"Buoys provide us with real-time data continuously," says Todd Crowl, director of FIU's <u>Institute of Environment</u>. "Because the bay has so many inputs [canals, etc.] potentially bringing in contaminants and pollutants, we need a large network of these 'sentinel' buoys to be our eyes."

The buoy monitoring system is part of the larger overall Institute of Environment's <u>CREST Center for Aquatic Chemistry and Environment</u>'s mission to monitor and address the ecosystem's responses to man-made and natural stressors in South Florida's waters such as harmful algal blooms like red tide. Funded by the National Science Foundation, the CREST Center for Aquatic Chemistry and Environment is one of less than 30 such NSF-funded centers in the nation.

"To fully understand where our major pollutants are coming from, we have to heavily instrument Biscayne Bay," Crowl explains. "Having individuals like Elliot donate funds to purchase an additional buoy to the five we currently operate shows that the community is aware of these issues and wants to help us protect our bay."



Chapter 24 - ENVIRONMENTAL
 PROTECTION, BISCAYNE BAY AND
 ENVIRONS DESIGNATED AQUATIC PARK
 AND CONSERVATION AREA, THE BISCAYNE
 BAY ENVIRONMENTAL ENHANCEMENT
 TRUST FUND, AND THE ENVIRONMENTALLY
 ENDANGERED LANDS PROGRAM

Impervious Area Ordinance



Chapter 33 - ZONING

Chapter 8CC - CODE ENFORCEMENT

>





Ordinance Relating To Environmental Protection And Zoning To Improve Water Quality and Increase Flood Control

- Amending selected sections of Chapter 24, Chapter 33, and Chapter 8cc of the code of Miami-Dade County
- Revising development standards and procedures relating to drainage and impervious surfaces
- Revising definitions and cross-references
- Making technical changes
- Providing for enforcement by civil penalty

Key Updates



Best Management Practices

- **County approvals for all non-structural impervious surface** improvements, *residential*, multifamily, commercial, swimming pools, paving and drainage (m-permits currently used for DERM reviews)
- **Municipalities may regulate non-structural impervious surface** improvements if they adopt their own (same or stricter) ordinance, for single-family and duplex properties only
- County may still review properties causing flooding on adjacent property or on the public right-of-way
- County approvals for all development, improvement, construction, or alteration on parcels with stormwater infrastructure





Requirements to address maintenance & operations

- Stormwater system records required from municipalities, public entities, special taxing districts, community development districts, and private property owners' associations operating infrastructure in the public right-ofway or discharging onto the public right-of-way
- Records include asset inventory and maintenance reports



Key Updates



Requirements to address system performance

- **Recertification** required for the same entities that maintain and submit system records, within the first 3 years from the adoption of the ordinance and every 10 years thereafter, unless the county determines that more frequent recertification is required
- **Engineer's report** to certify performance, identify deficiencies and recommend corrective action(s)/timeline
- Ensure system performance, that the system is not adversely impacting water quality in the Bay, and it is managing flooding



Key Updates



Requirements to address water quality and flood control

- Retention (all parcels, minimum 25 YR event)
- Green infrastructure as a strategy to meet retention requirements
- Setting minimum permeability requirements
- Updating minimum quality standards for direct discharges (technology applications, volume reductions combined with retention/infiltration, discharge criteria, post-conditions same or better than pre-conditions)





Since June 2023, ordinance draft has been distributed, presented, discussed: municipalities, industry groups , universities, other interested organizations Please send your comments to: <u>WaterManagement@miamidade.gov</u>

If there are any questions, please contact the RER-DERM Water Management Division at 305.372.6950 QUESTIONS

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Approved	 Mayor	Agenda Item No.
Veto		
Override		DRAFT 2023-06-23

ORDINANCE NO.

ORDINANCE RELATING TO **ENVIRONMENTAL** PROTECTION AND ZONING; AMENDING DIVISION 1 OF ARTICLE I, DIVISION 1 OF ARTICLE III, AND DIVISION 1 OF ARTICLE IV OF CHAPTER 24, ARTICLE I OF CHAPTER 33, AND SECTIONS 24-25, 33-52, AND 8CC-10 OF THE CODE OF MIAMI-DADE COUNTY, FLORIDA; REVISING DEVELOPMENT **STANDARDS** AND PROCEDURES **RELATING TO DRAINAGE AND IMPERVIOUS SURFACES;** REVISING DEFINITIONS AND **CROSS-REFERENCES:** AMENDING SECTION 24-38; REVISING BASIN WHERE FUNDS MAY BE EXPENDED; MAKING TECHNICAL CHANGES; PROVIDING FOR ENFORCEMENT BY CIVIL PENALTY; 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:

<u>Section 1.</u> The memorandum referenced in the above recital is incorporated in this

ordinance and is approved.

Section 2. Division 1 of Article I of Chapter 24 of the Code of Miami-Dade County,

Florida, is hereby amended to read as follows:¹

ARTICLE I. - IN GENERAL

DIVISION 1. - GENERAL PROVISIONS

* *

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.

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:

*

*

(30) *Basin B* shall mean those lands within the following geographical boundary>>, all of which are designated as a cut and fill basin<<:

Section 13, 14, and 24, Township 52 South, Range 39 East, less those portions thereof lying southwesterly of the southwesterly right-of-way of Okeechobee Road, and

Sections 16, 17, 18 and 20, Township 52 South, Range 40 East, and

Section 19, Township 52 South, Range 40 East, less that portion thereof lying southwesterly of the northeasterly right-of-way of the Miami Canal and northwesterly of the northwesterly right-of-way of the Florida Turnpike, and

That portion of Section 21, Township 52 South, Range 40 East, lying westerly of the westerly right-of-way of Interstate I-75, and

Section 30, Township 52 South, Range 40 East, less that portion thereof lying northwesterly of the northwesterly right-of-way of the Florida Turnpike, and less those portions included within the right-of-way of the Miami River, and

Section 31, Township 52 South, Range 40 East, and

Sections 6, 7, 8, 17, 18 and 19, Township 53 South, Range 40 East, and

Section 30, Township 53 South, Range 40 East, less the southeast one quarter thereof.

*

All lying in Miami-Dade County, Florida.

*

*

(32) >><u>Bird Drive Basin shall mean those lands within the</u> following geographical boundary, all of which are designated as a cut and fill basin:

> All those sections and fractions of Sections of the west one half of Township 54 South, Range 39 East and the west one quarter of Sections 3 and 10 which lie south of the Tamiami Trail, except Sections 21, 28 and 33 and except that portion of Section 31 which lies south of North Kendall Drive (State Road 94).

(33)<< Bird Drive Everglades Wetland Basin shall mean the wetlands described below:

That portion of Section 3, Township 54 South, Range 39 East lying south of U.S. Highway 41 (Tamiami Trail) and lying west of S.W. 143 Avenue north of S.W. 9th Terrace and lying west of S.W. 144 Avenue south of S.W. 9th Terrace; those portions of Sections 4, 5, and 6, Township 54 South, Range 39 East lying south of U.S. Highway 41 (Tamiami Trail); that portion of Section 10, Township 54 South, Range 39 East lying west of S.W. 144 Avenue; that portion of Section 31, Township 54 South, Range 39 East, lying north of S.W. 88th Street (North Kendall Drive); and Sections 7, 8, 9, 16, 17, 18, 19, 20, 29, 30, and 32, Township 54 South, Range 39 East.

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>>(44) <u>Building permit shall mean a permit pursuant to the Florida</u> <u>Building Code.</u><<

* * *

>><u>(70)</u><<[[(68)]] County Flood Criteria Map shall be as defined in chapter 11C.

- >>(71) County public works department or public works department means the public works department as defined in section 2-99.
- (72) <u>County public works manual shall mean the manual of</u> minimum standards for public works construction promulgated by the County public works department pursuant to section 2-100.<<

*

*

>><u>(79)</u><< [[(75)]] *Department* shall mean the Division of Environmental Resources Management of the Miami-Dade County Department of Regulatory and Economic Resources or successor department responsible for administration of this chapter.

- >><u>(80)</u><< [[(76)]] Detention [[of stormwater]] shall mean >><u>a</u> facility or system that delays or reduces the discharge of a given volume of stormwater runoff into surface waters through<< the collection and temporary storage of >><u>said</u><< stormwater [[in a manner that will provide treatment through physical, chemical or biological processes,]] with subsequent [[gradual]] release [[of the stormwater]] >><u>into the ground or to surface waters</u><< [[in a manner not to exceed the design limitations of the temporary storage area]]. >><u>There are two type of</u> detention, wet and dry:
 - (i) Wet detention is storage of stormwater at or below the design mean high water table.
 - (ii) Dry detention is storage of stormwater one foot above the design mean high water table.
 - (iii) Examples of detention systems are excavated or natural depression storage areas, pervious pavement with subgrade, or above ground storage areas.<<
- >><u>(81)</u><< [[(77)]] Detention pond shall mean >><u>detention that</u> <u>consists of</u><< an open basin >><u>that</u><< [[which intercepts the groundwater table and]] is used for >><u>storage to reduce</u> <u>stormwater peak flow rates or pollutants</u><< [[the temporary storage of stormwater runoff]].
- [[(78) *Developed land* shall mean land upon which structures or facilities have been constructed.

- (79)]] >>(82)<< Developed property shall mean any parcel of land >>that<< [[which]] contains >>or is proposed to contain development<< [[an impervious area]].
- >>(83)<< [[(80)]] Development shall mean>>:<< any [[proposed]] activity or material change in the use or character of land, including, but not limited to, the placement >>or construction<<< of any structure, utility, fill, >>impervious area.<< or site improvement on land[[,]]>>:<< [[and]] >>or<< any act >>that<< [[which]] requires a building permit. >>Development includes, without limitation, mining, dredging, filling, grading, paving, excavating, drilling operations, or permanent storage of materials or equipment.<</p>
- >>(84) << [[(81)] Dewater shall mean to >>:

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- (a)<< discharge off-site or on-site water from an excavation, underground structure, >><u>trench</u>,<< or depressed land>>; or
- (b) discharge surface water during storm events from an on-site lake to an on-site or off-site canal, ditch, or other surface waters, or from one location to another in a similar manner; provided, however, that discharging to an on-site lake that is already permitted pursuant to this chapter to do so or that is already connected in accordance with this chapter to a conveyance canal or to surface waters shall not be classified as dewatering<<.</p>

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>><u>(86)</u><< [[(83)]] *Director* shall mean the primary official that has been delegated responsibility to administer the Department, with duties created pursuant to this chapter. Except where expressly provided or where context dictates otherwise, the term "Director" includes the Director's designee.

< * *

>><u>(93)</u><< [[(90)]] *Drainage area* shall mean a geographically defined land surface having topographical features such that stormwater runoff will be directed towards a >><u>drain or</u>

<u>common receiving point or area</u><< [[drainage structure or natural waterway]].

* * *

- [[(95) Dry exfiltration shall mean an underground stormwater disposal system where the invert of a perforated conveyance pipe is placed at or above the average October groundwater level as set forth in the Miami-Dade County Public Works Manual, Part II, Section D4, dated September 1, 1974, as may be amended from time to time.
- (96) Dry infiltration or dry retention shall mean the process which occurs when stormwater is conveyed to a grassed swale or open basin for disposal into the ground where the bottom of the grassed swale or open basin is at least one (1.0) foot above the average October groundwater level as set forth in the Miami-Dade County Public Works Manual, Part II, Section D4, dated September 1, 1974, as may be amended from time to time.]]

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>>(109)<< [[(108)]] Equivalent residential unit >>(ERU)<< [[(sometimes hereinafter referred to as "ERU")]] shall mean the statistically estimated average horizontal impervious area of residential developed property per dwelling unit. This estimated average is calculated by dividing the total estimated impervious area of four [[(4)]] residential categories, to wit, single family, mobile home, multifamily and condominium, by the estimated total number of residential dwelling units. For the purposes of this article>>₂<< each dwelling unit, [[to wit,]] >>whether a<< single family residence, mobile home, >>unit in a<< multifamily >>building<<, or condominium >>unit<<, is assigned one [[(1)]] ERU.

>>(111)<< [[(110)] *Exfiltration* [[*of stormwater*]] shall mean the process by which>>:

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<u>(a)</u><< stormwater flows out of a trench or a buried perforated pipe >><u>or structure</u><< into the surrounding ground>>; or (b) in the context of a WCTS, wastewater flowing from the WCTS (including sewer service connections) into the ground through such means as defective pipes, pipe joints, connections, or manholes or other defects or perforations in the system<<.

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>>(113)<< [[(112)] *Facility* shall mean anything that is built or purchased to make an action or operation easier or to serve a special purpose.

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>>(165)<< [[(164)]] Impervious area >>or impervious surface<</pre>shall mean>>:

- (a) << a [[division of the horizontal ground]] surface >> area that does not allow penetration by water, including << [[which is incapable of being penetrated by rainwater. This shall include]], but not [[be]] limited to, all structures, roof extensions, slabs, patios, porches, driveways, sidewalks, parking areas, swimming pools, athletic courts, and decks>>; or
- (b) a surface area that has a permeability rate of less than 0.8 inches per hour (2 cm per hour) for penetration of water, including, without limitation: pavers and pavement that are not certified by the manufacturer to have a minimum permeability rate of 0.8 inches per hour (2 cm per hour); highly compacted ground or fill; and clays and other fine-grained soils.<<

>>(170)<< [[(169)]] Infiltration means>>:

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(a)<< the [[distribution]] >>permeation<< of water [[on the surface of land]] to [[permit the water to]] soak through the vegetation and soil [[into the groundwater.]]>>; or

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(b) in the context of stormwater, this definition also includes, but is not limited to, the vertical downward flow of stormwater through the ground into the Biscayne Aquifer or the flow of groundwater into the surface waters in canals and ditches; or

- (c) << [[(170) Infiltration, when used]] in the context of a WCTS, >>this definition also includes, but is not limited to, the entry of << [[shall mean]] water, other than wastewater, [[that enters]] >><u>into</u><< the WCTS (including sewer service connections [[and foundation drains]]) from the ground through such means as defective pipes, pipe joints, connections, or manholes >><u>or other defects or perforations in</u> the WCTS
- [[(170) Infiltration of stormwater shall mean the process by which stormwater flows vertically downward through the ground into the Biscayne Aquifer.]]

