

BISCAYNE BAY WATERSHED MANAGEMENT ADVISORY BOARD

Board Packet



Biscayne Bay Watershed Management Advisory Board

Board Package

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AGENDA

BISCAYNE BAY WATERSHED MANAGEMENT

ADVISORY BOARD (BBWMAB) MEETING

July 14th, 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 April 14, 2023** – *Actionable Item*
5. **BBWMAB Goals & Objectives**
BBWMAB Chair, Commissioner Danielle Cohen Higgins
6. **Watershed Restoration Plan Overview**
Irela Bagué, Chief Bay Officer
Pamela Sweeney, Senior Water Scientist, RER DERM
7. **Draft Impervious Ordinance Review**
Marina Blanco Pape, Chief, Water Management Division RER-DERM
8. **Chairwoman Discussion Item RE: 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 on a single lot shall not be limitedBBWMAB Chair, Commissioner Danielle Cohen Higgins
9. **Future Agenda Items**
BBWMAB Chair, Commissioner Danielle Cohen Higgins
10. **Adjournment**
BBWMAB Chair, Commissioner Danielle Cohen Higgins

Biscayne Bay Watershed Management Advisory Board

Welcome New Board Member

Commissioner Alex J. Fernandez
City of Miami Beach – League of Cities



[Read more about Commissioner Fernandez here](#)

Biscayne Bay Watershed Management Advisory Board

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

MINUTES April 14, 2023 9:00 am

MEETING CALLED BY	<p>The roll call was taken – Quorum was met. 14 members present.</p> <p>Absent Members: Julissa Kepner, Spencer Crowley, Roberto Torres and Dr. Joan Browder. Kevin Cunniff arrived late.</p>	
MEMBER ATTENDEES	<p>Chair – D8 Commissioner Danielle Cohen Higgins Vice-Chair – Coral Gables Mayor Vince Lago D6 Commissioner Kevin Cabrera D4 Commissioner Micky Steinberg North Bay Village Commissioner Rachel Streitfeld Cutler Bay Mayor Tim Meerbott Brett Bibeau Dr. Todd Crowl</p>	<p>Dr. Erik Stabenau Jannek Cederberg Gerald McGinley John Alger Dave Doeblor Dr. Diego Lirman Kevin Cunniff</p>
	<p>Staff support for Biscayne Bay Watershed Management Advisory Board in attendance: Irela Bagué, Pamela Sweeney, Nancy Jackson, Larissa Aploks, and Ana Fiotte.</p>	

AGENDA TOPICS

REASONABLE OPPORTUNITY TO BE HEARD

Commissioner Danielle Cohen Higgins - Chair

PUBLIC COMMENT	<p>Chair Cohen Higgins provided an event announcement regarding Baynanza, the County’s annual Bay Clean up event, will be happening tomorrow, April 15.</p> <p>Chair Cohen Higgins welcomed three new appointed members to the board and provided each an opportunity for self introductions. County Commissioner Kevin Cabrera - D6; Commissioner Micky Steinberg- D4; and Kevin Cunniff, representative of the Miccosukee Tribe of Indians of Florida.</p> <p>Chair Cohen Higgins highlighted the groundbreaking event for the completion of the Biscayne Bay Coastal Wetlands Phase 1 project and the importance of the State and Federal governments’ work to finish the planning process for the Biscayne Bay Southern Everglades Ecosystem Restoration Project (BBSEER) a critical project to bring more fresh water to Biscayne Bay and that will be impacted by the recent Urban Development Boundary vote.</p> <p>Public Comment:</p> <ul style="list-style-type: none"> Laura Reynolds, Friends of Biscayne Bay - spoke about the need for protecting wetlands. She stated her disappointment to see 42 acres of wetlands lost to truck parking at the last BCC meeting. Asks for the Board to see how wetlands can be protected moving forward. She requests the Advisory Board to take up legislation to include more protective language in the CDMP. In public water fronts and public parks. Steve Leidner, Sierra Club of S. Florida - mentioned deconstruction, meaning removing development from wetlands and restoring wetlands to help clean water and restoring Biscayne Bay. He mentioned the need to use pervious surfaces to improve drainage during flooding.
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	<ul style="list-style-type: none"> Joshua Linenfelter, Miami Waterkeeper - spoke about the importance of septic to sewer conversions. Expressed concerned about outdated sewer systems the 3,000 sanitary sewer overflow (SSOs) events in MDC since 2000. Audrey Siu, Miami Waterkeeper - requested to work and support County staff as they develop code changes to update stormwater system standards and incorporate the FDEPs updated stormwater management standards for permitting to go further, fill gaps, include green infrastructure, and Low Impact Development (LID). Expressed concern about coral reefs not included in the Back Bay alternatives shared with the public by the USACE. Reefs are the first line of defense and should be incorporated into the plans to attenuate storm surge. Lauren Jonaitis, Tropical Audobon – spoke about the importance of wetland protections and requested the county consider similar code changes as in Martin County which protect wetlands and limits development. Silvio Pupo - thanked the board for their service. Invited the public to the Climate roundtable on Earth Day to discuss the blue economy.
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APPROVAL OF AGENDA

Commissioner Danielle Cohen Higgins - Chair

DISCUSSION	<p>Chair Cohen Higgins asked the members of the public who requested certain policy actions to reach out to individual BCC members on the Board to request policy.</p> <p>Chair Cohen Higgins introduced Lisa Spadafina as the new DERM Director and invited her to say a few words. Ms. Spadafina, stated she is looking forward to working with the Advisory Board and will support Board member initiatives.</p> <p>Chair asked for approval of agenda. Adopted unanimously.</p>
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APPROVAL OF MEETING MINUTES

Commissioner Danielle Cohen Higgins - Chair

DISCUSSION	Approval of Meeting Minutes from 2/23/23 meeting. Adopted unanimously.
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LEGISLATIVE UPDATE

Jess McCarty, Executive Assistant County Attorney, CAO

PRESENTATION	<p>Chair Cohen Higgins welcomed and thanked Jess McCarty for his hard work in Tallahassee during the legislative session.</p> <p>Jess McCarty provided an overview of the County priorities related to Biscayne Bay via Zoom.</p> <p>The House and Senate passed the budget last week –and both have allocated \$20M in the Biscayne Bay Water Quality Grant Program. It is expected to move forward early in budget conference.</p> <p>HB 1379 is the department package for the DEP relating to the wastewater grant program, wastewater treatment, septic tanks and other onsite sewage treatment and disposal systems (OSTDSs), sanitary sewer services, and the acquisition of state lands. With language included in SB 1632 and HB 1379 to expand the wastewater grant program, it is anticipated that bills filed by our delegation members to expand to include the county in the wastewater grant program will not proceed further in the session. These bills are HB 827 by Representatives Fabian Basabe (R – North Bay Village) and Vicki Lopez (R – Coral Gables) and SB 458 by Senator Ana Maria Rodriguez (R – Doral).</p>
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	Staff is tracking appropriation requests for septic to sewer (Shenley Park \$2M, \$875K Biscayne Shores Stormwater Pumps, \$750K WASD C2P request).
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CONNECT 2 PROTECT – Septic to Sewer Presentation
(Requested by Chair Cohen Higgins)

Amanda Kinnick, Chief of Staff, WASD

PRESENTATION	<p>Amanda Kinnick, Chief of Staff WASD provided an update on the status of Connect 2 Protect, funding, and public outreach on behalf of WASD Director, Roy Coley.</p> <p>Ms. Kinnick provided an overview of how conventional septic systems work. Septic tanks rely on dry soil conditions to function properly. There are 120,000 tanks county wide. There are 9,000 that are vulnerable to comprise. We expect that to grow to 14,000 by 2040.</p> <p>Benefits of connecting include protection of your homes, and reduction in the risk to public health, and the protection of our natural resources.</p> <p>The cost for connection depends. If there is a lateral near the home, then estimated cost is \$15K to \$20K, if we need to install the lateral the cost increases to \$50K to \$55K.</p> <p>Areas where the County is conducting projects: Little River, which is an Adaptation Action Area, (Phase I we are hoping to complete by 2025); various commercial corridors; and the Ojus Community which created a self-funding mechanism to pay for connections.</p> <p>The county is working first on the 9,000 septic tanks which are the most vulnerable and allocated \$9M to implement in the next couple of years. Tackling the areas with laterals first followed by most vulnerable. The heavy lifting will be Phase 2 (9,00 vulnerable tanks), and Phase 3 (remaining 90,000 properties connected over the next 30 years).</p> <p>Another initiative which is managed by DERM is the Check 2 Protect Program which is a public education program designed to educate homeowners on the importance of septic tank maintenance and checking for any leaks or damage.</p> <p>Board Comment:</p> <p>Dr. Lirman (UM) – asked if the system has enough capacity to take on the new connections.</p> <p>WASD is currently working on a master plan and mentioned the \$550M investment last year to improve the system.</p> <p>Chair Cohen Higgins – asked how the residents in the Little River area were being informed about the program and how to connect.</p> <p>WASD works conducting outreach and works with individual homeowners to form agreements.</p> <p>Chair Cohen Higgins – asked if it would be helpful to develop legislation to streamline homeowner agreements over the long term and if there is any progress with the idea of a GOB to help with the connection costs.</p> <p>WASD shared that the GOB is for the commercial area but could not provide information on a future GOB.</p> <p>Dr. Crowl (FIU) – asked if WASD was working with DEP and SFWMD regarding public education around water quality.</p> <p>RER DERM is engaged in that educational effort.</p> <p>Comm. Steinberg – agreed that education is important to help residents understand why connecting is critical and mentioned that D4 is working on policy to help residents in the Bayshore area with the private adaptation costs.</p>
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PRESENTATION	<p>CRO, Jim Murley provided an update and shared progress on new conceptual alternatives and shared information on recent charrettes and public meetings and presented a slide outlining the various projects and programs sponsored by the US Army Corps of Engineers (USACE), South Florida Water Management District (SFWMD), Florida Department of Environmental Protection (FDEP) and the County itself. Miami-Dade County may have the most projects and federal investments for coastal storm risk and sea level rise management of any in the country.</p> <p>CRO reminded board members of the project timeline and the fact that we are in a pause to develop new concepts for alternatives to present to the Mayor and communities. The time has been spent to gather public input and from partners.</p> <p>There are two concepts being evaluated: the non-structural and the Atlantic option or structural alternative. Non-structural is focused on flood proofing, to reduce damage of incoming water such as strengthening and elevating buildings, critical infrastructure and homes. The structural solution is the Atlantic Coastline alternative that includes gray infrastructure and nature-based solutions along the outside of the barrier islands to provide multiple lines of defense.</p> <p>Board Comment:</p> <p>Kevin Cunniff (Miccosukee) – mentioned Hurricane Ian and all structures not built to MDC code standards were destroyed. Asked about code changes or retrofits to better harden existing structures.</p> <p>CRO shared that the county recently upgraded the code and flood criteria, and adaptation work is being done in public housing.</p> <p>Chair Cohen Higgins – mentioned the current rain event and asked what is being done to mitigate flooding to prepare for future extreme events.</p> <p>DERM Director shared that they are working with SFWMD to manage flood protection measures, operations of canal levels, installation of Smart Covers to help predict issues in the system and is hosting a municipal workshop to coordinate ahead of the rainy season.</p> <p>Chair Cohen Higgins – asked Rachel Silverstein, Miami Waterkeeper to provide information regarding their water quality reports.</p> <p>Dr. Silverstein provided an overview of their water quality reports. They take information from the Florida Department of Health Healthy Beaches, Surfrider, and 22 monitoring stations in Miami and Broward. The public is alerted via phone applications and online. During the recent rains, all sites exceeded water quality levels during the recent rain event because this was the season's first flush. She emphasized the need for more green areas for the water to go as the stormwater systems reach capacity due to sea level rise.</p> <p>Dave Doebler – asked if the current code is sufficient to provide wetland protections as the County develops nature-based solutions for the Back Bay study.</p> <p>CRO - the County is evaluating current nature-based solutions, but the process can always be improved.</p> <p>Mr. Cederberg (FES) – pleased with how the Back Bay process is moving and asked the County to ensure that Back Bay and all other planning efforts are coordinated.</p>
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FDEP GRANT PROJECT UPDATE
(Standing agenda item)

Pamela Sweeney, Sr. Water Scientist, RER-DERM

PRESENTATION	<p>Vice-Chair Vince Lago – assumes gavel and requests that Pamela Sweeney present the update on FDEP Grant Projects.</p> <p>Pamela Sweeney, Sr. Water Scientist, DERM provided an overview of the state grants focusing on reducing nutrient pollution by testing tech solutions in stormwater and canals. Working on restoration projects in the Snapper Creek and Environmentally Endangered Lands (EEL) areas to address water quality, aquifer recharge, saltwater intrusion, and habitat loss.</p> <p>She shared the challenges dealing with stormwater and discussed how working at point of discharge and what can we be doing differently; preventing stormwater from entering primary and secondary</p>
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	<p>canals even with limited public land and how can water be stored and make use of land to recharge the aquifer, as well as the use of technology.</p> <p>Stormwater pilot projects are being implemented in the Larchmont Park area spearheading technologies which have never been used before. The project is in the Little River Adaptation Action Area.</p> <p>The restoration of Snapper Creek in the historic creek bed which feeds into Biscayne Bay. In recent years Snapper Creek has contributed to a macro algal bloom in Biscayne Bay. It has been choking out the sea grass in that southern area. The projects in the upland area on EEL land including planting trees, and native plants restoring the native habitat which helps improve water quality and prevents flooding in the area. The project is the most recent grant awarded by FDEP.</p> <p>The Smart Cover project is another project funded by the state. The covers are already showing results and the County discovered that in the Wagner Creek area near the health district, had old infrastructure discharging dirty water into the waterway and were able to eliminate that connection. Smart Covers can detect and prevent Sanitary Sewer Overflows (SSOs) from happening.</p> <p>DERM is currently drafting an agreement with FIU and UM to facilitate access to their state-of-the-art laboratories and data. Allowing the county to create 3-D models to understand how pollution moves through the watershed and identify where the stormwater look the worst. We know where the hotspots are: Little River, Miami River, and Biscayne Canal so the focus is in those areas to gather more data to address pollution sources.</p> <p>The data collected will feed into the Reasonable Assurance Plan (RAP) currently in development.</p>
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REASONABLE ASSURANCE PLAN UPDATE

(Standing agenda item)

Irela Bagué, Chief Bay Officer

PRESENTATION	<p>Vice-Chair Lago, invited the Chief Bay Officer (CBO), Irela Bagué, to provide the update on the RAP.</p> <p>The CBO welcomed new board members and thanked everyone for their service. She shared that one of the top recommendations of the Biscayne Bay Task Force (BBTF) is to find hot spots of pollution in the Bay and then set nutrient reduction targets working with partners to reduce the nutrient loads in those areas. That is where the projects previously mentioned and others will be implemented by municipal partners, together with DEP and EPA under the Clean Water Act.</p> <p>CBO shared that together with DERM we hosted FDEP RAP staff from Tallahassee on a two-day tour of pollution hot spots, grant-funded projects coinciding with the rain event. The CBO reminded the board that this work should have started 20 years ago and therefore solutions must move quickly working collaboratively with the state Biscayne Bay Commission.</p> <p>CBO shared that FDEP has approved the outline of the RAP Plan of Study (POS). The consultants are currently working on the POS draft, gathering data and information to submit for approval by DEP and EPA. The next steps include outreach to stakeholders (municipalities).</p>
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FUTURE AGENDA ITEMS

Mayor Vince Lago- Vice Chair

DISCUSSION	<p>Vice-Chair Lago opened the floor for Future Agenda items and discussion.</p> <p>Dave Doeblner – asked about the status of the stormwater legislation to update Chapter 24 the BBWMAB had approved last year. Would like to get an update on the legislation.</p> <p>DERM Director stated that a draft report is awaiting approval to address the directive. In addition, policy is being finalized on impervious surface areas, and the stormwater operating permit is still being worked on. DERM will present the impervious surface draft ordinance at the next meeting.</p> <p>Vice Chair Lago – suggested bifurcating the items for the next meeting.</p> <p>Comm. Streitfeld (NBV) – mentioned that the City is currently working on stormwater code changes and asked for the draft of the impervious ordinance so they can review and be consistent with the County.</p> <p>Vice Chair Lago – asked for the draft so his City staff could review it as well.</p>
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	<p>DERM Director will share the draft and asked for NBV's draft policy.</p> <p>Lourdes Gomez, RER Director shared the County is working with the CBO to host a Municipal Water Quality Workshop again this year. The plan to present the draft impervious ordinance at the workshop.</p> <p>Dave Doebler – asked to work with staff to develop a policy for "no net loss" of wetlands and bring it back to the Board for review.</p> <p>Comm. Streitfeld – in support.</p> <p>Vice Chair Lago – mentioned Coral Gables purchase of private lands to create more green spaces and would like to share the funding mechanism, Transfer Development Rights (TDR) with the RER Director.</p> <p>RER Director shared that she has met with Ms. Reynolds and explained to her that Martin County has a different situation compared to Miami-Dade County regarding urban development. All interests need to be balanced but are willing to look at designating certain areas for wetlands.</p> <p>Comm. Streitfeld – asked about the 42 acres of wetland lost to truck parking.</p> <p>RER Director explained the issue was related to addressing illegal parking in the south.</p> <p>Dave Doebler – made a motion to formalize the process whereby if wetlands are given in one area that they are restored or recovered in another area. Protecting wetlands is so important.</p> <p>John Alger – shared that in his experience there is already a process for mitigation for wetlands. In the agricultural areas they do have a mitigation requirement and sometimes it's not acre per acre put it may take 4 acres to mitigate a single acre of wetlands and are running into problems with this.</p> <p>Vice-Chair Lago called for a motion to be made directing staff to review ordinance on wetlands.</p> <p>Comm. Streitfeld seconded the motion.</p> <p>CJ Wahl, County Attorney, clarified the role and powers of the BBWMAB. The Board cannot instruct staff, only the BCC can do so. Board members can work on policy if the staff agrees.</p> <p>Vice Chair Lago – suggested that Mr. Doebler work with the CBO to draft policy and bring it back for discussion at the next board meeting.</p> <p>CBO agreed to work with Mr. Doebler and RER DERM to schedule a sunshine meeting to develop language that can be brought back to the BBWMAB for review.</p> <p>Dr. Todd Crowl – mentioned that a private citizen made a substantial gift to FIU to purchase and operate a water quality buoy. While the university has already recognized his contribution, Dr. Crowl asked that the BBWMAB also recognize these actions of a private citizen who cares about Biscayne Bay.</p> <p>CJ Wahl, County Attorney, described the county process for recognition of this individual. The advisory Board could ask the BCC to make such a recognition but the Advisory Board cannot do so.</p> <p>Commissioner Kevin Cabrera, stated that any of the County Commissioners would be willing to help with this recognition and ask him to reach out to any of them.</p> <p>Dave Doebler – shared concerns that many policy decisions and matters that affect the watershed are not coming to the Board. He asked if the BBWMAB ordinance could be amended to add items prior to BCC action.</p> <p>CAO explained that any changes to the powers of the BBWMAB would require an amendment to the code by the BCC.</p>
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ADJOURNMENT

Mayor Vince Lago - Vice Chair

DISCUSSION	<p>Vice-Chair Lago adjourned the meeting and on behalf of Chair Cohen Higgins. He thanked the public for comments, the staff for all their work, and board members for taking the time to attend.</p>
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Approved _____ Mayor
Veto _____
Override _____

Agenda Item No.

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:

Section 1. 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) >>Bird Drive Basin shall mean those lands within the 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) Building permit shall mean a permit pursuant to the Florida Building Code.<<

* * *

- >>(70)<<[(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) County public works manual shall mean the manual of minimum standards for public works construction promulgated by the County public works department pursuant to section 2-100.<<

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>>(79)<< ~~[(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.

>>(80)<< ~~[(76)]~~ Detention ~~[[of stormwater]]~~ shall mean >>a 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 >>said<< stormwater ~~[[in a manner that will provide treatment through physical, chemical or biological processes,]]~~ with subsequent ~~[[gradual]]~~ release ~~[[of the stormwater]]~~ >>into the ground or to surface waters<< ~~[[in a manner not to exceed the design limitations of the temporary storage area]].~~ >>There are two type of 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.<<

>>(81)<< ~~[(77)]~~ Detention pond shall mean >>detention that consists of<< an open basin >>that<< ~~[[which intercepts the groundwater table and]]~~ is used for >>storage to reduce stormwater peak flow rates or pollutants<< ~~[[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.<<

>>(84)<< [[(81)]] *Dewater* shall mean to>>:
 (a)<< discharge off-site or on-site water from an excavation, underground structure, >>trench,<< 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<<.

* * *

>>(86)<< [[(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.

* * *

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

common receiving point or area<< ~~[[drainage structure or natural waterway]]~~.

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~~[(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>>₁<< 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.

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

(a)<< stormwater flows out of a trench or a buried perforated pipe >>or structure<< 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<<.

* * *

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

* * *

>>(165)<< [[(164)]] *Impervious area* >>or impervious surface<< 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>>:

- (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
- (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]]~~ >>into<< the WCTS (including sewer service connections ~~[[and foundation drains]]~~) from the ground through such means as defective pipes, pipe joints, connections, or manholes >>or other defects or perforations in the WCTS<<.

~~[(170) *Infiltration of stormwater* shall mean the process by which stormwater flows vertically downward through the ground into the Biscayne Aquifer.]]~~

* * *

(210) >>*Non-structural impervious surface improvement* shall 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 >>those lands<< ~~[[a basin]]~~ located in western Miami-Dade County >>within the following geographical boundary, all of which are designated as a cut and fill basin<< ~~[[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.

* * *

(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 >>on-site<< ~~[[runoff by means other than positive drainage within the limits of the project site]]~~.

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(224) >>*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.

(225)<< *Overflow* ~~[[outfall]]~~ shall mean>>:

(a)<< a drainage structure >>or pipe<< 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.

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>>(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.

* * *

>>(239)<< [(237)] *Positive drainage* shall mean the direct disposal of stormwater runoff by overland sheet flow>>₁<< or through a channel ditch[[:]] or closed pipe system>>₁<< into an on-site or off-site surface water body such as, but not limited to, a lake, lagoon, river, canal, bay>>₁<< or the ocean.

* * *

>>(268) *Retention* shall mean a facility or system designed to 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 vector trucks or other pumping systems to evacuate the stored water.

(269)<< [(266)] *Retention pond* shall mean >>retention that consists of<< an open basin >>that<< [[which intercepts the groundwater table and]] is used for the storage and ultimate disposal of stormwater runoff by evaporation and seepage.

* * *

>>(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.

* * *

>>(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) *Slab*<< ~~[[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<<.

>>(311)<<[(308)] *Stormwater management area* shall mean that portion of a tract of land >>or parcel that<< [[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 >>that<< [[which]] results from rainfall, storing water in the Biscayne Aquifer>>, or<< [[and]] recharging the Biscayne Aquifer.

>>(312)<<[(309)] *Stormwater management program* shall >>be<< [[mean the same term]] as defined >>in section 403.031<< [[by Section 403.031(14)]], Florida Statutes, as [[same]] may be amended from time to time.

>>(313)<<[(310)] *Stormwater management system* shall >>be<< [[mean the same term]] as defined >>in section 403.031<< [[by Section 403.031(15)]], Florida Statutes, as [[same]] may be amended from time to time.

>>(314)<<[(311)] *Stormwater runoff* shall mean the excess rainfall precipitation >>that<< [[which]] runs over the ground surface when the rate of rainfall precipitation exceeds the rate of >>stormwater<< infiltration [[of stormwater into the ground]].

>>(315)<<[(312)] *Stormwater* shall mean the water >>that<< [[which]] results from rainfall.

>>(316)<<[(313)] *Stormwater utility* shall >>be<< [[mean the same term]] as defined [[by Section 403.031(16)]] >>in section 403.031<<, Florida Statutes, as [[same]] may be amended from time to time.

>>(317)<<[(314)] *Structural controls of stormwater* shall mean >>a facility or system consisting of<< physical devices >>or infrastructure<< used to control stormwater>>,<< including, but not limited to, levees, dikes, pump stations, >>pipings, structures,<< spillways, locks, embankments, roadways, lakes, retention ponds >>or other retention systems<<, and detention ponds >>or other detention systems<<.

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

* * *

>>(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. - >>Department<< 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 >>Department, 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 >>Mayor<< [[Manager]].
- >>(3)<< Such Director shall be chosen by the >>Mayor<< [[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 >>licensed<< [[registered]] to practice in the State of Florida [[under the provisions of Chapter 471, Florida Statutes,]]>>;<< or [[he shall]]
- >>(b)<< become >>so licensed<< [[registered]] within >>18<< [[eighteen (18)]] months after the date of appointment[[;]]>>;<< or [[he shall]]
- >>(c)<< have at least a bachelor's degree from an accredited university in a field >>that<< [[which]] will, in the >>Mayor's<< [[Manager's]] judgment, technically qualify >>the Director<< [[him]] 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.
- >>(5)<< 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 >>Mayor<< [[Manager]] and subject to the direct supervision of the County >>Mayor<< [[Manager]].
- >>(a)<< The County >>Mayor may<< [[Manager shall]] appoint such assistants to the Director as may be necessary in order that the duties of the Director may be performed properly.
- >>(b)<< The organization and administrative operating procedures of such County office and its relationship and coordination with other County departments [[shall]] >>may<< be established and placed in effect, from time to time, by administrative order of the County >>Mayor<< [[Manager]], but the >>Mayor<< [[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:

* * *

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

- (1) *Intent.* It is the intent and purpose of this section to require that all new facilities, equipment>>,<< ~~[[and]]~~ 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) Applicant’s burden. 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) >>Wastewater<< ~~[[Waste water]]~~ facilities.
- >>(a)<< It shall be unlawful for any person to >>do any of 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>>₁<< including collection, conveyance, transmission>>₁<< or treatment or waste treatment facility>>₁<< 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>>₁<< or addition to any sewerage system>>₁<< including collection, conveyance, transmission>>₁<< or treatment>>₁ to any<< ~~[[or]]~~ waste treatment facility>>₁<< or >>to<< any industrial waste disposal facility~~[[,]]~~>>₁<< or

>>(iii)<< commence the construction>>₁ 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>>₁ 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) This<< ~~[[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 building<< ~~[[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 >>section<< ~~[[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<< ~~[[Section]]~~ 24-42.6.

>>(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)<< It shall be unlawful for any person to make any major or substantial alteration, enlargement>>₁<< or addition to any existing facility, equipment>>₁<< 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>>₁<< or processes thereof by 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 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>>₁<< or to commence the installation, extension, alteration>>₁<< or operation of>>₁<< 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.]]~~ >>*Storage facilities, aboveground or underground.*<<

>>(a)<< It shall be unlawful for any person to install, repair, modify, expand, replace>>₁<< or permit, cause, allow, let>>₁<< or suffer the installation, repair, modification, expansion>>₁<< or replacement of any aboveground >>or underground<< 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 >>or underground<< storage facility show the >>Director's<< 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 ~~[[format]]~~ 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<< ~~[[Chapter]]~~ 62-762 of the Florida Administrative Code>>for above ground storage facilities,<< and the referenced standards contained therein.

>>(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.

~~>>(e)<<~~ 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).*

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>>(7) Non-structural impervious surface improvements; 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) The non-structural impervious surface improvement is not accompanied by any other development.

(ii) The respective municipality has adopted its own ordinance regulating non-structural impervious surface improvements on single-family 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) The municipality continues to enforce its 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. The municipality sends to the Director and the Clerk of the Board of County Commissioners by December

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

3. The municipality submits its ordinance for review within 60 days of the written notice.

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. A portion of this subsection is not complied with; or

2. The Director determines that the municipal regulation does not satisfy the requirements of this subsection; or

3. The Director determines that the municipality has approved a non-structural impervious surface improvement on a single-family or duplex property that:

a. does not comply with the adopted municipal ordinance;

or

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. >>Applications 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 >>by<< and filed with the Director.

>>(a)<< Such application shall be signed by the person seeking >>approval<< [[to install, extend or alter the facility—involved]] or a duly authorized representative vested with lawful power to bind the applicant.

>>(b)<< 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<<:~~

(a) *Report of engineer.* A comprehensive ~~>>signed and 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) ~~>>Information related to stormwater infrastructure.~~

(i) For any application that includes stormwater infrastructure, an engineering report that includes at least the following shall be submitted:

1. a detailed description of the stormwater infrastructure and any alterations proposed;
2. basis of design with design data and calculations;
3. hydrology and hydraulic data and information, including storm duration and frequency;
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;
 6. assumptions; and
 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;
 3. the South Florida Water Management District Environmental Resource Permit Applicant's Handbook; and
 4. relevant publications of the National Oceanic and Atmospheric Administration and United States Geological Survey.
- (c) Construction drawings. 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) Operating Procedures~~<<~~ ~~[[~~(d) ~~Processes]]~~. A description of all ~~[[processes]]~~ ~~>>~~operating procedures~~<<~~ proposed to be utilized in connection with the operation of the ~~[[facility or]]~~ project

sufficient to >>demonstrate the project will operate in compliance with<< ~~[[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]]~~>>Licensed<< 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]]~~

>>(2) All materials<< 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<<.

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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 >>pursuant to subsection<< ~~[[as set forth in Section]]~~ 24-44(2) shall be signed and sealed by a ~~[[licensed]]~~ professional engineer >>licensed<< ~~[[registered]]~~ in the

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

Sec. 24-16. - Construction of >>certain projects<< ~~[[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 as-built 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 >>that<< ~~[[which]]~~ would materially alter the >>operation, capacity, configuration, functionality, or<< quality characteristics of >>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:

(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>>;
- (c)<< ~~[[or which would materially alter the quality characteristics of]]~~ the effluent of a potable water facility>>; or
- (d) stormwater infrastructure or its ability to protect water quality or prevent stormwater runoff or flooding; or
- (e) a wastewater collection and transmission system (WCTS) or the quality characteristics of its effluent<< ~~[[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[[;]] and may require reports and additional information at any stage of construction.

>>(6)<<[[~~(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 >>Director's<< approval ~~[[of the Director or the Director's designee]]~~ without the >>Director's<< 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

>>each be responsible for maintaining and keeping<< [[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 >>or contamination of air, water, soil, or property<< as [[herein]] defined[[,—and—to]]>>in this 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) The owner and operator shall<< 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 >>section 24-42.4<< [[Section 24-42.4(1)(e) 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<<.

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

- (1) Records required. 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) Recertification required. 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) Subsequent recertification shall be obtained every 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) flooding has occurred in an area served by any portion of the respective stormwater infrastructure;
 - (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) such stormwater infrastructure continues to operate in accordance with, and to otherwise comply with, the requirements of this chapter and the conditions and terms of any prior approval of said stormwater infrastructure pursuant to this chapter; and
 - (ii) 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.
- (e) 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

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) a written recertification; or

(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.<<

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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.

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

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Section 4. Section 24-38 of the Code of Miami-Dade County, Florida, is hereby

amended to read as follows:

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.

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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<< STANDARDS

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

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- (3) DISCHARGES AFFECTING WATER QUALITY AND PROHIBITION OF POSITIVE DRAINAGE.
 - >>(a) Dewatering and discharges prohibited.<< 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 >>subsection (4) below<< ~~[[Section 24-42(4)]]~~;

>>(ii)<< ~~[[b]]~~ To cause water pollution as defined in >>section<< ~~[[Section]]~~ 24-5; or

>>(iii)<< ~~[[c]]~~ To cause a nuisance or sanitary nuisance as herein defined>>; or

(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 >>exists<< under or in the vicinity of the subject site >>the plume<< ~~[[which]]~~ will >>not<< be adversely impacted by partial or full on-site stormwater

- disposal>>; and
- (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:

<i>Chemical, Physical or Biological Characteristic</i>	<i>Fresh Water (water containing less than 500 ppm chlorides)</i>	<i>Tidal Salt Water (water containing more than 500 ppm chlorides)</i>	<i>Groundwater</i>
Dissolved oxygen (mg/l)	5 ppm during at least 10 hours per 24-hour period, never less than 4 ppm, unless acceptable data indicate that the natural background dissolved oxygen is lower than the values 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.		—
pH	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.		—
<i>Temperature</i>			
Sources permitted prior to July 1, 1972	Shall cause no environmental damage.		

<i>Chemical, Physical or Biological Characteristic</i>	<i>Fresh Water (water containing less than 500 ppm chlorides)</i>	<i>Tidal Salt Water (water containing more than 500 ppm chlorides)</i>	<i>Groundwater</i>
Sources permitted after July 1, 1972	3° >>F<< above ambient.	(June—September) 2° >>F<< above ambient. (October—May) 4° >>F<< above ambient.	—
Turbidity	29 NTU above background>> outside of Outstanding Florida Waters as defined in 62-302.700 F.A.C. 0 NTU above background within Outstanding Florida Waters as defined in 62-302.700 F.A.C.<<		
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> bacteria (MPN/100ml)	<u>410</u>	=	=
<u>Enterococci</u> bacteria (MPN/100ml)	=	<u>130</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 conductance	500 micromhos per cm (fresh water). Not more than 100% above background, in waters other than fresh.		
Dissolved solids	Not to exceed 500 mg/l for monthly average or 1000 mg/l at any time.		
Radioactive substances	Gross beta activity (in known absence of strontium 90 and alpha emitters), not to exceed 1000 micro-microcuries at any time.		

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

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>>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) Best management practice (BMP) for stormwater treatment shall mean a practice or combination of 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) Event mean concentration (EMC) shall mean the average pollutant concentration for a given land use, expressed in units of mass per volume (e.g., mg/L).
- (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) Percent pervious area (PPA) shall mean the ratio 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) General requirements and procedures. The following shall govern all applications subject to this section.