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- (210) >><u>Non-structural impervious surface improvement shall</u> mean the installation or placement of pavement, slab, pavers, or other materials or items that reduce the pervious area, as determined by the Director; or the compaction of ground or fill in a manner that results in an impervious surface conducive to stormwater runoff, as determined by the Director.<< [[*Nonstructural controls of stormwater* shall mean any activity designed to reduce pollutant loading of stormwater including, but not limited to, pollution prevention management policies and public education programs.]]
- (212) North Trail Basin shall mean >><u>those lands</u><< [[a basin]] located in western Miami-Dade County >><u>within the</u> <u>following geographical boundary, all of which are</u> <u>designated as a cut and fill basin</u><< [[comprising the following lands]]:

Sections 33, 34, 35 and 36, Township 53 South, Range 39 East and, Government Lots 1, 2, 3 and 4, Townships 53-54 South and, those portions of Sections 1, 2, 3 and 4, Township 54 South, Range 39 East, which lie north of the north right-of-way line of the Tamiami Canal.

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- (218) *On-site* shall mean within the boundaries of a facility location, property>>,<< or site>>,<< including those sites spatially separated by public or private rights-of-way.
- (219) On-site retention shall mean >>retention<< [[the containment and disposal]] of stormwater >><u>on-site</u><< [[runoff by means other than positive drainage within the limits of the project site]].

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- (224) >><u>Outfall shall mean the discharge point of water or other liquids into any surface water, retention system, or other land, and outfall shall include, but not be limited to, the outlet of a pipe, where it discharges into a lake, canal, wetland, other surface water, or retention system.</u>
- (225) << Overflow [[outfall]] shall mean>>:

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- (a)<< a drainage structure >><u>or pipe</u><< designed to discharge to an on-site or off-site location any excess stormwater runoff after an initial runoff volume has been retained on-site[[-]]>>; or
- (b) in the context of a WCTS, << [[(225) Overflow shall mean]] the discharge of sewage from any publicly or privately-owned or operated sanitary sewer collection system or wastewater treatment facility to the surface of the ground or to a surface water.
- >>(235) Pervious area shall mean a surface area that allows the penetration of water. Examples of pervious areas include but are not limited to: green areas and swales with soils classified as Group A in the Soil Survey promulgated by the United States Department of Agriculture Natural Resources Conservation Service (NRCS) and with a minimum permeability rate of 0.8 inches per hour (2 cm per hour); and pavers and pavement that are certified by the manufacturer to have a minimum permeability rate of 0.8 inches per hour (2 cm per hour). This definition shall not include impervious areas that minimally or incidentally allow the penetration of water, whether by design or defect.

(236)<<[[(234)]] Point of discharge (POD) for a heated-water discharge shall mean either that point at which the effluent physically leaves its carrying conduit (open or closed) and discharges into the waters of the State, or a specific point designated by the Florida Department of Environmental Protection for that particular thermal discharge.

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- >>(239)<< [[(237)]] Positive drainage shall mean the direct disposal of stormwater runoff by overland sheet flow>>,<< or through a channel ditch[[,]] or closed pipe system>>,<< into an on-site or off-site surface water body such as, but not limited to, a lake, lagoon, river, canal, bay>>,<< or the ocean.
- >>(268) <u>Retention shall mean a facility or system designed to</u> prevent the discharge of a given volume of stormwater runoff. There are two types of retention, open and closed:
 - (a) In open retention, water levels are drawn down by evaporation, groundwater recharge through seepage or infiltration, or both evaporation and recharge.
 - (b) There are two types of open retention, wet and dry:
 - (i) Open wet retention is storage of stormwater at or below the design mean high water table.
 - (ii) Open dry retention is storage of stormwater above the design mean high water table.
 - (iii) Examples of open retention systems are excavated or natural depression storage areas, pervious pavement with subgrade, or above ground storage areas.
 - (c) Closed retention consists of a closed storage tank or other enclosure that is constructed to retain water during rain events and that uses vactor trucks or other pumping systems to evacuate the stored water.
- (269)<< [[(266)]] Retention pond shall mean >>retention that <u>consists of</u><< an open basin >><u>that</u><< [[which intercepts the <u>groundwater table and</u>]] is used for the storage and ultimate disposal of stormwater runoff by evaporation and seepage.

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- >>(280)<< [[(277)]] Sanitary Sewer Overflow (SSO) shall mean any discharge of wastewater to >>ground, groundwater or surface water, including<< waters of the United States or the State>>,<< from any WCTS >>or wastewater treatment facility<< in the County through a point source or sources not pemritted in any NPDES permit, as well as any overflow, spill, or release of wastewater to public or private property from a WCTS >>or wastewater treatment facility<< that may not have reached >>ground water or surface water, including<< waters of the United States or the State, >>and<< including all building backups.</p>
- >>(282)<< [[(279)]] Seepage shall mean >>the flow of water or any other liquid through the soil or ground.<< [[the introduction of water into a subsurface excavation from which the water enters the groundwater. Said excavation shall not exceed a depth of two (2) feet below the average yearly highest groundwater elevation described in the Miami-Dade County Public Works Manual as same may be amended from time to time.]]
- [[(280)]]>>(283) <u>Slab</u><< [[Seepage trench or slab]] covered trench shall mean a trench cut into a rock strata supporting a reinforced concrete slab and providing the necessary wall and bottom areas required for exfiltration of stormwater.

>>(309)<<[[(306)]] Storm sewer shall mean [[any conduit]] >>stormwater infrastructure that<< [[which]] is designed to carry stormwater runoff.

>>(310)<<[[(307)]] Stormwater infrastructure shall mean [[the structural, nonstructural or natural features of]] >>a facility or system or natural feature on<< a parcel of land or watershed >>that<< [[which collect, convey, store, absorb, inhibit, treat, use, reuse, or otherwise affect]]>> collects, conveys, stores, absorbs, inhibits, treats, uses, reuses, or otherwise affects<< the quantity or quality of stormwater>>, including facilities or systems that convey stormwater to natural features<<./p>

- >>(311)<<<[[(308)]] Stormwater management area shall mean that portion of a tract of land >><u>or parcel that</u><< [[which]] shall be left at natural grade (unfilled), filled to an elevation no less than four [[(4)]] inches above the seasonal high water table, or excavated below natural grade>>,<< for the purposes of[[:]] managing water >><u>that</u><< [[which]] results from rainfall, storing water in the Biscayne Aquifer>>, or<</p>
- >>(312)<<[[(309)]] Stormwater management program shall >><u>be</u><< [[mean the same term]] as defined >><u>in section</u> <u>403.031</u><< [[by Section 403.031(14)]], Florida Statutes, as [[same]] may be amended from time to time.
- >>(313)<<[[(310)]] Stormwater management system shall >>be<<</p>
 [[mean the same term]] as defined >>in section 403.031<<</p>
 [[by Section 403.031(15)]], Florida Statutes, as [[same]] may be amended from time to time.
- >>(<u>314</u>)<<[[(311)]] Stormwater runoff shall mean the excess rainfall precipitation >><u>that</u><< [[which]] runs over the ground surface when the rate of rainfall precipitation exceeds the rate of >><u>stormwater</u><< infiltration [[of stormwater into the ground]].
- >>(315)<<[[(312)]] Stormwater shall mean the water >>that<< [[which]] results from rainfall.
- >>(316)<<[[(313)]] Stormwater utility shall >><u>be</u><< [[mean the same term]] as defined [[by Section 403.031(16)]] >><u>in</u> <u>section 403.031</u><<, Florida Statutes, as [[same]] may be amended from time to time.
- >>(317)<<[[(314)]] Structural controls of stormwater shall mean</p>
 >>a facility or system consisting of<< physical devices >>or infrastructure<< used to control stormwater>>,<< including, but not limited to, levees, dikes, pump stations, >>piping, structures,<< spillways, locks, embankments, roadways, lakes, retention ponds >>or other retention systems<<, and detention ponds >>or other detention systems<<.</p>

Agenda Item No. Page 13

>>(321) System shall include anything that is a facility.<<

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>>(350)<<[[(346)]] 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.

>>(355)<<<[[(351)] WCTS shall mean Wastewater Collection and Transmission Systems, including all pipes, force mains, gravity sewer lines, pump stations, manholes and appurtenances thereto, designed to collect and convey sewage (domestic, commercial and industrial) to a wastewater treatment plant.

[[(356) Wet retention shall mean the disposal of stormwater runoff to a storage basin having a bottom elevation lower than one (1) foot below the average October groundwater level as set forth in the Miami-Dade County Public Works Manual, Part II, Section D4, dated September 1, 1974, as may be amended from time to time.]]

Sec. 24-6. - >><u>Department</u><< Director [[of the Miami-Dade County Department of Environmental Resources Management]]—Office created; appointment; term; exempt from classified service and merit system; compensation; assistants; operating procedures.

- >>(1)<< The office and position of Director of the >><u>Department</u>, as defined in section 24-5<< [[Miami-Dade County Department of Environmental Resources Management]], is hereby created and established.
- >>(2)<< The Director [[of the Miami-Dade County Department of Environmental Resources Management,]] shall be appointed

by and serve at the will of the County >><u>Mayor</u><<[[<u>Manager</u>]].

- >>(3)<< Such Director shall be chosen by the >><u>Mayor</u><< [[Manager]] on the basis of [[his]] qualifications and experience in the field of air and water pollution controls[[,]] and [[the Director]] shall>>:
 - (a)<< be a professional engineer >><u>licensed</u><< [[registered]] to practice in the State of Florida [[under the provisions of Chapter 471, Florida <u>Statutes,]</u>]>>;<< or [[he shall]]
 - >>(b)<< become >>so licensed<< [[registered]] within
 >><u>18</u><< [[eighteen (18)]] months after the date of
 appointment[[,]]>>;<< or [[he shall]]</pre>
 - >>(c)<< have at least a bachelor's degree from an accredited university in a field >><u>that</u><< [[which]] will, in the >><u>Mayor's</u><< [[Manager's]] judgment, technically qualify >><u>the Director</u><< [[<u>him</u>]] to discharge the duties imposed by this chapter.
- >>(4)<< The Office of Director [[of the Miami-Dade County Department of Environmental Resources Management,]] shall constitute a position exempted from the classified service of Miami-Dade County and the State merit system.
- >><u>(5)</u><< The salary for such position shall be fixed by the Board of County Commissioners.
- >>(6)<< The Director shall serve under the administrative jurisdiction of the County >><u>Mayor</u><< [[Manager]] and subject to the direct supervision of the County >><u>Mayor</u><</p>
 [[Manager]].
 - >>(a)<< The County >><u>Mayor may</u><< [[Manager shall]] appoint such assistants to the Director as may be necessary in order that the duties of the Director may be performed properly.
 - >><u>(b)</u><< The organization and administrative operating procedures of such County office and its relationship and coordination with other County departments [[shall]] >><u>may</u><< be established and placed in effect, from time to time, by administrative order of the County >><u>Mayor</u><< [[Manager]], but the >><u>Mayor</u><<[[Manager]] shall not have any power to modify the duties imposed upon the Director by this chapter or the procedures prescribed herein for the performance of such duties.

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:

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Sec. 24-15. Plan approval required >><u>before issuance of</u> building permit or where no building permit is required <<.

- Intent. It is the intent and purpose of this section to require (1)new facilities, equipment>>,<< [[and]] that all processes>>, and other improvements enumerated in this section (collectively referred to as "projects") that are << constructed or operated after the dates delineated in >>section<< [[Section]] 24-4 or as otherwise provided in this chapter shall comply with the requirements herein contained, and that any enlargement, expansion, or addition to existing facilities also shall comply with the requirements herein contained>>, regardless of whether a building permit for such project is required <<.
 - >>(a) Notwithstanding any provision to the contrary, no County or municipal officer, agent, employee, or board shall approve, grant, or issue any building permit, including, without limitation, early start, phased, or preliminary approvals, for any project subject to this chapter unless the Director has approved the building permit application for compliance with this chapter and as provided herein.
 - (b) << Any building permit issued by the County or a municipality in violation of the provisions of this chapter is hereby determined to be void.
 - >>(c) Plans shall be submitted in accordance with sections 24-15.1 through 24-15.4.
 - (d) <u>Applicant's burden</u>. The applicant shall bear the burden of demonstrating compliance with the applicable requirements and shall submit all required information in a format acceptable to the Director in accordance with this section.<
- (2) >><u>Wastewater</u><<[[Waste water]] facilities.
 >>(a)<< It shall be unlawful for any person to >><u>do any of</u> the following regarding wastewater facilities without

first obtaining the prior written approval of the Director:

- (i)<< commence the installation, extension, or operation of any sewerage system>>,<< including collection, conveyance, transmission>>,<< or treatment or waste treatment facility>>,<< or >>of<< any industrial waste disposal facility [[without first obtaining the prior written approval of the Director or the Director's designee. It shall be unlawful for any person to]]>>; or
- (ii) << make any enlargement, alteration>>, << or addition to any sewerage system>>, << including collection, conveyance, transmission>>, << or treatment>>, to any << [[θr]] waste treatment facility>>, << or >>to<< any industrial waste disposal facility[[_]]>>; << or</p>
- >>(iii)
 commence the construction>>,
 enlargement, alteration, or addition
 of any
 >>other project that involves the generation
 of discharge of effluents or
 [[such systems
 or facilities,]] that will reasonably be
 expected to be a source of water pollution
 [[without first obtaining the prior written
 approval of the Director or the Director's
 designee]].
- >>(b) << No building permit involving the generation or discharge of effluents>>, including domestic sewage, << shall be issued [[by the County or any municipality]] unless the application for a building permit has been approved by the Director [[or the Director's designee]].
- >>(c) The Director shall not approve an application for a building permit that requires an extension of a sanitary sewer system until the permits necessary for construction of the sanitary sewer system have been issued.
- (d) <u>This</u><< [[The provisions of this]] section shall not >>be construed to require the extension of a sanitary sewer system where it would serve only a single <u>building</u><< [[apply to facilities discharging only domestic wastes to a utility or non-utility]] through a single lateral approved by the Director [[or the

Director's designee]], provided that a FOG control device is not required pursuant to >><u>section</u><<< [[Section]] 24-42.6.

- >>(e)<< Notwithstanding the foregoing, the provisions of this section shall apply to facilities discharging only domestic wastes to a utility or non-utility through a single lateral approved by the Director [[or the Director's designee]] if the facilities have or require a FOG control device in accordance with >>section
- >>(f) Notwithstanding any provision to the contrary,<< [[Provided that]] after January 25, 1974, the Director shall not approve an application for an interim package sewage treatment plant unless directed to do so by the Environmental Quality Control Board after a public hearing pursuant to notice. For the purpose of this subsection, an interim package sewage treatment plant shall include all domestic >>wastewater<< [[waste water]] treatment facilities that are not included in the regional treatment system as described in the approved 1973 Water Quality Management Plan.
- (3) *Air facilities.*
 - >>(a)<</p>
 It shall be unlawful for any person to make any major or substantial alteration, enlargement>>,<< or addition to any existing facility, equipment>>,<< or operation, or to commence the construction or operation of any new facility[[,]] that may be a source of air pollution as herein defined, without first obtaining the prior written approval of the plans, equipment>>,<< or processes thereof by the Director [[or the Director's designee]].</p>
 - >>(b)<< No building permit shall be issued [[by the County or any municipality]] unless the application therefor or the plans for construction of the proposed facility have been approved by the Director [[or the Director's designee]].
 - >>(c)<< The provisions of this chapter >>related to air facilities<< shall not apply to >>heating equipment or comfort space heating for<< individual family dwellings or multiple-family dwellings of not more than four [[(4)]] units [[in respect to heating equipment or comfort space heating]].

- (4) *Potable water facilities.*
 - >>(a)<< It shall be unlawful for any person to enter into or let a contract for>>,<< or to commence the installation, extension, alteration>>,<< or operation of>>,<< any public water supply facility without first obtaining the prior written approval of the Director.
 - >>(b)<< No building permit involving a demand on a public water supply shall be issued [[by the County or any municipality]] unless the application for a building permit or plans for construction thereof have been approved by the Director [[or the Director's designee]].
- (5) [[*Aboveground storage facilities.*]] >><u>Storage facilities</u>, <u>aboveground or underground.</u><<
 - >>(a) << It shall be unlawful for any person to install, repair, modify, expand, replace>>, << or permit, cause, allow, let>>, << or suffer the installation, repair, modification, expansion>>, << or replacement of any aboveground >> <u>or underground</u><< storage facility, without first obtaining the prior written approval of the Director [[or the Director's designee.]]
 - >>(b)<< No building permit shall be issued [[by the County or any municipality]] unless the application therefor or the plans for construction of the proposed aboveground >><u>or underground</u><< storage facility show the >><u>Director's</u><< approval [[of the Director or the Director's designee]].
 - >>(c) << The Director[[, or the Director's designee,]] shall issue such written approval only upon receipt of [[formal]] engineering plans, which are signed and sealed by a professional engineer >>licensed<< [[registered]] in the State of Florida and which plans detail that the [[aboveground]] storage facilities specified in said plans shall be constructed in compliance with the requirements of this chapter, >>chapter 62-761 of the Florida Administrative Code for underground storage facilities, or chapter<</p>
 [[Chapter]] 62-762 of the Florida Administrative Code>>for above ground storage facilities.
 - >>(d)<< After receipt of written approval [[from the Director, or the Director's designee]], the owner or

operator of the [[aboveground]] storage facility shall notify the Department a minimum of two working days prior to the commencement of installation, repair, modification, expansion>>,<< or replacement of any [[aboveground]] storage facility.

- >><u>(e)</u><< The installation, repair, modification, expansion>>,<< or replacement shall be subject to inspection by the Department to determine compliance with the approved plans and applicable laws and ordinances.
- (6)[[Underground storage facilities. It shall be unlawful for any person to install, repair, modify, expand, replace or permit, cause, allow, let or suffer the installation, repair, modification, expansion or replacement of any underground storage facility, without first obtaining the prior written approval of the Director or the Director's designee. No building permit shall be issued by the County or any municipality unless the application or the plans for construction of the proposed underground storage facility have been approved in writing by the Director or the Director's designee. The Director, or the Director's designee, shall issue such written approval only upon receipt of formal engineering plans, which are signed and sealed by a professional engineer registered in the State of Florida and which plans detail that the underground storage facilities specified in said plans shall be constructed in compliance with the requirements of this Chapter, Chapter 62-761 of the Florida Administrative Code and the referenced standards contained therein. After receipt of written approval from the Director, or the Director's designee, the owner or operator of the underground storage facility shall notify the Department a minimum of two (2) working days prior to the commencement of installation, repair, modification, expansion or replacement of any underground storage facility. The installation, repair, modification, expansion or replacement shall be subject to inspection by the Department to determine compliance with the approved plans and applicable laws and ordinances.
- (7)] Onsite Sewage Treatment and Disposal Systems (OSTDSs).

- >>(7) <u>Non-structural impervious surface improvements;</u> procedures applicability to municipalities.
 - (a) Notwithstanding any provision of this Code or any municipal code or regulation, on and after January 1, 2024, no non-structural impervious surface improvements shall be permitted or installed on any parcel or property in the incorporated or unincorporated areas without first obtaining the Director's prior approval pursuant to section 24-42, except as provided in this subsection.
 - (b) For non-structural impervious surface improvements on single-family and duplex properties within a municipality, the Director's review and approval pursuant to section 24-42 is not required only where all of the following are complied with:
 - (i) <u>The non-structural impervious surface</u> improvement is not accompanied by any other development.
 - (ii) The respective municipality has adopted its own ordinance regulating non-structural impervious surface improvements on singlefamily and duplex properties.
 - (iii) The Director has issued a written determination that the municipal ordinance is at least as stringent as section 24-42.8.
 - (iv) <u>The municipality continues to enforce its</u> previously adopted ordinance.
 - (v) The Director's review and approval shall continue to be required in accordance with this chapter until the Director has issued such written determination. Notwithstanding the foregoing, the Director's review and approval is not required while the municipal ordinance is under review where the following conditions are satisfied:
 - 1. The municipality had adopted an ordinance regulating non-structural impervious surface improvements for single-family and duplex properties prior to [insert effective date of this ordinance]; and
 - 2. <u>The municipality sends to the</u> <u>Director and the Clerk of the Board of</u> <u>County Commissioners by December</u>

31, 2023, a written notice of its intent to seek the Director's review and approval of such ordinance pursuant to this subsection; and

- <u>3.</u> <u>The municipality submits its</u> <u>ordinance for review within 60 days</u> <u>of the written notice.</u>
- 4. Upon issuance of a written disapproval, the Director's review and approval shall be required for all non-structural impervious surface improvements on single-family and duplex properties within the municipality.
- (vi) Proposed amendments to a municipal ordinance after the Director's written determination shall require review pursuant to this subsection prior to the municipality enacting or applying such changes.
- (vii) Notwithstanding any written approval of a municipal ordinance pursuant to this subsection, the Director's review and approval in accordance with this chapter will nevertheless be required, in addition to any applicable municipal approval, if the Director, in the Director's sole discretion, issues a written determination that such review and approval is required based on one or more of the following reasons:
 - 1. <u>A portion of this subsection is not</u> complied with; or
 - 2. <u>The Director determines that the</u> <u>municipal regulation does not satisfy</u> <u>the requirements of this subsection; or</u>
 - 3. The Director determines that the municipality has approved a nonstructural impervious surface improvement on a single-family or duplex property that:
 - <u>a.</u> <u>does not comply with the</u> <u>adopted municipal ordinance;</u> <u>or</u>
 - b. that is causing or has caused flooding or stormwater

control issues on any adjacent or adjoining property or on the public right-of-way.

- (viii) For purposes of this subsection, a "townhouse" as defined in the 2020 Florida Building Code, Building, 7th Edition, shall be considered a single-family property.
- (8) Stormwater infrastructure. Notwithstanding any provision to the contrary, on and after January 1, 2024, no development, improvement, construction, or alteration of a parcel or property that contains stormwater infrastructure shall be permitted until the Director's prior written approval has been obtained pursuant to this chapter, except as provided in subsection (7) above.
- (9) Other projects that reduce pervious area. Notwithstanding any provision to the contrary, no County or municipal officer, agent, employee, or board shall approve, grant, or issue any building permit for any project that is not otherwise enumerated in this section and that decreases pervious area unless the Director's prior written approval of the application has been obtained pursuant to this chapter. Projects subject to this requirement include, without limitation, swimming pools, whether for residential or non-residential use, and paving and drainage permits.

Sec. 24-15.1. Procedure for approval of plans.

- (1) APPLICATION FOR APPROVAL. >><u>Applications</u> required by section 24-15 or other provisions of this chapter, as applicable,<< [[Application]] for approval of plans >>to construct, extend, or alter a facility, system, equipment, process, or other improvement (collectively referred to herein as a "project")<< [[required hereunder]] shall be made on forms prescribed for such purpose >><u>by</u><< and filed with the Director.
 - Such application shall be signed by the person seeking >><u>approval</u><< [[to install, extend or alter the facility involved]] or a duly authorized representative vested with lawful power to bind the applicant.
 - >><u>(b)</u><< Upon receipt of such application and supporting data, the Director shall review all data and render a

decision on the acceptability of the [[facility]] >>project in accordance with the applicable standards set forth in this chapter <<<.

- (2) REQUIRED INFORMATION. Each such application shall be accompanied by the following data and information >>submitted in a form acceptable to the Director<<:
 - Report of engineer. A comprehensive >> signed and (a) sealed << engineer's report describing the project, the basis of design>>,<< including design data, and all other pertinent data necessary to give an accurate understanding of the work to be undertaken and the reason therefor. Such report shall contain a certificate of a >>professional<< [[registered]] engineer >>licensed in the State of Florida<< certifying that in [[the]] >>such engineer's << professional opinion>>, the operation of the << [[of such registered engineer the facility or]] project will fully comply with the requirements of this chapter and the rules and regulations promulgated hereunder, and will not cause or tend to cause any pollution as herein defined.
 - (b) >><u>Information related to stormwater infrastructure.</u>
 - (i) For any application that includes stormwater infrastructure, an engineering report that includes at least the following shall be submitted:
 - 1. <u>a detailed description of the</u> <u>stormwater infrastructure and any</u> <u>alterations proposed;</u>
 - 2. <u>basis of design with design data and</u> <u>calculations;</u>
 - 3. <u>hydrology and hydraulic data and</u> <u>information, including storm duration</u> <u>and frequency;</u>
 - 4. geotechnical and other signed and sealed field test results quantifying infiltration, percolation, seepage, drawdown, upwelling, mounding, flow rates, and other properties of the ground, soil, subsurface, aquifer, and wells for the project and adjacent parcels and land, as applicable for the study;

- 5. topographical, aerial and other signed and sealed surveys for the project and adjacent parcels and land, as applicable for the study;
- <u>6.</u> <u>assumptions; and</u>
- 7. all other pertinent information and data necessary to demonstrate that the proposed work is designed to comply with this chapter and engineering and scientific standards and principles.
- (ii) For purposes of this paragraph (b), engineering and scientific principles include, but are not limited to, the latest editions of:
 - 1. the County public works manual;
 - 2. the U.S. Department of Agriculture, Natural Resources Conservation Service, National Engineering Handbook;
 - <u>3.</u> <u>the South Florida Water Management</u> <u>District Environmental Resource</u> <u>Permit Applicant's Handbook; and</u>
 - 4. relevant publications of the National Oceanic and Atmospheric Administration and United States Geological Survey.
-) <u>Construction drawings</u>. Construction drawings showing existing conditions and the proposed work<< [[Blueprints. Blueprints or white prints of the drawings of the work to be done]] in sufficient detail >>to describe the project's construction and to demonstrate compliance with this chapter. Each sheet of the drawings shall be signed, sealed, and dated by the engineer of record.<< [[necessary to make it clear to the contractor constructing the facility or project exactly what work is to be accomplished.
- (e)]]>>(d)<< Specifications. Complete >>technical<< specifications in sufficient detail necessary to supplement the drawings and specify the work and the methods by which it is to be accomplished.
- >>(e) <u>Operating Procedures</u><< [[(d) Processes]]. A description of all [[processes]] >><u>operating</u> <u>procedures</u><< proposed to be utilized in connection with the operation of the [[facility_or]] project

(c)

sufficient to >><u>demonstrate the project will operate</u> <u>in compliance with</u><< [[indicate whether or not such processes will reasonably comply with the requirements of]] this chapter.

[[(e)]]>>(f)<< Additional data. Such additional data and information as may be reasonably required by the Director [[or the Director's designee]], including, but not limited to, Baseline Monitoring Reports, Compliance Reports, or any report required for compliance pursuant to the Federal Pretreatment Regulations.

Sec. 24-15.2. - [[Registered]]>><u>Licensed</u><< engineer required.

- >>(1)<< The drawings, specifications>>,<< and other data submitted with >>an<< [[the]] application >>required by this chapter<<< [[filed hereunder]] shall be prepared by >>one or more<< [[a competent]] professional [[engineer or]] engineers [[registered]] >>licensed in the State of Florida.<< [[under the provisions of Chapter 471, Florida Statutes. The plans and other data]]</p>
- >>(2) <u>All materials</u><< required to be submitted >>by a Florida licensed engineer shall be signed and sealed pursuant to chapter 61G15-23 of the Florida Administrative Code or other applicable state regulation
 <[[with the application shall have affixed thereto the names and certificate and registration number of the engineer preparing the same]].
- >>(3) Any<< [[The Director shall not accept or receive any]] application that does not comply with [[the requirements of]] this section >>shall be deemed incomplete and subject to denial as such<<.</p>

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Sec. 24-15.4. - Technical Reports>>:<<[[/]] Professional Engineer[[/]] >>or<< Professional Geologist required.

All applicable portions of the technical plans, reports, proposals or studies required >><u>pursuant to subsection</u><< [[as set forth in Section]] 24-44(2) shall be signed and sealed by a [[licensed]] professional engineer >><u>licensed</u><< [[registered]] in the

State of Florida or [[licensed]] professional geologist >><u>licensed</u><< [[registered]] in the State of Florida.