- (a) Applicability. 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) Stormwater evaluations.
 - (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) Detention and retention.

- (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

8 feet NGVD or as otherwise permitted by the Florida Department of Environmental 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 Director.
- (e) Pollutant loading. 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) Pre-existing wastewater collection or transmission systems, non-structural impervious surface improvements, or stormwater infrastructure, including outfalls. 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 circumstances:
 - (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. after implementation of the approved plans, plans demonstrating that the deficiencies have been corrected.
- (v) Plans required pursuant to this subsection shall comply with the requirements of division 1 of article I for submission of plans.
- (g) Compliance with other regulations. No provision of this section shall be construed to permit a less stringent design standard than that required by other applicable regulations.
- (4) Minimum stormwater standards 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) Non-structural impervious surface improvements shall not cause stormwater runoff onto adjacent parcels that are not designed and are not approved by the Director to receive such runoff.
 - (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 2020 Florida Building Code, Building, 7th Edition, shall be considered a single-family property.
 - 2. A “system” means a facility, or one or 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.
- (b) *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) *Stormwater quantity.* 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.

1. For lots with an area of 5,500 square feet or less:

a. a minimum of 5 feet of pervious area setback on a minimum of 3 sides of the property, with a 6-inch-deep swale along the property perimeter with slopes of 1:1, and a minimum of 20 percent of pervious lot area; or

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 6-inch-deep swale along the property perimeter with slopes of 1:1, and a minimum of 20 percent of pervious lot area.

2. For lots larger than 5,500 square feet:

a. a minimum of 5 feet of pervious area setback on a minimum of 3 sides of the property, with a 6-inch-deep swale along the property perimeter with slopes of 1:1, and a minimum of 25 percent of pervious lot area; or

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 6-inch-deep swale along the property perimeter with slopes of 1:1, and a minimum of 25 percent of pervious lot area.

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.

(ii) 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.

(iii) To meet the requirements set forth in 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 pervious area; or other impediments to stormwater infiltration, including, without limitation, over-compaction of soils.

- (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) *Administrative adjustments authorized.* 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.
 - (vii) For existing single-family or duplex 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.
 - (viii) Single-family or duplex residences that are 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) *All other developments and improvements.* Applications for all other developments and non-structural 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) *Stormwater Quantity.*

1. The Director may approve off-site discharge to an adjacent parcel 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. Properties located in a cut and fill basin (Basin B, the Bird Drive Basin, and the North Trail Basin) shall comply with the following:
 - a. The required drainage facilities shall be an onsite retention system for the 100-year, 3-day storm event, with zero off-site discharge.
 - b. A property shall be deemed to comply with the foregoing onsite retention requirement where the applicable percentage of the property's total lot area is set aside for

stormwater management purposes.

i. If the stormwater management area is a wet retention area:

A. North Trial Basin - 28.60 percent.

B. Bird Drive Basin - 30.00 percent.

C. Basin B - 28.60 percent.

ii. If the stormwater management area is a dry retention area:

A. North Trial Basin - 33.25 percent.

B. Bird Drive Basin - 38.00 percent.

C. Basin B - 39.00 percent.

c. Alternatively, the Director may approve drainage to an off-site stormwater management area within the same basin, provided that such stormwater management area can contain the runoff generated by the 100-year, 3-day storm event with zero off-site discharge and complies with all other applicable provisions of this chapter.

6. For properties that are located outside of the Urban Development Boundary, the required drainage shall be onsite retention of the 100-year, 3-day storm event.

7. Drainage wells may be used to comply with retention requirements where such wells:

- a. comply with applicable state regulations; and
- b. comply with stormwater quality requirements and sedimentation restrictions contained in this chapter; and
- c. 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) Stormwater Quality.

- 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 pre-development loads; or
 - b. post-development pollutant reduction shall not be less than 85 percent based on average annual loading; or
 - c. post-development pollutant loads shall not cause water quality violations in receiving water bodies; or
 - d. level of treatment sufficient to accomplish the percent reduction specified in the load allocation of an adopted Total Maximum Daily Load (TMDL) or adopted Reasonable Assurance Plan (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:

- a. Biscayne Bay.
- b. Any surface water designated as an Outstanding Florida Waters pursuant to chapter 62-302.700(9), Florida Administrative Code.
- c. 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.
- d. Any tributary that is connected, as determined by the Director, to either Biscayne Bay or a surface water designated as an Outstanding Florida Water.

4. Administrative adjustments authorized. Notwithstanding any provision to the contrary, where the Director determines that existing site conditions preclude full compliance with this section, the Director may approve an alternative design that complies with applicable state and

federal requirements and achieves the highest level of water quality, provided that the applicant demonstrates that removal efficiency and design criteria are based on field-verified 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 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.

- (d) Public right-of-way projects not part of a subdivision application. 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) Stormwater Quantity

1. Where approved by the Director, stormwater inlets and catch basins may be located up to twelve inches below County Flood Criteria.
2. The right-of-way shall be graded to 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) Stormwater Quality. Unless otherwise approved by both the Director and the

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

- (iii) Administrative adjustments authorized. 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) Other Requirements.

- (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.

(f) 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) Construction projects involving more than one acre of total impervious area, including existing impervious area, shall include

temporary structural stormwater features to retain stormwater runoff onsite from a 25-year, 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) Design seasonal water table.

- (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.

(h) 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.

- (iii) Seasonal surface water elevation calculations shall be signed and sealed by an engineer 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:

* * *

- (f) To authorize, cause, permit, allow, let, or suffer the dewatering of groundwater into any groundwater, surface water, or >>stormwater infrastructure<< ~~[[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]]~~

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" << of the South Florida Water Management District, dated [[September 11, 2008]] >> December 22, 2020 and May 22, 2016, respectively <<, as same may be amended from time to time.
- (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:

* * *

- (i) Roadway maintenance activities >> that << [[which]] are performed or authorized by the >> County public works department << [[Miami-Dade County Public 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 >> that << [[which]] are less than the elevations set forth by >> the County Flood Criteria Map << [[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 >> that << [[which]] are less than the elevations set forth by >> the County Flood Criteria Map << [[Miami-Dade County flood criteria]].

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- (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<< not otherwise >>require<< [[requiring]] a class II permit~~[[.This]]>>~~, except that:
- (i) this<< 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.<<

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

- (1) There are six ~~[[6]]~~ permit classifications: class I, class II, class III, class IV, class V and class VI.

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- (f) *Class VI:* Class VI permits are required for the >>construction<< 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.

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

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- (7) 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.]]

* * *

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>>_1<< 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^{>>}₁<< and specifications ~~[[are submitted which]]~~ ^{>>}that_{<<} have been prepared by an engineer^{>>}₁<< or^{>>}₂ where applicable, an_{<<} architect or land surveyor^{>>}₁<< ~~[[where applicable]]~~ licensed in the State of Florida^{>>}₁<< 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_{<<}.

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- (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 ^{>>}\$500,000.00_{<<} ~~[[one hundred thousand dollars (\$100,000.00)]]~~ whichever is ^{>>}greater_{<<} ~~[[less]]~~.

^{>>}(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 ^{>>}upon a determination_{<<} ~~[[if the Director or Director's designee determines]]~~ 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>>₁<< ~~[[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) The Director may require a<< ~~[[A]]~~ separate mitigation bond ~~[[may be required by the Director or the Director's designee to be posted in order]]~~ to insure that environmental enhancement features associated with the project and required by the permit are completed in a satisfactory manner.

>>a.<< 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>>₁<< and the construction of artificial reefs.

>>b.<< The maximum amount of said mitigation bond shall be >>100<< ~~[[one hundred (100)]]~~ percent of the cost of the environmental enhancement features of the project.

>>(vi)<< 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.

>>(a)<< 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.

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

	<u>single-family residential property without plan approval.</u>	
	<u>Any other stormwater infrastructure, constructed, installed, or altered without plan approval.</u>	<u>1,500.00<<</u>
* * *		
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
>>24-42.8	<u>Violation of stormwater regulation standards</u>	<u>2,500.00<<</u>
* * *		

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

Section 10. *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

MEMORANDUM

Agenda Item No. 11(A)(1)


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

DATE: September 1, 2022

FROM: Geri Bonzon-Keenan
County Attorney

SUBJECT: Resolution directing the County Mayor to (1) develop proposed changes to the Code with respect to operations and maintenance of municipal stormwater systems, (2) develop new standards for design and construction of municipal stormwater systems, (3) expand the County's asset management system to include stormwater infrastructure, and (4) conduct educational campaigns related to Biscayne Bay, and to provide reports with respect to the foregoing; urging municipalities to conduct educational campaigns related to Biscayne Bay; and urging the Florida Department of Environmental Protection to strengthen requirements and increase auditing and enforcement of its National Pollutant Discharge Elimination System (NPDES) permits for municipal stormwater systems

The accompanying resolution was prepared and placed on the agenda at the request of Prime Sponsor Commissioner Danielle Cohen Higgins, and Co-Sponsors Commissioner Sally A. Heyman, Commissioner Jean Monestime and Senator Javier D. Souto.



Geri Bonzon-Keenan
County Attorney

GBK/smm



MEMORANDUM

(Revised)

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

DATE: September 1, 2022

FROM: 
Gen Bonzon-Keenan
County Attorney

SUBJECT: Agenda Item No. 11(A)(1)

Please note any items checked.

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

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 11(A)(1)
9-1-22

RESOLUTION NO. _____

RESOLUTION DIRECTING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO (1) DEVELOP PROPOSED CHANGES TO THE CODE OF MIAMI-DADE COUNTY WITH RESPECT TO OPERATIONS AND MAINTENANCE OF MUNICIPAL STORMWATER SYSTEMS, (2) DEVELOP NEW STANDARDS FOR DESIGN AND CONSTRUCTION OF MUNICIPAL STORMWATER SYSTEMS, (3) EXPAND THE COUNTY'S ASSET MANAGEMENT SYSTEM TO INCLUDE STORMWATER INFRASTRUCTURE, AND (4) CONDUCT EDUCATIONAL CAMPAIGNS RELATED TO BISCAYNE BAY, AND TO PROVIDE REPORTS WITH RESPECT TO THE FOREGOING; URGING MUNICIPALITIES TO CONDUCT EDUCATIONAL CAMPAIGNS RELATED TO BISCAYNE BAY; AND URGING THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION TO STRENGTHEN REQUIREMENTS AND INCREASE AUDITING AND ENFORCEMENT OF ITS NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS FOR MUNICIPAL STORMWATER SYSTEMS

WHEREAS, stormwater that carries street level pollutants, such as nutrients from organic material, plastic, trash, chemicals, and sewer and septic runoff, has a detrimental impact on Biscayne Bay; and

WHEREAS, there are various actions that the County may take in order to better address such potential impacts, including, for example, the development and adoption of new environmental regulations and standards with respect to municipal stormwater systems, and expanding the County's asset management system to include stormwater infrastructure; and

WHEREAS, such new standards could be complemented by greater educational campaigns, and in particular, community and neighborhood events and activities that are focused on Biscayne Bay related matters; and

WHEREAS, in addition, it may also be beneficial for the Florida Department of Environmental Protection (FDEP) to impose greater design and maintenance requirements on municipal stormwater systems through FDEP's National Pollutant Discharge Elimination System (NPDES) permits to address nutrients from organic material, plastics, trash, chemicals, and sewer and septic runoff, and to increase auditing and enforcement by FDEP of such permit requirements; and

WHEREAS, at its June 10, 2022 meeting, the Biscayne Bay Watershed Management Advisory Board recommended that this Board (1) direct the County Mayor or County Mayor's designee to take various actions, as specified herein, related to municipal stormwater systems and educational campaigns, (2) urge municipalities to conduct educational campaigns, and (3) urge FDEP to strengthen design and maintenance requirements and increase auditing and enforcement of FDEP's NPDES permits with a goal of reducing nutrients from organic material, plastics, trash, chemicals, and sewer and septic runoff entering or discharging from municipal stormwater systems,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board:

Section 1. Directs the County Mayor or County Mayor's designee to develop proposed changes to chapter 24 of the Code of Miami-Dade County to create standards and requirements for the operation and maintenance of municipal stormwater systems located within Miami-Dade County. The County Mayor or County Mayor's designee shall present such proposed changes to this Board in the form of a report within 90 days of the effective date of this resolution and place the completed report on an agenda of the full Board without committee review pursuant to Ordinance No. 14-65. Such new standards and requirements, at a minimum, should address the following:

- Requirements designed to effectuate a significant reduction in the amount of pollutants such as nutrients from organic material, plastics, trash, chemicals, and sewer and septic runoff that enter or are discharged from municipal stormwater systems, with a particular focus on plastics or floatables that are larger than five millimeters in size;
- Regular maintenance requirements for stormwater infrastructure;
- Requirements for periodic cleanings of stormwater infrastructure, such as storm drains, catch basins, and baffle boxes, with the goal of maintaining at least 50 percent capacity in such structures, or metrics as recommended by the manufacturer for effective pollution control; and
- Requirements for periodic street sweeping or other roadside litter control to reduce the amount of debris and pollutants that could enter or clog stormwater infrastructure.

Section 2. Directs the County Mayor or County Mayor's designee to develop new proposed standards for the design and construction of new or replacement municipal stormwater system infrastructure with a focus on controls for pollutants such as nutrients from organic material, plastic, trash, chemicals, and sewer and septic runoff. The process of developing such new standards for design and construction should: (a) include consideration of multiple forms of stormwater technologies and infrastructures, including, but not limited to, inlet grates or baskets, baffle boxes, separator systems, boom nets, low-impact design techniques and "green" infrastructure, skimmer vessels, and other beginning, middle, or "end of pipe" pollution controls; (b) allow and encourage input from the municipalities as to best practices and municipalities' experiences with various stormwater system designs; and (c) include workshops and periodic ongoing collaboration meetings with municipalities. The County Mayor or County Mayor's

designee shall present such proposed changes to this Board in the form of a report within 90 days of the effective date of this resolution and place the completed report on an agenda of the full Board without committee review pursuant to Ordinance No. 14-65.

Section 3. Directs the County Mayor or County Mayor's designee to expand the County's existing asset management system, which currently includes a database of water and sanitary sewer infrastructure and maintenance records for such infrastructure, to also include stormwater infrastructure for all stormwater systems operating throughout Miami-Dade County, in order to better facilitate informed decisionmaking with respect to such infrastructure. This Board further directs the County Mayor or County Mayor's designee to explore other technology and systems, with the goal of integrating maintenance and monitoring data with the asset management system, to the extent possible. The County Mayor or County Mayor's designee shall prepare a report summarizing the efforts undertaken to comply with this directive, and shall provide the report to this Board within 90 days of the effective date of this resolution and place the completed report on an agenda of the full Board without committee review pursuant to Ordinance No. 14-65.

Section 4. Directs the County Mayor or County Mayor's designee to conduct greater educational campaigns related to Biscayne Bay, which should include: (a) encouraging individuals and businesses in Miami-Dade County to properly maintain septic tanks and teaching how to recognize a failing septic tank; and (b) neighborhood-focused outreach and citizen involvement events, such as community clean-ups, storm drain stenciling, and community adopt-a-street efforts. The County Mayor or County Mayor's designee shall prepare a report summarizing the efforts undertaken to comply with this directive, and shall provide the report to this Board within 90 days of the effective date of this resolution and place the completed report on an agenda of the full Board without committee review pursuant to Ordinance No. 14-65.

Section 5. Urges municipalities in Miami-Dade County to conduct greater educational campaigns related to Biscayne Bay, which should include: (a) encouraging individuals and businesses in Miami-Dade County to properly maintain septic tanks and teaching how to recognize a failing septic tank; and (b) neighborhood-focused outreach and citizen involvement events, such as community clean-ups, storm drain stenciling, and community adopt-a-street efforts.

Section 6. Urges the Florida Department of Environmental Protection (FDEP) to strengthen the design and maintenance requirements in the upcoming FDEP National Pollutant Discharge Elimination System (NPDES) permits for municipal stormwater systems to address nutrients from organic material, plastics, trash, chemicals, and sewer and septic runoff and increase FDEP auditing and enforcement of such permit requirements.

Section 7. Directs the Clerk of the Board to transmit certified copies of this resolution to the Governor, the Senate President, the House Speaker, the Members of the Miami-Dade State Legislative Delegation, the Secretary of the Florida Department of Environmental Protection, and the Mayors and City Councils or City Commissions of all municipalities within Miami-Dade County.

Section 8. Directs the County's state lobbyists to advocate for the action described in section 6 above, and authorizes and directs the Office of Intergovernmental Affairs to amend the 2022 State Legislative Package to include this item and to include this item in the 2023 State Legislative Package when it is presented to the Board.

The Prime Sponsor of the foregoing resolution is Commissioner Danielle Cohen Higgins, and the Co-Sponsors are Commissioner Sally A. Heyman, Commissioner Jean Monestime and Senator Javier D. Souto. It was offered by Commissioner _____, who moved its adoption. The motion was seconded by Commissioner _____ and upon being put to a vote, the vote was as follows:

Jose “Pepe” Diaz, Chairman

Oliver G. Gilbert, III, Vice-Chairman

Sen. René García

Sally A. Heyman

Eileen Higgins

Kionne L. McGhee

Raquel A. Regalado

Sen. Javier D. Souto

Keon Hardemon

Danielle Cohen Higgins

Joe A. Martinez

Jean Monestime

Rebeca Sosa

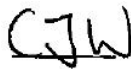
The Chairperson thereupon declared this resolution duly passed and adopted this 1st day of September, 2022. This resolution shall become effective upon the earlier of (1) 10 days after the date of its adoption unless vetoed by the County Mayor, and if vetoed, shall become effective only upon an override by this Board, or (2) approval by the County Mayor of this resolution and the filing of this approval with the Clerk of the Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

By: _____
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.



Christopher J. Wahl

MEMORANDUM

Agenda Item No. 4(C)

TO: Honorable Chairman Oliver G. Gilbert, III
and Members, Board of County Commissioners

DATE: July 6, 2023

FROM: Geri Bonzon-Keenan
County Attorney

SUBJECT: Ordinance relating to zoning; amending sections 33-1, 33-8, and 33-14.1 and article XXXIII of chapter 33 of the Code; amending requirements for issuance of certificate of use (C.U.); exempting certain uses permitted in the agricultural (AU) zoning district from C.U. requirements and clarifying C.U. and floodplain review requirements for uses in the AU District; revising definitions; revising requirements for aquaculture and for uses that are ancillary to agricultural uses, including farm stands, wineries, breweries, and distilleries, and agritourism; authorizing mobile food service operations in the AU District subject to certain conditions; revising regulations for parking and outdoor storage of equipment and vehicles in the agricultural (AU) zoning district and for other uses that are ancillary to and directly supportive of agriculture; amending division 2 of article III of chapter 24; allowing handling of food and drink on agricultural properties when served by onsite domestic well system and onsite sewage treatment and disposal system under certain conditions; delegating authority to the director to approve certain form covenants; making technical changes

The accompanying ordinance was prepared and placed on the agenda at the request of Prime Sponsor Commissioner Kionne L. McGhee.



Geri Bonzon-Keenan
County Attorney

GBK/uw

MDC001



MEMORANDUM (Revised)

TO: Honorable Chairman Oliver G. Gilbert, III
and Members, Board of County Commissioners

DATE: July 6, 2023

FROM: 
Gen Bonzon-Keenan
County Attorney

SUBJECT: Agenda Item No. 4(C)

Please note any items checked.

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

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 4(C)
7-6-23

ORDINANCE NO. _____

ORDINANCE RELATING TO ZONING; AMENDING SECTIONS 33-1, 33-8, AND 33-14.1 AND ARTICLE XXXIII OF CHAPTER 33 OF THE CODE OF MIAMI-DADE COUNTY, FLORIDA; AMENDING REQUIREMENTS FOR ISSUANCE OF CERTIFICATE OF USE (C.U.); EXEMPTING CERTAIN USES PERMITTED IN THE AGRICULTURAL (AU) ZONING DISTRICT FROM C.U. REQUIREMENTS AND CLARIFYING C.U. AND FLOODPLAIN REVIEW REQUIREMENTS FOR USES IN THE AU DISTRICT; REVISING DEFINITIONS; REVISING REQUIREMENTS FOR AQUACULTURE AND FOR USES THAT ARE ANCILLARY TO AGRICULTURAL USES, INCLUDING FARM STANDS, WINERIES, BREWERIES, AND DISTILLERIES, AND AGRITOURISM; AUTHORIZING MOBILE FOOD SERVICE OPERATIONS IN THE AU DISTRICT SUBJECT TO CERTAIN CONDITIONS; REVISING REGULATIONS FOR PARKING AND OUTDOOR STORAGE OF EQUIPMENT AND VEHICLES IN THE AGRICULTURAL (AU) ZONING DISTRICT AND FOR OTHER USES THAT ARE ANCILLARY TO AND DIRECTLY SUPPORTIVE OF AGRICULTURE; AMENDING DIVISION 2 OF ARTICLE III OF CHAPTER 24; ALLOWING HANDLING OF FOOD AND DRINK ON AGRICULTURAL PROPERTIES WHEN SERVED BY ONSITE DOMESTIC WELL SYSTEM AND ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM UNDER CERTAIN CONDITIONS; DELEGATING AUTHORITY TO THE DIRECTOR TO APPROVE CERTAIN FORM COVENANTS; MAKING TECHNICAL CHANGES; PROVIDING SEVERABILITY, INCLUSION IN THE CODE, AND AN EFFECTIVE DATE

WHEREAS, Miami-Dade County’s Comprehensive Development Master Plan (“CDMP”) contains numerous policies regarding the preservation of agriculture, including Policy LU-1P, which provides that, “while continuing to protect and promote agriculture as a viable economic activity, Miami-Dade County shall explore and may authorize alternative land uses in the South Dade agricultural area which would be compatible with agricultural activities and

associated rural residential uses, and which would promote ecotourism and agritourism related to the area's agricultural and natural resource base . . . ,” Policy LU-8C, which requires the County, “[t]hrough its planning, . . . regulatory and [other] activities, . . . [to] continue to protect and promote agriculture as a viable economic use of land in Miami-Dade County,” and the Interpretation of the Land Use Plan Map policy providing, in the areas with a CDMP designation of “Agriculture,” that “[t]he principal uses in this area should be agriculture, uses ancillary to and directly supportive of agriculture and farm residences,” “[u]ses ancillary to and directly supportive of agriculture are defined as those uses related to preserving, processing, packaging or selling of agricultural products from Florida (except that wineries may utilize imported products for winemaking), and farm supplies, as well as sale and service of farm machinery and implements,” “[u]ses that are directly supportive of agriculture but not ancillary to an on-site agricultural use may occur in this area where it can be demonstrated that the use is primarily addressing a need of the local agricultural industry or that the use significantly furthers agritourism to the agricultural area,” and “to protect the agricultural industry, uses incompatible with agriculture, and uses and facilities that support or encourage urban development are not allowed in this area;” and

WHEREAS, one of the ways the County implements these CDMP policies is through the zoning regulations that apply to properties that are zoned as part of the AU, Agricultural District, as codified in article XXXIII of chapter 33 of the Code of Miami-Dade County, Florida (“Code”); and

WHEREAS, one of the primary mechanisms the County uses to ensure compliance with the County’s zoning code and other ordinances, building code and life safety regulations, and other applicable codes and regulations is the requirement that businesses and other non-residential uses, as well as certain multi-family uses, each obtain a certificate of use (C.U.) before establishing or changing the use or operator, as codified in section 33-8 of the Code; and

WHEREAS, the Florida Statutes provide certain exemptions from local regulations for certain agricultural operations; and

WHEREAS, for example, section 604.50, Florida Statutes, provides an exemption from “the Florida Building Code and any county or municipal code or fee” for “any nonresidential farm building, farm fence, or farm sign,” as those terms are defined therein, “that is located on lands used for bona fide agricultural purposes,” which, pursuant to section 193.461, Florida Statutes, means “good faith commercial use of the land” as determined by the property appraiser, but further provides that such structures remain subject to local “code provisions implementing local, state, or federal floodplain management regulations;” and

WHEREAS, the County’s floodplain management regulations are set forth in chapter 11C of the Code of Miami-Dade County, Florida; and

WHEREAS, section 570.85, Florida Statutes, preempts certain local government regulations relating to “agritourism activity” but expressly provides that it “does not limit the powers and duties of a local government to address substantial offsite impacts of agritourism activities or an emergency as provided in chapter 252;” and

WHEREAS, section 570.85, Florida Statutes, defines “agritourism activity” as “any agricultural related activity consistent with a bona fide farm, livestock operation, or ranch or in a working forest which allows members of the general public, for recreational, entertainment, or educational purposes, to view or enjoy activities, including farming, ranching, historical, cultural, civic, ceremonial, training and exhibition, or harvest-your-own activities and attractions ... [and] [a]n activity is an agritourism activity regardless of whether the participant paid to participate in the activity;” and

WHEREAS, section 570.86, Florida Statutes, further specifies that an agritourism activity does not include “the construction of new or additional structures or facilities intended primarily to house, shelter, transport, or otherwise accommodate members of the general public,” and thus such structures and facilities are not subject to the statutory exemptions provided for nonresidential farm buildings, farm fences, or farm signs; and

WHEREAS, consistent with those statutes, on October 6, 2020, this Board adopted Ordinance No. 20-108, which created regulations on rural event venues in the Agricultural (AU) zoning district, including the requirement to obtain a certificate of use for each such use; and

WHEREAS, although the County can continue to apply its zoning regulations to other uses in the AU District consistent with the Florida Statutes, to facilitate the establishment of uses that support agriculture as encouraged by the CDMP, this Board wishes to exempt certain agricultural uses from the requirement to obtain a C.U. prior to commencing or changing their operations, and to instead rely on enforcement to address compliance with the applicable regulations; and

WHEREAS, to protect the public health, safety, and welfare, certain agricultural uses, and other uses permitted in the AU District, will continue to require a certificate of use, where the use poses a risk of contamination to neighboring properties, surface waters, or groundwater, such as from certain operations involving the preparation and service of food to the public for consumption on the premises, or imposes significant offsite impacts, such as traffic and noise; and

WHEREAS, properly operated mobile food service operations that have self-contained utilities and do not dispose of waste on agricultural properties provide reasonable options to provide food service to the public in support of agritourism activities without presenting the same

public health, safety, and welfare that other food service operations may present, and this Board thus wishes to allow mobile food service operations in the AU District when they are ancillary to an ongoing and lawfully established agricultural use; and

WHEREAS, this Board also wishes to amend the environmental regulations codified in chapter 24 of the Code to facilitate food service operations on agricultural properties that comply with the requirements of chapter 33, without the need to obtain variances from the Environmental Quality Control Board after public hearing when such properties are served by an onsite domestic well system, an onsite sewage treatment and disposal system, or both; and

WHEREAS, in addition, Miami-Dade County has a significant need to store large commercial vehicles, particularly large commercial trucks, in appropriate locations and has, through its Comprehensive Development Master Plan (“CDMP”) and its land development regulations, including Ordinance No. 21-42 which this Board adopted on June 2, 2021, authorized areas of the County where large commercial vehicles may be lawfully stored; and

WHEREAS, on July 8, 2021, this Board adopted Ordinance No. 21-59, which comprehensively updated the County’s zoning regulations to, among other things, specify where commercial vehicle storage is allowed in the Agricultural (AU) Zoning District and under what conditions, and to facilitate enforcement against owners of illegally parked vehicles, to ensure that agricultural properties are not illicitly turned into illegal commercial vehicle parking lots; and

WHEREAS, although commercial vehicles that are unrelated to agricultural production are appropriately restricted in the AU District, the agricultural industry itself relies on large commercial vehicles, which Ordinance No. 21-59 classifies as “distribution vehicles” and recognizes as integral parts of a farm operation, to bring agricultural goods, products, and supplies to and from the market to support the agricultural industry; and

WHEREAS, to both address the needs of the agricultural industry and the County's ongoing need for appropriate places to park large commercial vehicles, this Board wishes to remove the numerical limit on storage of distribution vehicles in the AU Zoning District when the storage is ancillary to an ongoing agricultural operation that occurs on the same property on which the vehicles are to be stored, to increase the number of distribution vehicles that may be stored on adjacent or contiguous parcels or off-site, and to provide for an additional increase of such allowed storage on properties that are close to the Urban Development Boundary,

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

Section 1. The foregoing recitals are incorporated herein and are approved.

Section 2. Section 33-1 of the Code of Miami-Dade County, Florida is hereby amended to read as follows:¹

Sec. 33-1. Definitions.

For the purpose of this chapter, the following definitions for terms used herein shall apply to all sections of this chapter unless the context clearly indicates otherwise:

- (1) *Accessory building* shall mean>>: for a residential use,<< an "accessory structure," as defined in the Florida Building Code, Residential Volume~~[[. Also]]~~ >>(<<see *Guesthouse* and *Servants' quarters*>>); and, for a non-residential use, a building or structure on a lot or parcel subordinate to and not forming an integral part of the main or principal building<<.

*

*

*

- (5.1.2) *Ancillary* means that a use or structure is subordinate or subsidiary to the primary use on the same lot or parcel. An ancillary structure shall be smaller than the primary structure on the same lot or parcel. An ancillary use shall not exceed

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.

the size of the primary use, unless specifically authorized in this chapter.

* * *

- (15.1) *Brewery (farm related)*. An establishment~~[[,]]~~ >>that is<< located wholly on a >>parcel with an ongoing and lawfully established agricultural use and that is designed and used<< ~~[[farm,]]~~ for the manufacture of malt liquors, such as beer and ale. The facility may have accessory uses as permitted under Section 33-279 of this chapter, including uses that permit the sale and consumption of products manufactured on site, as allowed by applicable licenses from the State of Florida Division of Alcoholic Beverages and Tobacco.

* * *

- (39.1) *Distillery (farm related)*. A facility >>that is<< located wholly on a >>parcel with an ongoing and lawfully established agricultural use and that is<< ~~[[farm]]~~ designed >>and used<< for the distillation of agricultural products including grains, fruits, or vegetables into liquor or spirits. The facility may have accessory uses as permitted under Section 33-279 of this chapter, including uses that permit the sale and consumption of products manufactured on site, as allowed by applicable licenses from the State of Florida Division of Alcoholic Beverages and Tobacco.

* * *

- (44.1) *Farm* >>Stand<< ~~[[Stands]]~~. A farm stand is a permanent or portable structure or vehicle >>that is<< located on >>a parcel with an ongoing and lawfully established agricultural use and is used<< ~~[[an actively farmed site]]~~ for the retail sale of agricultural products>>, including, without limitation, products of fish pools, nurseries, wineries, breweries, and distilleries, or that are lawfully grown or cultivated on a property in Miami-Dade County or that are packed, processed, or sold at a lawfully established packing house in Miami-Dade County<< ~~[[, as provided in Section 33-279(6.1)]]~~.

* * *

- (46.1) *Fruit and vegetable stand*. Any portable establishment for the retail sale of locally grown fresh fruit and vegetables and food products derived from such fruit and vegetables.

* * *

(70.3) *Mobile Food Service Operation.* The preparation~~[[A]]~~>>₁<< cooking, serving>>₁, or<< ~~[[and/or]]~~ sale of food>>₁, or combination thereof,<< conducted from a portable stand, vehicle>>₁<< or trailer. Each such stand, vehicle>>₁<< or trailer shall be considered a mobile food service operation. ~~[[Mobile food service operations must obtain all required licenses from the State of Florida prior to operating in Miami-Dade County.]]~~ >>This classification does not include a farm stand as provided in this chapter.<<

* * *

(115.01) *Winery (farm related).* An agricultural processing facility >>that is located wholly on a parcel with an ongoing and lawfully established agricultural use and that is designed and<< used for fermenting and processing fruit into wine or derivative products. The facility may have accessory uses as permitted under Section 33-279 of this chapter, including uses that permit the sale and consumption of products manufactured on site, as allowed by applicable licenses from the State of Florida Division of Alcoholic Beverages and Tobacco.

* * *

Section 3. Section 33-8 of the Code of Miami-Dade County, Florida, is hereby amended to read as follows:

Sec. 33-8. - Certificate of use.

- (a) No structure~~[[;]]~~ other than a single-family ~~[[residence]]~~ or duplex >>dwelling<<~~[[;]]~~ shall be used>>₁, no<< ~~[[or any]]~~ existing use >>other than a single-family or duplex dwelling shall be<< enlarged, ~~[[or any]]~~ >>and no<< new use >>shall be<< made of any land, body of water, or structure, without first obtaining>>₁, on a form prescribed by the Director,<< a certificate of use (C.U.) therefor from the Department >>as required by this section<<.
- >>(b) Except as expressly provided in this section or elsewhere in this chapter or code, a<< ~~[[Said]]~~ certificate of use shall be required for each >>non-residential use<< ~~[[individual business]]~~ and each multi-family building located within

unincorporated Miami-Dade County >>and any other area over which Miami-Dade County exercises zoning jurisdiction<<.

[[~~(b)~~]] >>(c)<< In the event there is a question as to the legality of a use, the Director may require inspections, affidavits>>,<< and such other information >>the Director<< [[~~he~~]] may deem appropriate or necessary to establish the legality of the use >>or verify representations in an application for a C.U.<<, before a certificate of use will be issued>>,<< reissued, or renewed<<.

>>(d) The Director<< [[~~Additionally, the Department~~]] shall have the right to periodically inspect premises at any reasonable time to ensure the existence of a current and valid C.U., and to ensure compliance with the terms and conditions under which a C.U. was issued.