Sec. 24-16. - Construction of >><u>certain projects</u><< [[waste water facility or air pollution abatement facility, or potable water facility]].

- >>(1)
 After approval of an application >>pursuant to section 24-15 for a wastewater facility, air pollution abatement facility, or potable water facility
 , the person causing the installation or construction of the project [[or facility]] shall >>maintain records of the completed work. In addition, this section shall also apply to applications approved pursuant to section 24-15 for stormwater management systems that are owned or operated by a municipality or other public entity that operates solely within Miami-Dade County, or owned, funded, or operated by or on behalf of a special taxing district, community development district or private property owners' association that operates entirely within Miami-Dade County and that owns or operates stormwater infrastructure that drains onto a public right-of-way.
- (2) Upon written request, the applicant or the person or entity responsible for a project subject to this section shall<< furnish the Director [[or the Director's designee]] with monthly reports>>, including a project closure report and asbuilt plans, prepared, signed and sealed by a professional engineer licensed in the State of Florida,<< [[of a registered engineer]] certifying that the work to date has been accomplished in strict compliance with the approved plans, drawings>>,<< and specifications and that there has been no major or substantial deviation therefrom.
- >>(3)
 If during construction, changes are proposed >><u>that</u>
 [[which]] would materially alter the >><u>operation, capacity, configuration, functionality, or</u><< quality characteristics of >><u>any of the following, then plans, drawings, reports, and specifications for such changes shall be prepared, signed, and sealed by a professional engineer licensed in the State of the Florida and submitted to the Director for approval before making any such changes:</u>
 - (a) << the effluent of a >> sewerage system, industrial waste disposal, or other wastewater << [[waste-water]] facility>>;

- (b) << [[, or which would materially alter]] the emission of air pollutants of an air pollution abatement facility>>;
- <u>(c)</u><< [[or which would materially alter the quality characteristics of]] the effluent of a potable water facility>>; or
- (d) <u>stormwater infrastructure or its ability to protect</u> <u>water quality or prevent stormwater runoff or</u> <u>flooding; or</u>
- (e) <u>a wastewater collection and transmission system</u> (WCTS) or the quality characteristics of its <u>effluent</u><< [[then plans and specifications for such changes prepared by a registered engineer shall be submitted to the Director or the Director's designee for approval before making such changes]].
- >>(4) Only those changes that have received the Director's prior written approval shall be implemented.
- (5) << The Director shall have the right at any reasonable time to enter upon the project for the purpose of making inspections of the work[[₇]] and may require reports and additional information at any stage of construction.
- >><u>(6)</u><<[[(2)]] It shall be unlawful for any person causing the installation or construction of the project [[or facility]] to deviate from the conditions of the >><u>Director's</u><< approval [[of the Director or the Director's designee]] without the >><u>Director's</u><< prior written approval [[of the Director or the Director's designee]].
- >>(7) Any deviation from the approved plans, drawings, operations, or specifications may constitute grounds for revocation of the Director's approval and any permits reliant on such approval.<<

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Sec. 24-21. - Operating records.

>>(1)
The owner >>and
[[or]] operator of any [[facility]]
>project subject to subsections 24-15(2)-(5) or (8), other
than stormwater management systems that are subject to, or
expressly exempted in, section 24-21.1,
[installed or
operating under the provisions of this chapter]] shall

>><u>each be responsible for maintaining and keeping</u><< [[cause to be maintained and kept]] such records [[of the operation data, and control tests,]] as may be required by the Director to indicate the operating efficiency of such facility, and to show whether or not such facility is causing pollution >><u>or contamination of air, water, soil, or</u> <u>property</u><< as [[herein]] defined[[, and to]]>><u>in this</u> chapter or flooding or runoff in violation of this chapter.

- (a) This provision shall not be construed to require the owner and operator to each maintain a set of duplicate records, but if one party does not produce records as required, both parties shall be responsible for any such violation.
- (b) Notwithstanding any provision of this chapter to the contrary, non-structural impervious surface improvements shall not be subject to this section unless operating records are required as a condition of a class permit.
- (2) Such records shall include: a description of the operation; control tests; material usage; safety data sheets; equipment operation logs and records; maintenance records; repair receipts; disposal and manifest receipts; and any additional records that are required to be maintained by an approval or permit granted pursuant to this chapter.
- (3) <u>The owner and operator shall</u> << furnish all such information and data concerning the operation of the >>project<< [[facility]] as the Director may require from time to time.
- >>(4) Records shall be maintained for a minimum of three years, unless a longer retention period is required pursuant to conditions of an operating permit or local, state, or federal regulations.
- (5) << In addition to the above, any industrial user, as defined in >><u>section 24-42.4</u><< [[Section 24-42.4(1)(c) of this Code]], shall comply with the reporting and record keeping requirements set forth in 40 CFR 403.12, Federal Pretreatment Regulations>>, as may be amended<<.

>><u>Sec. 24-21.1. - Stormwater management systems; records</u> and recertification required.

- (1) <u>Records required.</u> By January 1, 2025, the following shall be responsible for submitting to, and in the form prescribed by, the Director electronic files of the asset inventory and maintenance reports of its respective stormwater infrastructure in accordance with the following:
 - (a) Each municipality or other public entity that operates solely within Miami-Dade County and that owns or operates stormwater infrastructure serving a public right-of-way shall submit such records for such entity's entire stormwater management system; and
 - (b) Each special taxing district, community development district, and private property owners' association that operates entirely within Miami-Dade County and that owns or operates stormwater infrastructure that drains onto a public right-of-way shall submit such required records for all privately owned stormwater infrastructure that is owned, funded, or operated by or on behalf of the respective district or association
 - (c) This section shall not apply to public entities, such as the Florida Department of Transportation, that also own and operate stormwater infrastructure outside of Miami-Dade County.
- (2) <u>Recertification required.</u> Each public entity, special taxing district, community development district, and private property owners' association that is subject to subsection (1) shall also be responsible for obtaining from the Director recertification of all its respective stormwater infrastructure, in accordance with the following:
 - (a) Each recertification application shall be submitted on a form prescribed by the Director.
 - (b) Initial recertification shall be obtained by December 31, 2026.
 - (c) <u>Subsequent recertification shall be obtained every</u> ten years thereafter, unless the Director, in the Director's sole discretion, determines that more frequent recertification is required for one or more of the following reasons:
 - (i) significant alterations have been made to the respective stormwater infrastructure that is subject to this section;

- (ii) <u>flooding has occurred in an area served by</u> <u>any portion of the respective stormwater</u> <u>infrastructure;</u>
- (iii) any portion of the respective stormwater infrastructure is the subject of an enforcement action or notice of violation issued pursuant to this chapter; or
- (iv) corrective actions identified through the review of the engineering report required by this subsection have not been implemented within the specified timeframes.
- (d) The recertification application shall include a report that is signed and sealed by a professional engineer licensed in the State of Florida and assesses, following the engineer's physical inspection, whether:
 - (i) <u>such stormwater infrastructure continues to</u> <u>operate in accordance with, and to otherwise</u> <u>comply with, the requirements of this</u> <u>chapter and the conditions and terms of any</u> <u>prior approval of said stormwater</u> <u>infrastructure pursuant to this chapter; and</u>
 - (ii) <u>such stormwater infrastructure has caused or</u> <u>is anticipated to cause any pollution,</u> <u>contamination of air, water, soil, or property,</u> <u>flooding, or runoff in violation of this</u> <u>chapter or the rules or regulations</u> <u>promulgated hereunder.</u>
- <u>(e)</u>

For existing stormwater infrastructure for which no prior approval exists and where the applicant has demonstrated to the satisfaction of the Director that no approval was required at the time of installation, recertification shall nevertheless be required. Such recertification shall consider whether such stormwater infrastructure has caused or is anticipated to cause any pollution, contamination of air, water, soil, or property, flooding, or runoff in violation of this chapter or the rules or regulations promulgated hereunder.

(f) For stormwater infrastructure that does not fully comply with the requirements of this chapter or any prior approval of said stormwater infrastructure pursuant to this chapter, or for stormwater infrastructure that has caused or is anticipated to

<u>)</u>

cause pollution, flooding, or runoff, the engineer's report required by this subsection shall identify all such deficiencies and shall recommend corrective actions and a timeline by which such corrective actions will be accomplished.

- (g) Following the review of the recertification application, the Director shall issue:
 - (i) <u>a written recertification; or</u>
 - (ii) where the engineer's report identifies deficiencies, a written determination providing the time to correct the deficiencies and to make such other modifications to the stormwater infrastructure as the Director deems necessary for the issuance of recertification.<

Section 3. Section 24-25 of the Code of Miami-Dade County, Florida, is hereby

amended to read as follows:

Sec. 24-25. - Violations of rules and regulations of the State of Florida Department of Environmental Protection, Florida Department of Health, and the United States Environmental Protection Agency.

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(1) All of the following rules and regulations are hereby adopted and are incorporated herein by reference hereto as same may be amended from time to time:

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>><u>(1)</u> <u>Chapter 62-302 of the Florida Administrative</u> <u>Code.</u><<

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Section 4. Section 24-38 of the Code of Miami-Dade County, Florida, is hereby amended to read as follows:

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Sec. 24-38. Miami-Dade Stormwater Compensation Trust Fund.

(1) The Stormwater Compensation Trust Fund is hereby created for use in land acquisition and constructing, managing, operating or maintaining stormwater management areas within the Bird Drive [[Everglades Wetland]] Basin, and Basin B and the North Trail Basin. The Finance Director is hereby authorized and directed to establish the Stormwater Compensation Trust Fund and to receive and disburse monies in accordance with the provisions of this section.

- (4) The Director shall only make disbursement from the Stormwater Compensation Trust Fund for the following purposes:
 - (a) Acquisition, including by eminent domain, construction, management, operation or maintenance of stormwater management areas within the Bird Drive [[Everglades Wetland]] Basin, the North Trail Basin and Basin B as defined in Section 24-5 of the Code of Miami-Dade County, Florida.

Section 5. Division 1 of Article III of Chapter 24 of the Code of Miami-Dade County,

*

Florida, is hereby amended to read as follows:

ARTICLE III. - WATER AND SOIL QUALITY

*

DIVISION 1. - WATER QUALITY, WASTEWATER AND SANITARY SEWER PRETREATMENT>>, AND STORMWATER-RELATED

Sec. 24-42. - Prohibitions against water pollution.

* *

- (3) DISCHARGES AFFECTING WATER QUALITY AND PROHIBITION OF POSITIVE DRAINAGE.
 - >>(a) <u>Dewatering and discharges prohibited.</u><< It shall be unlawful for any person to dewater or to discharge sewage, industrial wastes, cooling water and solid wastes, or any other wastes into the waters of this

County, including but not limited to surface water, tidal salt water estuaries, or ground water in such quantities, and of such characteristics as:

- >>(i)<< [[(a)]] May cause the receiving waters, after mixing with the waste streams, to be of poorer quality than the water quality standards set forth in >><u>subsection (4)</u> <u>below</u><< [[<u>Section 24-42(4)</u>]];
- >><u>(ii)</u><< [[(b)]] To cause water pollution as defined in >><u>section</u><< [[Section]] 24-5; or
- >><u>(iii)</u><< [[(c)]] To cause a nuisance or sanitary nuisance as herein defined>><u>; or</u>
- (iv) To cause or allow sediment to discharge into waterways or off-site private or public properties or into stormwater infrastructure in a manner that causes sedimentation, impedes water flows, or degrades water quality<<.
- >>(b) Director's approval required for positive *drainage.* << It shall be unlawful for any County or municipal officer, agent, employee>>,<< or board to approve, grant, or issue any permit, or permit, allow, let>>,<< or suffer the approval or issuance of any permit[[, which]] >>that<< authorizes positive drainage>>, including discharges or outfalls of stormwater,<< without the >>Director's<< prior written approval [[of the Director or the Director's designee]]. The Director [[or the Director's designee]] shall issue a written approval only if the Director >>determines that all of the following are met:<< [[or the Director's designee determine, after reviewing data submitted by the applicant, that one (1) or more of the following conditions exist at the subject site:
- (d) Inadequate size, shape or topographic characteristics of the site to provide full on-site disposal of stormwater.
- (e) Extremely poor soil seepage capacity which prevents full on-site disposal of stormwater.
- (f)]]

>>(i) If a<< [[An existing]] groundwater contamination plume >><u>exists</u><< under or in the vicinity of the subject site >><u>the plume</u><< [[which]] will >><u>not</u><< be adversely impacted by partial or full on-site stormwater disposal>><u>; and</u>

- (ii) The water quality of the receiving water bodies will not be degraded as defined in this chapter; and
- (iii) Drainage is free of materials, whether solid or liquid, that could degrade the water quality of the receiving waters as defined in this chapter; and
- (iv) Drainage is free of materials from construction sites; and
- (v) Drainage does not form visible plumes; and
- (vi) Drainage does not run off onto other properties<<.

(4) WATER QUALITY STANDARDS FOR MIAMI-DADE COUNTY:

Chemical, Physical or Biological Characteristic	Fresh Water (water containing less than 500 ppm chlorides)	Tidal Salt Water (water containing more than 500 ppm chlorides)	Groundwater
Dissolved oxygen (mg/l)	5 ppm during at least 10 hour than 4 ppm, unless acceptabl background dissolved oxyg established herein.		
Biochemical oxygen demand (mg/l)	Shall not exceed a value which would cause dissolved oxygen to be depressed below values listed under dissolved oxygen and in no case shall be great enough to produce nuisance conditions.		
pН	6.0—8.5 ¹	6.0—8.5 ¹	6.0—8.5 ¹
Floating solids, settleable solids, sludge deposits	None attributable to >> <u>stormwater</u> ,<< sewage, industrial wastes or other wastes.	None attributable to >> <u>stormwater</u> ,<< sewage, industrial wastes, or other wastes.	
Oil and grease (mg/l)	15 ²	15 ²	15 ²
Odor-producing substances	None attributable to sewage, industrial wastes, or other wastes Threshold odor number not to exceed 24 at 60°C as a daily average.		
Temperature			
Sources permitted prior to July 1, 1972	Shall cause no environmental damage.		

Chemical, Physical or Biological Characteristic	Fresh Water (water containing less than 500 ppm chlorides)	Tidal Salt Water (water containing more than 500 ppm chlorides)	Groundwater	
Sources permitted after July 1, 1972	3° ≫ <u>F</u> << above ambient.	(June—September) $2^{\circ} \gg \underline{F} \ll$ above ambient. (October— May) $4^{\circ} \gg \underline{F} \ll$ above ambient.		
Turbidity	29 NTU above background>> Waters as defined in 62-302.7 0 NTU above background wit as defined in 62-302.700 F.A.			
Ammonia (mg/l)	.5 ppm as N	.5 ppm as N	.5 ppm as N	
Chlorides (mg/l)	500 ³	3	500 ³	
Chromium (mg/l) total	.05	.05	.05	
Copper (mg/l)	0.4	0.4	0.4	
Cyanides (mg/l)	None detectable	None detectable	None detectable	
Detergents (mg/l)	0.5	Insufficient to cause foaming	0.5	
Fluoride (mg/l)	1.4 as F	10 as F	1.4 as F	
Lead (mg/l)	0.95	0.35	0.05	
Phenol (mg/l)	0.001	0.005	0.001	
Zinc (mg/l)	1.0	1.0	1.0	
Sulfides (mg/l)	0.2	1.0	0.2	
Coliform organisms (MPN/100 ml)	1,000 4	1,000 5	50	
>> <u>Escherichia coli</u> <u>bacteria</u> (MPN/100ml)	<u>410</u>	=	=	
Enterococci bacteria (MPN/100ml)	=	<u>130</u>	<u>-</u> <<	
Mercury	None detectable	None detectable	None detectable	
Iron (mg/l)	0.3	0.3	0.3	
Arsenic (mg/l)	0.05 0.05 0.05			
Specific	500 micromhos per cm (fresh water). Not more than 100% above background,			
conductance	in waters other than fresh.			
Dissolved solids	Not to exceed 500 mg/l for monthly average or 1000 mg/l at any time.			
Radioactive	Gross beta activity (in known absence of strontium 90 and alpha emitters),			
substances	not to exceed 1000 micro-microcuries at any time.			

Chemical, Physical or Biological Characteristic	Fresh Water (water containing less than 500 ppm chlorides)	Tidal Salt Water (water containing more than 500 ppm chlorides)	Groundwater
Other compounds	Other toxic or undesirable >>pollutants and << compounds >>other << than		
>> <u>, chemical,</u>	those listed above may occur in individual waste streams. Limits for these		
physical, or	[[components]] >>pollutants or compounds << may be specified by the		
<u>biological</u>	Director based on the latest scientific knowledge concerning toxicity and		
<u>pollutants</u> <<	adverse effect of the intended water use.		
Synergistic action	Whenever scientific evidence indicates that a combination of pollutants >> <u>exerts</u> << [[exert]] a greater effect than the individual pollutants, the Director may, on the basis of these findings, lower the herein established limits to the level necessary to prevent damage to the waters of the County.		

¹ Shall not cause the pH of the receiving waters to vary more than 1.0 unit. When the natural background pH lies outside the limits established, the introduction of a waste shall not displace the pH of the receiving waters more than 0.5 pH units from these standards.

² Shall not be visible, defined as iridescence, or cause taste or odors.

³ Waste shall not increase natural background more than 10 percent.

⁴ Maximum MPN/100 ml in a surface water used as a drinking water supply shall be 100.

⁵ Maximum MPN/100 ml in a tidal water from which shellfish are harvested for human consumption shall be 70.

>>Sec. 24-42.8 – Stormwater-related standards for Miami-Dade County.

*

- (1) Purpose and intent. The purpose and intent of this section is to safeguard public health, safety, and welfare and protect water quality by setting minimum requirements and standards for development and other activities and actions that may alter or affect the storage, runoff volume or flow, course, treatment, discharge, disposal, ponding or flooding, or quality of stormwater.
- (2) *Definitions*. The following definitions shall apply to this section.

- (a) <u>Best management practice (BMP) for stormwater</u> <u>treatment shall mean a practice or combination of</u> practices determined by the Director, based on research, field-testing, and expert review, to be the most effective and practicable, including economic and technological considerations, of improving water quality by reducing excess nutrients and other pollutant loads in water.
- (b) <u>Event mean concentration (EMC) shall mean the</u> <u>average pollutant concentration for a given land use,</u> <u>expressed in units of mass per volume (e.g., mg/L).</u>
- (c) Impervious Area Setback (IAS) shall mean the minimum distance measured perpendicular from the property line inward to the closest impervious surface, excluding public rights-of-way.
- (d) <u>Percent pervious area (PPA) shall mean the ratio</u> calculated as the total pervious area divided by the total property area measured within the property lines, excluding public rights-of-way, expressed as a percentage.
- (3) <u>General requirements and procedures</u>. The following shall govern all applications subject to this section.
 - (a) <u>Applicability</u>. This section applies to all development orders, including, without limitation, initial, intermediate, and final development orders as defined in chapter 33G and their municipal equivalents.
 - (b) <u>Stormwater evaluations.</u>
 - (i) In addition to the specific requirements set forth in this section regarding stormwater quantity and quality, all applications for development orders shall be evaluated to ensure prevention of stormwater seepage, runoff, discharge, or other greater impact compared to pre-development conditions, onto adjacent and adjoining parcels resulting from the proposed development.
 - (ii) Evaluations shall be performed using generally accepted engineering and scientific standards and principles approved by the Director, as such standards and principles are defined in subsection 24-15.1.
 - (c) <u>Detention and retention.</u>

- (i) Detention and retention systems shall not collect or store a quantity of stormwater that exceeds the design limitation of the storage area.
- (ii) Where retention is used:
 - 1.Dry retention shall be accomplished
with a storage basin or swale having a
bottom elevation at least one foot
above the average October
groundwater level as set forth in this
section.
 - 2. Wet retention shall be accomplished with a storage basin having a bottom elevation at least lower than one foot below the average May groundwater level as set forth in this section or in the County public works manual, whichever is stricter.
 - 3. Excavations shall be no larger than necessary to accomplish retention, except as approved or required by the Director.
 - 4. Where the lake excavation standards set forth in chapter 33 are stricter than the requirements of this section, chapter 33 shall control.
- (iii) Where exfiltration is used, the trench or perforated conveyance pipe shall be placed at or above the average October groundwater level as set forth in this section or in the County public works manual, whichever is stricter.
- (iv) Where infiltration is used, the grassed swale or open basin to which stormwater is conveyed shall be at least one foot above the average October groundwater level as set forth in this section or in the County public works manual, whichever is stricter.
- (v) Where gravity injection is used, the well shall be more than two feet below the average yearly highest groundwater elevation as set forth in this section.
- (vi) Where pressure injection is used, the maximum head on the well shall not exceed

<u>8 feet NGVD or as otherwise permitted by the</u> <u>Florida Department of Environmental</u> Protection.

- (d) Wastewater collection and transmission systems. To protect stormwater quality, a wastewater collection or transmission system shall not be designed, constructed, placed, or used on land where stormwater can pond or flood, unless such system is designed to be watertight and is approved by the <u>Director.</u>
- (e) <u>Pollutant loading</u>. Pre- and post-development pollutant loading calculations, which may be performed through modeling, shall be submitted for the Director's review and approval and shall include existing and proposed best management practices for stormwater treatment. Calculations shall be signed and sealed by a professional engineer licensed in the state of Florida.
- (f) <u>Pre-existing wastewater collection or transmission</u> <u>systems, non-structural impervious surface</u> <u>improvements, or stormwater infrastructure,</u> <u>including outfalls.</u> Notwithstanding any provision to the contrary, wastewater collection or transmission systems, non-structural impervious surface improvements, and stormwater infrastructure, including outfalls, that were lawfully installed prior to [insert effective date of ordinance] and that are not thereafter proposed to be enlarged, altered, added to, or otherwise modified, shall not be required to comply with this subsection except in the following <u>circumstances:</u>
 - (i) For a wastewater collection or transmission system, the Director determines that the system is located in an area subject to ponding or flooding, is not watertight, and does not otherwise adequately prevent inflows.
 - (ii) For a non-structural impervious surface improvement, the Director determines that the improvement has caused substantial stormwater runoff or discharge onto an adjacent parcel not approved for stormwater retention pursuant to this chapter.

- (iii) For stormwater infrastructure, including an outfall, the Director determines that such a facility is causing violations of water quality standards set forth in this chapter.
- (iv) The Director shall provide written notice of the deficiencies to the owner of the subject property and, where applicable, the wastewater collection or transmission system or stormwater infrastructure, and shall order the submission, for the Director's review and approval, of:
 - 1. plans demonstrating how the deficiencies are to be corrected; and
 - 2. <u>after implementation of the approved</u> <u>plans, plans demonstrating that the</u> <u>deficiencies have been corrected.</u>
- (v) <u>Plans required pursuant to this subsection</u> <u>shall comply with the requirements of</u> division 1 of article I for submission of plans.
- (g) <u>Compliance with other regulations</u>. No provision of this section shall be construed to permit a less stringent design standard than that required by other applicable regulations.
- (4) <u>Minimum stormwater standards</u> for all development applications or approvals. On and after January 1, 2024, the following shall govern installation, replacement, or expansion of a non-structural impervious surface improvement and all other development applications or approvals on any parcel or property.

(a) General requirements:

- (i) <u>Non-structural impervious surface</u> <u>improvements shall not cause stormwater</u> <u>runoff onto adjacent parcels that are not</u> <u>designed and are not approved by the</u> <u>Director to receive such runoff.</u>
- (ii) All improvements shall be reviewed prior to approval to ensure that post-development stormwater impacts and runoff are limited to pre-levels at the site boundary. A signed and sealed engineering report will be required from the applicant for review and approval by the Director.

- (iii) Stormwater impacts and runoff levels may be calculated based on peak flow, volume, or a combination of the two
- (iv) The applicant shall demonstrate that the volume of runoff from the proposed improvement will be controlled by retaining runoff on site, infiltrating the runoff, ensuring that the volume of runoff during all storms greater than half of the two-year event remains constant, or a combination of such mechanisms.
- (v) For purposes of this subsection:
 - 1.A "townhouse" as defined in the 2020Florida Building Code, Building, 7thEdition, shall be considered a single-
family property.
 - 2. <u>A "system" means a facility, or one or</u> more separate facilities, structures, devices, equipment, or appurtenances that manage stormwater.
- (vi) Lowest site elevation shall be harmonized with the grades of adjacent and abutting parcels, except that the Director may approve onsite dry storage areas and stormwater inlets that are located no more than 12 inches below the minimum elevations of the County Flood Criteria map.
- <u>(b)</u>

Single-family and duplex residences under certain conditions. This paragraph shall govern individual single-family or duplex lots that are that are not part of a subdivision application and are not subject to a stricter water quantity requirement by other applicable County or State regulation. For such lots, prior written approval by the Director shall be required pursuant to this section, except under certain circumstances for non-structural impervious surface improvements on lots in municipalities and only to the extent provided in section 24-15. Applications pursuant to this paragraph shall comply with subparagraph (a) above and all of the following:

(i) <u>Stormwater quantity</u>. Lots shall retain the runoff from a 10-year/15-minute storm event with zero off-site discharge. The following is

considered equivalent to a 10-year/15-minute storm event with zero off-site discharge retention.

- <u>1.</u> For lots with an area of 5,500 square feet or less:
 - a. <u>a minimum of 5 feet of</u> <u>pervious area setback on a</u> <u>minimum of 3 sides of the</u> <u>property, with a 6-inch-deep</u> <u>swale along the property</u> <u>perimeter with slopes of 1:1,</u> <u>and a minimum of 20 percent</u> <u>of pervious lot area; or</u>
 - b. a minimum of 2.5 feet of pervious area setback on a minimum of 2 sides of the property and 10 feet of pervious area setback on a minimum of 1 side, with a 6inch-deep swale along the property perimeter with slopes of 1:1, and a minimum of 20 percent of pervious lot area.
 - For lots larger than 5,500 square feet: <u>a.</u> <u>a minimum of 5 feet of</u> <u>pervious area setback on a</u> <u>minimum of 3 sides of the</u> <u>property, with a 6-inch-deep</u> <u>swale along the property</u> <u>perimeter with slopes of 1:1,</u> <u>and a minimum of 25 percent</u> <u>of pervious lot area; or</u> b. a minimum of 2.5 feet of
 - a minimum of 2.5 feet of pervious area setback on a minimum of 2 sides of the property and 10 feet of pervious area setback on a minimum of 1 side, with a 6inch-deep swale along the property perimeter with slopes of 1:1, and a minimum of 25 percent of pervious lot area.

<u>2.</u>

- 3. The elevations along the perimeter of the property should match the existing elevations of the adjacent properties.
- 4. If the proposed grading raises the property more than 1.5 feet compared to the elevations of the adjacent properties, a retaining wall or equivalent feature shall be required.
- 5. Site grading shall direct stormwater away from buildings and shall prevent stormwater from running off to or discharging onto an adjacent parcel not approved for stormwater retention
- 6. Where an existing or proposed site boundary elevation could allow runoff or discharge onto an adjacent property that has not been approved for stormwater retention pursuant to this chapter, retaining walls or other features to prevent offsite runoff shall be provided, subject to the Director's approval.
- Stormwater quality. Green areas, swales, pervious pavers, pervious pavement, dry shallow exfiltration trenches, retention systems, or similar infrastructure or other development as may be acceptable to the Director shall be utilized to satisfy the minimum stormwater retention onsite.
- To meet the requirements set forth in (iii) subparagraphs (i) and (ii) above, the following shall not be located within the impervious area setback and shall not be included in calculations of minimum pervious area required by this section: structures; nonstructural impervious surface improvements; installations or improvements that do not qualify as a previous area; or other impediments to stormwater infiltration, including. without limitation, overcompaction of soils.