[[~~(e)~~]]>>(e)<< The person or entity listed upon a Certificate of Title issued pursuant to Chapter 45, Florida Statutes as the purchaser of a single-family residence, condominium unit, townhouse or duplex shall obtain a C.U. from the Department prior to offering said residence for sale, transfer or other alienation. The C.U. required by this subsection (c) shall be for the purpose of determining whether or not the residence in question complies with all building codes and zoning codes applicable to the residence and to provide a disclosure of those findings. The Director shall require disclosure by requiring an inspection of the property by personnel authorized to conduct such inspections by the Director and to subsequently record in the public records of Miami-Dade County the inspection report. Said report shall include a good faith estimate of the cost to repair or remedy all code violations disclosed by the inspection. The Director shall prescribe the form of the inspection report and disclosure to ensure compliance with the intent of this section. Upon the recording of the inspection report and estimate in the public records of Miami-Dade County, the Director is authorized to issue the C.U. required by this subsection (c). The Director shall refer any County Code violations disclosed in the report to the proper County Department for enforcement action. County Departments are authorized to collect fees for inspections and other administrative costs and/or for the issuance of the C.U., as maybe applicable, and as established in the Departments' approved schedule of fees.

>>(f)<< Except for C.U.s required by code or zoning resolution to be renewed annually >>or that are<<[[~~and except for C.U.s~~]] issued on a temporary basis, certificates of use shall remain valid for an unlimited time unless revoked for cause.

>>(g) A<< [[~~The~~]] C.U. is only valid for the specific address, business name, corporate name>>₁<< and type of business for which it was issued. A new C.U. shall be required for>>₂<< any changes in[[~~;~~]] use, name, ownership, expansion of square footage occupied, >>or<< [[~~the~~]] inclusion of additional uses[[~~;~~]]>>₃<< or when changes to >>a<< [[~~the~~]] structure have been approved by final building inspection.

>>(h)<< No certificate of use shall be >>construed to authorize use of a property<< [[~~utilized~~]] in a manner contrary to the regulations contained in this chapter.

Section 4. Section 33-14.1 of the Code of Miami-Dade County, Florida, is hereby amended to read as follows:

Sec. 33-14.1. Mobile operations.

(A) Notwithstanding any provisions of this chapter to the contrary, mobile banking operations, mobile sales operations, and mobile food service operations (collectively, mobile operations, and all as defined in Section 33-1) are permissible on private property subject to the following conditions:

(1) Mobile operations are permissible only in the following zoning districts:

>>(a)<< BU, IU, urban center, urban area, and GU (where trended for industrial or business use)[[~~Mobile operations are also permissible in~~]]>>₁

(b)<< residential zoning districts on properties having a current certificate of use as a museum, hospital, school, or religious facility, provided such use does not operate more frequently than once per week and no longer than three consecutive days>>₂or

(c) In the AU District as provided in section 33-279<<.

- (2) Mobile operations may only be conducted from 7:00 a.m. to 10:00 p.m. on weekdays and from 7:00 a.m. to 11:00 p.m. on weekends.
- (3) Mobile operations shall not be located in any driveway aisles, no parking zones, landscaped area, loading areas, or parking lanes, nor may mobile operations impede the on-site circulation of motor vehicles.
- (4) Mobile operations shall not be located in required parking spaces unless the number of spaces exceeds the minimum amount required for other uses on the property. The utilization of an off-street parking space for the operation of a mobile operation must not cause the site to become deficient in required off-street parking.
- (5) Mobile operations shall not be located on the public right-of-way.
- (6) Mobile operations are permissible on vacant, unimproved property only when approved as a special event pursuant to the standards for Mobile Food Service Operations Special Event set forth in Section 33-13.
- (7) Mobile operations shall be located a minimum of 20 feet from the property line of an existing residential use, except that mobile operations may be located at a minimum of 10 feet from the property line if the residential use is separated by a six foot high masonry wall.
- (8) The total space dedicated to the mobile operation and vending area shall not exceed an area of 600 square feet.
- (9) Alcoholic beverage sales and use of sound amplification devices are prohibited.
- (10) Electric service connection to an on-site approved outlet is permitted provided that no wiring or cables are run beyond the vending area or pose any danger to the patrons. For purposes of this requirement, the vending area includes the space taken up by: a portable stand, vehicle, or trailer; signs; equipment; products; and any tents, tarpaulins, canopies, or awnings.
- (11) A Certificate of Use (CU) must be obtained by the property owner to permit mobile operations on the

site>>, except as provided in section 33-279<<. A site plan or survey shall be submitted indicating the following:

- (a) Location of the individual mobile operations and associated vending area. Mobile operations shall be located so as to minimize the impacts on adjacent residential uses.
 - (b) Location of improvements on the site.
 - (c) Location of on-site parking areas.
 - (d) Rights-of-way, internal circulation and ingress and egress.
- (12) Signage associated with the mobile operation shall be confined to the mobile operation and authorized vending area. Signage attached to the mobile unit shall be permitted. Detached signage shall be limited to one sign not exceeding nine (9) square feet.
- (13) The number of mobile operations permissible on a site at any one time shall be limited as follows:
- (a) One mobile operation may be permitted on each site which contains a minimum of 10,000 square feet of net lot area.
 - (b) An additional mobile operation may be permitted for each additional 50,000 square feet of net lot area, up to a maximum of three ~~[[3]]~~ mobile operations per site.
 - (c) Mobile operations in excess of these thresholds may only be permitted as a special event pursuant to the standards for Mobile Food Service Operations Special Event set forth in Section 33-13.

>>(14) Mobile food service operations must obtain all required licenses from the State of Florida prior to operating in Miami-Dade County.<<

- (B) If it is found that a mobile operation is operating in manner not consistent with the representations made in the application package provided to the Department, the Director shall have the authority to revoke the CU for the mobile operation immediately.
- (C) Except as otherwise provided in this Code, it is unlawful to conduct mobile operations in any outdoor location without first obtaining a CU in accordance with the provisions of this Section.

- (D) The operator of a mobile operation must be able to produce for inspection: a copy of a letter or other written communication from the property owner or representative that authorizes the mobile operation and, for mobile food service operators, a copy of the applicant's required State license for food service establishments.
- (E) Mobile operations located at County parks, sports stadiums or racetracks during events shall be exempt from the requirements of this section but must otherwise comply with all other applicable requirements in this Code.

Section 5. Article XXXIII of Chapter 33 of the Code of Miami-Dade County, Florida,

is hereby amended to read as follows:

ARTICLE XXXIII. AU, AGRICULTURAL DISTRICT

Sec. 33-279. - Uses permitted.

No land, body of water, or structure shall be maintained, used, or permitted to be used, and no structure shall be hereafter maintained, erected, constructed, moved, reconstructed, structurally altered, or be permitted to be maintained, erected, constructed, moved, reconstructed, or structurally altered in an AU District, which is designed, arranged, or intended to be used or occupied for any purpose, except for one or more of the following uses:

- (1) All uses, except golf courses, permitted in the RU-1, EU-M>>₂<< or EU-1 Districts and subject to the restrictions thereof not inconsistent with this article.

>>(2)<<[[(+1)]] A bed and breakfast establishment shall be permitted subject to the following limitations:

* * *

[[(+2)]]>>(3)<< Barns and sheds and packing facilities, in accordance with the following conditions:

- (a) Barns and sheds used for cattle or stock and ancillary feed storage[[(:)]]>>₂<< provided >>that<< such barns and sheds>>:
 - 1.<< shall not be used for hogs>>; and
 - 2.<< [[and]] shall not be permitted [[unless approved after public hearing if located]]

within >>250<< ~~[[two hundred fifty (250)]]~~
feet of a residence under different ownership
or ~~[[if located within two hundred fifty (250)~~
~~feet]]~~ of an RU~~[[,]]~~ or EU District >>unless
approved after public hearing<<.

- (b) Barns, sheds, or other buildings used for the storage of equipment, feed, fertilizer, produce, or other items, as ancillary to ~~[[a]]~~ >>an ongoing and lawfully established agricultural<< use permitted in this section ~~[[and]]~~ >>is permitted<< only in accordance with the following unless approved after public hearing or as otherwise provided in Section 604.50, Florida Statutes, for nonresidential farm buildings:

1. Such buildings shall be related to the agricultural use conducted on the property upon which the buildings are located; and
2. Such structures shall be located at least 50 feet from any residence under different ownership and any RU or EU zoned property.

>>3.<< It is provided, however, that a lawfully-established structure or building shall not be required to be removed based on any subsequent changes in ownership, zoning classification, or development on any adjacent property.

- (c) >>Packing of fruits and vegetables within a packing facility shall be permitted where ancillary to an ongoing and lawfully established agricultural use conducted on the property upon which the packing facility is located, where the agricultural use encompasses at least 51 percent of the property, and in accordance with the following:<<

1. Small packing facilities used for the packing of fruit and vegetables upon compliance with >>all of<< the following conditions:

- a. ~~[[Such use shall be accessory to an agricultural use conducted on the property upon which the packing facility is located and said agricultural use must encompass fifty-one (51) percent or more of the property.~~

- b.]] The packing facility shall be located at least >>100<< ~~[[one hundred (100)]]~~ feet from any property line.

>>b.< ~~[[e.]]~~ The small packing facility shall not exceed >>3,500<< ~~[[three~~

- ~~thousand five hundred (3,500)]~~
square feet.
2. Large packing facilities used for the packing of fruit and vegetables upon compliance with all of the following conditions:
 - a. ~~[[Such use shall be accessory to an agricultural use conducted on the entire property upon which the parking facility is located, and said agricultural use must encompass fifty-one (51) percent or more of the property.~~
 - ~~b.]]~~ The lot upon which the packing facility is located shall not be less than ten ~~[(10)]~~ acres.
 - >>b.<<~~[[e.]]~~ Packing operations shall be discontinued if the farm or grove use is abandoned.
 - >>c.<<~~[[d.]]~~ Incidental cleaning, storage>>~~and shipping of the fruit and vegetables is permitted.~~
 - >>d.<< ~~[[e.]]~~ Outside storage of refrigerated containers is prohibited unless the refrigeration system is powered by electricity>>, subject to section 33-279.3<<.
 - >>e.<< The parking of >>vehicles shall comply with section 33-279.3<< ~~[[trucks with refrigeration powered by means other than electricity is permitted on a temporary basis only until the truck is loaded for delivery]].~~
 - f. The packing facility shall be >>100<< ~~[[one hundred (100)]]~~ feet from any property line.
 - g. Site plan approval is secured ~~[[from the Department]]~~ >>pursuant to section 33-310.4<<.
 - h. ~~[[Upon compliance with all conditions enumerated, a]]~~ >>A<< certificate of use >>pursuant to section 33-8 shall be obtained.<< ~~[[and occupancy is secured from the Building and Zoning Department.]]~~
 3. The term >>“<<packing facility>>”<< shall include>>:<< any building, lean-to, pole

barn>>₁<< or open area utilized ~~[[by the farmer or grove owner]]~~ in the course of packing fruit or vegetables>>₁<< ~~[[as well as]]~~ any areas>>₁<< whether or not within a building>>₁<< used for the cleaning of produce, storing of ~~[[trucks, equipment,]]~~ coolers, refrigerated containers, packing crates>>₁<< or other items used in the packing operation>>₁<< and >>storage and<< parking of any vehicles >>and equipment allowed pursuant to section 33-279.3<< ~~[[including employee cars and trucks used by the farmer or grove owner to transport the produce to or from the site as well as any trucks on the property being loaded for the purpose of transporting the produce onto or off the property]]~~.

>>4. The sale, shipping, and marketing of products packed at such facility is allowed as ancillary to a packing operation.

(d) Except for a large packing facility, a certificate of use pursuant to section 33-8 shall not be required for the uses authorized by this subsection.

(4)<< ~~[[3]]~~ Cattle or stock grazing (not including hog raising).
>>A certificate of use pursuant to section 33-8 shall not be required for cattle or stock grazing.

(5)<< ~~[[3.4]]~~ *Commercial Vehicle Storage* as defined in Section 33-1, subject to the following conditions:

* * *

>>(6)<< ~~[[4]]~~ Raising or keeping of ~~[[two]]~~ hogs ~~[[per site.]]~~>>₁
subject to the following:

(a)<< Hog farms and hog raising~~[[;]]~~ in excess of two hogs per site~~[[;]]~~ shall be permitted only upon approval after public hearing >>and shall require a certificate of use pursuant to section 33-8.

(b) A certificate of use pursuant to section 33-8 shall not be required for raising or keeping of up to two hogs per site<<.

>>(7)<< ~~[[5]]~~ Dairy >>barn<< ~~[[barns shall be subject to approval by public hearing, if to]]~~>>₁ meaning a barn used for the sole

purpose of housing, feeding, and milking cattle, subject to the following:

- (a) Such use shall only<< be located within >>50<< ~~[[fifty (50)]]~~ feet of a residence under separate and different ownership or ~~[[if to be located]]~~ within >>500<< ~~[[five hundred (500)]]~~ feet of an RU~~[[, EU-M,]]~~ or EU District boundary >>if approved after public hearing.
- (b) A certificate of use pursuant to section 33-8 shall:
 - 1. not be required for a dairy barn that does not require public hearing; and
 - 2. be required for a dairy barn requiring a public hearing for approval<<.

>>(8)<< ~~[[5.4]]~~ A rural event venue shall be permitted, subject to the following conditions and limitations:

* * *

- (h) An annually-renewable >>certificate of use<< ~~[[CU]]~~ for each such facility is obtained >>pursuant to section 33-8<< upon demonstrating compliance with this subsection. For each >>certificate of use<< ~~[[CU]]~~ or renewal, a complete application for a rural event venue shall be submitted to the Department and shall include the following:

* * *

- (i) Notwithstanding the foregoing, when a rural event venue is entirely contained within land classified as agricultural land by the Property Appraiser, only the following simplified conditions and limitations to address substantial offsite impacts and emergencies shall apply to the event venue use:

* * *

- 2. The use shall comply with the conditions and limitations in paragraphs (e)—(h) above, except that for the initial >>certificate of use<< ~~[[CU]]~~ or renewal application:

* * *

3. These simplified conditions and limitations shall apply when the land classified as agricultural land is only a portion of a larger property, provided that the rural event venue is entirely contained within land classified as agricultural land.

* * *

>>(9)<< [[(6)]] Farms. >>A farm means, for a use not otherwise enumerated in this section, the land, buildings, support facilities, machinery, and other appurtenances used in the production of any plant, as defined in s. 581.011, Florida Statutes (2022), or animal or insect useful to humans, including frog farms otherwise subject to section 33-13 and aviaries, and includes, without limitation, any product derived therefrom, including aquaculture products. A certificate of use pursuant to section 33-8 shall not be required for a farm.

(10)<< [[(6.4)]] Farm stands >>and fruit and vegetable stands<< may be permitted in the area designated >>“Agriculture”<< [[agriculture]] on the Adopted Land Use Plan Map of the Comprehensive Development Master Plan>>, or as provided in sections 33-279.1, and<< upon compliance with the following conditions:

(a) Such [[farm]] stand shall be >>ancillary<< [[accessory]] to >>an ongoing and lawfully established agricultural use that encompasses<< [[a bonafide, actively farmed and harvested agricultural crop or crops, and said agricultural crops must encompass]] 51 percent or more of the property.

>>(b)<< The [[farm]] stand shall be operated only by the party engaged in the >>agricultural use<< [[production of the crops]] on that property.

>>(c)<< The stand shall be operated only during the period of time that [[the crops are being produced on]] >>the agricultural use is in operation on<< the site[[; and the farm]]>>.

1. The<< stand use shall be discontinued when [[farming]] >>the agricultural use<< on the property is abandoned.

>>2. An agricultural use<< [[Farming on the property]] shall not be deemed abandoned if the property is fallow between seasonal growing periods. [[Agricultural products

~~sold shall not be limited to products grown on the property.]]~~

>>(d)<< [[(b)]] Refrigerated storage area(s) are prohibited unless the refrigeration system is powered by electricity.

>>(e)<< [[(e)]] A minimum of six [[(6)]] parking spaces shall be provided; said spaces shall be located a minimum of >>35<< [[~~thirty-five (35)~~]] feet from right-of-way pavement.

>>(f)<< [[(d)]] The stand shall be located on the property with the following setbacks:

1. From right-of-way pavement>>,60<< [[~~sixty (60)~~]] feet;
2. From rear property line, >>25<< [[~~twenty-five (25)~~]] feet;
3. From side street property line, >>25<< [[~~twenty-five (25)~~]] feet; and
4. From interior side property line, >>100<< [[~~one hundred (100)~~]] feet.

>>(g)<< [[(e)]] The stand shall be>>:;<< a permanent structure of at least one open side; an open-sided, portable stand, trailer, or vehicle; or a self-propelled uni-body truck.

>>(h)<< [[(f)]] The maximum size of the stand shall not exceed >>1,500<< [[~~one thousand five hundred (1,500)~~]] square feet. Refrigerated storage area(s) shall be included in computing the size of the stand.

[[~~(g)~~]] >>(i) Products sold at the stand shall comply with the following:

- 1.<< Agricultural and food products may be offered for retail sale, provided that more than 51 percent of the products offered for sale shall be derived from crops grown in Miami-Dade County or animals raised in Miami-Dade County.

>>2. Agricultural products sold at the stand are not limited to products grown on the property where the stand is located.

(j)<< [[(h)]] The hours of operation of the [[~~farm~~]] stand shall be limited to between 6:30 a.m. and 9:00 p.m.

>>(k) A certificate of use pursuant to section 33-8 shall not be required for the uses authorized by this subsection.<<

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>>(12)<< [[(7)]] Groves. >>A certificate of use pursuant to section 33-8 shall not be required for a grove.

(13)<< [[(8)]] Greenhouses, nurseries—commercial. >>A certificate of use pursuant to section 33-8 shall not be required for a greenhouse or nursery.

(14)<< [[(9)]] Dude ranches and riding academies shall be permitted only upon approval after public hearing >>and shall require a certificate of use pursuant to section 33-8.

(15)<< [[(10)]] Horticultural farming—commercial. >>A certificate of use pursuant to section 33-8 shall not be required for horticultural farming.

(16)<< [[(11)]] Hydroponics or other chemical farming. >>A certificate of use pursuant to section 33-8 shall not be required for hydroponics or other chemical farming.

(17)<< [[(12)]] Nurseries—horticultural. >>A certificate of use pursuant to section 33-8 shall not be required for a horticultural nursery.<<

[[(13)]]>>(18) Poultry raising, subject to the following:

(a)<< The raising of >>100<< [[~~one hundred~~ (100)]] poultry, or more, shall be considered as commercial poultry raising.

>>(b)<< Buildings housing poultry must be at least >>500<< [[~~five hundred~~ (500)]] feet from any EU or RU District boundary, and at least >>50<< [[~~fifty~~ (50)]] feet from any residence under separate ownership on any adjacent property.

>>(c) A certificate of use pursuant to section 33-8 is required for commercial poultry farming but not other poultry farming uses.<<

* * *

>>(20)<< [[(14)]] Truck gardens>>, meaning the cultivation of large quantities of vegetable crops. A certificate of use pursuant to section 33-8 shall not be required<<.

* * *

>>(23)<< [[(17)]] Fish pools >>and other aquaculture, subject to the following:

- (a) The location of all structures used for aquaculture<< shall conform to setbacks for accessory buildings, as provided in >>section<< ~~[[Section]]~~ 33-282(b).
- >>(b) Excavations shall comply with the lake excavation requirements set forth in section 33-16 but shall not be subject to public hearing.
- (c) Filling of an excavation shall comply with section 33-16.01.
- (d) A certificate of use pursuant to section 33-8 is required.
- (e) Each structure that is exempt from the Florida Building Code shall obtain floodplain review pursuant to section 11C-3.<<

* * *

>>(26)<< ~~[[(20)]]~~ Seed drying facility >>is only permitted upon approval after public hearing and only<< on a parcel of land not less than >>10<< ~~[[ten (10)]]~~ acres gross ~~[[shall be permitted as a special exception upon approval after public hearing]]~~. >>A seed drying facility shall require a certificate of use pursuant to section 33-8.<<

~~[[(21) Wineries]]~~ >>(27) Farm-related wineries<<, breweries>>₁<< and distilleries ~~[[(farm-related)]]~~ as defined in Section 33-1, subject to the following conditions:

- (a) ~~[[A farm winery, brewery, or distillery]]~~ >>Such uses<< may use local or imported >>agricultural<< ~~[[farm]]~~ products and shall be located on a site with >>an ongoing and lawfully established agricultural use<< ~~[[a farm]]~~, which may include direct sales to the public on a U-Pick Farm.
- (b) A ~~[[farm]]~~ brewery or distillery not on a site with a winery shall not exceed production of 250,000 gallons of malted beverage/beer or 125,000 gallons of distilled spirits respectively.
- (c) The property upon which the ~~[[farm and farm]]~~ >>agricultural use and<< winery, brewery, ~~[[or]]~~ distillery>>₁, or combination thereof,<< is located shall not be less than five ~~[[(5)]]~~ acres gross.
- (d) Such a ~~[[farm]]~~ winery, brewery, ~~[[or]]~~ distillery>>₂, or combination thereof<< may be open to the public for events and activities related to the preserving, processing, packaging>>₁<< or selling of agricultural products from Florida>>₁<< including

tours, product tasting, festivals, parties>>₁<< and other similar events.

- (e) >>Parking shall comply with the following, except as provided for farm-related festivals:

1.<< Off-street parking requirements for the tasting and sales areas shall be calculated at one parking space for every 250 square feet of gross floor area or fractional part thereof.

>>2.<< Office and other use areas shall have off-street parking spaces provided for such areas as otherwise provided in this Code. ~~[[In addition to the aforementioned parking requirements, at the time of application for ZIP, parking for indoor or outdoor farm-related festivals shall be determined by the Director and such requirements shall be based on the number of people that can reasonably be assumed to be on such premises at one (1) time. Said determination shall be calculated on a basis of one (1) parking space for each four (4) persons.]]~~

- (f) Food service, preparation>>₁<< and consumption, including table service, shall be >>ancillary<< ~~[[accessory]]~~ to the production of wine, beer>>₁<< ~~[[or]]~~ distilled spirits>>, or combination thereof<<.

- (g) The hours of retail sales operation for the farm-related winery, brewery, ~~[[or]]~~ distillery>>, or combination thereof<< shall not extend beyond 11:00 p.m.

- (h) Outdoor farm-related festivals shall be allowable>>₁<< ~~[[on properties having a current Certificate of Use for a farm-related winery, brewery, or distillery]]~~ provided:

(1) No such ~~[[outdoor farm-related]]~~ festival shall be more than three ~~[[3]]~~ days long.

(2) A Zoning Improvement Permit (ZIP) ~~[[for outdoor farm-related festivals]]~~ shall be obtained for each festival.

>>(3) As part of the ZIP review process, the Director shall determine the required parking for each farm-related festival, which determination shall be based on the number of people that can reasonably be assumed to be lawfully on such premises at one time for the festival use and shall be calculated on a

basis of one parking space for each four persons.

(4)<< No more than a total of six ~~[(6)]~~ outdoor farm-related festivals shall be held per calendar year per farm.

>>(5)<< Such outdoor farm-related festivals shall be restricted to daylight hours only.

(i) The use of mechanically amplified outdoor entertainment shall be prohibited from 11:00 p.m. to 9:00 a.m.

(j) The winery, brewery, ~~[[or]]~~ distillery>>, or combination thereof<< shall not be located in the East Everglades Area of Environmental Concern as that area is described in Chapter 33B, Code of Miami-Dade County.

>>(k) The facility may have ancillary uses as permitted under this section, including uses that permit the sale and consumption of products manufactured on site, as allowed by applicable licenses from the State of Florida Division of Alcoholic Beverages and Tobacco.

(l) A certificate of use pursuant to section 33-8 shall be required for such winery, brewery, distillery, or combination thereof, if it includes food service, preparation, or consumption but not for other uses permitted by this subsection.

(28)<< ~~[(22)]~~ Uses ancillary to and directly supportive of agriculture >>not otherwise enumerated in this section<<.

(a) *Definitions.* For purposes of this subsection, >>subsections (29) and (30)<<~~[[subsection (23)]]~~, and Section 33-279.3, the following definitions shall apply:

1. "Agriculture" or "agricultural" includes, without limitation: horticulture; floriculture; viticulture; aquaculture, including algaculture; pisciculture; apiculture; forestry; dairy farming; keeping or farming of livestock or poultry; and sod farming.

2. >>"Agritourism" means any agricultural related activity consistent with a bona fide farm, livestock operation, or ranch or in a working forest which allows members of the general public, for recreational, entertainment, or educational purposes, to view or enjoy activities, including farming,

ranching, historical, cultural, civic, ceremonial, training and exhibition, or harvest-your-own activities and attractions.

- i. An agritourism activity does not include the construction of new or additional structures or facilities intended primarily to house, shelter, transport, or otherwise accommodate members of the general public.
- ii. An activity is an agritourism activity regardless of whether the participant paid to participate in the activity.
- iii. The construction of new or additional structures or facilities intended primarily to house, shelter, transport, or otherwise accommodate members of the general public is subject to compliance with the Florida Building Code, chapter 24 of this code, and other applicable regulations.

3.<< “Farm equipment” means, in accordance with >>sections<< ~~[[Sections]]~~ 316.003 and 604.40, Florida Statutes (2020), tractors or farm implements that are primarily designed for or primarily used in agriculture.

- i. This term includes, without limitation, the following: farm tractor; all-terrain vehicle; combine; harvester; backhoe; front loader; plow; mower; implements of husbandry; irrigation trucks; and any other equipment that is used on a farm that is not required by the State of Florida to be registered as a motor vehicle.
- ii. This term includes such other implements as determined by the Director to be primarily designed for or used in agriculture and not for off-road construction, mining, utility, or industrial purposes.
- iii. This term excludes: equipment designed for or used in off-road construction, mining, utility, and industrial purposes; and Category 3

vehicles as defined in ~~>>section<<~~
~~[[Section]]~~ 33-124.1.

~~[[3-]]>>4.<<~~ “Farm supplies” means materials,
 other than farm equipment, that are primarily
 designed for or primarily used in agriculture.

(b) *General requirements.* Except as provided in this
 article for outdoor storage, maintenance, and repair
 of farm equipment, distribution vehicles, and other
 classified vehicles, all uses enumerated in this
 subsection shall be subject to the following
 requirements:

1. Each use shall only be authorized on a
 property that:
 - i. Is designated Agriculture on the
 Comprehensive Development Master
 Plan Land Use Plan Map; and
 - ii. Contains land that has been classified
 by the Miami-Dade County Property
 Appraiser as agricultural land.
2. ~~>>Except as provided in this subsection or
 section 33-279.3, a certificate of use pursuant
 to section 33-8 shall not be required for uses
 authorized by this subsection<< [[The
 property or business owner shall obtain from
 the Department an annually renewable
 certificate of use for each use]].~~

(c) The following uses shall be permitted when ancillary
 to an ongoing and lawfully established agricultural
 use:

1. The packing, processing, or sale of
 agricultural goods or products produced
 within the State of Florida ~~>>and not
 otherwise enumerated in this section<<~~.
2. Farm tours, farm meals, cooking classes,
 agricultural workshops, agricultural
 education, ~~[[and agritourism, including]]~~ U-
 Pick, pony rides, ~~[[and]]~~ horseback riding~~>>~~,
and agritourism not otherwise enumerated
 herein<<.
3. Farmers’ markets, restricted to the sale of
 fruits, vegetables, live farm animals, ~~[[and]]~~
 plants, ~~[[as well as]]~~ ~~>>and<<~~ products
 derived directly therefrom~~>>~~, and not
 otherwise classified as a farm stand or fruit
 and vegetable stand<<.

4. Uses determined by the Director to be similar to those enumerated in subparagraphs (1)—(3) above. In determining similarity between a proposed use and the uses enumerated above, the Director shall be guided by whether the proposed use is ancillary to and directly supportive of agriculture.
5. The sale and service of farm equipment and farm supplies.
6. Outdoor storage, maintenance, and repair of farm equipment, distribution vehicles, and other classified vehicles, only in accordance with this subsection and with Section 33-279.3; it is provided, however, that such use may be a primary use on a lot as provided therein.
- >>7. Mobile food service operations, only in accordance with the following:
 - i. Each such operation complies with section 33-14.1, except that a certificate of use shall not be required; and
 - ii. The mobile food service operation uses only self-contained utilities, including but not limited to gas, water, and waste disposal, and is not connected to and does not use any utility that is not self-contained, except for electrical connections permitted by section 33-14.1; and
 - iii. Except for self-contained utilities in the mobile food service operation, the storage, processing, or disposal of solid or liquid waste, as defined in sections 24-5 or 15-1, including, without limitation, any vegetable or animal product used in, or a byproduct of, the cooking, food preparation, or cleaning process, from any such operation shall not occur on the agricultural property.
 - iv. Overnight storage of a mobile food service vehicle is permitted on the agricultural property on which it is used. All other vehicle storage is subject to section 33-279.3.

(29)<< [[(23)]] The sale of farm supplies and farm equipment, together with general retail items, subject to the following requirements:

- (a) Administrative site plan review and approval pursuant to >>section<< [[Section]] 33-310.4 >>and a certificate of use pursuant to section 33-8 are<< [[is]] required.

* * *

>>(30) General provisions relating to agricultural uses.

- (a) For uses allowed pursuant to this article where located on a property with, or ancillary to, an ongoing and lawfully established agricultural use, the primary agricultural use shall be one of the following uses enumerated in this section:

1. Cattle or stock grazing (not including hog raising).
2. Raising or keeping of hogs.
3. Dairy barn.
4. Farm.
5. Grove.
6. Greenhouses, nurseries—commercial.
7. Horticultural farming—commercial.
8. Hydroponics or other chemical farming.
9. Nurseries—horticultural.
10. Poultry raising.
11. Truck garden.
12. Fish pool or other aquaculture.
13. Seed drying facility.

- (b) Obtaining an agricultural classification as provided in section 193.461, Florida Statutes, as may be amended, is not required to demonstrate compliance with this subsection.

- (c) For uses that this section exempts from obtaining a certificate of use pursuant to section 33-8, the following shall apply:

1. Building permits shall be obtained for any structure that is not a nonresidential farm building, farm sign, or farm fence, as defined in section 604.50, Florida Statutes.
2. Where the use involves a structure that is exempt from the Florida Building Code, floodplain review pursuant to section 11C-3 shall be required.

3. It is provided, however, that, notwithstanding chapter 11C or any other provision of this code to the contrary, floodplain review shall not be required for the following structures when located outside of a special flood hazard area and coastal high hazard area and when they are accessory buildings for an ongoing and lawfully established agricultural use: pre-manufactured sheds; site-built sheds; cargo containers; and pole barns and other structures that are open on at least one side.

(d) For uses that provide food service to the public:

1. Where such uses do not provide bathrooms in a permanent building, sufficient portable toilets to accommodate the public shall be provided.

2. Where such uses provide bathrooms in a permanent building:

i. the bathrooms shall be served by a public water main and a public sanitary sewer system; or

ii. where a public water main is not available, the bathroom shall be served by a legally established domestic well approved pursuant to chapter 24, and where a public sanitary sewer system is not available, the bathroom shall be served by a legally established onsite sewage treatment and disposal system approved pursuant to chapter 24.

(d) *Presumption of compliance.* For uses that require a minimum percentage of products to come from certain areas or sources, the use shall be presumed to comply with such requirement, subject to rebuttal by the Department, where the property owner or tenant presents to the Department: executed contracts, manifests, bills of lading, load tenders, confirmations of tender, proofs of delivery, payment records, or any combination thereof, to establish that the products were obtained from the required area or source.

(e) *Voluntary certificate of use.* A use that does not require a certificate of use pursuant to section 33-8 shall be deemed to comply with this section where:

1. The property owner has:

- i. voluntarily obtained from the Department such a C.U. after submitting an application that contains the information required by this paragraph; or
 - ii. has previously obtained a C.U. for a similar use based on presenting substantially similar information, as determined by the Department.
2. To comply with this paragraph (d), the application for voluntary C.U. shall include a site plan or sketch, subject to the Department's approval, that identifies:
- i. the location and size of the primary agricultural use or uses;
 - ii. the location and size of any ancillary use or uses;
 - iii. the location of all structures for agricultural uses and ancillary uses, respectively, including demonstrating compliance with applicable setback standards; and
 - iv. the location and type of required visual buffering.<<

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Sec. 33-279.2. - Agricultural Uses Permitted in Areas Located Outside the Urban Development Boundary, Designated Agriculture on the Comprehensive Development Master Plan and Zoned EU, RU, BU or IU.

Notwithstanding any provisions to the contrary in Chapter 33 of this Code, the agricultural uses provided in this Section are permissible in areas zoned EU, RU, BU>>₁<< and IU that are designated Agriculture on the Comprehensive Development Master Plan Land Use Plan Map and that are located outside of the Urban Development Boundary.

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(c) *For all properties subject to this Section:*

- (1) The property shall conform to the minimum lot size and setback requirements of the underlying zoning district.

- (2) Agricultural uses on the property shall not be subject to the underlying zoning district's landscaping and lot coverage requirements.
- (3) >>Agricultural uses shall be governed by section 33-279 as to certificates of use, zoning improvement permits, and floodplain review<< ~~[[A Zoning Improvement Permit shall be obtained prior to establishing any agricultural use]]~~.
- >>(4) This section shall not be construed to limit the use of the property in accordance with the underlying zoning district to the extent permitted by the CDMP.<<

Sec. 33-279.3 - Outdoor storage of farm equipment, distribution vehicles, and other classified vehicles; presumption of illegal commercial vehicle storage.

- (1) Outdoor storage, maintenance, and repair of farm equipment, distribution vehicles, and other classified vehicles is permitted in the AU district, only in accordance with Section 33-279 and this section.
- (2) *Definitions.* For purposes of this section, the following definitions shall apply:
 - (a) “Distribution vehicle” means any Category 3 vehicle, as defined in section 33-124.1, that is used to distribute qualified products and is an integral part of a farm operation. It is provided, however, that open commercial car carrier trailers of a double-decker design shall not be construed to qualify for this classification.
 - (b) “Onsite storage” means:
 - i. The vehicle is stored on the lot where it is primarily used for the distribution of qualified products; or
 - ii. The vehicle is stored on a lot that is adjacent to or contiguous with the lot where it is primarily used, provided that the lots are owned by the same person or legal entity.
 - (c) “Offsite storage” means that the vehicle is stored on a lot that does not qualify for onsite storage.
 - (d) “Owner” includes a lessee, and “own” includes a lease.
 - (e) “Qualified product” means:
 - i. an agricultural good or product, including, without limitation, products of fish pools,

- nurseries, wineries, breweries, and distilleries, that is lawfully grown or cultivated on a property in Miami-Dade County; or
 - ii. an agricultural good or product that is packed, processed, or sold at a lawfully established packing house or other property where such packing, processing, or sale is permitted in accordance with this section; or
 - iii. goods or supplies used for or in conjunction with the cultivation, packing, or processing of the goods or products referenced in subparagraphs i. or ii. above.
- (f) “Storage” includes parking and maintenance and repair, including major overhauls and major repairs.

* * *

- (4) *General requirements for outdoor vehicle storage uses.* The following general requirements apply to all outdoor storage of vehicles:

- (a) The outdoor storage use is ancillary to an >>ongoing and lawfully established<< agricultural use authorized on the subject property pursuant to section 33-279, except as provided in this section for offsite storage >>and for onsite storage on adjacent or contiguous property<<.

* * *

- (f) A certificate of use is required for offsite storage of distribution vehicles but not for onsite storage.
 - (g) Nothing in this section shall be construed to limit a distribution vehicle from being parked on the lot where the distribution vehicle is actively loading or unloading qualified products from or for a packing house or >>other ongoing and lawfully established agricultural use authorized pursuant to section 33-279<< ~~[[farm]]~~, including where such vehicle is operating a refrigeration unit.

* * *

- (6) *Maximum number of distribution vehicles.*
 - (a) >>Amount allowed as of right for storage on the subject property. The number of distribution

vehicles allowed on a single lot shall not be limited where:

- i. Such storage is ancillary to an agricultural use on the subject property; or
- ii. The subject property is zoned BU or IU.

(b)<< Amount allowed as of right >>for onsite storage on adjacent or contiguous property or for offsite storage<<. Unless a greater number is approved as provided in this subsection, the maximum number of distribution vehicles allowed on a single lot >>being used for offsite storage, or for onsite storage where adjacent to or contiguous with the lot on which it the vehicles are used,<< shall be as follows:

- i. No more than >>2<< [[0.4]] distribution vehicles are permitted per gross acre, provided that no more than 200 distribution vehicles are stored on a single lot, regardless of whether the storage is onsite or offsite. Fractions of 0.5 or greater shall be rounded up to the nearest whole number.
- ii. >>Notwithstanding the foregoing, on lots that are contained wholly within 2,000 feet of the Urban Development Boundary (UDB), up to 10 distribution vehicles are permitted per gross acre, provided that no more than 400 distribution vehicles are stored on a single lot, regardless of whether the storage is onsite or offsite. Fractions of 0.5 or greater shall be rounded up to the nearest whole number.
- iii.<< Notwithstanding the foregoing, at least one distribution vehicle, including a semitrailer, truck-tractor, or combination thereof, shall be permitted regardless of lot size.

>>iv.<< [[iii-]] Trailer or semitrailer portions may be stored separately from truck tractors. In that event, the maximum permitted number of distribution vehicles shall be calculated based on the trailer or semitrailer portions. It is provided, however, that where the number of truck tractors exceeds the number of trailers or semitrailers, each excess truck tractor shall be counted as a distribution vehicle.

>>v.<< [[iv-]] Notwithstanding the foregoing, additional distribution vehicles beyond the

~~[[0.4]]~~ per acre limitation above are permitted at a ratio of one vehicle for each 5 acres of property, up to a maximum of 5 additional vehicles, only in accordance with the following:

1. Fractional portions of property shall be rounded up to the next 5-acre increment for the purposes of this calculation.
2. The additional distribution vehicles are limited to: box trucks; flatbed trucks; horse and stock animal carriers; and other similar vehicles as approved by the Director in consultation with the County's Agricultural Manager.
3. Semitrailers, as defined in section 316.003, Fla. Stat., that are over 20 feet in length, and truck tractors, as defined in section 320.01, Fla. Stat., shall not qualify for this allowance for additional distribution vehicles.

>>~~(c)~~<<~~[[b)]~~ *Administrative adjustments.* Where the applicant demonstrates a need for additional distribution vehicles and demonstrates that approval will not be a detriment to nearby properties, will not have an adverse effect on physical or environmental conditions in the surrounding area, and will be otherwise compatible with the surrounding land uses, an increase of up to 50 percent above the number of distribution vehicles permitted by paragraph >>~~(b)~~i. and ii.<< ~~[[a)i. and ii.]~~ for semitrailers or truck tractors, or up to 100 percent for other distribution vehicles, may be approved as follows:

* * *

- iii. The number of additional distribution vehicles allowed pursuant to subparagraph >>~~(b)~~iv.<< ~~[[a)iv.]~~ shall not be eligible for administrative adjustment.

>>~~(d)~~<<~~[[e)]~~ *Special exception.* A greater number of distribution vehicles is permitted if approved as a special exception after public hearing in accordance with Section 33-311.

* * *

Section 6. Division 2 of article III of chapter 24 of the Code of Miami-Dade County,

Florida, is hereby amended to read as follows:

**DIVISION 2. - WELLFIELD PROTECTION, DOMESTIC
WELL SYSTEMS AND POTABLE WATER STANDARDS**

* * *

**Sec. 24-43.1. Liquid waste disposal and potable water supply
systems.**

* * *

- (4) *Nonresidential land uses with potable water or OSTDS with only domestic sewage.* Notwithstanding any provision of this code to the contrary, no County or municipal officer, agent, employee, or board shall approve, grant or issue any building permit, certificate of use or occupancy (except for changes in ownership for facilities that do not require an operating permit pursuant to Section 24-18), municipal occupational license (except for changes in ownership for facilities that do not require an operating permit pursuant to Section 24-18), platting action (final plat, waiver of plat, or equivalent municipal platting action), development agreement subject to the Florida Local Government Development Agreement Act, zoning action (district boundary change, unusual use, special exception, use variance, or equivalent municipal zoning action), or other development order or development permit for any nonresidential land use served or to be served by any source of potable water supply or an OSTDS without obtaining the Director's prior written approval pursuant to this subsection.

Furthermore, notwithstanding any provision of this code, no person shall construct, utilize, operate, occupy, or cause, allow, let, permit, or suffer to be constructed, utilized, operated, or occupied, any nonresidential land use served or to be served by any source of potable water or an OSTDS without obtaining the Director's prior written approval. >>It is provided, however, that a mobile food service operation

that complies with section 33-279 is not subject to this subsection.<<

Written approval shall only be issued if it is demonstrated that the only liquid waste (excluding liquid wastes associated with >>the following:<< the processing of agricultural produce in agricultural packing houses ~~[[and liquid wastes associated with]]~~ >>;<< ~~[[an]]~~ agricultural >>vehicles or<< ~~[[vehicle or,]]~~ agricultural equipment maintenance facilities~~[[,]]~~>>; farm-related breweries, distilleries, or wineries or mobile food service operations that comply with section 33-279; or<< stormwater and water used within a self-contained water recycling car wash facility, provided said facility does not backwash the recycling filters) that shall be generated, disposed of, discharged, or stored on the property shall be domestic sewage discharged into an OSTDS that complies with section 24-42.7, that the property is not within a feasible distance for public water mains and public sanitary sewers, and only:

- (a) After the owner of the property (excluding property upon which an agricultural vehicle or agricultural equipment maintenance facility operates) submits to the Director ~~[[or the Director's designee]]~~ a covenant running with the land executed by the owner of the property in favor of Miami-Dade County >>that<< ~~[[which]]~~ provides that the only liquid waste (>>except for those liquid wastes excluded by this subsection (4) above<< ~~[[excluding liquid wastes associated with the processing of agricultural produce in agricultural packing houses and liquid wastes associated with agricultural vehicle or agricultural equipment maintenance facilities, stormwater and water used within a self-contained water recycling car wash facility, provided said facility does not backwash the recycling filters]]~~) which shall be generated, disposed of, discharged, or stored on the property shall be domestic sewage discharged into >>an OSTDS<< ~~[[a septic tank]]~~. >>(i)<< Said covenants shall be in a form(s) prescribed by the Director ~~[[and approved by the Board of County Commissioners]]~~.

>>(ii)<< The covenants shall be recorded by the Department at the expense of the owner of the property>>.

(iii) The Director is authorized to accept modifications of previously approved covenants to conform to this paragraph (4)(c)<<; and

* * *

(c) If the Director or the Director's designee determines that the existing nonresidential land use for the property or the nonresidential land use requested for the property is served or to be served by an onsite domestic well system and ~~[[a septic tank]]~~ >>an OSTDS<< and is not one ~~[[4]]~~ or more of the following nonresidential land uses:

(i) Establishments ~~[[primarily]]~~ engaged in the handling of food and drink>>; it is provided, however, that the preparation, cooking, or table service of food or drink when ancillary to an ongoing and lawfully established agricultural use to the extent permitted in section 33-279 may be permitted<< ~~[[except factory prepackaged products and agricultural crops and, food preparation facilities on agricultural properties which serve the prepared food and drink on site]]~~.

* * *

(6) *Other nonresidential land uses without public water, public sanitary sewer, or both.* Notwithstanding any provision of this code to the contrary, no County or municipal officer, agent, employee, or board shall approve, grant or issue any building permit, certificate of use, certificate of occupancy, municipal occupational license, platting action (final plat, waiver of plat or equivalent municipal platting action), development agreement subject to the Florida Local Government Development Agreement Act, zoning action (district boundary change, unusual use, special exception, use variance, or equivalent municipal zoning action), or other development order or development permit for any

nonresidential land use served or to be served by any >>method for<< ~~[[liquid waste]]~~ storage, disposal, or treatment ~~[[method]]~~ >>of liquid waste (excluding liquid wastes associated with the following: the processing of agricultural produce in agricultural packing houses; agricultural vehicles or agricultural equipment maintenance facilities; or farm-related breweries, distilleries, or wineries or mobile food service operations that comply with section 33-279)<< other than public sanitary sewers, or by any source of potable water supply other than a public water main, without obtaining the Director's prior written approval.

Furthermore, notwithstanding any provision of this code to the contrary, no person shall construct, utilize, operate, occupy, or cause, allow, let, permit, or suffer to be constructed, utilized, operated, or occupied, any nonresidential land use served by any >>method for<< ~~[[liquid waste]]~~ storage, disposal, or treatment ~~[[method]]~~ >>of liquid waste (except for those liquid wastes excluded by this subsection (6) above)<<, other than public sanitary sewers or any source of potable water supply other than a public water main, without obtaining the Director's prior written approval. >>It is provided, however, that a mobile food service operation that complies with section 33-279 is not subject to this subsection.<<

Such written approval shall only be issued if one or more of the following is met:

* * *

Sec. 24-43.2. Regulation of on-site domestic well systems and other water supply wells.

- (1) *Regulation of on-site domestic well systems generally.*
 - (a) Notwithstanding any provision of this code to the contrary, no County or municipal officer, agent, employee, or board shall approve, grant or issue any building permit, certificate of use or occupancy (except for changes in ownership), municipal occupational license (except for changes in ownership), platting action (final plat, waiver of plat or equivalent municipal platting action),

development agreement subject to the Florida Local Government Development Agreement Act, zoning action (district boundary change, unusual use, special exception, use variance, or equivalent municipal zoning action), or other development order or development permit for any land use served or to be served by an on-site domestic well system without obtaining the Director's prior written approval.

Furthermore, notwithstanding any provision of this code to the contrary, no person shall construct, utilize, operate, occupy, or cause, allow, let, permit, or suffer to be constructed, utilized, operated, or occupied, any land use served or to be served by a domestic well system without obtaining the Director's prior written approval.

Such written approval shall only be issued if the Director determines all of the following are met:

- (i) the existing or requested land use for the property complies with Section 24-43.1; and
- (ii) the installation of a public water main to serve the property from the nearest available point of connection to an available public water main is not within feasible distance for public water mains; and
- (iii) the groundwater at the site does not require treatment ~~[[in order]]~~ to meet the primary drinking water quality standards specified in Chapter ~~>>62-550<< [[62-55]]~~, Florida Administrative Code, as same may be amended from time to time; and
- (iv) the groundwater at the site does not contain more than 250 milligrams per liter (mg/l) of chlorides at a depth of 30 feet from ground elevation>>; and
- (v) for establishments engaged in the preparation, cooking, or table service of food or drink when ancillary to an ongoing and lawfully established agricultural use to the extent permitted in section 33-279, the following additional requirements:
 - 1. the groundwater at the site complies with secondary drinking water quality standards specified in Chapter 62-

- 550, Florida Administrative Code, as same may be amended from time to time, or treatment is provided to comply;
2. the on-site domestic well water treatment system or treatment train is designed for land uses within the cone of influence of the well based on the maximum day flow rate, but not less than 1/8-mile;
 3. the on-site domestic well system includes mechanical, electrical, and component reliability to assure uninterrupted supply and treatment;
 4. the Director has given written approval for monitoring plans for the following, including sampling frequency for primary drinking water standards:
 - a. a sentinel groundwater monitoring plan, which includes monitoring wells; and
 - b. a raw (untreated) and treated water monitoring plan; and
 5. the Director has given written approval for a water treatment system operation and maintenance plan, which includes a Class C or higher Operator performing site visits on a frequency based on treatment processes and flow rate, but not less than 5 visits per week and one visit each weekend for a total of 2.4 hours/week ; and
 6. the system includes a disinfection system that provides 4-log removal or inactivation of pathogens with an inactivation ratio equal to or greater than one based on peak hourly flow rate.
 7. Notwithstanding any provision of this chapter to the contrary, a mobile food service operation that complies with section 33-279 is not subject to this section.<<

* * *

Section 7. Section 33-279 of the Code shall be renumbered pursuant to the revisions in section 2 above.

Section 8. 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 9. 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 10. 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

Prime Sponsor: Commissioner Kionne L. McGhee



Biscayne Bay Watershed Restoration Plan (WRP)

The watershed restoration plan is a collection of all the tools in our toolbox used to achieve water quality and seagrass restoration and Biscayne Bay health.

Identify water quality problem

Develop RAP

Addresses reduction of phosphorus and nitrogen loads

Develop and Implement a Watershed Restoration Plan

Addresses all factors impacting the health of Biscayne Bay water quality and seagrass habitats

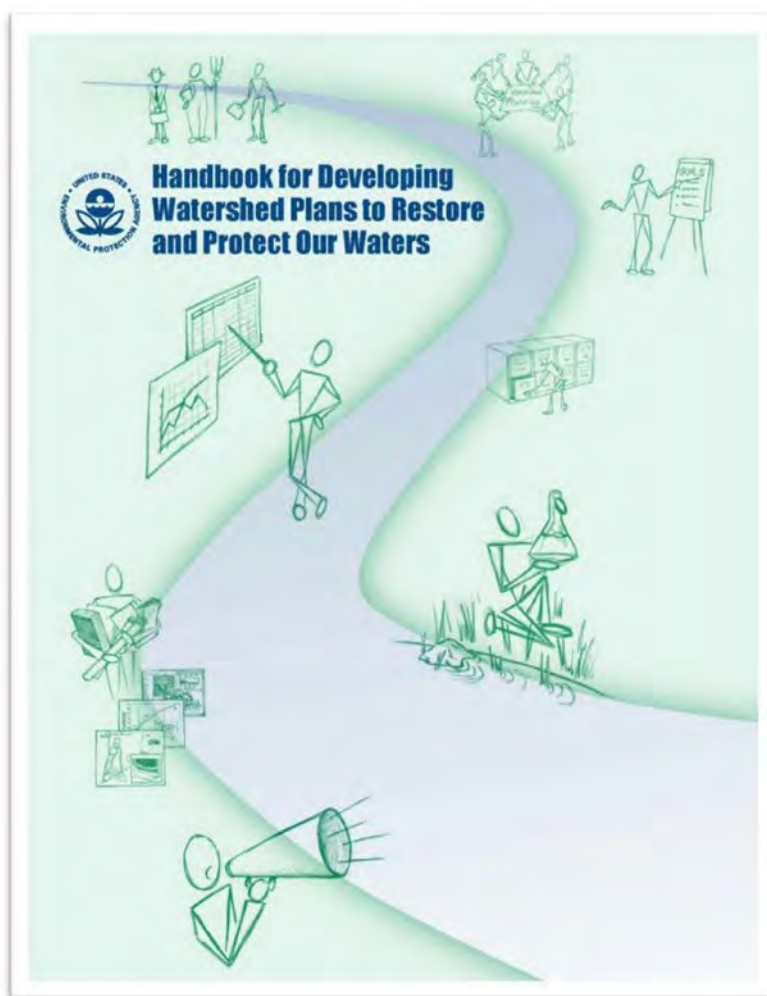
Conduct Monitoring and Track Progress with Adaptive Management

Meet Water Quality Standards

A Watershed Restoration Plan should address things like:

- Growth/development policies
- Zoning and planning policies
- Contamination sources that can impact groundwater that ultimately reaches Biscayne Bay
- Implications of climate change, resilience, and sea level rise
- Outreach and engagement with diverse stakeholder groups, including local governments
- Enforcement activities and practices
- Flood protection, storage, and aquifer recharge
- Increased development pressures
- Recreation/aesthetics (e.g., access, river walks, boating, fishing, swimming)
- Protection of high-quality wetlands
- Post-disaster efforts
- Protection of drinking water sources
- Local and regional restoration activities, including CERP

A QUICK GUIDE to Developing Watershed Plans to Restore and Protect Our Waters



Disclaimer

This document provides guidance to states, territories, authorized tribes, local governments, watershed organizations, and the public regarding technical tools and sources of information for developing watershed-based plans to improve and protect water quality. The document refers to statutory and regulatory provisions that contain legally binding requirements. The document does not substitute for those provisions or regulations, nor is it a regulation itself. Thus, it does not impose legally binding requirements on EPA, states, territories, authorized tribes, local governments, watershed organizations, or the public and might not apply to a particular situation based upon the circumstances. EPA, state, territory, local government, and authorized tribe decision makers retain the discretion to adopt approaches on a case-by-case basis that differ from this guidance. The use of nonmandatory words like *should*, *could*, *would*, *may*, *might*, *recommend*, *encourage*, *expect*, and *can* in this guidance means solely that something is suggested or recommended; it does not mean that the suggestion or recommendation is legally required, that it imposes legally binding requirements, or that following the suggestion or recommendation necessarily creates an expectation of EPA approval.

Interested parties are free to raise questions and objections about the appropriateness of the application of the guidance to a situation, and EPA will consider whether the recommendations in this guidance are appropriate in that situation. EPA might change this guidance in the future.

A Quick Guide to Watershed Management was prepared by Tetra Tech, Inc., under a contract with EPA. This guide was developed with input from federal, state, and local watershed practitioners and outreach experts.



United States Environmental Protection Agency
Office of Wetlands, Oceans, and Watersheds
Nonpoint Source Control Branch (4503T)
1200 Pennsylvania Ave., NW
Washington, DC 20460
EPA 841-R-13-003
May 2013



A Quick Guide to Developing Watershed Plans to Restore and Protect Our Waters

*United States Environmental Protection Agency
Office of Wetlands, Oceans, and Watersheds
Nonpoint Source Control Branch (4503T)
1200 Pennsylvania Ave., NW
Washington, DC 20460
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Introduction

Watershed Planning as an Overarching Management Framework

The U.S. Environmental Protection Agency (EPA) has for many years encouraged states and others to develop watershed plans to help protect and restore our waters. Due to the complex and diffuse nature of nonpoint source pollution, the substantial costs to address it, and frequent reliance on voluntary action by individual landowners, successfully addressing nonpoint source pollution to achieve water quality standards often requires years of support from a coalition of stakeholders, programs, and funding sources. Watershed planning helps address water quality problems in a holistic manner by fully assessing the potential contributing causes and sources of pollution, then prioritizing restoration and protection strategies to address these problems.

Why a Quick Guide to Watershed Management?

In 2008 EPA published the *Handbook for Developing Watershed Plans to Restore and Protect our Waters* (the Handbook) to provide users with a comprehensive resource to develop more effective watershed plans as a means to improve and protect the nation's water quality. The Handbook also provides guidance on how to incorporate the nine minimum elements from the Clean Water Act section 319 Nonpoint Source Program's funding guidelines into the watershed plan development process. Since the Handbook was issued, EPA and other entities have stepped up watershed plan implementation, introduced new initiatives, developed new tools, and provided additional funding sources.

Over the past 5 years, thousands of copies of the Handbook have been printed. The Handbook has been used by watershed practitioners, incorporated into training courses, and even adopted as part of college curricula. The purpose of this Quick Guide, developed in response to feedback on the length and complexity of the Handbook, is to provide a streamlined, easy-to-read summary of the Handbook. The guide also incorporates key watershed-related topics not included in the Handbook. The Quick Guide is not meant to replace the Handbook, but rather to provide a brief guide to watershed planning and highlight new information that can be used for more effective decision-making leading to improved management of our water resources.

Use the following icons to help locate specific information in the Quick Guide

⑨ Indicates where one of the **nine minimum elements** is discussed.

📁 Indicates a **case study** that highlights the use of the nine minimum elements in watershed plans.

📖 Refers the reader to specific sections in **the Handbook** for more detailed information.

Organization of the Quick Guide

The Quick Guide is divided into two sections:

- **Section I: The Basics** provides a streamlined summary of the Handbook. It includes the major steps in the watershed planning process and a brief overview of the nine minimum elements to be included in watershed plans under EPA's Clean Water Act section 319 Nonpoint Source Program.
- **Section II: What's New** highlights recent EPA watershed-related initiatives and presents new tools that practitioners can access to improve water quality across the country.

If you are new to watershed management as a planning framework and the nine minimum elements, start with Section I. If you are already familiar with the Handbook, you might want to start with Section II to discover new tools and programs that you can incorporate into your watershed management activities.

Audience for the Quick Guide

The Quick Guide is intended for novice as well as experienced practitioners working on watershed-related issues at the federal, state, tribal, and local levels. The Quick Guide is also intended for managers involved in other integrated resource planning efforts, such as water and wastewater utilities, transportation departments, and local zoning offices. The Appendix includes a list of contacts from [EPA's Polluted Runoff Program](http://water.epa.gov/polwaste/nps/where.cfm) (<http://water.epa.gov/polwaste/nps/where.cfm>) website. You can follow up with them to get more information on specific watershed planning requirements in your area.

SECTION I: THE BASICS

This section presents a streamlined summary of the watershed handbook, *Handbook for Developing Watershed Plans to Restore and Protect Our Waters*, and walks you through the basic watershed planning and implementation process. In addition, this section highlights where in the planning process to incorporate the nine minimum elements (see the box to the right) required for watershed-based plans that are developed and implemented with section 319 funds.

Watershed plans provide an analytic framework for managing efforts to both restore water quality in degraded areas and to protect overall watershed health. Watershed plans assist states and tribes in addressing nonpoint source pollution by providing a comprehensive assessment of nonpoint source pollution and a set of management measures to address them.

EPA recognizes that not all watersheds are threatened or impaired and that in many cases watershed stakeholders want to develop and implement watershed plans to continue protecting high-quality watersheds. The watershed planning and implementation steps are similar for healthy and impaired watersheds, but the overall watershed plan goals and management strategies will vary depending on local and regional priorities, conservation programs, and regulatory requirements or other approaches used to achieve them.

In this section of the Quick Guide, you will learn about the framework to conduct a successful watershed planning effort. The basis for this framework is the **six steps of watershed planning**, which are discussed in detail in the Handbook (http://water.epa.gov/polwaste/nps/handbook_index.cfm). An additional goal of the Handbook (and, subsequently, of this guide) is to show both how the **nine elements** presented in the Clean Water Act section 319 grant guidelines serve as building blocks to develop watershed plans and where these elements fit within the six steps of the watershed planning process (Figure 1). The nine elements are the components of the watershed planning process that EPA believes are the most critical to preparing effective watershed plans and are generally required for watershed projects funded under section 319. EPA finalized its updated section 319 *Nonpoint Source Program and Grant Guidelines for States and Territories* in 2013, and it includes the nine elements discussed in the Handbook and this Quick Guide (see www.epa.gov/nps/319).

Summary of the nine minimum elements to be included in section 319-funded watershed plans for threatened or impaired waters

- a. Identify causes and sources of pollution
- b. Estimate pollutant loading into the watershed and the expected load reductions
- c. Describe management measures that will achieve load reductions and targeted critical areas
- d. Estimate amounts of technical and financial assistance and the relevant authorities needed to implement the plan
- e. Develop an information/education component
- f. Develop a project schedule
- g. Describe the interim, measurable milestones
- h. Identify indicators to measure progress
- i. Develop a monitoring component

NOTE: A waterbody is **impaired** if it does not attain the water quality criteria associated with its designated use(s). **Threatened** waters are those that meet standards but exhibit a declining trend in water quality such that they will likely exceed standards in the near future.

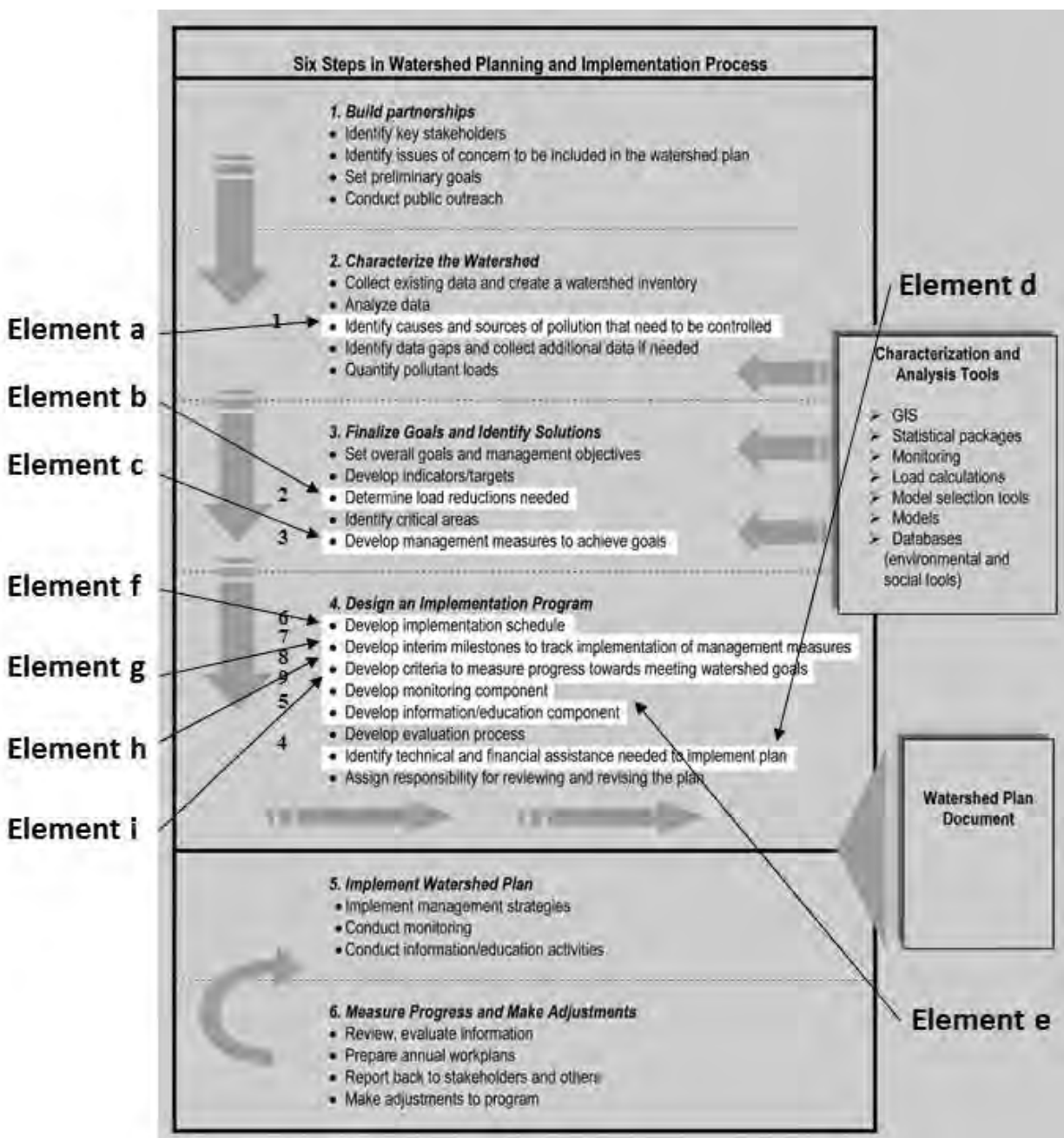


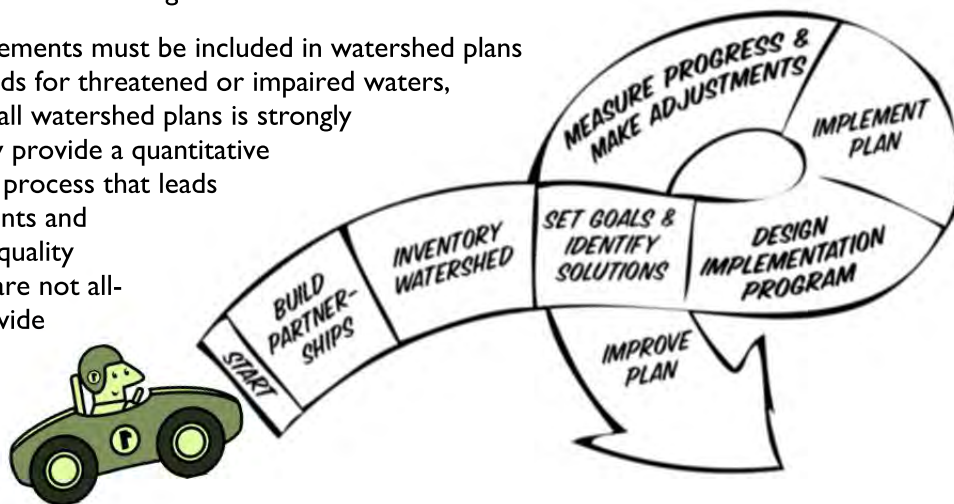
Figure 1. Crosswalk between the six steps of watershed planning and the section 319 nine minimum elements.

Understanding the Nine Minimum Elements of Watershed-Based Plans

EPA developed the nine minimum elements to help watershed managers address some of the most common pitfalls seen in watershed plans, particularly those for impaired waters. Watershed plans often lack quantified estimates of current and projected pollutant loads and the reductions needed to achieve water quality standards and other watershed goals. These loading estimates and estimates of load reductions from proposed pollution control measures provide the analytic link between actions on the ground and attainment of water quality standards. In the absence of such a framework, it is difficult to develop and implement a watershed plan that can be expected to achieve water quality standards or other environmental goals.

NOTE: EPA's Watershed Central (<http://water.epa.gov/type/watersheds/datait/watershedcentral/index.cfm>), including its wiki, can be used to assist watershed practitioners in each of the watershed planning and implementation steps.

Although these minimum elements must be included in watershed plans funded with section 319 funds for threatened or impaired waters, including these elements in all watershed plans is strongly recommended because they provide a quantitative framework for the planning process that leads to water quality improvements and restoration to attain water quality standards. These elements are not all-encompassing, but they provide the basic components needed to produce a watershed plan that can lead to water quality improvements.



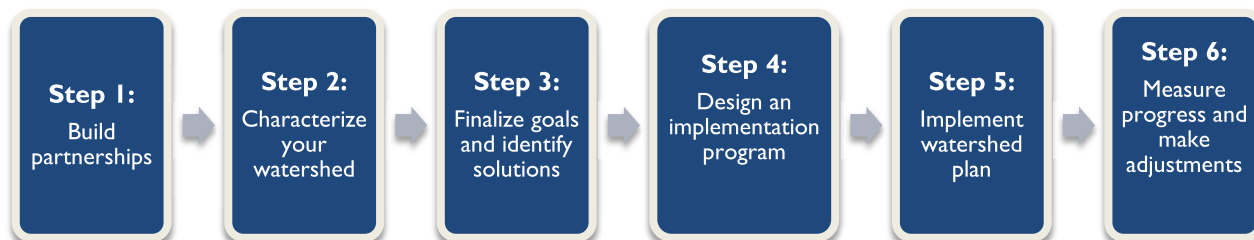
The elements are labeled *a* through *i* to reflect how they are presented in the 319 guidelines. The first three elements (*a* through *c*) are considered during the characterization and goal-setting phases to address the primary sources of pollution in the watershed and to determine the management strategies needed in specific areas to reduce the pollution to meet water quality goals. The remaining six elements (*d* through *i*) are used to develop a specific plan of action with measureable targets and milestones, as well as the necessary financial and technical resources needed to restore the waterbody.

Under section 303(d) of the Clean Water Act, states, territories, and authorized tribes are required to develop lists of impaired waters—waters that are too polluted or degraded to meet their water quality standards. The law requires that these jurisdictions establish priority rankings for waters on the lists and, in most cases, develop total maximum daily loads (TMDLs) for these waters. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive from both point and nonpoint sources and still meet water quality standards.

TMDLs provide an important starting point for water quality planning. Some TMDL development reports also contain an implementation strategy or plan. The point source allocations in TMDLs provide water quality targets for point sources such as wastewater treatment plants and stormwater treatment systems that go into their regulatory permits. Nonpoint source allocations are usually managed according to a TMDL implementation plan or watershed-based plan, which must include the nine elements described in this guide and in the Clean Water Act section 319 funding guidelines.