<u>(ii)</u>

- (iv) The area from the property line to the impervious area setback shall be pervious, to prevent stormwater runoff and discharges onto adjacent parcels and land.
- (v) The improvement will not cause or let stormwater to run off or discharge onto adjacent parcels, properties, land, or surface water bodies, except for public rights-of-way, as determined by the Director.
- (vi) <u>Administrative adjustments authorized.</u> Notwithstanding any provision to the contrary, where existing site conditions preclude full compliance with this section, the Director is authorized to approve an alternative design that complies with applicable state and federal requirements and achieves the highest level of water quality.
- For existing single-family or duplex (vii) residences, an application shall not be required to comply with the stormwater quality and quantity standards set forth above where the application does not include, as determined by the Director: a non-structural impervious surface improvement; or any other improvement that increases impervious area on the lot or that is anticipated to cause pollution, contamination, flooding, or runoff. Single-family or duplex residences that are (viii) part of a subdivision application or are subject to stricter stormwater quantity requirements by other applicable County or State regulation shall be governed by paragraph 4(c).
- (c) <u>All other developments and improvements.</u> Applications for all other developments and nonstructural impervious surface improvements shall demonstrate compliance with the following stormwater quantity and quality standards in addition to the general requirements of paragraph (4)(a).

(i) <u>Stormwater Quantity.</u>

- <u>1.</u> <u>The Director may approve off-site</u> <u>discharge to an adjacent parcel</u> approved for stormwater retention.
- 2. Onsite retention systems shall be designed for a minimum of a 10-year, 12-hour storm event with zero off-site discharge unless a higher retention standard is required to meet other applicable County and South Florida Water Management District regulations.
- 3. Retention systems shall be designed to recover as follows:
 - a. Onsite dry retention systems shall recover to the seasonal highwater table within 24 hours of the storm event.
 - b. Wet retention systems shall recover the permanent storage volume within 24 hours of the storm event.
- 4. When a stormwater management system with an overflow outfall is proposed, on-site retention of the 25-year, 3-day storm event with zero off-site discharge shall be provided unless a higher retention standard is required to meet other applicable County and South Florida Water Management District regulations.
- 5. <u>Properties located in a cut and fill</u> <u>basin (Basin B, the Bird Drive Basin,</u> <u>and the North Trail Basin) shall</u> comply with the following:
 - a. <u>The required drainage</u> <u>facilities shall be an onsite</u> <u>retention system for the 100-</u> <u>year, 3-day storm event, with</u> <u>zero off-site discharge.</u>
 - b. <u>A property shall be deemed to</u> <u>comply with the foregoing</u> <u>onsite retention requirement</u> <u>where the applicable</u> <u>percentage of the property's</u> <u>total lot area is set aside for</u>

	stormwater		management	
	purposes.		-	
	<u>i.</u>	<u>If</u> th	e stormwater	
		manag	ement area is a	
		wet ret	tention area:	
		<u>A.</u>	North Tria	
			Basin - 28.60	
			percent.	
		<u>B.</u>	Bird Drive	
			<u>Basin - 30.00</u>	
			percent.	
		<u>C.</u>	<u>Basin B</u>	
			28.60 percent.	
	<u>ii.</u>	<u>If</u> th	ie stormwater	
		<u>manag</u>	<u>ement area is a</u>	
		<u>dry ret</u>	ention area:	
		<u>A.</u>	<u>North Tria</u>	
			Basin - 33.25	
			percent.	
		<u>B.</u>	Bird Drive	
			<u>Basin - 38.00</u>	
		C	percent.	
		<u>C.</u>	Basin B	
	A 1/	. 1	<u>39.00 percent.</u>	
<u>c.</u>	Alterna	atively,	the Director	
	may a	pprove	drainage to an	
	<u>011-Site</u>	e e e e e e e e e e e e e e e e e e e	stormwater	
	manag	hogin	area within the	
	same	basin,	provided that	
	such si	<u>orniwa</u>	ter management	
	alea c	tod by t	the 100 year 3	
	day sto	rm eve	nt with zero off	
	site di	scharge	and complia	
	with	all of	ber applicable	
	provisi	$\frac{an}{ons}$ of 1	this chapter	
For pro	<u>provisi</u> perties	that are	<u>located outside</u>	
of the I	Trhan F	liat arc	ment Roundary	
the rea	mired d	rainage	shall be onsite	
retentio	on of the	= 100-w	ear 3-day storm	
event		<u>c 100-y</u>	our, 5 day storm	

Drainage wells may be used to comply with retention requirements where such wells: <u>7.</u>

<u>6.</u>

- <u>a.</u> <u>comply with applicable state</u> regulations; and
- <u>b.</u> comply with stormwater quality requirements and sedimentation restrictions contained in this chapter; and
 <u>c.</u> provide a well box designed for a minimum of 90 seconds of detention, based on peak flow rate calculated by the engineer of record and provided with the signed and sealed engineering analysis and report.

(ii) <u>Stormwater Quality.</u>

- 1. The greater of the onsite retention systems' volume or two and one-half inches of the total impervious area, excluding public rights of way, shall be used.
- 2. If served or to be served by one or more outfalls, stormwater quality shall meet the strictest of the following standards:
 - a. post-development pollutant loads shall not exceed predevelopment loads; or
 - b. post-development pollutant reduction shall not be less than 85 percent based on average annual loading; or
 - <u>c.</u> post-development pollutant loads shall not cause water quality violations in receiving water bodies; or
 <u>d.</u> level of treatment sufficient to
 - level of treatment sufficient to
accomplishaccomplishthereduction specified in the load
allocation of an adopted Total
MaximumMaximumDailyLoad
(TMDL)oradopted
ReasonableReasonableAssurancePlan
(RAP) for the pollutant(s) not

meeting water quality standards, provided that if the TMDL or RAP for a particular pollutant is less strict than a., b., or c. above, then the strictest standard shall control for any particular pollutant.

- 3. For outfalls to any of the water bodies listed below, onsite retention and detention systems shall provide a minimum water quality treatment volume equivalent to 150 percent of that otherwise required by this section and post-development pollutant reduction of 95 percent and shall require a class II permit pursuant to this chapter:
 - <u>a.</u> <u>Biscayne Bay.</u>
 - b. Any surface water designated as an Outstanding Florida Waters pursuant to chapter 62-302.700(9), Florida Administrative Code.
 - Any canal, except for dead end canal segments that the Director determines to not be connected to Biscayne Bay or any surface water designated as an Outstanding Florida Water.
 - Any tributary that is connected, as determined by the Director, to either Biscayne Bay or a surface water designated as an Outstanding Florida Water.
 - Administrativeadjustmentsauthorized.Notwithstanding anyprovision to the contrary, where theDirector determines that existing siteconditions preclude full compliancewith this section, the Director mayapprove an alternative design thatcomplies with applicable state and
- <u>d.</u>

<u>4.</u>

<u>c.</u>

federal requirements and achieves the highest level of water quality, provided that the applicant demonstrates that removal efficiency and design criteria are based on fieldverified data approved by the Director or data and reports published by the Florida Department of Environmental Protection.

- (iii) For existing developments, an application shall not be required to comply with the stormwater quality and quantity standards set forth above where the application does not include, as determined by the Director: a nonstructural impervious surface improvement; or any other improvement that increases impervious area on the lot or that is anticipated to cause pollution, contamination, flooding, or runoff.
- (d) <u>Public right-of-way projects not part of a subdivision</u> <u>application</u>. Public right-of-way projects that are not part of a subdivision application shall comply with the following stormwater quantity and quality standards in addition to the general requirements of paragraph (4)(a):
 - (i) <u>Stormwater Quantity</u>
 - 1. Where approved by the Director, stormwater inlets and catch basins may be located up to twelve inches below County Flood Criteria.
 - 2. <u>The right-of-way shall be graded to</u> prevent stormwater from running off or discharging onto adjacent parcels not approved for stormwater retention pursuant to this chapter.
 - 3. Green areas, swales, retention or detention areas, and exfiltration trenches may be used when consistent with this chapter, sections 2-100 and 2-103.1, and the County public works manual.
 - (ii) <u>Stormwater Quality</u>. Unless otherwise approved by both the Director and the

Director of Public Works, public rights-ofway shall comply with the stricter of: the stormwater quality requirements set forth in paragraph (4)(c) above; or the County public works manual.

- (iii) <u>Administrative adjustments authorized.</u> Notwithstanding any provision to the contrary, where existing site conditions preclude full compliance with this section for public rights-of-way, the Director, following consultation with the Director of Public Works, is authorized to approve an alternative design that complies with applicable state and federal requirements and achieves the highest level of water quality.
- (e) <u>Other Requirements.</u>

(f)

- (i) If provided, interior garage drains shall be connected to a separate onsite drainage system with a two-foot sand filter below the pipe invert and above the mean high-water table.
- (ii) If provided, dumpster pads shall be located adjacent and graded to a green area for proper stormwater management and to prevent waste liquids from entering the drains.
- *Erosion and Sedimentation Controls.* Erosion and sedimentation controls shall be provided in accordance with the following:
 - (i) Construction activities involving earth work or excavations of more than 50 square feet along public rights-of-way or adjacent to water bodies shall provide erosion and sedimentation controls to limit impacts to existing drainage facilities, water bodies, and natural preserve areas. The controls shall be included in the engineering plans to be submitted as part of a permit application and shall be subject to review and approval by the Director.
 - (ii) <u>Construction projects involving more than</u> <u>one acre of total impervious area, including</u> <u>existing impervious area, shall include</u>
temporary structural stormwater features to retain stormwater runoff onsite from a 25year, 3-day storm event.

(iii) During construction, open ground soils shall be stabilized or covered for protection from rainfall to prevent erosion and sedimentation into public rights-of-way, adjacent properties, water bodies, and natural preserved areas.

(g) <u>Design seasonal water table.</u>

- (i) The design seasonal water table (October and May) shall be based on the latest current and future groundwater elevations maps and data that are officially adopted by Miami-Dade County ordinance, the United States Geological Service, or the South Florida Water Management District, and the most restrictive shall apply.
- (ii) Future groundwater elevation maps that incorporate sea level rise forecasts based on the Intermediate High curve projections promulgated by the National Oceanic and Atmospheric Administration (NOAA) shall be used, when available, to best match the future time horizon with the anticipated life cycle being used for design of infrastructure.
- <u>(h)</u>

Tail-water design seasonal elevation.

- (i) The tail-water design seasonal elevation for outfalls shall be based on the latest current surface water elevations that are officially adopted by Miami-Dade County ordinance, the United States Geological Service, NOAA, and the South Florida Water Management District, and the most restrictive shall apply.
- (ii) Future surface water elevations that incorporate sea level rise based on the Intermediate High curve projections promulgated by NOAA shall be used, when available, to best match the future time horizon with the anticipated life cycle being used for design of infrastructure.

Agenda Item No. Page 52

- (iii) <u>Seasonal surface water elevation calculations</u> <u>shall be signed and sealed by an engineer</u> licensed in the State of Florida.
- (i) Notwithstanding any provision of this chapter to the contrary, development that contains at least 10 acres or at least 2 acres of impervious surface area shall provide on-site retention of the 25-year, 3-day storm event with zero off-site discharge.<<

Section 6. Division 1 of Article IV of Chapter 24 of the Code of Miami-Dade County,

Florida, is hereby amended to read as follows:

ARTICLE IV. - NATURAL AND BIOLOGICAL ENVIRONMENTAL RESOURCES PERMITTING AND PROTECTION; REGULATION OF DRAINAGE SYSTEMS AND STORMWATER MANAGEMENT

DIVISION 1. - WORK IN CANAL RIGHTS-OF-WAY, TIDAL WATERS, SUBMERGED BAY-BOTTOM LANDS, AND WETLANDS; DEWATERING; CONSTRUCTION OF DRAINAGE SYSTEMS

Sec. 24-48. - Permit required; expedited administrative authorizations; exceptions; work standards; compliance with work standards, suspension of permit.

(1) It shall be unlawful for any person to do any of the following without first having obtained a permit from the Department:

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*

- (f) To authorize, cause, permit, allow, let, or suffer the dewatering of groundwater into any groundwater, surface water, or >><u>stormwater infrastructure</u>
 [[drainage_structure]] anywhere in Miami-Dade County;
- (g) To perform or authorize, allow, suffer, or permit the construction>>, installation, or alteration of stormwater infrastructure, to the extent required in this article as a Class II, Class III, or Class VI permit,<< [[of a drainage system for any project]]</p>

anywhere in Miami-Dade County.

- (2) All said work shall conform to minimum standards set forth in this code, and the [["Permit Information Manual IV"]]>>"Environmental Resource Permit Applicant's Handbook, Volumes I and II"
 (4) Go the South Florida Water Management District, dated [[September 11, 2008]]>>December 22, 2020 and May 22, 2016, respectively
 (5) respectively
- (3) This section shall not apply to (i) work in treatment facilities or their ancillary facilities such as, but not limited to, cooling canals or polishing ponds; or (ii) the following projects>>,<< provided that unencapsulated polystyrene shall not be used or installed:

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 Roadway maintenance activities >><u>that</u><< [[which]] are performed or authorized by the >><u>County public</u> <u>works department</u>
 [[Miami-Dade County Publie Works Department]] to correct safety deficiencies or are undertaken to maintain the continuity of existing use for an established road or road right-of-way. This provision shall not apply to any work involving expansion in the width or length of roads or work involving the filling of roads to higher elevations when said roads occur at elevations >><u>that</u><
 [[which]] are less than the elevations set forth by >><u>the County Flood Criteria Map</u><< [[Miami-Dade County flood criteria]].

(j) Maintenance of private roads approved by the Department or maintenance of roads and fill pads approved by the Department located upon a public or private utility right-of-way. This provision shall not apply to any work involving expansion in the width or length of roads or work involving the filling of roads to higher elevations when said roads occur at elevations >><u>that</u><< [[which]] are less than the elevations set forth by >><u>the County Flood Criteria</u> <u>Map</u><< [[Miami-Dade County flood criteria</u>]]. * *

- (r) The installation of [[a]] >>stormwater infrastructure<< [[drainage system]] for any >>facility or development that<< [[project which]] does not use, generate, handle, dispose of, discharge>>,<< or store hazardous materials and >>does
 - (i) <u>this</u><< exemption[[, however,]] shall not apply to an airport facility, a commercial vehicle storage facility, a resource recovery and management facility, a sewage treatment facility, or any property that has known soil or groundwater contamination>>; and
 - (ii) plans for such facilities shall require written approval pursuant to sections 24-15 and 24-42.<<

*

Sec. 24-48.1 – Permit classifications; interpretation as to permit requirement, fee; determination of wetlands.

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- (1) There are six [[(6)]] permit classifications: class I, class II, class III, class IV, class V and class VI.
 - (f) Class VI: Class VI permits are required for the >><u>construction</u>,<< installation>>, or alteration of any stormwater infrastructure for any project, facility or development<< [[of a drainage system for any project]] that has known soil or groundwater contamination, or that uses, generates, handles, disposes of, discharges, or stores hazardous materials.

* * *

Sec. 24-48.3. Factors for evaluation of permit applications; incomplete permit applications.

* *

In addition to the applicable evaluation factors contained within >>section<< [[Section]] 24-48.3(1)(a) through (i) above, the following requirements shall apply to all work requiring a Class II Permit:

* *

- (c) >>For a stormwater management system that has an outfall into the primary or secondary canal system or surface waters depicted on the Water Control Plan, or discharges to off-site surface waters approved pursuant to this chapter to receive such discharges, on-site retention of the 25-year, 3-day storm event with zero off-site discharge shall be provided.
 - (i) The approval of such system is a subject to the capacity of the canal system or surface waters, as applicable, to receive additional inflows.
 - (ii) Such a system requires a Class II permit.
 [On-site retention combined with an overflow outfall may be used as an alternative to on-site retention in those cases where complete on-site retention is not feasible as determined by the Director or the Director's designee, when there is inadequate exfiltration capability of the soil or in cases where a higher degree of flood protection is desired by the applicant.

All inlet structures located within grassed areas or landscaped strips may receive a 0.2 inch retention credit.]]

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Sec. 24-48.5. - Permit issuance; waiver of bonding requirements.

- (1) Issuance of a Department permit does not relieve the applicant from obtaining all required federal, State>>,<< and local permits.
- (2) Following approval of a standard form permit application by the Board of County Commissioners or after submitting a

short form application, a construction permit may be issued to the permit applicant and a contractor holding an applicable certificate of competency, provided:

- (a) Construction plans, calculations>>,<< and specifications [[are submitted which]] >>that<< have been prepared by an engineer>>, << or>>, where applicable, an << architect or land surveyor>>,<< [[where applicable]] licensed in the State of Florida>>,<< and >>that<< [[which]] comply with the requirements of this Chapter and other particular conditions, including, but not limited to, requirements for riprap[[,]] and monitoring programs>>, have been reviewed and approved by the Director << .
- (c) A performance bond and a mitigation bond, if applicable, is posted in an amount determined by the Director [[or the Director's designee]].

*

- >>(i)<< The maximum amount of said performance bond shall >>not exceed 100<< [[be one hundred (100)]] percent of the estimated cost of the work or >><u>\$500,000.00</u>,<< [[one hundred thousand dollars (\$100,000.00)]] whichever is >>greater<< [[less]].</p>
- >>(ii) If<< [[In the event]] the Director [[or the Director's designee]] determines that a performance bond is necessary, the performance bond shall seek to ensure compliance with terms of the permit and to protect the interest of the public and of landowners in the vicinity of the work.
- >>(iii) << The Director [[or Director's designee]] may waive the performance bond >><u>upon a</u> <u>determination</u><< [[if the Director or <u>Director's designee determines</u>]] that the proposed project is not expected to affect the interests of the public or landowners in the vicinity of the work and noncompliance with the terms of the permit will only affect the permit applicant.
- >>(iv)<< The Director [[or Director's designee]] may also waive performance bonds for work

performed by utility companies, for work performed by governmental agencies pursuant to Section $24-48.8 \gg << [[of this$ chapter]] and for work approved under a short form permit application pursuant to Section 24-48.2(I)(A)(22) and (23).

- >>(v) <u>The Director may require a</u><< [[A]] separate mitigation bond [[may be required by the <u>Director or the Director's designee to be</u> posted in order]] to insure that environmental enhancement features associated with the project and required by the permit are completed in a satisfactory manner.
 - >><u>a.</u><< These include, but are not limited to, the placement of riprap, the replanting of mangroves or seagrass, the installation of sewage pumpout stations, the construction of public piers or shoreline walkways>><u>.</u><< and the construction of artificial reefs.
 - >><u>b.</u><< The maximum amount of said mitigation bond shall be >><u>100</u><< [[one hundred (100)]] percent of the cost of the environmental enhancement features of the project.

>><u>(vi)</u><< The required performance and mitigation bonds may be required to remain in force for up to six [[(6)]] months after the approved completion date of the work covered by the bond.

*

Section 7. Section 33-52 of the Code of Miami-Dade County, Florida is hereby

amended to read as follows:

Sec. 33-52. Maximum heights in all districts; exceptions.

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>><u>(a)</u><< Except where a greater height may be approved as a result of a public hearing, the maximum height of a building shall be 35 feet, two stories, except as specified in each district and as specified elsewhere in the Code.

Agenda Item No. Page 58

>>(b) << No accessory building [[, garage or servants' quarter]] in RU >>or << [[and]] EU-M Districts shall exceed one story in height >>, << unless the principal residence on the lot is two stories in height and said structure complies with the principal structure setbacks.

Section 8. Section 8CC-10 of the Code of Miami-Dade County, Florida, is hereby

amended to read as follows:

Sec. 8CC-10. Schedule of civil penalties.

The following table shows the sections of this code, as they may be amended from time to time, which may be enforced pursuant to the provisions of this chapter; and the dollar amount of civil penalty for the violation of these sections as they may be amended.

The "descriptions of violations" below are for informational purposes only and are not meant to limit or define the nature of the violations or the subject matter of the listed sections of this code, except to the extent that different types of violations of the same section may carry different civil penalties. For each section listed in the schedule of civil penalties, the entirety of that section may be enforced by the mechanism provided in this chapter, regardless of whether all activities proscribed or required within that particular section are described in the "Description of Violation" column. To determine the exact nature of any activity proscribed or required by this code, the relevant section must be examined.

Code	Description of Violation	Civil
Section		Penalty
	* * *	
>> <u>24-15</u>	Non-structural impervious surface improvement installed, replaced, or	<u>500.00</u>
	expanded at a single-family residential property without plan approval.	
<u>24-15</u>	Non-structural impervious surface	<u>1,000.00</u>
	improvement installed, replaced, or expanded at a property other than a	

	single-familyresidentialpropertywithout plan approval.Any otherstormwaterinfrastructure,constructed, installed, or altered without	<u>1,500.00<<</u>
	plan approval.	
	* * *	
24-42(1)	Discharge of prohibited substances into County waters	2,500.00
24-42(2)	Exceeding effluent standards for discharges	2,500.00
24-42(3)	Unlawful discharge affecting water quality	2,500.00
>> <u>24-42.8</u>	Violation of stormwater regulation standards	<u>2,500.00</u> <<
	* * *	

Section 9. Section 24-5 of the Code shall be renumbered pursuant to the revisions in section 2 above.

<u>Section 10.</u> *Pending applications.* For applications filed prior to January 1, 2024, the Director may continue to review said applications under the provisions of Chapter 24 that were in effect at the time of application. However, any future applications for the same property or which include the same property that are filed on or after January 1, 2024, including resubmittals for building permit applications that were filed prior to January 1, 2024, but were thereafter denied or revoked, shall be reviewed pursuant to the provisions of Chapter 24 that are then in effect.

Section 11. 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 12. 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 13. 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:

Approved by County Attorney as to form and legal sufficiency:

Prepared by:

Dennis A. Kerbel Abbie Schwaderer Raurell

BBWMAB: Sunshine Meeting Regarding Wetlands

June 6, 2023 - 11:00 AM

Click Here to Watch Meeting

Chief Bay Officer, Irela Bagué

MEETING ATTENDANCE:

Biscayne Bay Watershed Management Advisory Board Members*		
Joan Browder	Mayor Tim Meerbott	
Dave Doebler	Rachel Streitfeld	
Kevin M. Cunniff	Erik Stabenau	
Spencer Crowley		

Panelist: 16 Total (Combination of BBWMAB and County Staff) Attendees: 30 Total

Miami-Dade County Staff*			
Lourdes Gomez	Sean McCrackine		
Lisa Spadafina	Garret Rowe		
Irela Bague	Deldra Owens		
Abbie Schwaderer-Raurell	Larisa Aploks		
McKee Gray	Craig Grossenbacher		
Jim Murley	Ana Fiotte		
Nancy Jackson			

WELCOME

Nancy Jackson, Biscayne Bay Program Manager, opened the meeting with housekeeping notes reminding the public to submit any questions or follow up via email as the meeting was limited to a discussion between Advisory Board members and County staff. All board members and staff were introduced and thanked for their participation.

PRESENTATION - FRESHWATER WETLANDS IN MIAMI-DADE COUNTY BY LISA SPADAFINA

- DERM Director presented a short slide deck based on regulatory framework for Freshwater Wetlands, discussed current acreage of Wetlands of concern, and elements of the Master Plan related to wetlands.
 - County has authority over wetlands but is bound by state level requirements.
 - County regs under Chapter 24-48.
 - Class IV permit is required to work or build in wetlands.
 - Assessment and Mitigation Assessment methods are qualitative; condition of land matters in terms of mitigation with less mitigation required for degraded wetlands.

DISCUSSION

Several Advisory Board members had questions for DERM and comments regarding how to further protect Wetlands in the County.

Board Comments:

- Dr. Erik Stabenau (NPS), mentioned the importance of tracking quality of Wetlands over time and not just quantity. He asked the Director how they are tracking and also would like to see policy akin to "no net loss" to be sure that more of our existing Wetlands aren't set for development (currently 30k acres or 5% of our existing 520k acreage). DERM Director said that they are able to track quality via mitigation efforts related to permitting. Non-regulated wetlands (those on private property) are much harder to track.
- Mayor Meerbott (Cutler Bay), asked why land required for future BBSEER projects is not included in the CDMP map and how we could include that as a means to help identify Wetlands which should be preserved. Garret Rowe, RER-Planning, stated that integrating those areas into CDMP until they are actually defined and agreed upon is not possible. Suggested to create a separate visual to capture our aspirations for designating land for restoration projects.
- Dave Doebler (Biscayne Bay Marine Health Committee), linked Wetlands as a key tool to achieve BBTF recommendation 3H, eliminate direct and indirect flows into Biscayne Bay. He asked the DERM Director what the requirements are to deal with stormwater once development of wetlands is permitted. What is required by the developer to mitigate? DERM stated that depends on where you are in the County but would include some sort of on-site retention, but any number of engineering techniques can be used to be sure that stormwater is not draining off onto neighboring land which is not allowed.
- Staff from Chair Cohen Higgins office asked about Urban Expansion Areas (UEA) and where they overlap with Wetlands. Planning staff brought up another map to show three areas where there is existing UEA and

Wetlands in the same spot. Mentioned several locations: 836 and 137th Ave.; Bird Road Basin; and two areas next to Homestead Speedway and Airport. Staff also mentioned that they attempted to have these sites removed as UEA but were unable to get support from the BCC to do so. Commissioners need to decide how to balance these competing needs for development, agriculture and environmentally important land.

- Garret Rowe gave some background on the Comprehensive Plan and how areas previously identified for future growth are now understood not to be compatible for such growth. We have learned many things about the land since the 1970s and strive to make updates to include what we have learned. Recognizes that there are competing interests at play but again noted that policy makers need to decide how to prioritize and balance these interests.
- Rachel Streitfeld (North Bay Village), asked for more ways to prioritize Wetlands over other land uses. She mentioned that there is an audit tool created by a national non-profit which helps local governments take stock of their existing protections and ordinances, identifying what's working and gaps in the same. She suggested that DERM and Planning staff undertake this exercise to prepare for the next update of the CDMP. Commissioner Streitfeld also asked if the accommodation for growth required by the state necessarily is limited to single-family residences as opposed to building density thereby saving the UDB. Planning staff confirmed that how we accommodate growth is up to the Board and is not limited to single-family homes.
- Spencer Crowley (FIND), made a comment at the end of the meeting recommending that the BBWMAB focus its efforts on those issues most directly linked to nutrient enrichment, which is the main problem we are addressing in Biscayne Bay. We know the two main culprits we face are untreated stormwater and sewage (whether via direct discharges such as overflow and failing pipes, or indirectly through septic tank leaks). He recognized the importance of Wetlands but stated they won't have as big of an impact, especially in the short-term on water quality in Biscayne Bay. He mentioned Martin County as their ordinance was held up as a model at our last Advisory Board meeting, and that they have some of the biggest excess nutrients in their waterways and still suffer from terrible algae blooms even with additional protections for Wetlands. He requested that the Advisory Board prioritize targeted action and focus less on broader policy issues.

CLOSE

We thanked the staff and Board members for their time and stated that any further discussion could take place at a future BBWMAB meeting. The meeting lasted for just under one hour and is recorded. The video recording will be placed on the Biscayne Bay website (miamidade.gov/biscaynebay). The Chief Bay Officer team shared contact information for follow up questions from attendees.

For more information and updates on the Biscayne Bay Watershed Management Board visit: <u>Biscayne Bay Watershed</u> <u>Management Advisory Board (miamidade.gov)</u>

Freshwater Wetlands in Miami-Dade County

Regulatory and Economic Resources

Division of Environmental Resources Management (DERM)



Regulations

- Wetlands are regulated by County, State and Federal environmental resource agencies. Florida Statute outlines the methods required for wetland assessment and delineation as well as the methodology to determine the appropriate amount of mitigation.
- Section 24-48 of the Miami-Dade County Code requires that a Miami-Dade County Class IV Wetland Permit be obtained prior to the commencement of any work (activity, project, or any artificial or man-made alteration of the environment) in wetlands as defined by Chapter 24-5 of the code (reference Section 373.019, Florida Statutes).
- According to the Florida Department of Environmental Protection, the Uniform Mitigation Assessment Method (UMAM) was established to fulfill the mandate of subsection 373.414(18), F.S.
 - This analysis is primarily qualitative in nature based on the condition of the lands to be impacted as well as the lands to be restored/enhanced.