Steps to Effective Watershed Management

This section uses six basic steps to describe how to develop and implement an effective watershed plan. These steps provide a road map for you to follow to achieve your watershed goals.



Notice that in the picture on the previous page the road includes a loop. That is because watershed planning is an iterative process: As you collect new information, you should refine or modify your approach and incorporate lessons learned into your planning and implementation program. The remainder of Section I proceeds through each of the six steps and includes case studies and relevant tools and resources you can access for more information.

Step 1. Build Partnerships

The first step in the watershed planning process is to build partnerships. The very nature of working at a watershed level means you should work with local stakeholders and other partners. New ideas and input provided by partners not only provide a more solid commitment to solutions but also help to pool resources and skill sets. The stakeholders that you involve in the watershed plan development process will help you identify critical issues, set preliminary goals based on areas of mutual concern, and develop an initial set of indicators that will be crucial in monitoring progress. This step will also help you to develop an effective information/education component, which is one of the nine minimum elements (discussed in Step 4). Stakeholder involvement also increases the probability of long-term success through trust, commitment, and personal investment.

Step 1: Build Partnerships

- Identify key stakeholders
- Identify issues of concern
- Set preliminary goals
- Develop indicators
- Conduct public outreach

Identify Key Stakeholders


Stakeholders are those who make and implement decisions, those who are affected by the decisions made, and those who can assist or impede implementation of the decisions. Key stakeholders also include those who can contribute resources and assistance to the watershed planning effort and those who are working on similar programs that can be integrated into a larger effort. It is important to remember that stakeholders are more likely to get involved if you can show them a clear benefit to their participating.

In general, there are at least five categories of participants to consider when identifying stakeholders:

- Those who will be responsible for implementing the watershed plan
- Those who will be affected by implementation of the watershed plan
- Those who can provide information on the issues and concerns in the watershed

- Those who have knowledge of existing programs or plans that you might want to integrate into your plan (e.g., soil and water conservation districts, irrigation districts)
- Those who can provide technical and financial assistance in developing and implementing the plan (e.g., state and federal agencies, colleges and universities).

 Refer to Worksheet 3 on page 3-7 of the Handbook for a checklist of skills and resources that stakeholders can contribute to the planning process.

 Refer to Getting in Step: Engaging Stakeholders in your Watershed for more information on the tools needed to effectively engage stakeholders to restore and maintain healthy environmental conditions through community support and cooperative action (<http://cfpub.epa.gov/npstbx/getinstep.html>).

Identify Issues of Concern

It is important for stakeholders to assist in identifying issues of concern in the watershed. They often have a historical perspective on problems in the watershed and a sense of whether conditions are improving or deteriorating. These issues will help shape the overall goals of the watershed plan and determine what information is needed to accurately define and address the concerns. This step will also help determine the geographic scope of your watershed planning effort on the basis of where the problems are located and areas that need to be protected.

 Refer to the Healthy Watersheds website for more information and resources related to watershed protection.

Set Preliminary Goals

A fundamental step in the partnership-building process is to ask stakeholders to list their long-term goals for the watershed. These goals will be refined throughout the planning process to represent shared goals among the stakeholders. Concrete objectives with measureable targets and indicators to measure progress will then be developed for each goal the stakeholder group selects.

 See Figure 4-4 on page 4-9 of the Handbook; it is a conceptual diagram of how watershed goals grow and evolve during the watershed planning process.

Using Stakeholders to Identify Indicators

Case Study: Barataria-Terrebonne National Estuary Program, Louisiana

The Barataria-Terrebonne National Estuary Program (NEP) began an indicator development process by forming a planning committee with federal, state, and university participants. The planning committee decided to conduct an indicator development workshop with local stakeholders so that the stakeholders could recommend a suite of indicators. During the workshop, the stakeholders separated into breakout groups and were asked to identify indicators to address specific focus questions. Workshop participants selected the following indicators to answer Question 1: *Are our waters healthy?*

Indicator(s):

- Level of chlorophyll *a* in the estuary over time
- Size of dead zone (off coastal Louisiana) over time
- Number of petroleum spill reports in the estuary over time.

The NEP continues to use a similar process every 5 years to update its indicators. A full description of the process and indicators developed can be found at <http://water.epa.gov/type/oceb/nep/indicators.cfm>.


Develop Preliminary Indicators

Indicators are direct or indirect measurements of a component in a system. For example, an indirect indicator to demonstrate the improved water clarity of a lake might be the depth at which you can see your white sneakers as you wade into the lake. A direct indicator would be total suspended solids


samples taken quarterly at predetermined depths. Indicators provide a powerful means of communicating to various audiences about the watershed status, and they are used throughout the planning and implementation process. Stakeholders should be actively involved in selecting the indicators, and they should be asked to identify for each goal how progress toward that goal will be measured. Just as the preliminary goals will be refined throughout the watershed planning process, the indicators selected will be refined to ensure they are quantifiable and include environmental, social, and programmatic examples.

Conduct Public Outreach

Information/education activities should be initiated at the outset of the watershed planning effort to familiarize potential partners and stakeholders with the issues, outline the watershed planning process, and enlist their participation. Developing an information/education component is one of the nine minimum elements; it is discussed further in Step 4 of the watershed planning process (refer to page 23).

 Chapter 12 (PDF, 713 KB, 38 pp.) of the Handbook provides more detail on the information/education component.

Step 2. Characterize the Watershed

Characterizing the watershed, its problems, and pollutant sources provides the basis for developing effective management strategies to meet water quality goals. The characterization and analysis process helps to focus management efforts on the most pressing needs within the watershed. During this step the first of the nine elements is addressed: The watershed plan should include  a. *An identification of the causes and sources or groups of similar sources that will need to be controlled to achieve the load reductions estimated in this watershed-based plan (and to achieve any other watershed goals identified in the watershed-based plan).*

Step 2: Characterize Watershed


- **Gather existing data**
- **Create a watershed inventory**
- **Identify data gaps**
- **Collect additional data if needed**
- **Analyze data**
- **Identify causes and sources of impairments**
- **Estimate pollutant loads**

Gather Existing Data and Create a Watershed Inventory

You will first identify existing information through reports and data sets. Data needed for watershed planning include the following:

Physical and Natural Features	Land Use and Population Characteristics	Waterbody Conditions	Pollutant Sources	Waterbody Monitoring Data
Watershed boundaries, hydrology, topography, soils, etc.	Land use, land cover, existing management, etc.	305(b) reports, 303(d) reports, TMDLs, source water assessments, etc.	Permitted point sources, nonpoint sources, atmospheric deposition, etc.	Water quality and flow, biology, geomorphology, etc.

Reports and data should be obtained from local governments (city and county planning offices, environmental departments, soil and water conservation districts), state natural resource agencies, and federal agencies (EPA, USFWS, USDA, NRCS, FAS, USGS). You will then create a watershed inventory to organize the data into a common format (in a spreadsheet or database) for further analysis.

 For more information on types of data typically collected for watershed characterization and the data's potential uses, see Table 5-1 (PDF, 1.42 Mb, 56 pp.) on page 5-8 of the Handbook.


Identify Data Gaps and Collect Additional Data if Necessary

There will always be more data to collect, but you need to keep the process moving forward and determine whether you can reasonably characterize watershed conditions with existing information.

This process may involve:


- Conducting a data review of your watershed inventory to examine data quality and identify any significant temporal or spatial data gaps
- Examining the data to determine whether you can link the impairments seen in the watershed to the causes and sources of pollutants
- Considering whether you have gathered data of the right types and of adequate quality.

If you determine that you need to collect additional data, first develop a sampling plan. This will save you time and resources down the road, and you might be able to use portions of the sampling plan to construct the long-term monitoring program discussed in Step 4.

 For more information on designing a sampling plan, see EPA's Guidance on Choosing a Sampling Design for Environmental Data Collection (PDF, 1.02 MB, 178 pp.) and EPA's Quality Management Tools website at http://www.epa.gov/QUALITY/qa_docs.html.


Analyze Data

Once you have gathered existing and newly collected data and consolidated the data into a database or spreadsheet, you will analyze the information to identify watershed pollutant sources and causes of any impairments, as well as important areas to protect. In this phase of the watershed planning process, you will identify the causes and sources of pollutants that need to be controlled. It is critical to have an understanding of the watershed conditions and sources of pollutants to determine the appropriate method for quantifying the pollutant loads.

 Refer to Chapters 7 and 8 (PDF, 781 KB, 22 pp.) of the Handbook for details on instream data, watershed data, and an in-depth discussion of pollutant load estimation. Refer to Table 7-1 (PDF, 781 KB, 22 pp.) on page 7-3 of the Handbook for examples of data analysis activities and the tools used in various steps of the watershed planning process.

Identify Causes and Sources That Need to Be Controlled

Together with the input from stakeholders and their local knowledge of the watershed, analyzing your data should lead you to an understanding of where and when problems occur in your watershed and what could be causing the problems. Without knowing where the pollutants are coming from, you cannot effectively control them and restore and protect your watershed. Pollutant sources, along with associated pollutants, timing, and impact on the watershed, are critical to developing an effective management strategy. It is also important to identify critical areas (i.e., those that generate the most pollution) to focus on and to give priority to conservation practice implementation.

 **NOTE:** The new EPA Recovery Potential Screening tool described in Section II can be used to assess the recovery potential of sites within a watershed based on a series of factors. This tool can be used in conjunction with other data collected to assess the impaired sites that have the highest potential to recover and meet watershed goals.

In identifying the sources, you will begin to identify the critical areas to address with targeted management strategies. The location of pollutant sources and the associated critical areas will feed into selecting the management measures needed to control the sources. This is outlined in element c of the nine minimum elements. ⑨ Element c states: “A description of the nonpoint source management measures that will need to be implemented to achieve load reductions and a description of the critical areas in which those measures will be needed to implement this plan.” The critical areas for each primary source can be indicated on a map. In the next step you will quantify the magnitude of the pollutant loads.

Estimate Pollutant Loads

A quantified estimate of pollutant loads and the related sources of those loads are often missing from watershed plans, and filling this gap is critical to effectively control sources, develop the load reductions needed to meet watershed goals, and restore watershed health.

Various approaches can be used to conduct the loading analysis. The most appropriate method depends on several factors, including water quality parameters, time scale of the analysis, source types, data needs, and user experience. First check whether a previous study that required the development of loading estimates, such as a TMDL or a Clean Lakes study, was conducted. Such studies can often be used as a basis to provide loading estimates appropriate for developing the watershed plan.


TMDLs describe the allowable point and nonpoint source load reductions or allocations that will be necessary to meet water quality standards. The TMDL sets maximum pollutant loads for the most critical conditions to ensure that the applicable water quality standards will be attained at all times and will also provide a loading scenario that addresses all seasonal conditions. The TMDL analysis also describes the pollutant load from natural or background sources and establishes a margin of safety to ensure the standards will be met. In some cases, there might be an opportunity to trade pollution allocations or develop local ordinances or other programs to achieve equitable and effective pollutant reductions from all sources. In any watershed analysis where both point and nonpoint sources are present, it is important to determine the regulatory requirements for the point sources and the feasibility of controlling the nonpoint sources using existing local, state, tribal, and federal programs. This aspect of the TMDL (referred to as reasonable assurance) provides a degree of certainty for achieving the needed pollutant reductions.

Some loading analyses are focused on determining how much load is acceptable, whereas others are focused on source loads that attribute loading to each category of sources in the watershed. There are two general types of techniques for estimating pollutant loads: (1) techniques that use actual monitoring data or literature values and (2) techniques that use models to predict the estimated pollutant loads. Monitoring data or literature values are fairly simple approaches that provide a coarse estimate of the pollutant loads entering a waterbody. These techniques are best suited to conditions where fairly detailed monitoring and flow gauging are available and the major interest is in total loads from a watershed.

Models provide another approach for estimating loads, providing source load estimates, and evaluating various management alternatives. They can be used to forecast or estimate conditions that might occur under various scenarios. In some cases, landscape and loading models are developed, and they can be supplemented with a receiving water model as well. Although you might not be the person who will run the model, you should have an understanding of what types of questions you want answered so that the most appropriate model is used. Typical questions you might want a watershed model to address include:

- Will the management actions result in meeting water quality standards?
- Which sources are the main contributors to the pollutant load targeted for reduction (e.g., land use or land cover types)?
- What are the loads associated with the individual sources (e.g., point sources versus nonpoint sources)?
- Which combination of management actions will most effectively meet the identified loading targets (e.g., stormwater management, wastewater treatment, best management practices (BMPs) for croplands)?
- When does the impairment occur? Is it seasonal or flow-dependent?
- Will the loading or impairment get worse under future land use conditions?
- How can future growth be managed to minimize adverse impacts?
- How can the watershed plan ensure that downstream water quality is also protected?

The modeling approaches developed are ultimately designed to support decision-making. Essential to decision-making is the application of the model to identify various alternatives. How you use the model to support decision-making is as important as the various steps that go into building and testing the model. Regardless of what model you use, the analysis should be field-checked before you use the results.

 A summary of various approaches used to estimate pollutant loads in watersheds is included in Table 8-1 on page 8-3 of the Handbook.

Step 3. Set Goals and Identify Solutions

Now that you have characterized and quantified the problems in the watershed, you need to refine the preliminary goals and develop more detailed objectives, measurable targets, and indicators. The pollutant loads calculated in Step 2 will provide the basis for identifying the reductions needed to meet watershed goals (including meeting water quality standards) and determine which management practices will be used in the critical areas to achieve those reductions.

Step 3: Set Goals and Identify Solutions

- **Set overall goals and management objectives**
- **Develop indicators/targets**
- **Determine load reductions needed**
- **Identify critical areas**
- **Develop management measures to achieve goals**


Set Overall Goals and Management Objectives

You identified preliminary goals and associated environmental indicators with your stakeholders earlier in the characterization process, but now you will refine those goals on the basis of your data analysis. You will also establish more detailed objectives and targets that will guide the development of your management strategies.

For example, a preliminary goal developed during the scoping phase, in Step 1 of the watershed planning process, might have been to “restore aquatic habitat.” Based on the information collected during data analysis, in Step 2 of the watershed planning process, you might determine that the causes contributing to poor aquatic habitat include upland sediment erosion and delivery, streambank erosion, and near-stream land disturbance (e.g., livestock, construction). Linking the preliminary goal to the source and impacts of pollution will help you define your management objectives. In this case, appropriate management objectives could include (1) reducing sediment loads from upland sources and (2) improving riparian vegetation and limiting livestock access to stabilize streambanks.

Develop Indicators/Targets

Next you will develop indicators and numeric targets to quantitatively measure whether you are meeting your objectives. You identified indicators with your stakeholders earlier to determine the current health of the watershed; now you will refine the indicators to measure implementation. When developing your indicators and targets, also work to establish interim milestones that will measure the implementation of activities in your watershed plan, including the costs associated with those activities. Refer to the Milestones section of Step 4 of this Quick Guide for more information.

 **NOTE:** Section II provides updated information on how to develop and use social indicators to measure watershed management progress.

It is important to use different types of indicators to reflect where you are in the watershed management process and the audience with which you are communicating. You'll first select environmental indicators to measure the current conditions in the watershed and help to identify the stressors and the

pollutant sources. Environmental indicators are a direct measure of the environmental conditions that plan implementation seeks to achieve. As you develop your management objectives and actually assemble your watershed plan, you will add performance indicators, such as social and programmatic indicators, to help measure progress toward meeting your goals. An example of each type of indicator is provided in Table 1.

Table 1. Examples of performance indicators

Environmental	Programmatic	Social
<ul style="list-style-type: none"> • Number (or percentage) of river/stream miles that fully meet all water quality standards • Reduction in pollutant loadings from nonpoint sources 	<ul style="list-style-type: none"> • Number of public water systems with source water protection plans • Number of management measures implemented in a watershed (e.g., number of acres under nutrient management, number of riparian buffers created) 	<ul style="list-style-type: none"> • Increase in the number of residents signing watershed stewardship pledge • Rates of participation in education programs specifically directed toward solving particular nonpoint source pollution problems

Successful Use of Aerial Photography to Track Streambank Erosion

Case Study: Bog Brook Channel Stabilization Project, New Hampshire

Past removal of woody riparian shrubs along Bog Brook made the banks of the stream susceptible to erosion. As erosion continued over time, the stream channel became wider and more unstable, exacerbating the erosion problem and sending tons of sediment into the stream. Analysis of aerial photographs showed that the stream channel had eroded laterally up to 35 feet between 1999 and 2003, consuming 4,000 square feet of land. This translated to 120 tons of sediment—approximately the amount needed to fill nine dump trucks—entering the stream each year, harming water quality and smothering fish habitat.

In an effort to halt the degradation of Bog Brook, the landowner adjacent to the eroding channel worked with the town of Stratford and a consultant to secure a section 319 grant from the New Hampshire Department of Environmental Services. The project called for a comprehensive stream morphology assessment, a design plan, and reconstruction of a 275-foot stretch of the stream to a more natural condition. Project partners returned the stream channel to a more natural state and planted vegetation at the site. As a result, the channel stabilized and erosion subsided. In 2006, New Hampshire upgraded the stream from *Impaired by other flow regime alterations* to *Fully Supporting Aquatic Life Use* in its 305(b) surface water quality report.


For more information see http://water.epa.gov/polwaste/nps/success319/nh_bog.cfm.

Determine Load Reductions Needed

Using the load estimates from Step 2, you must determine the extent to which the pollutant loads need to be reduced to meet watershed goals. For waters for which EPA has approved or established TMDLs, the plan should identify and incorporate the TMDLs. The estimate should account for reductions in pollutant loads from point and nonpoint sources identified in the TMDL as necessary to attain the applicable water quality standards. The load reduction estimates are based on the planned management measures to be implemented in the critical areas. Elements *b* and *c* of the nine minimum elements are directly linked: ⑨ Element *b* states that the watershed plan should include “An estimate of the load reductions expected for the management measures described in element (c) below.” ⑩ Element *c* states that you should include “A description of the NPS management measures that will need to be implemented to achieve the load reductions estimated in element (b) above, and an identification (using a map or a description) of the critical areas in which those measures will be needed to implement this plan.”

To estimate the load reductions expected once the management measures are implemented, you need to understand the cause-and-effect relationship between pollutant loads and the waterbody response. Establishing this link allows you to evaluate how much of a load reduction from watershed sources is needed to meet waterbody targets. As with your approach for quantifying pollutant loads, selecting the appropriate approach will depend on several factors, including availability, pollutants, waterbody type, types of sources, time frame, and spatial scale. Most important, the approach must be compatible with the method used to quantify loads and must be able to predict the necessary load reductions to meet targets.

Numerous models are available to determine which BMPs are more appropriate for reducing pollutant loads and to aid in selecting the locations most likely to achieve the greatest load reductions. All models have limitations that you must document to ensure decision-makers understand them before using the data.

 Refer to Table 9-4 in the *Watershed Handbook* for a summary of many of the receiving water models available to support linkage of sources and indicators for watershed planning.

Process to Select Management Practices

1. Inventory existing management efforts in the watershed, taking into account local priorities and institutional drivers.
2. Quantify the effectiveness of current management measures.
3. Identify new management opportunities.
4. Identify critical areas in the watershed where additional management efforts are needed.
5. Identify possible management practices.
6. Identify relative pollutant reduction efficiencies.
7. Develop screening criteria to identify opportunities and constraints.
8. Rank alternatives and develop candidate management opportunities.

Identify Management Practices to Achieve Goals

In general, management practices are implemented immediately adjacent to the waterbody or upland to address the sources of pollutant loads. As part of your screening process, you will want to identify which management practices can be implemented in the critical areas that you identified as part of Step 2.

In most parts of the country, land uses are changing, and you will need to understand how these changes affect pollution loads and water quality. Some watershed pollution models allow you to factor in various development and agricultural scenarios as well as changing climate. Watershed planning is an opportunity to work with new partners to identify actions that reduce pollution, restore damaged ecosystems, and protect valuable habitat.

You can then use screening criteria to screen potential practices, narrowing the options down to those which are the most effective and acceptable. These criteria are based on factors such as pollutant reduction efficiencies, legal requirements, and physical constraints. Once you have identified and screened various management options, calculate the effectiveness of the management practices, compare the costs and benefits, and select the final management strategies that will be the most effective in achieving the load reductions needed to meet the goals for your watershed.

Step 4. Design an Implementation Program

By the end of Steps 1, 2, and 3, you should have reached out to stakeholders and identified watershed goals, characterized the sources of pollutants in the watershed (element *a*), estimated pollutant loads and the necessary reductions to meet your goals (element *b*), and identified the types and locations of management practices in the watershed that will achieve the required load reductions (element *c*). Now you must design an implementation program that shows how you will implement your watershed plan.

Develop an Implementation Schedule

The schedule component of a watershed plan involves turning goals and objectives into specific tasks. The schedule should include a timeline of when each phase of the step will be implemented and accomplished, as well as the agency/organization responsible for implementing the activity. In addition, your schedule should be broken down into increments that you can reasonably track and review. For example, the time frame for implementing tasks can be divided into quarters. It is important to include an estimate of when water quality standards will be achieved, even if that date extends beyond the project period. This phase will fulfill element *f* of EPA's nine minimum elements, which states that you should include a ⑨ *"Schedule for implementing the nonpoint source management measures identified in this plan that is reasonably expeditious."*

 *Worksheet 12-1, in Appendix B of the Handbook (PDF, 320 KB, 28 pp.), is an example of an implementation matrix.*

Milestones

When designing your implementation schedule, you should establish interim milestones that will help you measure the implementation of activities in your watershed plan. Developing interim measurable milestones will address element *g* of EPA's nine elements. ⑨ Element *g* requires *"A description of interim measurable milestones for determining whether nonpoint source management measures or other control actions are being implemented."* It usually helps to develop milestones using relevant time scales like the following: short-term (1 to 2 years), mid-term (2 to 5 years), and long-term (5 to 10 years or longer). When developing schedules and interim milestones, be sure to account for weather and seasonal factors when implementing BMPs or performing other field work.

Step 4: Design Implementation Program

- **Develop an implementation schedule**
- **Develop interim milestones to track implementation of management measures**
- **Develop criteria to measure progress toward meeting watershed goals**
- **Develop monitoring component**
- **Develop information/education component**
- **Develop evaluation process**
- **Identify technical and financial assistance needed to implement plan**
- **Assign responsibility for reviewing and revising the plan**

First, outline the subtasks involved and the level of effort and funding requirements associated with each to establish a baseline for time estimates. Then provide milestones that can be reasonably accomplished within those short-term, mid-term, and long-term time frames.

📄 See *Worksheet 12-3 (PDF, 320 KB, 28 pp.) of the Handbook* for example milestones.

Benchmarks to Measure Progress

As you implement your watershed plan, you will need benchmarks to track progress through monitoring. These interim targets can be direct measurements that reflect a water quality condition (e.g., fecal coliform concentrations, dissolved oxygen content, pounds of nitrogen) or indirect indicators of load reduction (e.g., number of beach closings, pounds of trash removed, length of stream corridor revegetated).

You should also indicate how you'll determine whether the watershed plan needs to be revised if interim targets are not met. These revisions need to focus on changing management practices, updating/reevaluating critical source areas/loading analyses, and reassessing the time it takes for pollution concentrations to respond to treatment; they should not focus on changing the plan's goals.

This phase of the watershed planning process will address element h of EPA's nine minimum elements.

🕒 Element h states “A set of criteria that can be used to determine whether loading reductions are being achieved over time and substantial progress is being made toward attaining water quality standards.”

📄 Table 12-1 of the Handbook demonstrates how you can use a suite of indicators to measure progress in reducing pollutant loads depending on the issues of concern.

Monitoring Program

Your monitoring program will address element i, which states that you should include 🕒 “A monitoring component to evaluate the effectiveness of the implementation efforts over time, measured against the criteria established under item h.”

Monitoring programs can be designed to track progress in meeting load reduction goals and attaining water quality standards and other goals. Measurable progress is critical to ensuring continued support of watershed projects, and progress is best demonstrated with the use of monitoring data that accurately reflect water quality conditions relevant to the identified problems. Monitoring programs should include baseline (before), project-specific (during), and post-project (after) monitoring.

When developing a monitoring design to meet your objectives, it is important to understand how the monitoring data will be used. Ask yourself questions like the following:

- What questions are we trying to answer?
- What techniques will be used?
- What statistical accuracy and precision are needed?
- Can we account for the effects of weather and other sources of variation?
- Will our monitoring design allow us to attribute changes in water quality to the implementation program?

Example Milestones

Short-Term (< 2 years)

Achieve 5 percent reduction in sediment load on 1,000 acres of agricultural land in the Cross Creek subwatershed by implementing rotational grazing practices.

Eliminate direct sources of organic waste, nutrients, and fecal coliform bacteria to the stream by installing 5,000 feet of fencing to exclude direct access to cattle along Cross Creek.

Mid-Term (< 5 years)

Reduce streambank erosion and sediment loading rate by 15 percent by reestablishing vegetation along 3,600 feet of Cross Creek.

Long-Term (5 years or longer)


Achieve the fecal coliform water quality standard in the upper section of Cross Creek above Highway 64.

Information/Education Component

Every watershed plan should include an information/education component that involves the watershed community. Because many water quality problems result from individual actions and the solutions are often voluntary practices, effective public involvement and participation promote the adoption of management practices; help to ensure the sustainability of the watershed management plan; and, perhaps most important, encourage changes in behavior that will help you achieve your overall watershed goals. This phase of the watershed planning process will address element e, which calls for ⑨ *“An information and education component used to enhance public understanding of the project and encourage their early and continued participation in selecting, designing, and implementing the nonpoint source management measures that will be implemented.”*

The objectives of the public outreach program should directly support your watershed management goals and implementation of the watershed management plan. They should also include measurable indicators for tracking progress. The information/education component of your watershed plan should build on the outreach efforts you initiated in Step I as part of building partnerships. To develop an effective information/education plan, you should use the following steps:

- Define information/education goals.
- Identify and analyze the target audiences.
- Create the messages for each audience.
- Package the message for the various audiences.
- Distribute the messages.
- Evaluate the information/education program.

 For more information please see *Getting in Step: A Guide for Conducting Watershed Outreach Campaigns* (<http://cfpub.epa.gov/npstbx/files/getnstepguide.pdf>), which explains the steps needed to develop and implement an effective watershed outreach campaign and includes a set of practical worksheets to help you get on your way.

Evaluation Process

There are two primary reasons to evaluate your watershed program. First, you want to be able to demonstrate that by implementing the management measures, you are achieving your watershed goals. Second, you want to be able to continually improve your program in terms of efficiency and quality.

In general, you will evaluate three major components of your watershed implementation program—inputs, outputs, and outcomes (Figure 2). Your evaluation framework should include indicators to measure each component. A brief description of each component is included below:

- Inputs—the elements of the process used to implement your program (i.e., resources of time and technical expertise, stakeholder participation)
- Outputs—the tasks conducted and the products developed (i.e., implementation activities such as installing management practices)
- Outcomes—the results or outcomes realized from implementation efforts (i.e., environmental improvements like water quality).

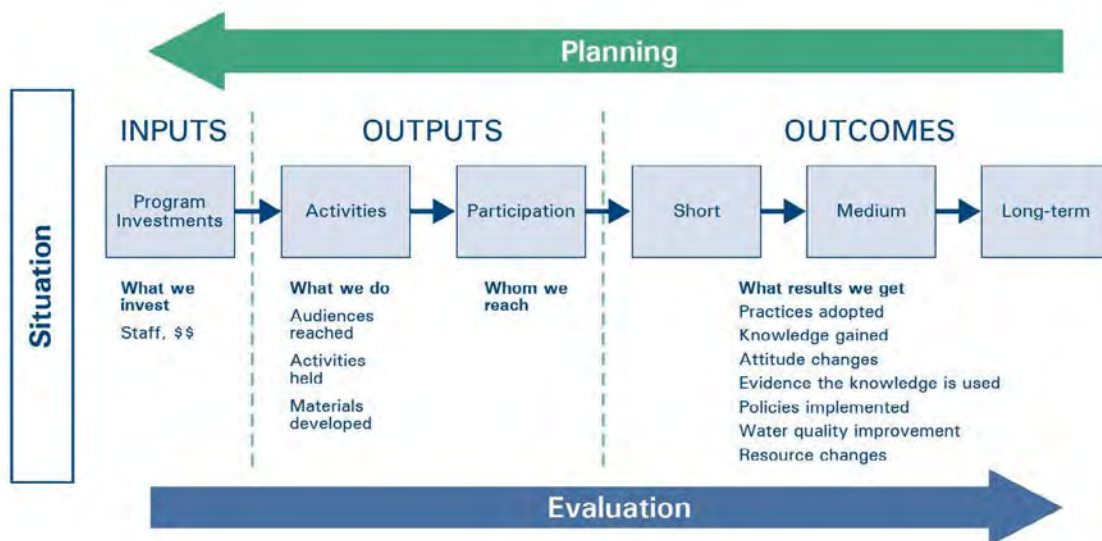


Figure 2. Using a logic model to evaluate your watershed program.

Identify Technical and Financial Assistance

A critical factor in turning your watershed plan into action is the ability to fund implementation. Funding might be needed for multiple activities, such as management practice installation, information/education activities, monitoring, and administrative support. In addition, you should document what types of technical assistance are needed to implement the plan and what resources or authorities will be relied on for implementation, in terms of both initial adoption and long-term operation and maintenance. The identification and estimation of financial and technical assistance should take into account the following:

- Administration services, including salaries, regulatory fees, supplies, and in-kind services
- information/education efforts
- Installation, operation, and maintenance of management measures
- Monitoring, data analysis, and data management activities.

Identifying the technical and financial assistance needed will address element d of EPA's nine elements:

⑨ "Provide an estimate of the amounts of technical and financial assistance needed, associated costs, and/or the sources and authorities that will be relied upon to implement this plan."

Keys to Successful Implementation

Although there is no single component that defines success, several factors, if implemented, will enhance your chances of a successful watershed implementation plan:

- Measurable goals and objectives
- Dedicated staff to carry out administrative duties
- Consistent, long-term funding
- Involvement of stakeholders in planning efforts
- Dedicated individuals who are supported by local government agencies
- Local ownership of the watershed plan
- A method for monitoring and evaluating implementation strategies
- Open communication between organization members.

Highlighting Milestones for an Implementation Program

Case Study: Corsica River Watershed Restoration Action Strategy, Maryland

The goal of the Corsica River strategy is to promote a voluntary best management practice to improve the water quality in the Corsica River. Section 319 funds were sought to implement a voluntary cover crop enrollment program targeted for maximum water quality benefits in the Corsica River. The table below is an excerpt of the implementation strategies and schedules to fulfill elements f, g, and h. The targets for this watershed were updated in 2012, and more information is available at

http://www.townofcentreville.org/uploads/file/2012-6yr-Report-Final-Version-Corsica-River-Report_hm.pdf.

Management strategies	Party responsible for meeting management objective	Schedule	Measurable indicators/ performance measures	Monitoring and party responsible for monitoring	Public involvement, outreach, or education component	Innovations or additional leverage or benefit
1. Market and early planting incentive, commodity, small grain, cover crop. Goal: 3000 demonstration acres.	Queen Anne's County Soil Conservation District	Outreach: Fall 2004 Implementation: 2005 to 2007. Monitoring: 2005 to 2007.	Pounds of nutrients reduced. Number of farmers and number of acres enrolled. Quarterly reports and tracking of acreages enrolled.	Paired watershed study: Maryland Department of Natural Resources. Ground water test wells: University of Maryland Cooperative Extension.	QA SCD aggressive enrollment initiative. Presentation of data results to public, other watersheds, and MD DNR WRAS website.	Prorated early planting incentive: \$17/acre early planting, \$12/per acre later planting. Provides financial incentive to farmers to plant cover crops earlier to achieve greater nutrient uptake.
2. Agriculture nutrient and sediment reducing stream buffers. Goal: 30 Demonstration acres.	Queen Anne's County Soil Conservation District	Outreach: Fall 2004. Implementation: 2005 to 2007. 15 acres by 2005. 15 acres by 2006. Monitoring: 2005 to 2007.	Number of acres buffered. Change in concentration of nutrient and sediment levels in surface waters. Quarterly reports tracking numbers of acres enrolled.	Tracking of buffered acres: Queen Anne's County Soil Conservation District: Paired watershed study. Pre and post sampling for nutrients and sediment: Maryland Department of Natural Resources.	QA SCD aggressive enrollment initiative. Presentation of results to public, other MD/Bay watersheds, and post on MD DNR WRAS website.	A "gap" closer. Demonstrates buffer development and management techniques. Currently these unbuffered areas fall outside traditional buffer program criteria.

Source: http://www.epa.gov/owow/watershed/watershedcentral/planexamples/pdf/cr_strategy_97.pdf.

For a complete list of available federal funding for watershed-related activities, visit the *Catalog of Federal Domestic Assistance* (www.cfd.gov). Also visit www.epa.gov/watershedfunding to view the *Catalog of Federal Funding Sources for Watershed Protection*.

Step 5: Implement the Watershed Plan

Although much of the watershed planning process is focused on developing the plan, results will not happen until the plan is actually implemented. Implementation activities should follow the road map developed in your plan. This means that individual projects should be coordinated by a plan-designated project manager or implementation team to ensure that BMPs are not just implemented but also fit the schedules, achieve specific milestones, and are integrated with various monitoring and outreach efforts.

Step 5: Implement the Watershed Plan

- **Prepare work plans**
- **Implement management strategies**
- **Conduct monitoring**
- **Conduct information/education activities**
- **Share results**

Prepare Work Plans

You will use your overall watershed plan as the foundation for preparing work plans, which will outline the activities in 2- to 3-year time frames. Think of your watershed plan as a strategic plan for long-term success and annual work plans as the specific to-do lists to achieve that vision. Work plans can also be useful templates for preparing grant applications to fund implementation activities. Depending on the time frame associated with your funding source, your work plans might need to be prepared annually with quarterly reporting.

Implement Management Strategies

Implementing the watershed management plan involves a variety of expertise and skills, including project management, technical expertise, group facilitation, data analysis, communication, and public relations. The management practices you identified in your plan will probably include a combination of structural and nonstructural controls. Be sure to set and track the milestones to measure the rate of progress in implementing the management strategies. Your tracking should include the progress made in BMP implementation, maintenance activities, and (if applicable) point source treatment improvements and monitoring of social indicators.

Conduct Monitoring

As part of the development of your watershed plan, you should have developed a monitoring component to track and evaluate the effectiveness of your implementation efforts. There are many ways to monitor water conditions. To monitor the constituents in water, sediments, and fish tissue—such as levels of dissolved oxygen, suspended sediments, nutrients, metals, oils, and pesticides—monitoring specialists perform chemical measurements. Physical measurements of general conditions such as temperature, flow, water color, and the condition of streambanks and lakeshores are also important. Biological measurements of the abundance and variety of aquatic plant and animal life and the ability of test organisms to survive in sample water are also widely used to monitor water conditions. In addition to government monitoring programs, trained volunteers have been able to provide important data for watershed management.

Project Effectiveness Monitoring

Case Study: Otter Creek Watershed, Wisconsin

Section 319 funding was sought to improve water quality conditions in the Otter Creek watershed. Modeling and field inventories identified critical areas needing treatment to achieve the project goals of improving dissolved oxygen levels and reducing bacterial levels. Best management practices (BMPs) were implemented on area dairy farms; they include rainwater diversions, concrete loading areas, filter screens to trap large solids in runoff, and grassed filter strips for treating runoff. The following monitoring activities are conducted to track project effectiveness:

- Paired watershed and upstream/downstream monitoring studies covering eight monitoring sites are used to evaluate the benefits of the BMPs. The monitoring sites are above and below a dairy with barnyard and streambank stabilization BMPs.
- Habitat, fish, and macroinvertebrates are sampled each year during the summer.
- Water chemistry is tracked through analysis of 30 weekly samples collected each year from April to October at the paired watershed and upstream/downstream sites.
- Runoff events are also sampled at the upstream/downstream sites and at the single downstream station site at the outlet of Otter Creek.

Read more about this project at http://www.epa.gov/owow/NPS/Section319III/pdf/319_all.pdf.

Analyze Your Data

Two types of analyses should be considered during the implementation phase: (1) routine summary analysis that tracks progress, assesses the quality of data relative to measurement quality objectives (i.e., whether the data are of adequate quality to answer the monitoring questions), and provides early feedback on trends, changes, and problems in the watershed and (2) intensive analysis to determine status, changes, trends, or other issues that measure the response to watershed plan implementation.

In general, intensive data analysis should be conducted at least annually in a multiyear watershed plan. The types of data analyses you perform on the monitoring data depend on the overall goals and objectives, the management approach, and the nature of the monitoring program; several types of analyses might be appropriate depending on the monitoring questions. Where analysis and evaluation of management practices are the focus of monitoring, it might be feasible to use relatively simpler analyses, such as t-tests comparing indicator levels before and after implementation, levels above and below implementation sites, or pollutant levels in areas where management options were implemented and areas where they were not. Where adequate pre-implementation data are not available, trend analysis can be used to look for gradual changes in response to your implementation program. In some cases, more sophisticated statistical techniques such as analysis of covariance might be required to control for the effects of variations in weather, streamflow, or other factors.

Conduct Information/Education Activities

Although it is important to let people know about the water quality problems in the watershed, sometimes simply informing and educating people on the issues is not enough to encourage adoption of practices over time. First, audiences should be made aware of the issue. Then they should be educated on the problems facing the watershed. Finally, they should learn what actions they can take to help address those problems.

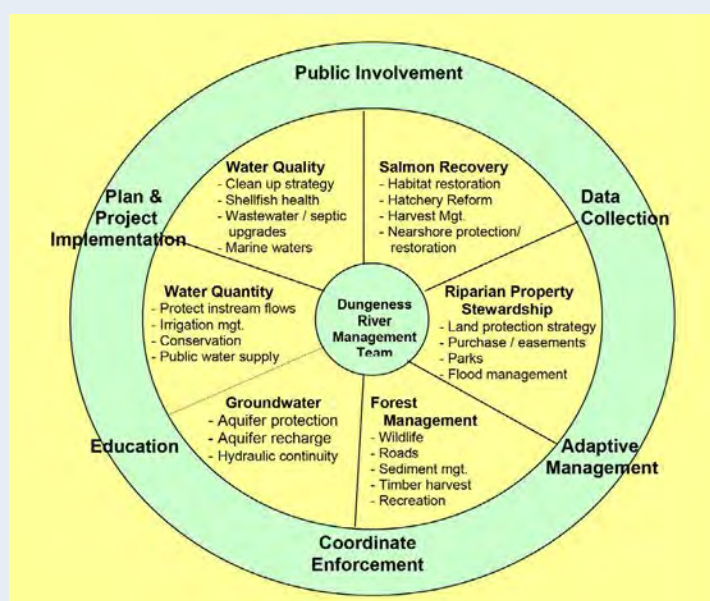
Share Results

Continuous communication is essential to building the credibility of and support for the watershed implementation process. As part of your information/education activities, you should be highlighting key activities and results to the stakeholders and the larger community. This helps to keep them engaged and to show them how their participation is making a difference.

Importance of Adaptive Management and the Dungeness River Management Team

Case Study: Protecting and Restoring the Waters of the Dungeness Watershed, Jamestown S’Klallam Tribe

Monitoring in the Dungeness watershed consists of an integrated strategy of “implementation monitoring” of progress and “effectiveness monitoring” of whether quantitative goals have been achieved. Monitoring and adaptive management are coordinated through the Dungeness River Management Team (DRMT), which has members that are governments with decision-making and implementing authorities. Regular reports and communications occur between the DRMT, governmental entities, and the public at large. The DRMT has three standing committees to oversee implementation and effectiveness monitoring and to develop adaptive strategies. They are the Executive Committee (to prepare agendas and the annual work plan) and two technical oversight committees—the Clean Water Work Group and the Dungeness River Restoration Work Group. In addition, the DRMT appoints project committees as needed. The importance of adaptive management as a key activity of the DRMT is illustrated below.



Read more about this project at <http://www.jamestowntribe.org/programs/nrs/319cplan.pdf>.

Step 6. Measure Progress and Make Adjustments

You will periodically review the implementation activities outlined in your work plan, compare the results with your interim milestones, provide feedback to stakeholders, and determine whether you want to make any corrections. The adaptive management approach is not linear but circular, to allow you to integrate results back into your program. You need to create decision points at which you will review information and then decide whether to make changes in your program or stay the course.

Step 6: Measure Progress and Make Adjustments

- Track progress
- Make adjustments

Track Progress

As part of your plan implementation, you will track progress in several areas, such as meeting the milestones you set for management practice implementation. You will also analyze monitoring data to determine water quality improvements. It is helpful to set time frames for the review and assessment of your watershed plan. Simple basic data analysis should be done routinely as part of the review process. Your review should also address several key areas:

- The process being used to implement your program
- Progress on your work plan
- Implementation results
- Feedback from landowners and other stakeholders.

Make Adjustments

If you have determined that you are not meeting the implementation milestones or interim targets that you set for load reductions and other goals, you need to make adjustments. Perhaps you have determined that you need additional management measures or you need to apply the management measures in another location. Be sure to ask the right questions before making any changes. In some cases you might not have met your milestones because of weather conditions, or perhaps you lacked the funding to implement some of the measures.

Adaptive Management: Pollution Reductions versus Implementation Progress

Case Study: Lower Monocacy River Watershed Restoration Action Strategy (WRAS), Frederick, Maryland

The Lower Monocacy River Watershed Restoration Action Strategy (WRAS) stressed the importance of achieving both implementation progress and monitoring results. In the instance that the pollution reductions are inadequate, based on the monitoring data, but the implementation progress is adequate, based on project tracking and modeling, adaptive management is required. Alliance members reanalyze existing watershed conditions, monitoring methods, and modeling methods to investigate possible explanations.

Questions to be considered include:

- Is it possible that conditions in the watershed have changed to counteract the nutrient reductions of the installed restoration projects?
- Is it possible that the installed restoration projects are not performing as expected or have failed since the last time they were monitored?
- Is it possible that the nutrient reductions for the project, as cited in literature, could be incorrect for the area where the project was installed?
- Are other BMPs more effective at reducing nutrients and sediment than those implemented?
- If so, should those BMPs be prioritized for implementation or should their level of implementation be increased?

Read more about this project at http://www.watershed-alliance.com/mcwa_pubsWRASsupplement.html.

 Sections 13.7.1 and 13.7.2 of the Handbook include questions that you should ask yourself before modifying your watershed plan.

SECTION II: WHAT'S NEW?

The watershed planning approach is increasingly being applied as an overarching framework for integrated resource planning to address emerging issues such as climate change and coastal resource development pressures. The values of ecosystem services and green infrastructure practices are becoming important drivers in targeting watershed work. EPA is continually developing new watershed management tools and initiatives for managers to help them make more effective decisions with limited resources through better access to data that can help produce more robust results. Section II highlights many of these new tools and describes how they support a watershed management framework.

This section highlights recent watershed-related initiatives and presents new tools that practitioners can access to strengthen the management of water quality across the country. These tools have been organized into the following categories:

- Data Access Tools
- Prioritizing Sites for Watershed Restoration and Protection
- Lessons Learned
- Funding Sources
- Climate Change
- Emerging Issues
- Training and Social Media Tools.

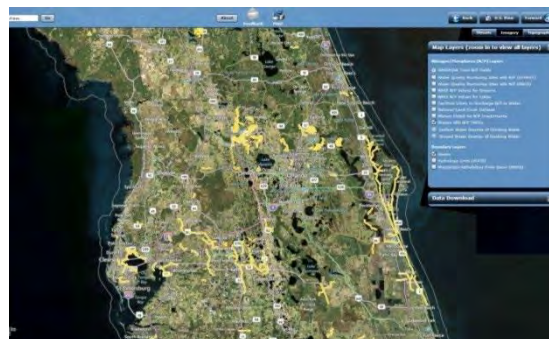
Data Access Tools

The Water Quality Portal

The [Water Quality Portal](http://www.waterqualitydata.us/) (WQP, <http://www.waterqualitydata.us/>) is a cooperative project sponsored by the United States Geological Survey (USGS), EPA, and the National Water Quality Monitoring Council (NWQMC). It integrates publicly available water quality data from the USGS National Water Information System (NWIS) and the EPA STORET (STORage and RETrieval) Data Warehouse. The EPA water quality data originate from the STORET Data Warehouse, which is EPA's repository of water quality monitoring data collected by water resource management groups across the country. Organizations, including states, tribes, watershed groups, other federal agencies, volunteer groups, and universities, submit data to the STORET Data Warehouse to make their data publicly accessible. For more information about STORET, see <http://www.epa.gov/storet>. The USGS water quality data originate from the NWIS Web Database, which contains current and historical water data from more than 1.5 million sites across the nation. It is used by state and local governments, public and private utilities, private citizens, and other federal agencies involved with managing our water resources.

Nitrogen and Phosphorus Pollution Data Access Tool

The [Nitrogen and Phosphorus Pollution Data Access Tool](http://gispub2.epa.gov/npdat/) (NP DAT, <http://gispub2.epa.gov/npdat/>) enables users to view and download nitrogen and phosphorus pollution data from a variety of databases. The NP DAT consists of an introductory website, geospatial viewer, data downloads, and data sets. The tool aggregates data at a single location and uses shared Web services, including the STORET and NWIS Mini-Portal services and numerous mapping services. It also leverages the common code base used by EPA's Recovery Mapper, MyWATERS Mapper, and Beaches Mapper Web mapping applications.



Nitrogen and Phosphorus Pollution Data Access Tool

The NP DAT can help support states in analyzing nitrogen and phosphorus pollution by providing, in a readily accessible and easy-to-use format, key data on the following:

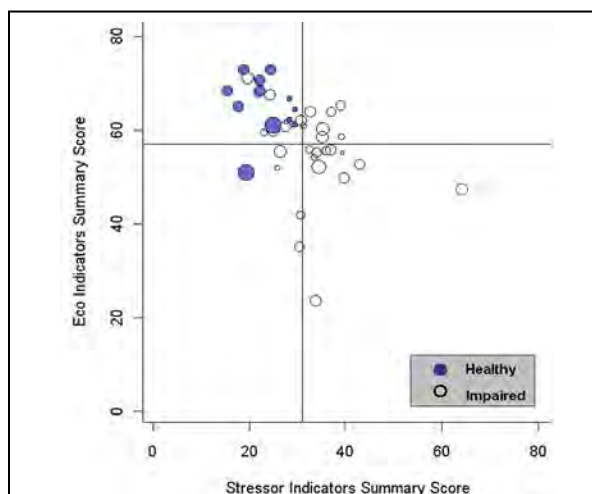
- The extent and magnitude of nitrogen and phosphorus pollution
- Water quality problems related to this pollution
- Potential pollution sources.

Prioritizing Sites for Watershed Restoration and Protection

The Recovery Potential Screening Tool

EPA has developed [Recovery Potential Screening](http://www.epa.gov/recoverypotential) (RPS; see www.epa.gov/recoverypotential) to assist watershed managers in making strategic decisions. Based on a combination of ecological, stressor, and social context indicators, RPS provides a systematic approach for comparing how well watersheds may respond to restoration or protection. Users apply this decision support tool to prioritize the better prospects for successful restoration, reveal key factors underlying the difficulty of improving watersheds, and compare how healthy watersheds may be vulnerable to different degrees or types of threat.

The RPS website features step-by-step instructions in recovery potential screening that link to several online tools and resources. A library of recovery potential indicators offers technical information on specific recovery-related factors (ecological, stressor, and social), how they influence restorability, and how to measure them. Use of RPS could lead to better restoration investments that restore valuable waters earlier, more consistently, more cost-effectively, and in more places.



An RPS plot displays how watersheds (dots) differ in ecological (Y axis), stressor (X axis), and social (dot size) indicator scores. Impaired watersheds in the upper left most resemble healthy watersheds and are good prospects for restoration; small blue dots are healthy watersheds that may be at risk due to low social score and higher stressor score.

Promoting Healthy Watersheds

Of growing importance is the need to protect healthy, functioning watersheds and natural areas. EPA launched the [Healthy Watersheds Initiative](http://water.epa.gov/polwaste/nps/watershed/index.cfm) (<http://water.epa.gov/polwaste/nps/watershed/index.cfm>) to encourage states, local governments, watershed organizations, and others to protect and maintain healthy waterbodies. Developing and implementing comprehensive watershed management plans in these situations will result in considerable savings over time if the need for costly restoration can be avoided in watersheds that would otherwise become impaired by the cumulative impacts of multiple stressors.

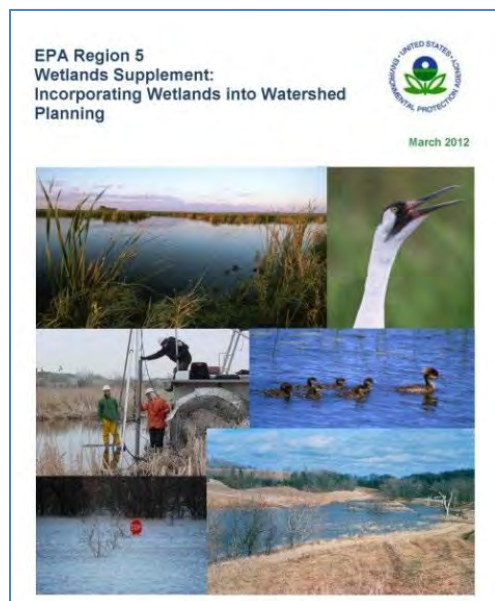
Although many of EPA's programs focus on watersheds that have been degraded, these same programs can be used to protect high-quality water through watershed planning. The Healthy Watersheds Initiative uses a holistic framework that considers essential ecological attributes and has developed tools to identify and conserve these watersheds. Many environmental organizations consider the green spaces found in healthy watersheds as *green infrastructure*, defined as "an interconnected network of green space that conserves natural ecosystem values and functions and provides associated benefits to human populations" (Benedict and McMahon 2001). EPA's 2013 section 319 guidelines continue the focus on restoration of impaired waters, but the guidelines also allow the use of 319 funds for watershed protection when protection is cited as a priority in the state's updated Nonpoint Source Management Program.



Healthy watersheds possess essential ecological attributes that contribute to a well-functioning, integrated system.

EPA Region 5 Wetlands Supplement

[EPA Region 5 Wetlands Supplement](#) is an addition to the Handbook. It conveys information on recently developed approaches and tools for assessing wetland functions and conditions, the results of which assist decision-makers in determining where in a watershed existing and former wetlands can best be restored or enhanced, or where wetlands can be created to optimize their functions in support of water quality and other watershed management plan goals. The supplement also discusses wetland restoration, enhancement, and creation techniques and reviews the considerations involved in deciding how best to undertake a wetland project.



The purpose of the supplement is to encourage the inclusion of proactive wetland management in watershed plans because wetlands play an integral role in the healthy functioning of the watershed. It promotes using a watershed approach that not only protects existing freshwater wetlands but also maximizes opportunities to use restored, enhanced, and created freshwater wetlands to address watershed problems like habitat loss, hydrological alteration, and water quality impairments. The primary audiences are members and staff of watershed organizations and local/state agencies.

Lessons Learned

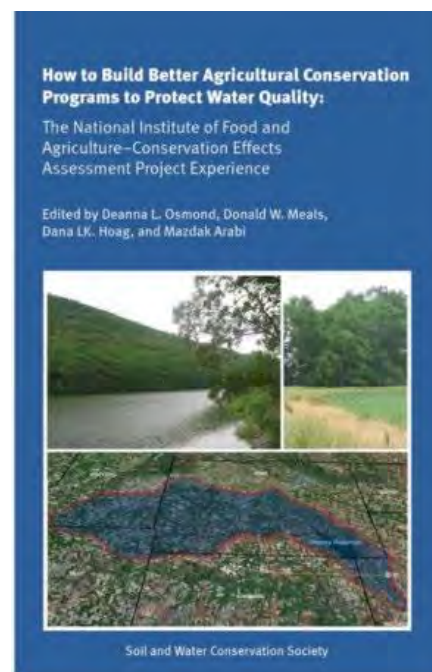
Nonpoint Source Pollution Success Stories

The [Section 319 Nonpoint Source Success Stories Website](http://www.epa.gov/nps/success) (www.epa.gov/nps/success) features stories about primarily nonpoint source-impaired waterbodies where watershed-level restoration efforts have led to documented water quality improvements. Projects highlighted on the site have received Clean Water Act section 319 funding or other nonpoint source-focused funding. The waterbodies featured in the stories are separated into three categories, depending on the type of water quality improvement achieved: (1) partially or fully restored waterbodies, (2) waterbodies that show progress toward achieving water quality goals, and (3) waterbodies for which ecological restoration has been the main focus of improvement efforts. This website houses approximately 450 success stories.

The section 319 program was created to provide critical support for state and local nonpoint source efforts. Under section 319, states, territories, and tribes receive grant money that supports a wide variety of activities, including technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring to assess the success of specific nonpoint source implementation projects.

Lessons Learned from Agricultural Conservation Projects

From 2004 to 2006, the U.S. Department of Agriculture's (USDA) National Institute of Food and Agriculture (NIFA) and Natural Resources Conservation Service (NRCS) jointly funded 13 watershed projects across the nation. The overall goal of these projects, which were conducted under the name [Conservation Effects Assessment Project](http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/ceap/) (CEAP, www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/ceap/), was to determine the measurable effects of agricultural conservation practices on spatial patterns and trends in water quality at the watershed scale. A recent publication by the Soil and Water Conservation Society titled *How to Build Better Agricultural Conservation Programs to Protect Water Quality: The National Institute of Food and Agriculture–Conservation Effects Assessment Project Experience* synthesizes the results, lessons learned, and recommendations from the 13 CEAP projects. The publication presents overarching lessons learned and provides detailed information about each CEAP project, including watershed setting, water quality problem(s), land treatment, water quality results, modeling, socioeconomics, and outreach/education.



The lessons learned from this synthesis strengthen the knowledge base for evaluating the impacts of conservation practices on water quality, improving management of agricultural landscapes for improved water resource outcomes, and informing conservation policy. The publication is available on the [Soil and Water Conservation Society's website](http://www.swcs.org/en/publications/building_better_agricultural_conservation_programs) (www.swcs.org/en/publications/building_better_agricultural_conservation_programs).

Funding Sources

Financial Assistance for Conservation Practices

Overseen by USDA NRCS, the [Environmental Quality Incentives Program](http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/) (EQIP, www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/) is a voluntary program that provides financial and technical assistance to agricultural producers through funding contracts up to a maximum term of 10 years in length. These contracts provide assistance to help plan and implement conservation practices that address natural resource concerns, and they offer opportunities to improve soil, water, plant, animal, air and related resources on agricultural land and nonindustrial private forestland. In addition, EQIP helps producers meet federal, state, tribal, and local environmental regulations. In fiscal years 2012 and 2013, some EQIP funds are being focused on the National Water Quality Initiative (NWQI) to implement conservation practices in selected watersheds. Check with your state USDA-NRCS office for the latest information regarding eligibility, the application process, and schedules.

The NWQI funds projects in priority watersheds to help farmers, ranchers, and forest landowners improve water quality and aquatic habitats in impaired streams. NRCS will help producers implement conservation and management practices through a systems approach to control and trap nutrient and manure runoff. Qualified producers will receive assistance for installing conservation practices such as cover crops, filter strips, and terraces.

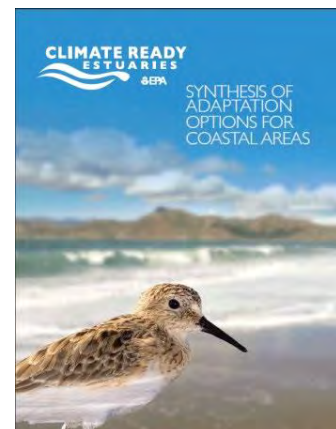
The basic structure of the NWQI is that NRCS devotes a percentage of EQIP financial assistance funds to agricultural conservation practices in watersheds identified as priorities by state water quality agencies, and state agencies help track progress in NWQI watersheds through water quality monitoring. This is an NRCS initiative, on which NRCS is collaborating with EPA.

For this initiative NRCS is currently investing about 5 percent of its EQIP funds in one to three HUC-12 (12 digit hydrological unit) watersheds per state. NRCS is also supporting field-scale monitoring, and states are monitoring selected streams and rivers. Watershed managers interested in this initiative should contact their local or state NRCS offices regarding application requirements for these funds.

Climate Change

Adapting to Climate Change

Changes in our climate are expected to increase the variability and quantities of water resources, as well as to create physical impacts from sea-level rise and more intense storms. In [Synthesis of Adaptation Options for Coastal Areas](http://www.epa.gov/oppeoel/cre/downloads/CRE_Synthesis_1.09.pdf) (http://www.epa.gov/oppeoel/cre/downloads/CRE_Synthesis_1.09.pdf) from EPA's Climate Ready Estuaries Program, EPA has recommended an integrated planning framework as a mechanism to manage many of these uncertainties, particularly in coastal and estuarine environments. Sound coastal zone management and wetland practices can help to reduce the impact of storms, maintain water quality, and preserve habitat for vulnerable species.



Evaluating Climate Risks and Adaptation Options for Water and Wastewater Utilities

EPA has developed the [Climate Resilience Evaluation and Awareness Tool](http://www.epa.gov/climate-readyutilities) (CREAT, www.epa.gov/climate-readyutilities), a PC-based tool to assist drinking water and wastewater utility owners and operators in understanding potential climate change threats and in assessing the related risks at their individual utilities. CREAT provides users with access to the most recent national assessment of climate change impacts, as well as local historical climate data for use in considering how those changes will affect utility operations and missions.

This tool will also allow utilities to evaluate adaptation options to address the impacts using both traditional risk assessment and scenario-based decision-making. CREAT provides references of drinking water and wastewater utility assets (e.g., water resources, treatment plants, pump stations) that could be impacted by climate change; possible climate change-related threats (e.g., flooding, drought, water quality); and adaptive measures that can be implemented to reduce the impacts of climate change. The tool guides users through identifying threats based on regional differences in climate change projections and designing adaptation plans based on the types of threats being considered. Following assessment, CREAT provides a series of risk reduction and cost reports that allow the user to evaluate various adaptation options as part of long-term planning.

Emerging Issues

Incorporating Social Indicators into Watershed Plans

EPA Region 5, the Great Lakes Region of the National Institute of Food and Agriculture's (NIFA) National Water Quality Program, the EPA Region 5 state nonpoint source programs, and land grant universities released an updated version of the [Social Indicator Planning and Evaluation System for Nonpoint Source Planning](http://greatlakeswater.uwex.edu/sites/default/files/library/outreach-and-education/sipeshandbook-medium-res.pdf) (SIPES, <http://greatlakeswater.uwex.edu/sites/default/files/library/outreach-and-education/sipeshandbook-medium-res.pdf>) in 2011. It provides a step-by-step approach for using social indicators to help plan, implement, and evaluate nonpoint source management projects. SIPES is intended to be used by resource managers working in state or regional nonpoint source management programs. Social indicators provide consistent measures of social change within a watershed, and managers can use them to estimate the impacts of their efforts on adopting practices and to provide a link to the eventual improvement of water quality. SIPES is designed to complement the Handbook, and it is specifically focused on evaluating water quality projects. In addition, the social information collected can help address several of the nine minimum elements.



Conceptual model of social indicators and water quality.

Assessing the Value of Ecosystems

In the past several years, the ecosystem services concept has emerged as a way to evaluate the economic and environmental benefits of ecosystems, which should be factored into management decisions. The challenge is how to quantify the economic benefits of functioning ecosystems, clean water, and clean air, as well as corresponding markets. EPA's Office of Research and Development (ORD) is conducting research to provide the data, methods, models, and tools that states, communities, and tribes need to understand the cost and benefits of maintaining ecosystem services.



Albemarle-Pamlico watershed with primary river basins.

ORD's Ecosystem Services Research Program (in progress) is using a watershed approach in the [Albemarle-Pamlico Watershed Study](http://cfpub.epa.gov/si/si_public_file_download.cfm?p_download_id=500514) (http://cfpub.epa.gov/si/si_public_file_download.cfm?p_download_id=500514) to provide the information and tools needed to understand how watershed regulation of reactive nitrogen upstream (and the associated land use decisions) influence the nature and quantity of ecosystem services that estuaries and coastal wetlands provide.

Using Green Infrastructure Practices to Achieve Sustainability



The watershed planning framework provides an excellent platform to develop and implement innovative practices to achieve multiple goals within a community. EPA uses the term *green infrastructure* to describe various practices used at a wide range of landscape scales in place of, or in addition to, more traditional stormwater control practices to support the principles of low-impact development (LID). LID is an approach to land development that works with nature to manage stormwater as close to its source as possible.

Green infrastructure approaches are being used in urban and suburban areas to provide environmental, economic, and human health benefits. In [Green Infrastructure in Arid and Semi-Arid Climates](http://www.epa.gov/npdes/pubs/arid_climates_casestudy.pdf), EPA demonstrates how increasing the amount of pervious surface area close to the source of the runoff reduces the overall volume of stormwater and related pollutants (USEPA 2010a, www.epa.gov/npdes/pubs/arid_climates_casestudy.pdf).

The increased infiltration also recharges the groundwater. In addition, tree-planting programs, green roofs, and other green infrastructure have an overall cooling effect that lowers the demand for air-conditioning energy and thereby decreases emissions from power plants (USEPA 2010a). For example, through Chicago's green roof program, a green roof was installed at Chicago's city hall; it reduces stormwater runoff by 50 percent and saves the city approximately \$5,500 annually on heating and cooling expenses (USEPA 2010b). LID practices also provide economic benefits such as increased property values where trees have been planted, as shown in the cities of Philadelphia, Pennsylvania, and Buffalo, New York (USEPA 2010b). Analysis tools and case studies related to green infrastructure projects are available on EPA's [Green Infrastructure](http://water.epa.gov/infrastructure/greeninfrastructure/index.cfm) website (<http://water.epa.gov/infrastructure/greeninfrastructure/index.cfm>).

Training and Social Media Tools

Watershed Academy Webcasts and Online Training Modules

The Watershed Academy is a focal point in EPA's Office of Water for providing training and information on implementing watershed approaches. EPA offers [Watershed Academy Webcasts](http://www.epa.gov/watershedwebcasts) (see www.epa.gov/watershedwebcasts) throughout the year featuring national experts across a broad range of watershed topics. All webcasts are archived and available online at the above website after each webcast. EPA's [Watershed Academy Web](http://www.epa.gov/watertrain) (www.epa.gov/watertrain) offers more than 50 self-paced training modules that provide a broad introduction to the watershed management field. The modules include "Introduction to Watershed Planning" (www.epa.gov/watertrain), which serves as a companion to the Handbook and this guide. This resource also offers a Watershed Management Training Certificate for trainees who complete 15 modules and pass the module self-tests. More than 4,000 trainees have received certificates to date.

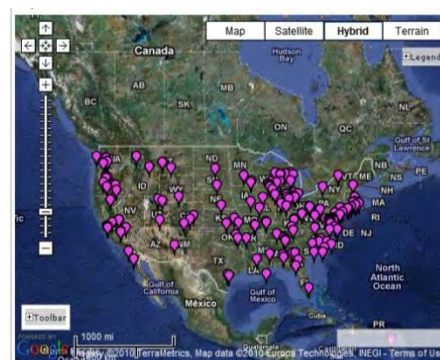
Watershed Central

[Watershed Central](http://www.epa.gov/watershedcentral/) (www.epa.gov/watershedcentral/) is a web-based platform designed to assist users in developing and implementing effective watershed management programs. The site includes guidance, tools, case studies, and data sets to help users share information, analyze data, and identify opportunities to initiate or strengthen their watershed efforts. A key feature of Watershed Central is its wiki.

Anyone can access the [Watershed Central Wiki](https://wiki.epa.gov/watershed2/) (<https://wiki.epa.gov/watershed2/>) on the Internet, and anyone can view user-supplied information without registering or logging in. Users are prompted to log in only if they want to add or modify wiki content (similar to Wikipedia). Another chief benefit of this open-access tool is that the information is accessible to search engines like Google.

EPA developed the Watershed Central Wiki in response to comments from watershed practitioners who had expressed a need for peer-to-peer exchange on watershed management issues. The Watershed Central Wiki is a powerful tool that allows users to do the following:

- Share best practices, case studies, and lessons learned
- See what other watershed organizations are up to and learn from them
- Identify potential partners in a particular watershed area
- Evaluate and comment on watershed management tools or report on new tools
- View a map with water monitoring stations, high-resolution aerial photography, and more for a watershed
- Provide a link to a watershed management plan for others to learn from
- Create a page about an organization, add a map, and share it among other group members.



Users can review and share information from hundreds of watersheds across the country.

Thank you for reading this guide and taking the time to learn more about watershed planning. For more detailed information, please refer to the Handbook (<http://water.epa.gov/polwaste/nps/handbook>) and the "Introduction to Watershed Planning" online module (www.epa.gov/watertrain).

We wish you the best of luck as you move forward with your watershed planning effort!

APPENDIX

Regional, Tribal, and State Nonpoint Source Program Contacts

For a list of EPA regional and tribal NPS coordinators, as well as a list of state NPS coordinators, visit <http://water.epa.gov/polwaste/nps/where.cfm>.

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South Miami-Dade

WATERSHED STUDY AND PLAN

Planning for a sustainable, healthy environment and economy

[Click Here to Read the Full Report](#)

PEOPLE, WATER, LAND AND SPECIAL PLACES -- A VISION FOR THE FUTURE

A vision without a plan is just a dream. A plan without a vision is just drudgery. But a vision with a plan can change the world.

-- Proverb



MARCH 2007

Status update

Re-initiation of the MIAMI-DADE BACK BAY COASTAL STORM RISK MANAGEMENT Feasibility Study

Public Webinar
June 26, 2023
5:30 PM EDT

Jim Murley, Chief Resilience Officer
Miami-Dade County

Michelle Hamor, Chief , Planning and Policy Branch
U.S. Army Corps of Engineers, Norfolk District



US Army Corps
of Engineers®



<https://www.saj.usace.army.mil/MiamiDadeBackBayCSRMFeasibilityStudy/>



INTERPRETATION AND LANGUAGE TRANSLATION OPTIONS



2


Translation is available in Spanish and in Haitian Creole. In order to hear live translation of this meeting in Spanish or in Creole, please select the translation icon at the bottom of the screen and select your language of choice.

Instructions in Spanish.

Instructions in Haitian Creole.

***This Zoom Meeting is being recorded and will be posted and shared in the coming weeks**

Agenda

- 
- 1. Welcome**
 - 2. Flood Resilience Initiatives in Context**
 - 3. Study Process to Date**
 - 4. A Renewed Vision**
 - 5. Next Steps & Engagement**
 - 6. Open Discussion / Questions & Answers**





ZOOM RULES



WE WANT TO GET TO ALL YOUR QUESTIONS AND COMMENTS!

A few ground rules to help us get to everyone:

- Please remain muted throughout the presentation and the Q+A unless you are called on.
- Please enter all questions and comments into the chat box. The moderators will be monitoring the chat and reading the questions out loud.
- If we don't get to your question during this meeting, we will answer it in the Q+A document that will be mailed out to all participants and will be posted on the project web page.