Wetlands Areas of Concern 2022 Aerial



Legend

Urban Development Boundary

Wetlands Areas of Concern"

* Total Acres within Wetlands Areas of Concern: "550,000 Acreage of Wetlands Permitted for Impact: "30,000 Acreage of Wetlands Remaining: "520,000

SCALE: 1 inch = 9,504 feet

The boundaries shown on the Wetland areas of concern layer area approximate and are not intended to represent the extent of all wetlands, nor are all wetland areas shown. This map is NOT INTENDED TO BE USED TO DETERMINE THE LOCATION OF JURISDICTIONAL WETLANDS or for regulatory purposes. For further information contact DERM, Wetlands Resources Section (305) 372-6585 Miami-Dade County Comprehensive Development Master Plan (CDMP)

- Relevant Elements of the County's CDMP to managing wetlands
 - Land Use Element
 - Conservation, Aquifer Recharge and Drainage Element
 - Coastal Management Element



Questions?

Lisa Spadafina, DERM Director lisa.spadafina@miamidade.gov (305) 372-6567



Mayor's Science Roundtable Extreme Heat in Biscayne Bay Meeting Summary August 25, 2023 – 4:00 – 5:00pm

Click here for Zoom recording

Chief Bay Officer, Irela Bagué

MEETING DETAILS:

The sunshine meeting webinar had 39 attendees. No media in attendance. New Panelists who joined: South Florida Water Management District and Bonefish & Tarpon Trust.

WELCOME:

Mayor Daniella Levine Cava - Thanked the Chief Bay Officer (CBO) and the scientific experts for joining her. The Mayor stated the challenges that we face with the heat, bay, corals, and fish are many. So far, we have dodged the bullet in Miami-Dade County and hope our actions are making a difference, but know the heat isn't going away. Mayor stated she's grateful for our experts and recognized the Biscayne Bay Commission, the Biscayne Bay Watershed Management Advisory Board, Municipal partners and our staff. She shared that it is a busy week for the environment and mentioned her attendance the Biscayne Bay Coastal Wetlands restoration project at Biscayne National Park and was able to turn on pumps and watched the water start to flow into wetlands and the County and USACE announced they are a Go for the Back Bay Study. Biscayne Bay is the liquid heart of Miami-Dade County. We all felt the impact of this historic extreme heat. The Mayor introduced the invited panelists Bonefish & Tarpon Trust who are monitoring wildlife and the South Florida Water Management District (SFWMD). We will also hear from the Division of Environment Resources Management (DERM) and Office of Emergency Management.

Mayor introduced Irela Bagué, Chief Bay Officer, to moderate the discussion.

DISCUSSION WITH SCIENCE EXPERTS:

Participants:

- Dr. Todd Crowl, Director, FIU Institute of Environment
- Dr. Christopher R. Kelble, Director, NOAA Ocean Chemistry & Ecosystems Division
- Dr. Joe Serafy, Research Fishery Biologist, NOAA
- Dr. Joan Browder, Research Ecologist, NOAA Fisheries' Southeast Fisheries Science Center
- Dr. Ross Boucek, Keys Initiative Manager, Bonefish & Tarpon Trust
- Pamela Sweeney, Sr. Water Scientist, RER DERM
- Laura Eldredge, Restoration & Enhancement Section Manager, RER DERM

Current conditions | Heat & Nutrient levels | Dissolved Oxygen Levels | Heat impacts: coral bleaching, potential for fish kills, other observations

Dr. Crowl (FIU) – shared that despite the continued hot weather and low oxygen levels we haven't had significant impacts; it seems the current has helped this summer and has led to more water flushing in and out. The water has not been stagnant. No signs of significant chlorophyl or algal blooms. Is amazed and happy that we aren't in bad conditions, though noted there is still time, as it is August.

Dr. Serafy (NOAA) - shared updated graphs from the 44 stations which NOAA monitors along the shore of the Bay. They measure salinity and temperature. The stations send data every 15 minutes daily, 7 days/week though they are a little lagged and do not show real time temperatures. The graphs show various stations' measures (moving from north to south) and the maximum temperatures for every day. The stations are in shallow water that gets hot. They have noticed very high and extreme temperatures, 102 degrees F, and others over 100 degrees that has been common this summer. They have also noticed higher salinity levels in the season.



Red circles represent 6 sites along the shoreline. Slides are arranged from north to south. First station is where we are seeing the highest temperatures. The red lines are maximum daily temperatures.

Laura Eldredge (RER DERM) – shared data from DERM's surface water quality monitoring program which has been ongoing since 1969. Southern sites are where we see the highest surface temperatures. During June and July we got up to 90 degrees. August data shows temperatures going up to 94 degrees. Those sites are not the highest we have recorded, and we are seeing record temperature values in other sites.

Lisa Spadafina, (RER DERM Director) - further describes DERM's program, "Eyes on the Bay", a weekly look at the Bay (sometimes more than once per week depending on conditions). Director introduced Pamela Sweeney to speak on additional observations.

Pamela Sweeney (RER DERM) - expands on Laura's monthly monitoring. Late July exceeding 33 degrees Celsius. With cloud cover, we have seen those temps drop across the Bay and at our two canal sites. With the rain we do have concerns about Dissolved Oxygen (DO) levels. Late July we had readings of 4-5 mgs/ liter of DO especially in north bay. Canal sites were at 1 -2 milligrams per liter. We are going to keep an eye on that (DO levels lower than 5 mg/ liter are dangerous). Mentioned that easterly winds are up and may be helping with mixing in the water column and holding the DO at stable levels.

Dr. Kelble (NOAA) – explained that they are seeing Impacts on coral especially in the Port of Miami. We've seen a lot of dead corals and bleaching there. Offshore on Emerald Reef 10% bleaching. Health of corals is better on the offshore reefs while inside the bay not looking good at all.

Mayor Levine Cava – mentioned the New York Times Daily podcast on the die off and rescue of coral in the Keys.

Laura Eldredge (RER DERM) – mentioned that DERM staff are monitoring offshore and artificial reefs 4 times/week. Bottom and surface temps on the reef are similar even at 52 feet of depth not seeing colder water. No stratification in the water column. Monitoring with bleached coral and the coral disease that they have. Staff provide anti biotics to the diseased coral heads. Increased temps, increased bleaching leading to increased levels of disease. Public can report what they are seeing on their dives. SEAFAN – Octo corals known as sea fans are our soft corals. SEAFAN.net to report any bleaching corals.

Irela Bagué, (OOR Chief Bay Officer) - introduced Dr. Ross Boucek from Bonefish & Tarpon Trust. Asked him to share what is happening in Florida Bay and the Keys and how it relates to Biscayne Bay.

Dr. Boucek (Bonefish & Tarpon Trust) – mentioned that he works in the Keys and Florida Bay, but we are all connected. They partner with the sports fishing community and recreational community to help report fish kills.

Only one report in Biscayne Bay early in the summer near Turkey Point. In the Florida Keys started around Isla Morada and began to move east and west out to Key Largo and Key West. Tropical fish suffered heavier losses then temperate water fish and we're not sure why. Initial level of fish kill has not travelled up to larger fish species. We are worried about other organisms in the habitat like sea grass for example. Florida Bay considerably hotter than Biscayne Bay. Lowest level of rainfall in Key West in many years. Biscayne Bay getting the rain and so seems to have been spared compared to the Keys. Cautions that we don't know what the longer terms effects of this high heat will be. We need to manage for resiliency at this point by keeping water quality high. Other things we can do now in the short term to buy ourselves some time until more long term solutions are reached to mitigate which way our planet is headed. We need to keep this concern up even after the heat.

Dr. Serafy (NOAA) – agreed; we aren't out of the woods yet. Another month or more before we can let our guard down. Another stressor is fishing. Question to Dr. Boucek – are these mass die offs or are they lots of individual fish - fish caught and discarded and they just don't make it. **Dr. Boucek** - Puffer fish and non-targeted fish are mass die offs. Uptick in larger bodied fish which are usually resilient and so must be related to the stressors of being fished and released. Message – don't fish on the hottest days.

EMERGENCY PREPAREDNESS & RESPONSE:

Irela Bagué (OOR Chief Bay Officer) – Thanked our panelists and introduces Pete Gomez to discuss current emergency preparedness.

Pete Gomez, (Director Emergency Management) – stated that we are in the peak of hurricane season but have been fortunate so far with 3 disturbances which have avoided Miami-Dade County. Currently a new one off the coast of Honduras may develop into a tropical depression in the next several days and may not affect us more than a lot of rain starting this weekend (Monday through Thursday) and with Oceans as hot as they are – there will be an uptick in hurricanes. He mentioned the County is working to develop a flood response plan to be sure we are coordinating with all the cities and others to deal with the stormwater especially and introducing GSI coordinates to track flooding events where they are most common before events happen. As discussed in the last meeting, messaging is very important including social media, reverse 911, and amber-type alerts to warn the community. The County will be working with a new app: *iseechange* to track direct communication with the public on any type of event particularly flooding events.

Mayor Levine Cava – welcomed and thanked Armando Vilaboy from the South Florida Water Management District (SFMWD) for joining the meeting and providing their insights.

Armando Vilaboy (SFWMD) – stated that the SFWMD system can handle capacity of rain that is incoming. The district manages a 3-tier system of hundreds of canals and structures – it's like a water superhighway. The secondary system is managed by Miami-Dade County and tertiary system by various municipalities, and it all goes into the SFWMD main system. In addition, to releasing water when needed for flood protection they also maintain the canals including vegetation with focus on non-native vegetation and matter which may fall into the canal and hit structures or pumps. They remove debris in the canal system which is one of our biggest challenges in particularly in Miami-Dade. SFWMD installed booms to prevent larger pieces of debris from going out to the Bay. The debris removed from canals amounted to 217 tons in FY 21 during 98 cleaning cycles. The County has the most cleaning cycles in the SFWMD 16 County jurisdiction. A typical SFWMD canal sees an average of 2 tons per year and requires four - five cleaning cycles. They use gates and pump systems to create capacity for canal system. The gates are open during low tide though and are not moving water all the time during low tide and try to keep structures stable. They see more rain in the afternoons and will be opening the structures more frequently because they have to create capacity for the rainwater to keep people and property safe. For storm preparation we typically have to do a draw down 72 hours before a storm approaches and get the canals to their lower levels to have capacity for all the expected rainfall. The gates are not open that entire time but enough to maintain capacity and once they reach the required level, the structures are closed. He mentioned that SFWMD now has a Resilience Office and are working with them to develop more ways to store water and not move it into Biscayne Bay.

Irela Bagué (OOR Chief Bay Officer) – stated that the County has partnered with the SFWMD to pilot test technologies in the canals to reduce nitrogen and phosphorus which are damaging the Bay's health. The County has excellent working relationship with the SFWMD. She introduced Lisa Spadafina to discuss other actions DERM is taking to inform the public on how to report and respond to environmental issues.

Lisa Spadafina, (RER DERM Director) – She stated that DERM has a water control partnership with the SFWMD for the secondary canal system to be sure we are tracking with the SFWMD canals. This week we had some observations with Doral and were able to work with the SFWMD to solve those operational problems. The County also have Flood Plain Inspectors who are checking on all County structures to be sure we don't have debris in the secondary canals. Inspectors also follow up on flooding complaints and work with the cities or the SFWMD. DERM also makes sure that we don't have problems with stormwater maintenance by working with the Public Works Department.

CALL TO ACTION:

- During rain events, DERM inspectors investigate any runoff into the Bay. It is important for the public to identify these environmental issues to DERM through the complaints desk 24/7. DERM monitors to respond as quickly as possible covering both the County and municipalities.
- Mooring buoys are a great way for people who recreate on the Bay to avoid dropping an anchor and damaging coral or seagrass, this helps prevent stressors on the eco system. The County is happy to announce that we have 12 additional mooring buoys that we will be installing across the Bay. Check out <u>Miamidade.gov/mooring</u> <u>buoy</u> to see locations and learn more.
- Next Roundtable will be held in September as we get through the Heat Season.



WRAP UP:

Mayor Levine Cava - thanked all the participants and stated how important it is to collaborate. The County relies on all of you to develop joint strategies – working together is critical to saving Biscayne Bay. The Bay is a key part of her agenda and established the Biscayne Bay report card, have increased monitoring of the bay; continue to support Everglades restoration projects; working on implementing septic to sewer conversions; and increased monitoring of construction sites for run off. Remember we are under the fertilizer ban in the rainy season. Government can't do it alone. We need everyone's help avoid fertilizing; use a mooring buoy instead of an anchor and please help us amplify this message!

For more information and updates on the Biscayne Bay Watershed Management Board, visit: Biscayne Bay Watershed Management Advisory Board (miamidade.gov)

BBWMAB POLICY UPDATES

The following is a listing of legislative actions taken by the Miami-Dade County Board of County Commissioners related to Biscayne Bay since the last BBWMAB meeting.

Miami-Dade County Policy

File Number: 231390

Agenda Item Number: 2B2 File Name: REPORT ON THE COUNTY'S COMPREHENSIVE FLOOD MITIGATION MEASURES AND FUTURE STORMWATER PLANNING DIRECTIVE NO. 221494 Sponsor: Cohen Higgins Status: Report Accepted 7/18/23

File Number: 231391

Agenda Item Number:2B8 File Name: REPORT ON THE COUNTY'S CODE CHANGES RELATED TO OPERATIONS, MAINTENANCE, DESIGN AND CONSTRUCTION OF MUNICIPAL STORMWATER SYSTEMS Directive NO. 221513 Sponsor: Cohen Higgins, Heyman, Monestime, Sosa, and Souto Status: Report Accepted 7/18/23

File Number: 231393

Agenda Item Number:2B3 File Name: REPORT EVALUATING THE COUNTY'S DRAINAGE INFRASTRUCTURE IN SOUTH DADE Directive NO. 221437 Sponsor: McGhee Status: Report Accepted 7/18/23

File Number: 231401

Agenda Item Number:2B4 File Name: REPORT ON THE COUNTY'S WELLFIELD PROTECTION AREAS Directive NO. 221568 Sponsor: McGhee Status: Report Accepted 7/18/23

File Number: 231405

Agenda Item Number: 2B5 File Name: PROMOTE AND IMPROVE AWARENESS REGARDING BISCAYNE BAY Directive Nos. 211499, 212139, 213042, 210207, 210807, 192825, 192403, AND 121564 Sponsor: Sosa Status: Report Accepted 7/18/23