Welcome!



Miami-Dade County Mayor
Daniella Levine Cava



U.S. Army Corps of Engineers
Commander, Norfolk District
Colonel Brian P. Hallberg

Flood Resilience Initiatives in Context

Jim Murley, Chief Resilience Officer



Adaptation approaches to sea level rise and flooding



Source: Miami-Dade County
Sea Level Rise Strategy



Strengthening Systems Through Partners & Studies



Everglades
(CERP & BBSEER)

'Back Bay' CSRM Study

Central and Southern Florida (C&SF) '216' Resiliency Study
emphasis on canal system

'Beach' CSRM Reauthorized
in 2022
renourishment & dune enhancement



PARKS & CONSERVATION LANDS



AGRICULTURE



WESTERN & SOUTHERN SUBURBS



SLOUGHS



THE RIDGE



MAINLAND BAYFRONT



ISLAND BAYFRONT



ISLAND OCEANFRONT

Key Biscayne CSRM
Combined ocean front & back bay study



WATER



Mainland

Islands

Other Efforts:

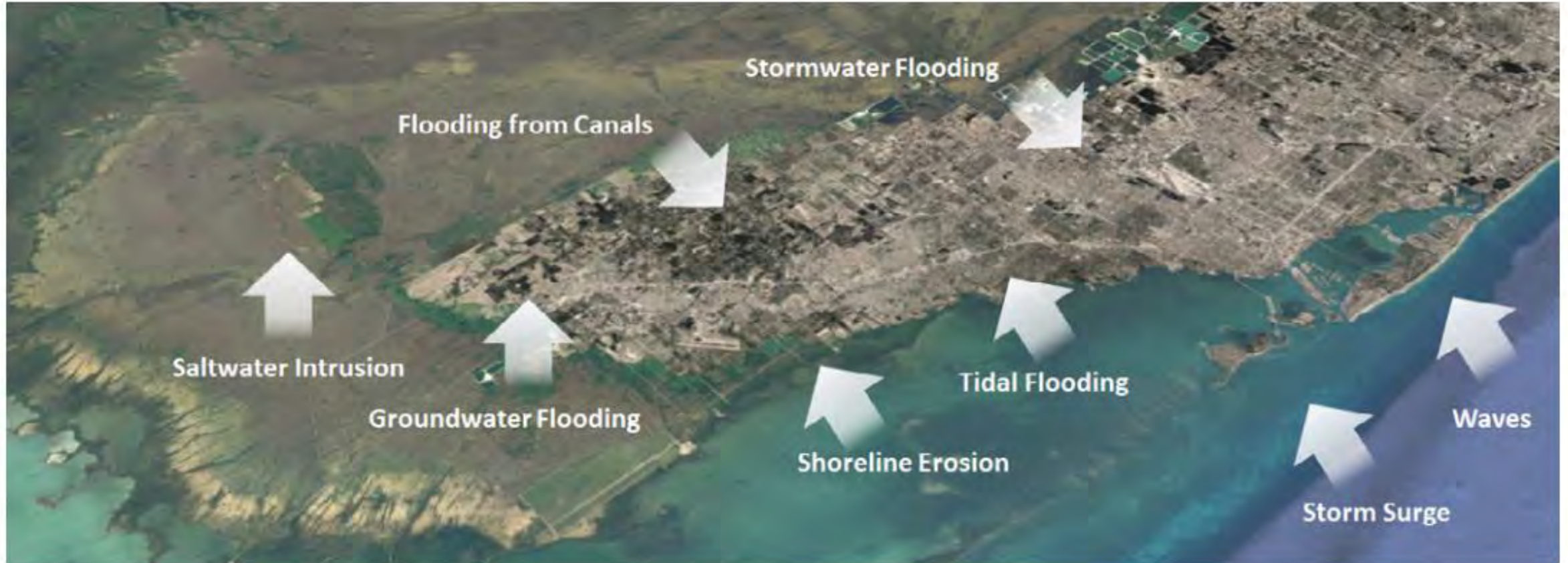
SFWMD Flood Plain
Level of Service (LOS)

County & Municipal Resilience,
Stormwater Master Plans, etc.

Biscayne Bay
Reasonable Assurance Plan

**South Florida Military Installation
Resilience Review (MIRR)**

Sea level rise will increase the frequency and impact for all flood other hazards



This study is primarily aiming to address storm surge

Any proposed measures in this study cannot exacerbate or make worse other types of flooding such as interior drainage

Type of coastal flood risk

Storm surge

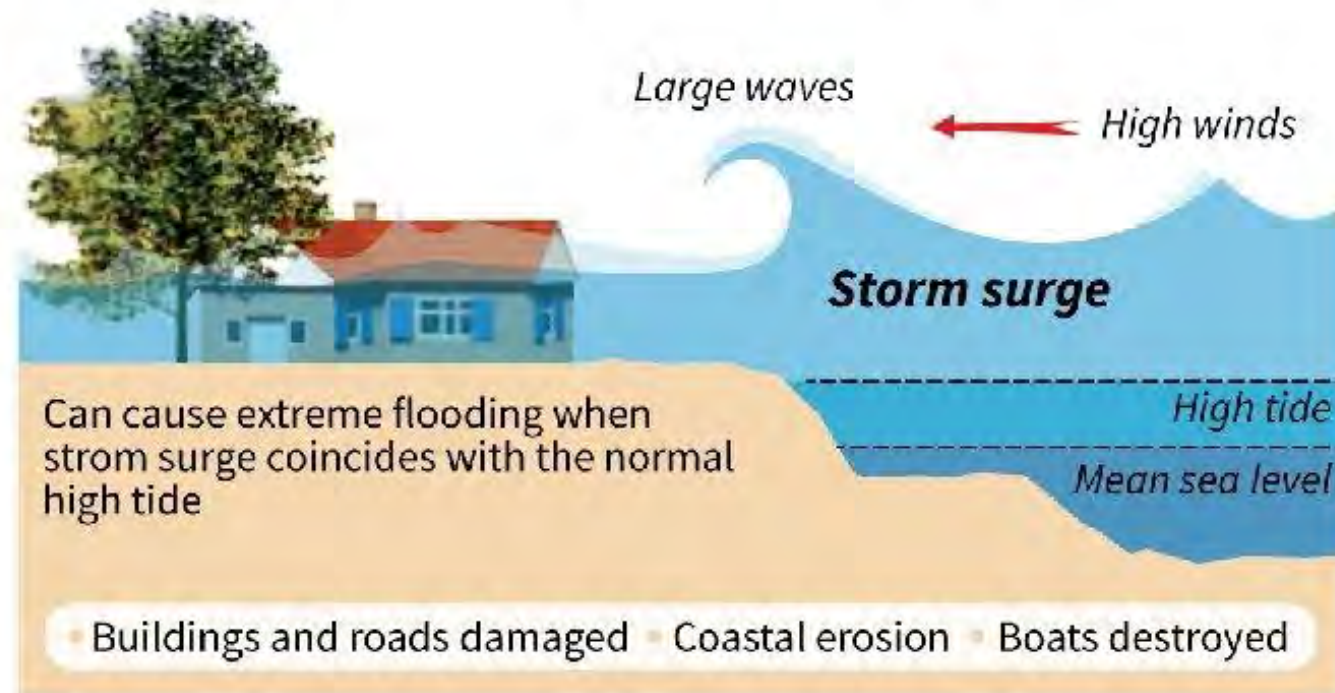
Cyclone winds can be deadly, but surging water levels can also threaten life

- High winds push sea water towards the coast



Source: NOAA, Met Office

- The cyclone makes landfall, water has nowhere to go but inland



3 ways to manage coastal flood risk



Surge Barrier Gates



Raised Roads, Levees, Beachwalks

A

Storm surge barriers

limit storm surge with a structural reinforced line of defense (may involve temporary closures)



Hybrid Reef



Enhanced Dune System



Mangrove Restoration



Wetland Restoration

B

Lower water levels by absorbing and reducing energy

use or restore natural, nature-based, and green or hybrid infrastructure



Living Shorelines



Elevate Residential Homes



Floodproof commercial buildings

C

Elevate and adapt assets

reduce damage from incoming flood at smaller scale

'Structural' measures

'Nonstructural' measures

Study Process to Date

Michelle Hamor, Chief, Planning and Policy Branch, Norfolk District



Miami-Dade Back Bay Coastal Storm Risk Management Feasibility Study



Project Milestones

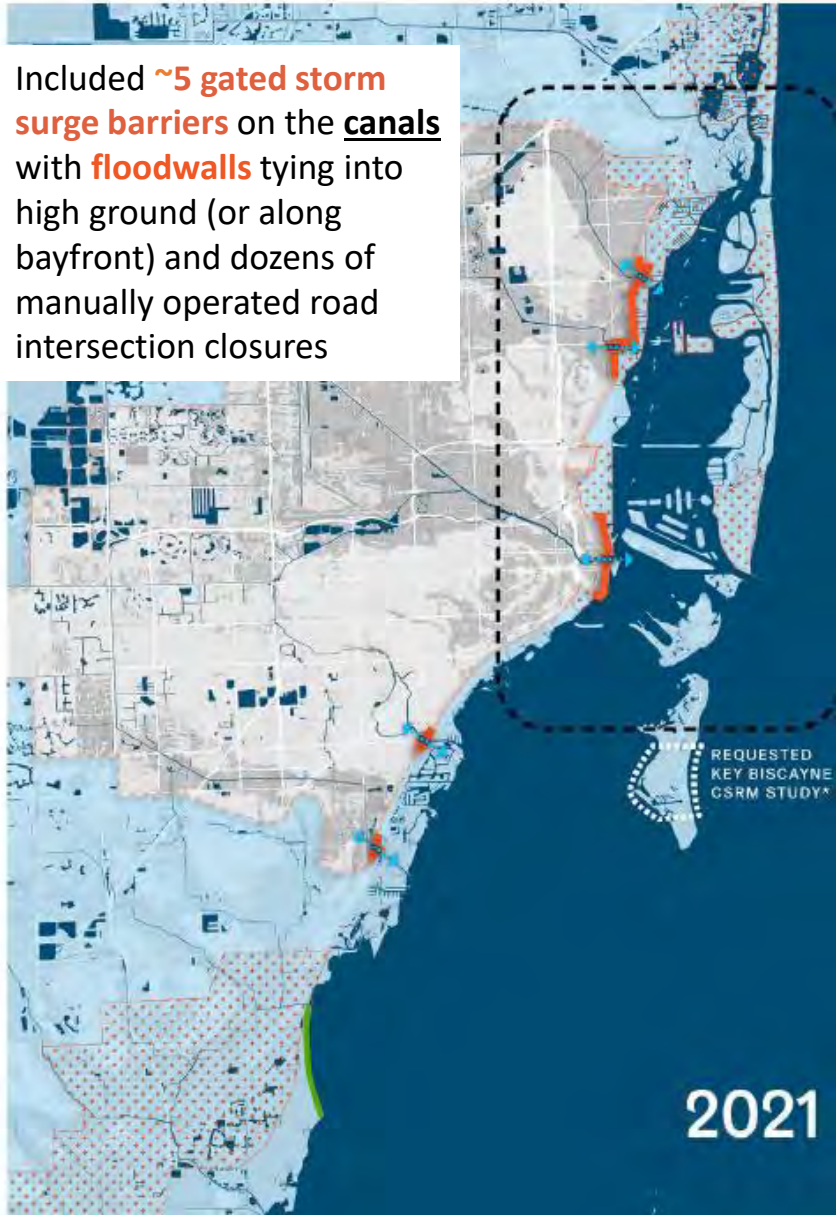


USACE 2021/22 Alternative

Not supported by Miami-Dade County



Included ~5 **gated storm surge barriers** on the **canals** with **floodwalls** tying into high ground (or along bayfront) and dozens of manually operated road intersection closures



LEGEND

- USACE Alignment
- Gates or Control Structures
- Outside of Alignment
- Non-Structural Measures
- Proposed Nature Based Solutions
- Miami-Dade County, Florida Main Segment Coastal Storm Risk Management Final Integrated Feasibility Report And Environmental Assessment

*Not included in the Miami-Dade County Back Bay CSRM Study

While some measures were not supported, **the plan did include** widely supported measures including:

- **protecting critical facilities county-wide,**
- **expanding natural & nature-based features, and**
- **exploring home-elevation and business floodproofing (a.k.a. 'Nonstructural')**

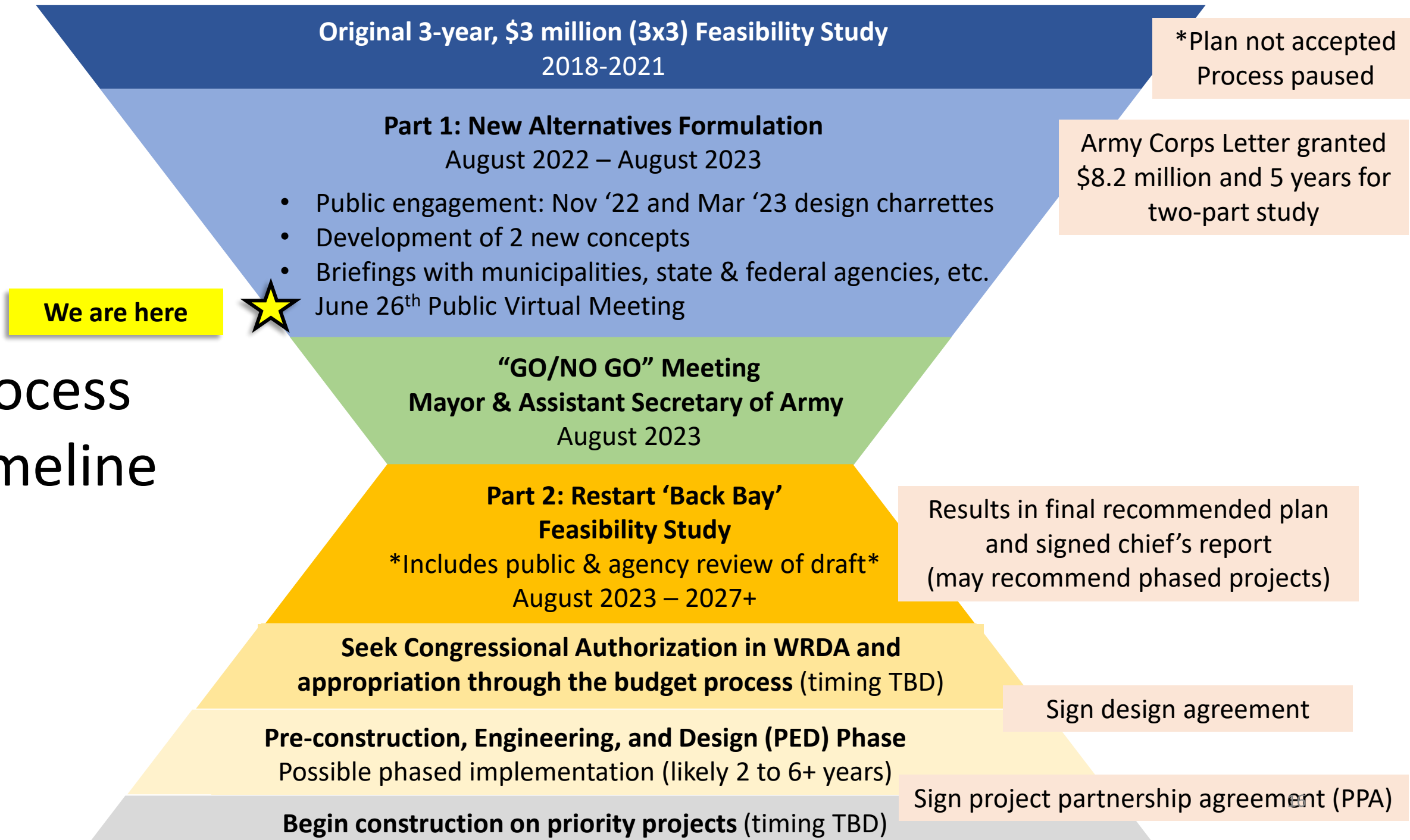
**These supported measures will be included and refined as part of any future plan.*

Miami-Dade Back Bay Coastal Storm Risk Management Feasibility Study

Project Milestones

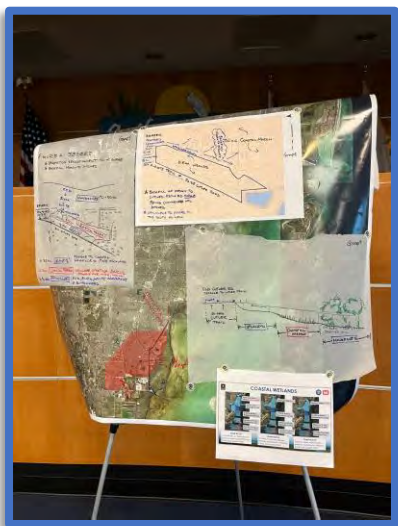


Process Timeline

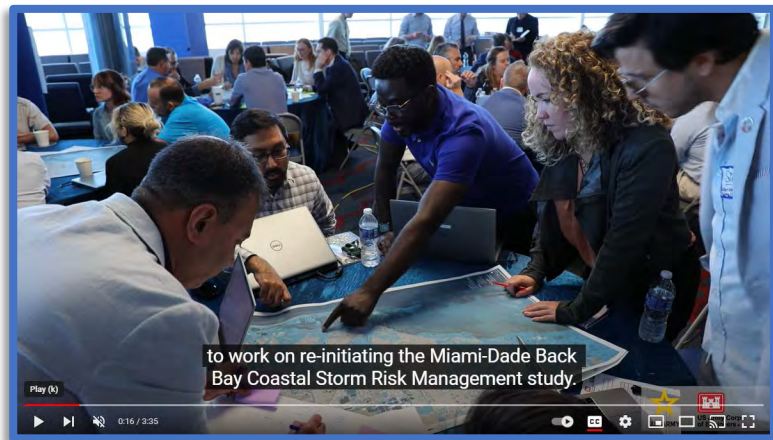


Summary of Stakeholder Engagement

Part 1 : November 2022 – November 2023



Scan for
YouTube
Video



**Design Charrette
& Public Meetings**
November 2023

**Design Charrette
& Public Meetings**
March 2023

**Public
Webinar**
June 2023

Ongoing briefings for municipalities, committees, state and federal resource and environmental agencies

Recent & Ongoing Coordination

*Not exhaustive list of engagement

Resource Agencies

- (4/5) National Marine Fisheries Service (NMFS)
- (4/18) U.S. Coast Guard
- (5/3) U.S. Fish and Wildlife Service (USFWS)
- (5/22) Florida Department of Environmental Protection

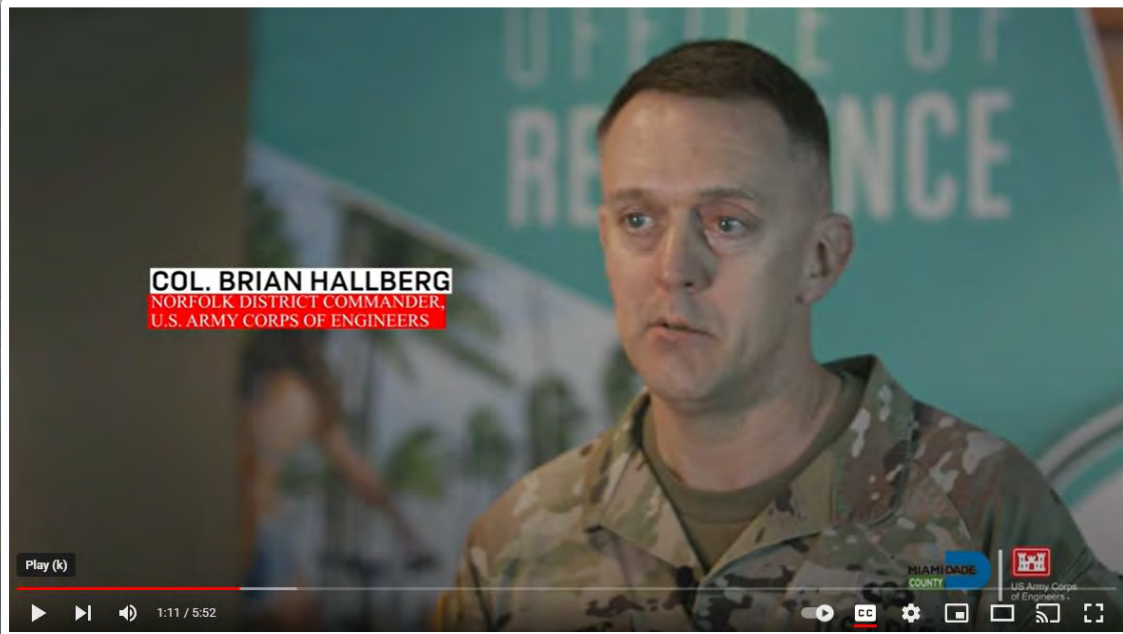
Local Stakeholders

- (4/3) City of Coral Gables
- (4/3) Fisher Island
- (4/6) PortMiami – Hurricane response operations
- (Weekly) Miami-Dade RER-Division of Environmental Resources Management
- (5/31) City of Miami Beach Environment and Sustainability Department
- (6/1) City of Miami Office of Resilience and Sustainability



March 2023 Design Charrette

YouTube Videos & Takeaways



Scan to watch
YouTube Video



<https://www.youtube.com/watch?v=WFevVcID5P0>



Explored range of storm surge risk management strategies by **creating ‘Lines of Defense’**:

- hybrid reefs offshore,
- reinforced and elevated dune & beachwalk
- surge gates at inlets, line or protection for Fisher Island, Virginia Key, to Rickenbacker Cswy
- living shorelines and restored mangrove islands,
- elevation of homes & floodproofing of businesses,
- expanded restoration near Cutler Bay,
- protection of critical facilities



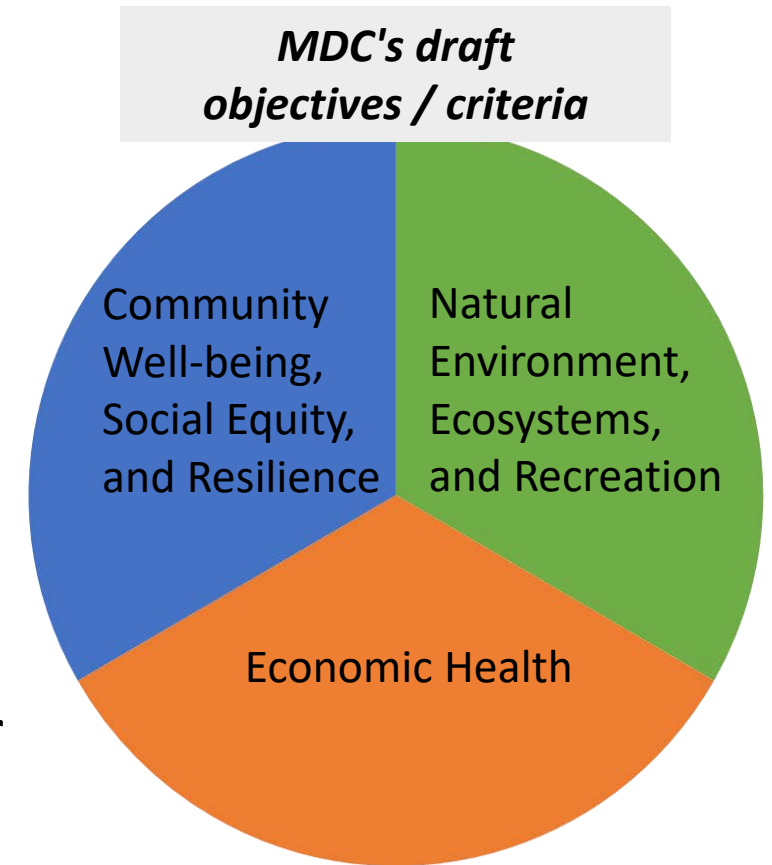
Scan to watch YouTube Video

https://www.youtube.com/watch?v=J_b3vTizzYU

Comprehensive Benefits Evaluation

Study Purpose: To manage coastal storm risk through the implementation of measures designed to reduce potential damage caused by coastal storms, including preventing loss of human life. This study is a response to the study authority (Public Law 84-71, June 15, 1955) and will develop and evaluate coastal storm risk measures for Miami-Dade County.

- USACE Policy Directive (January 2021)
 - Requires a comprehensive consideration of total project benefits including economics, environmental, and social categories
- Benefit Categories
 - Regional economics
 - Other social effects
 - Environment
- Opportunity in the beginning of Part 2 (after August 2023) to develop with community specific metrics or criteria for each category



Miami-Dade Back Bay Coastal Storm Risk Management Study Review

June 26, 2023

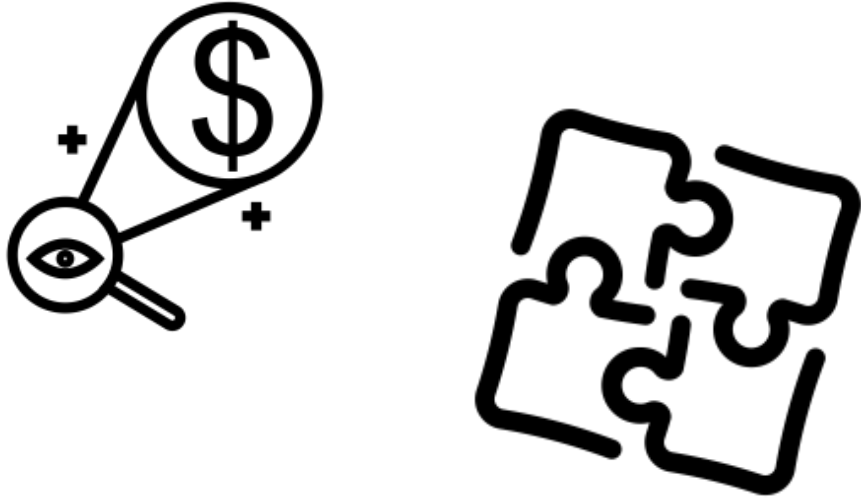
1. **Past 10 months:** We were given 1-year from August 2022 to develop new alternatives to manage coastal storm risk with SLR that aligns with local values
2. **Currently:** We are on track and in a better position than before to move forward because of general support from stakeholders and new circumstances
3. **In August 2023:** MDC and Army Corps want to give the “GO” to restart a new ~ 4-year feasibility study (Part 2) to explore new alternatives through deeper engagement and analyses



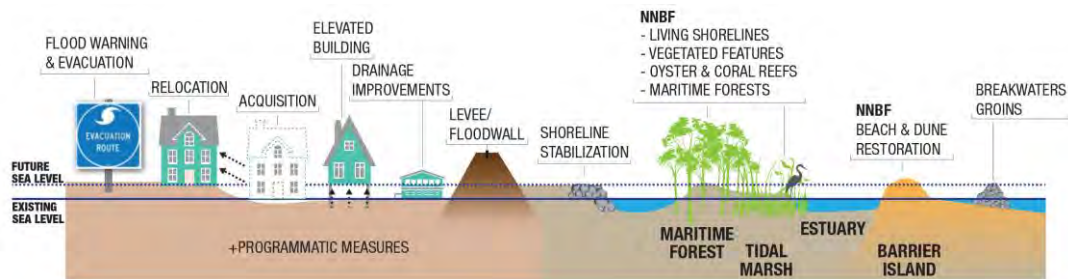
**US Army Corps
of Engineers®**



For Part 2 of the Feasibility Study, MDC needs:



- **Evaluate alternatives** to ensure due diligence given value of MDC economy and environment
- Further **integrate studies** across USACE (Norfolk & Jacksonville) that maximize complementary and **comprehensive benefits**
- Create **multiple lines of defense or adaptations** from off-shore to inland neighborhoods; process may involve prioritizing measures and implementing in a phased approach as feasible
- Commitment to more **robust community engagement** and advancing **Justice40 goals**



Multiple Lines of Defense

Source: USACE

A Renewed Vision for Managing Coastal Storm Risk

Lynette Cardoch, Director of Resilience and Adaptation,
Moffatt & Nichol (supporting Miami-Dade County)



3 ways to manage coastal flood risk



Surge Barrier Gates



Raised Roads, Levees, Beachwalks

A

Storm surge barriers

Limit storm surge with a structural reinforced line of defense (may involve temporary closures)



Hybrid Reef



Enhanced Dune System



Mangrove Restoration



Wetland Restoration

B

Lower water levels by absorbing and reducing energy

use or restore natural, nature-based, and green or hybrid infrastructure



Living Shorelines



Elevate Residential Homes



Floodproof commercial buildings

C

Elevate and adapt assets

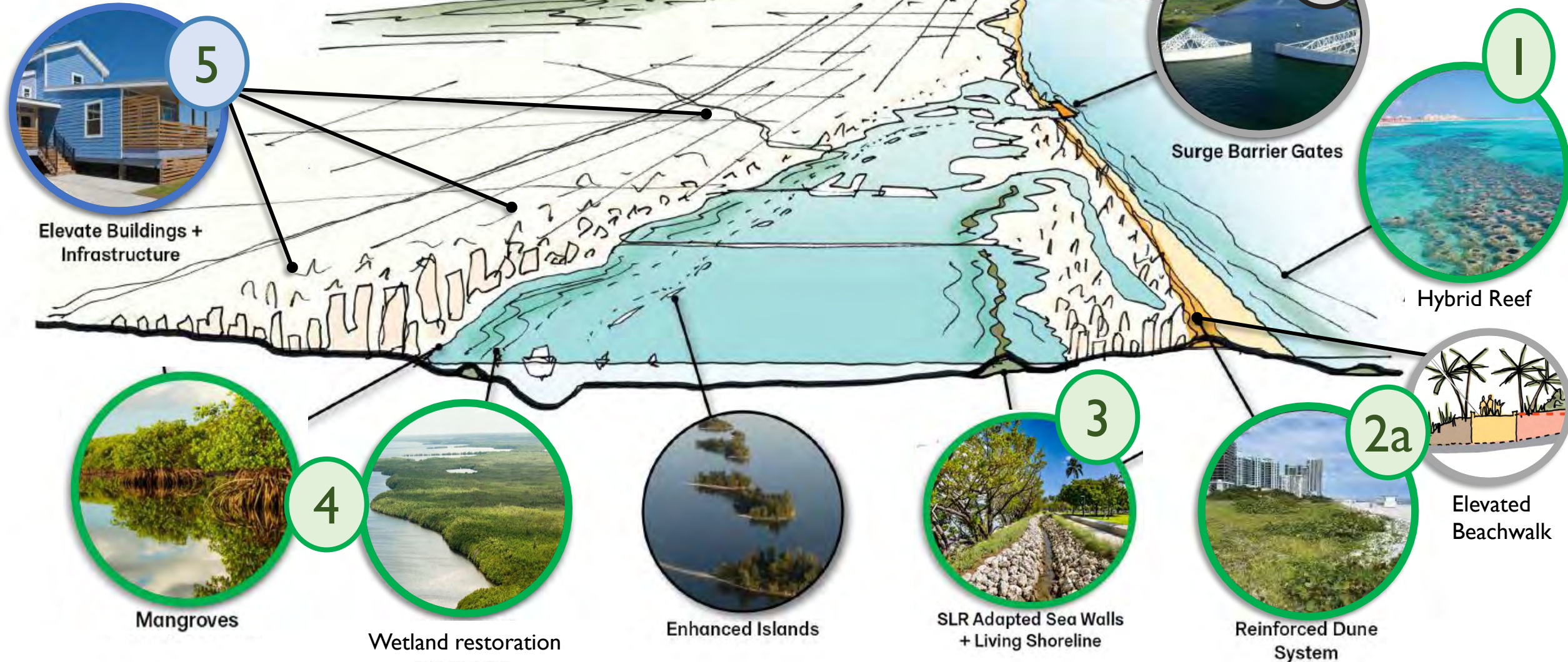
reduce damage from incoming flood at smaller scale

'Structural' measures

'Nonstructural' measures

Use Multiple Lines of Defense with Mix of Green and Grey Measures

The precise mix, scale and locations of measures are to be determined

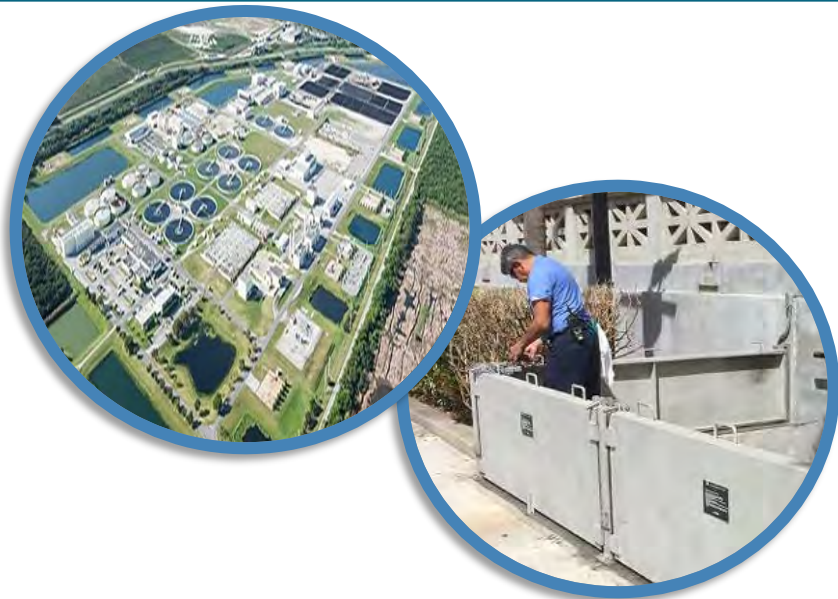


Reinforcing Critical Facilities

Exploring County-wide, including municipal assets

How it helps manage risk:

- Improves emergency response and recovery following a storm event
- Reduces vulnerability of critical assets



For Part 2

Key Considerations:

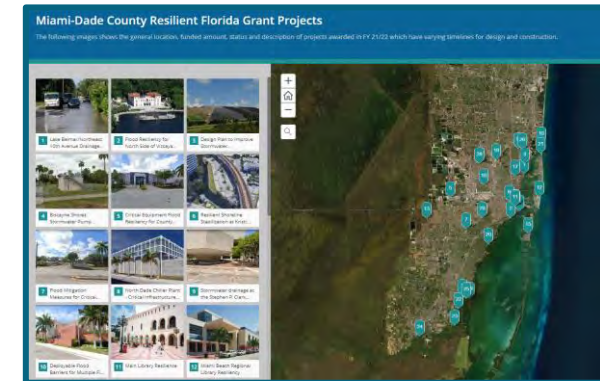
- Identify all critical facilities and infrastructure to be included

Comprehensive Benefits:

- May improve recovery time of businesses

Example

- DEP Resilient Florida Grant Projects



<https://mdc.maps.arcgis.com/apps/MapSeries/index.html?appid=8987efa644d24f54a2f6ee5d3cb937d8>

Offshore (1)

Hybrid Reefs

How it helps manage risk:

- Dissipate wave energy
- Break up waves/reduce wave strength
- Reduce coastal erosion
- May help improve effectiveness of beach renourishment



For Part 2

Key Considerations:

- Location/size/depth of potential hybrid reefs

Comprehensive Benefits:

- Habitat creation
- Recreation/tourism benefits
- Educational/research opportunities

Examples

- University of Miami
- MDC Artificial Reefs



Oceanfront Shoreline (2a)

Reinforced Dune and Elevated Paths

How it helps reduce risk:

- Provides a buffer against storm surge and wave energy



For Part 2

Key Considerations:

- Existing Miami Beach boardwalk
- Planned beach nourishment and dune restoration efforts

Comprehensive Benefits:

- Enhances recreational benefits

Example

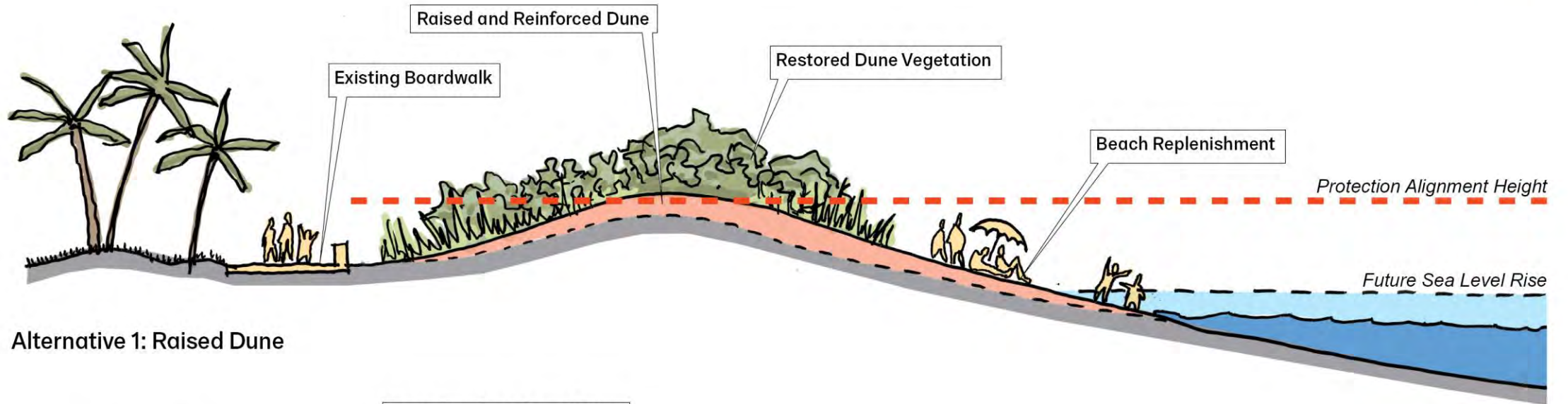
- South Pointe Park – City of Miami Beach



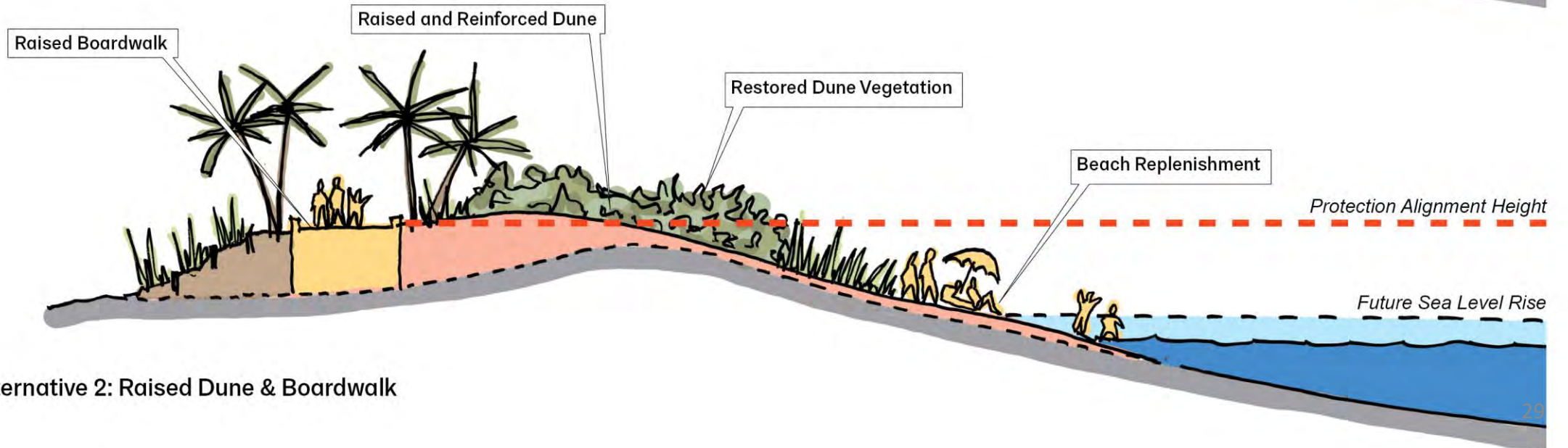
DRAFT

Coastal Barrier Island Defense System - Alternative

Conceptual Sketches



Alternative 1: Raised Dune



Alternative 2: Raised Dune & Boardwalk

Oceanfront Shoreline (2b)

System of gated storm surge barriers & wall tie-ins

How it helps manage risk:

- Provides a barrier between the hazard and the exposure
- Reduces inundation and wave attack

For Part 2

Key Considerations:

- Port Miami impacts
- Water quality and habitat impacts

Comprehensive Benefits:

- Manages risk to urban and community socioeconomic conditions and emergency preparedness

Examples:

- Netherlands Sector Gate
- New Orleans Storm Surge Barrier



New Orleans Storm Surge Barrier. Photo: Julie Dermansky



Bayfront Shoreline (3)

Living Shorelines, Restored Coastal Wetlands & Mangroves

How it helps reduce risk:

- Absorbs wave energy
- Reduce total water levels



For Part 2

Key Considerations:

- Working with the Biscayne Bay Aquatic Preserve rules
- Coordination with resource agencies

Comprehensive Benefits:

- Improves water quality and provides habitat
- Reduces erosion
- Increase aesthetic value
- Reinforce evacuation routes

Example

- City of Miami Beach – Brittany Bay Park



South Dade Coastal Areas (4)

Living Shorelines, Restored Coastal Wetlands & Mangroves

How it helps reduce risk:

- absorbs wave energy
- reduce total water levels

For Part 2

Key Considerations:

- Integration with other environmental restoration programs

Examples

- BBSEER
- MDC Environmental Endangered Lands (EEL) Program

Comprehensive Benefits:

- Enhanced coastal habitat and water quality
- Reduced risk for low-lying and disadvantaged communities



Preliminary measures for South Dade

Hybrid & Nature-based features

- Plug & restore mosquito ditches to mitigate storm surge
- Plug & restore old canals to mitigate storm surge
- Rehydrate & restore coastal wetlands (pumps & spreader canals)

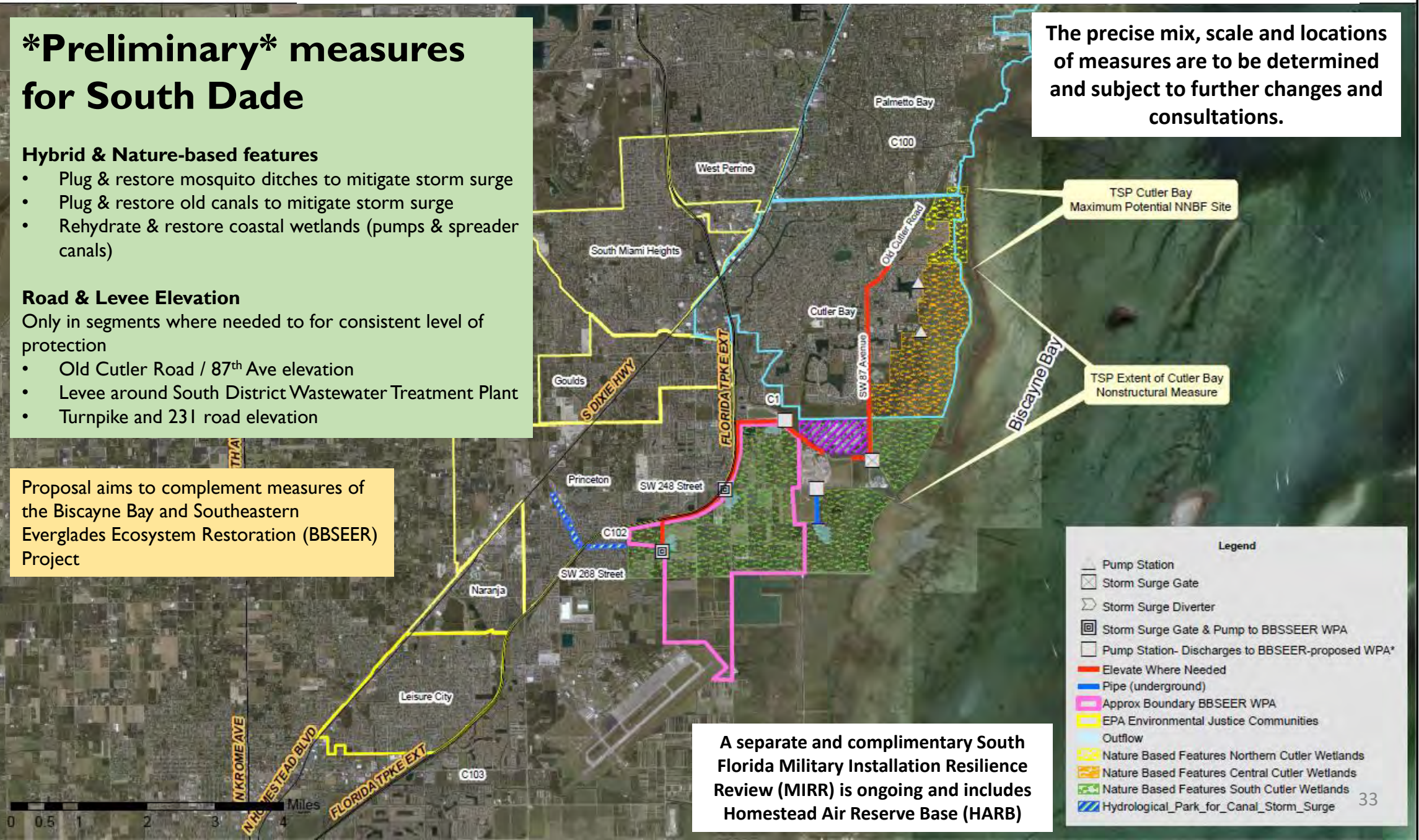
Road & Levee Elevation

Only in segments where needed to for consistent level of protection

- Old Cutler Road / 87th Ave elevation
- Levee around South District Wastewater Treatment Plant
- Turnpike and 231 road elevation

Proposal aims to complement measures of the Biscayne Bay and Southeastern Everglades Ecosystem Restoration (BBSEER) Project

The precise mix, scale and locations of measures are to be determined and subject to further changes and consultations.



A separate and complimentary South Florida Military Installation Resilience Review (MIRR) is ongoing and includes Homestead Air Reserve Base (HARB)

Low-lying areas (5)

Home elevation & commercial floodproofing

How it helps manage risk:

- Reduces vulnerability of assets
- Reduces damages to structures

For Part 2

Key Considerations:

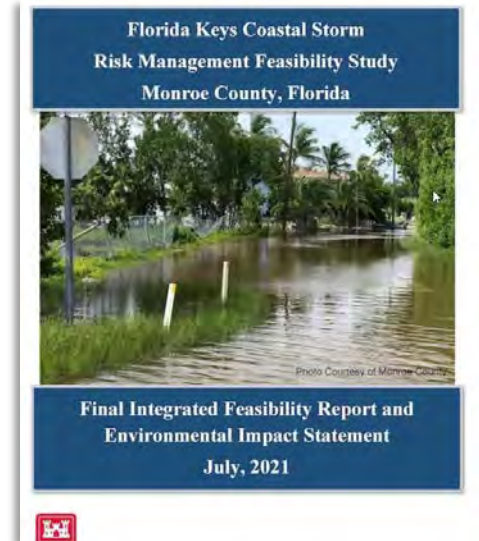
- Maintaining neighborhood and community cohesion
- Inclusion of old or low-value structures

Comprehensive Benefits:

- Allows for more natural floodplain functioning
- Economic opportunity with local jobs to retrofit buildings
- May create opportunities for future local infrastructure improvements such as septic to sewer conversion, road elevation, etc.

Example

- Florida Keys Coastal Storm Risk Management Feasibility Study (Monroe County), Sept. 2021



Range of Possible Coastal Flood Risk Management Measures

under the Miami-Dade Back Bay Coastal Storm Risk Management Feasibility Study

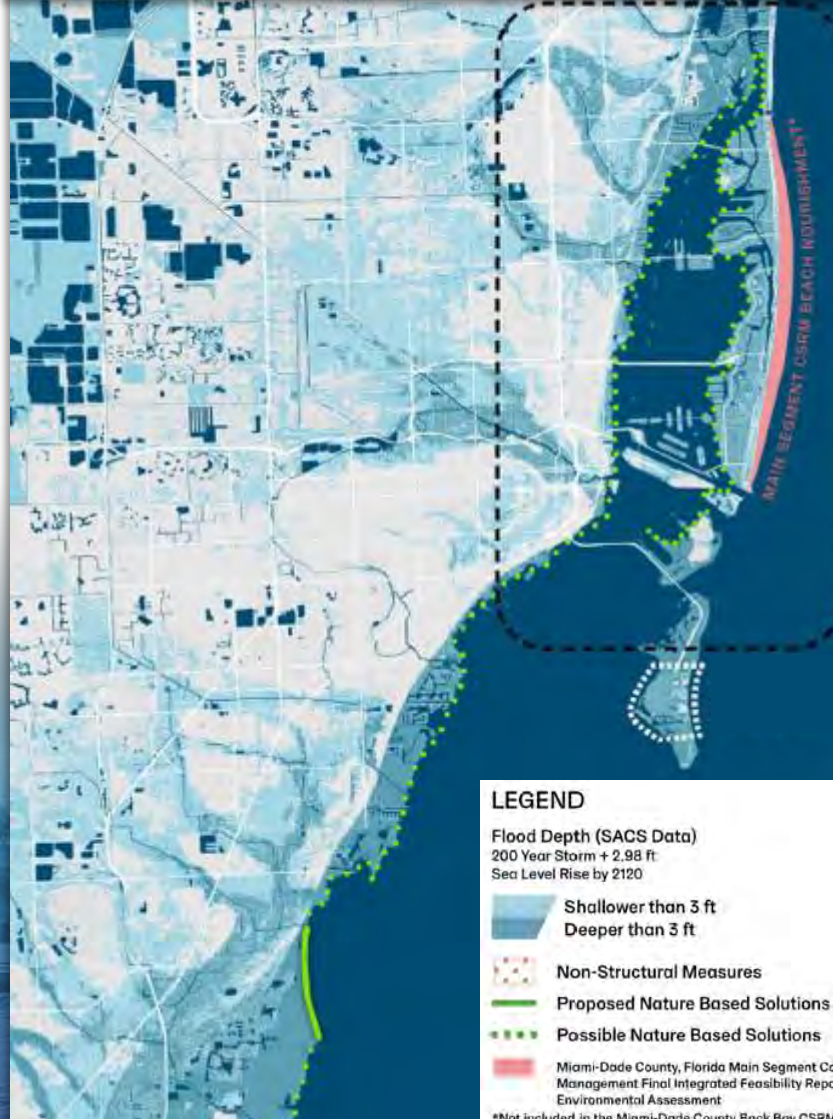
	‘Book-ends’ Concepts	
Measure	A) Elevate & Adapt w/ Nature	B) Barrier Island Defense System
Reinforce Critical Facilities (county-wide)	X	X
Nature-Based Features (e.g., hybrid reefs, living shorelines, mangrove and wetland restoration)	X	X
Limited Residential Elevation + Commercial Floodproofing (in high risk & EJ communities)	X	X
Expanded Residential Elevation + Commercial Floodproofing	X	
Gated Storm Surge Barriers		X
Reinforced Dune + Elevated Beachwalk		X

Proposed Draft Concepts

A) Elevate & Adapt with Nature

Elevating residential and floodproofing commercial buildings

*Also referred to as 'Non-structural' measures



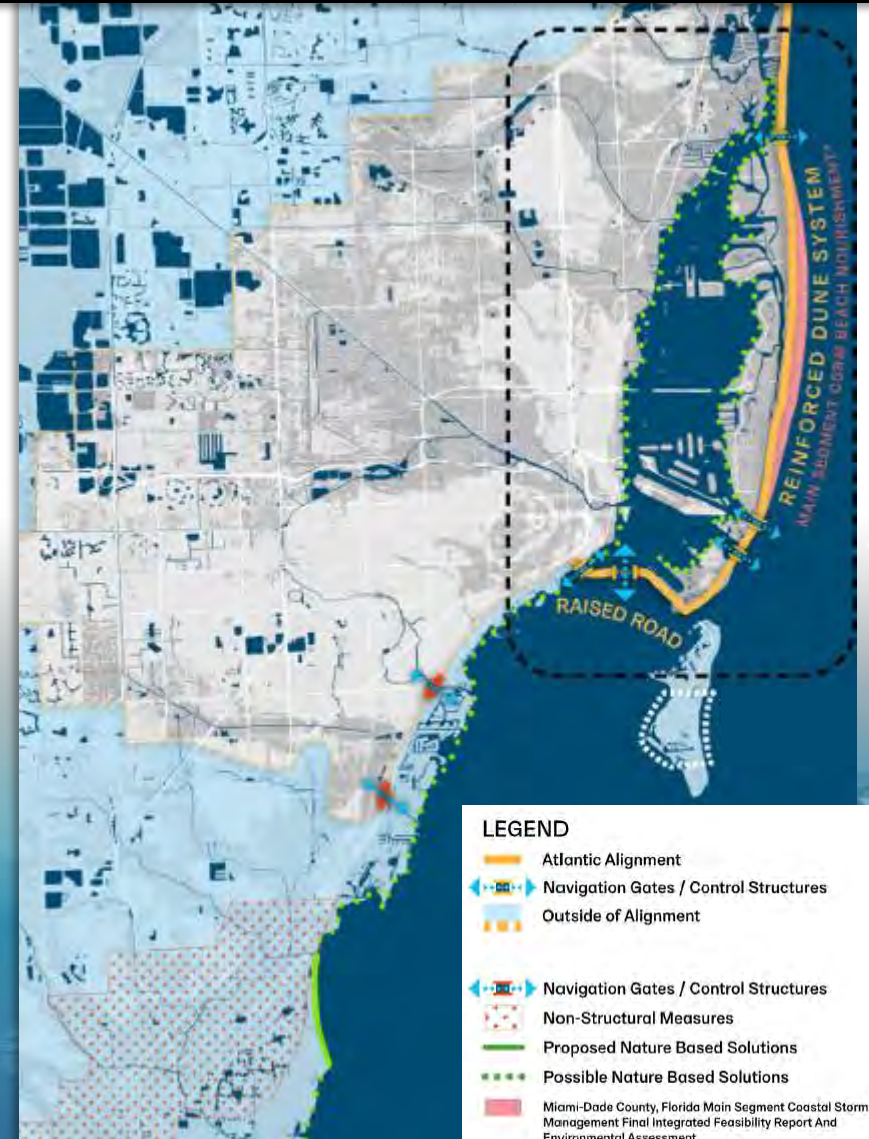
Included in any plan:

- Multiple lines of defense
- Reinforce critical facilities (county-wide)
- Expanded nature-based features
- Elevate homes and floodproof commercial buildings in highest-risk areas & environmental justice communities

*Not shown: proposed hybrid green/grey measures in South Dade / Cutler Wetlands

B) Barrier Island Defense System

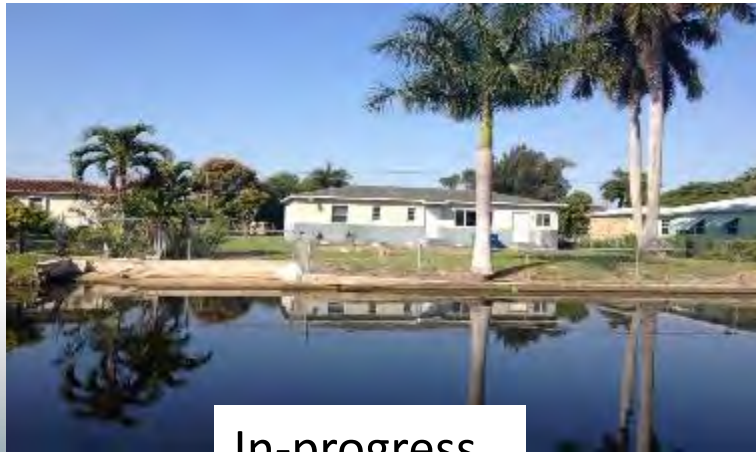
Leverage and reinforce barrier islands by constructing system of storm surge gates that would close ahead of major storm to keep surge out



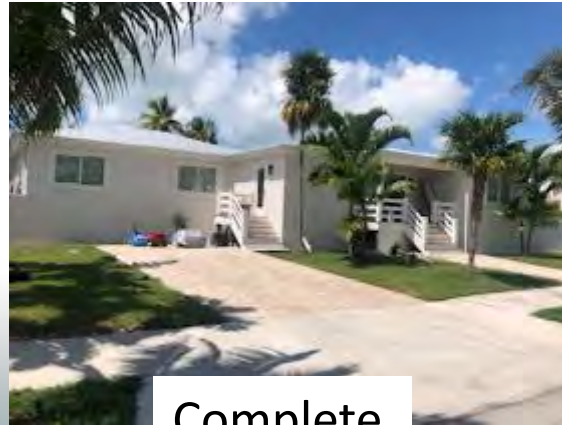
A) Elevate + Adapt with Nature Examples

(‘Nonstructural measures’)

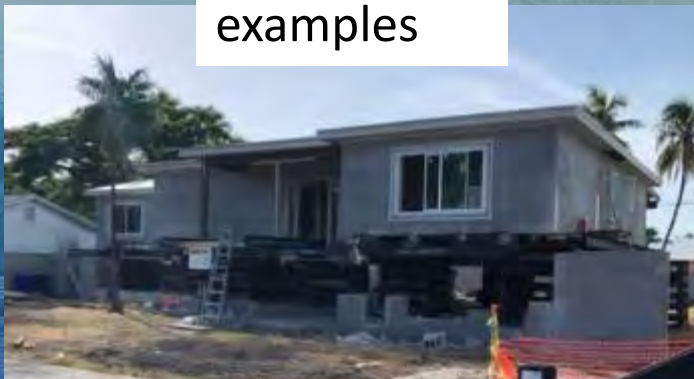
Elevating residential structures



In-progress examples



Complete examples



*Individual projects subject to surveys, feasibility assessment, etc.
Elevating homes on stilts may also be considered

Floodproofing commercial buildings



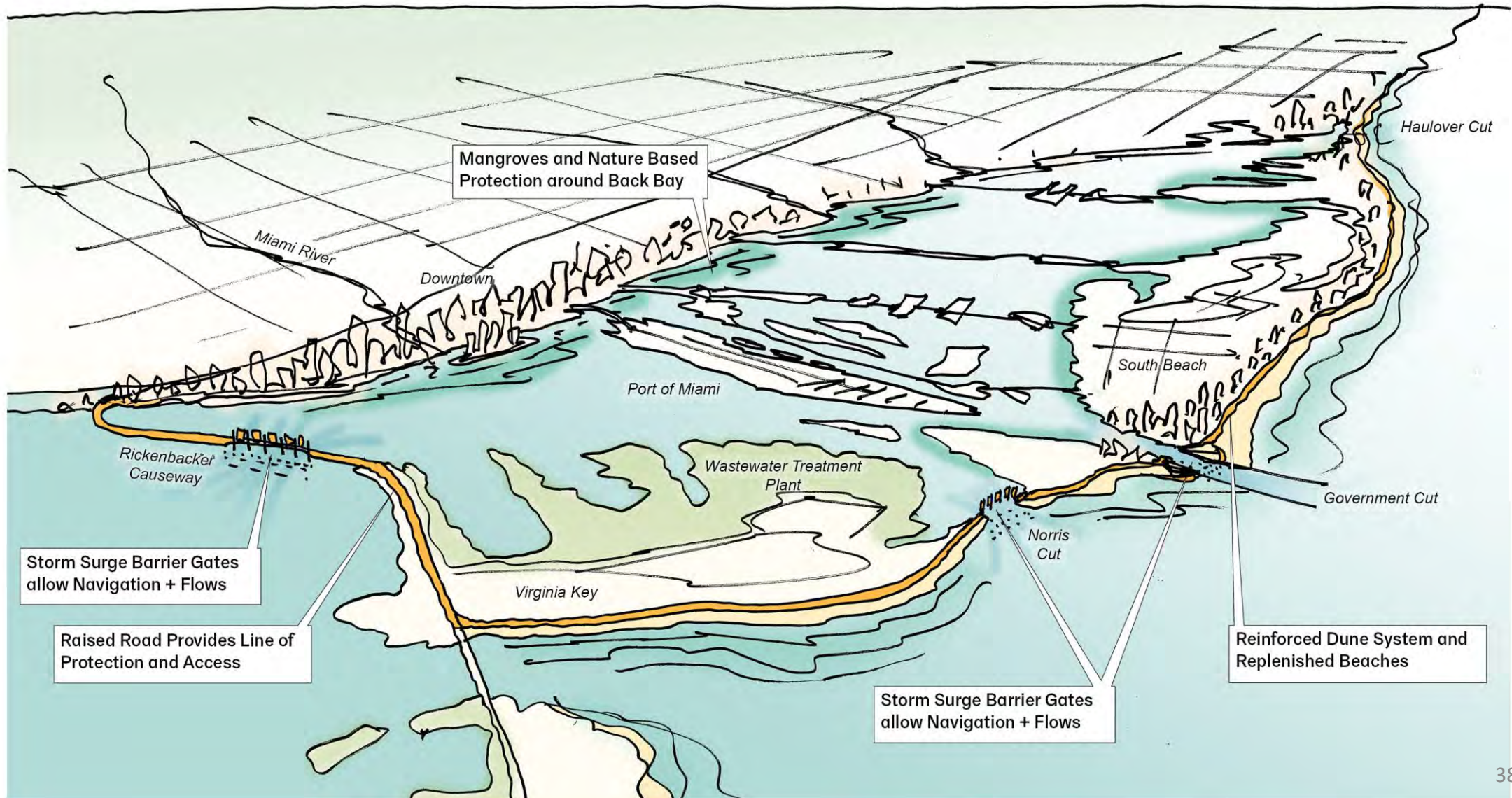
Example measure: Deployable flood barriers

Precise type and design of flood-proofing for each building to be determined



B) Barrier Island Defense System (Aerial View)

Diagram of storm surge protection for Back Bay, Miami Beach, Fisher Island and Virginia Key





Next Steps & Engagement

Jim Murley, Chief Resilience Officer

Miami-Dade Back Bay Coastal Storm Risk Management Study Review

June 26, 2023

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**US Army Corps
of Engineers®**

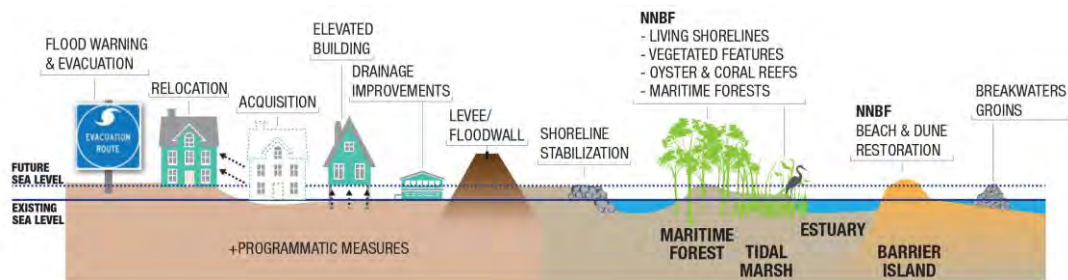


**Stay tuned for another update
following August**

For Part 2 of the Feasibility Study, MDC needs:



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- Further **integrate studies** across USACE (Norfolk & Jacksonville) that maximize complementary and **comprehensive benefits**
- Create **multiple lines of defense or adaptations** from off-shore to inland neighborhoods; process may involve prioritizing measures and implementing in a phased approach as feasible
- Commitment and initial planning for more **robust community engagement** and advancing **Justice40** goals



Multiple Lines of Defense

Source: USACE

Your continued support is critical

Question and Answer Discussion



To ask a question or provide a comment, please:

- Enter in the Chat
- 'Raise your hand' to be called on to unmute and speak

For additional questions or comments after the meeting:

Please e-mail: MDBB-CSRStudy@usace.army.mil or resilience@miamidade.gov

Thank you for your participation!

For additional inquiries/questions:

Email: MDBB-CSRStudy@usace.army.mil
or
resilience@miamidade.gov

Project website: <https://www.saj.usace.army.mil/MiamiDadeBackBayCSRFeasibilityStudy/>

BBWMAB POLICY UPDATES

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

Miami-Dade County Policy

File Number: [230964](#)

Agenda Item Number: 2B1

File Name: TRANSMITTAL OF BISCAYNE BAY WATERSHED MANAGEMENT ADVISORY BOARD ANNUAL REPORT
ORDINANCE 21-72, SEC. 2-2426

Sponsor: Danielle Cohen Higgins, Prime Sponsor

[Legislative Matter \(miamidade.gov\)](#)

Status: Report Accepted 5/16/23

File Number: [230557](#)

Agenda Item Number: 4F

File Name: PROHIBITING SMOKING IN PARKS AND BEACHES

Sponsors: Kionne L. McGhee, Prime Sponsor

Roberto J. Gonzalez, Co-Sponsor

[Legislative Matter \(miamidade.gov\)](#)

Status: Ordinance Adopted 6/21/23

File Number: [230700](#)

Agenda Item Number: 8L3

File Name: RESOLUTION APPROVING A STATE OF FLORIDA DEPARTMENT FUNDED AGREEMENT BETWEEN
MIAMI-DADE COUNTY AND FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 6, CO-PERMITTEES NAMED
IN THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT NO. FLS000003, BY WHICH THE
FDOT 6 WOULD REIMBURSE THE COUNTY UP TO \$2,515,000.00

Sponsors: None

[Legislative Matter \(miamidade.gov\)](#)

Status: Adopted 6/21/23

File Number: [230865](#)

Agenda Item Number: 11A11

File Name: PROVIDE A REPORT REGARDING THE PROGRESS THE COUNTY HAS MADE ON STORMWATER AND
SEA LEVEL RISE PROJECTS THE COUNTY HAS BEEN UNDERTAKING

Sponsors: Micky Steinberg, Prime Sponsor

Rene Garcia, Co-Sponsor

Raquel Regalado, Co-Sponsor

[Legislative Matter \(miamidade.gov\)](#)

Status: Resolution Adopted 6/21/23

Florida State Legislation

[HB 1379](#)

Wastewater Grant Program/Septic-to-Sewer Funding/Reasonable Assurance Plan/RAP/Biscayne
Bay/Wastewater Treatment/Septic Tanks/Comprehensive Plans/Florida Forever

<https://www.flsenate.gov/Session/Bill/2023/1379/BillText/er/PDF>

HB 1379 authorizes DEP to provide grants for projects that reduce the amount of nutrients entering waters
that are not attaining nutrient or nutrient-related standards; have an established total maximum daily load

(TMDL); or are located within a basin management action plan (BMAP) area, a reasonable assurance plan (RAP) area adopted by final order, an accepted alternative restoration plan area, or a rural area of opportunity.

SB 2500

State budget including line-item vetoes made by the Governor. County priorities approved by the Governor include:

- \$20 Million - Biscayne Bay Water Quality; County Priority/R-1118-22/ Commissioner Danielle Cohen Higgins
- \$1 Million - Miami-Dade County Septic to Sewer Connect 2 Protect Assistance; County Priority/R-1169-22 Water and Sewer/R-1168-22
- \$2 Million- Miami-Dade Sewer Connection Assistance Schenley Park Neighborhood; County Priority/R-113-23 Commissioner Kevin Marino Cabrera
- \$5 Million - Statewide funding for Sargassum Clean-up grants; County Priority/R327-23 Commissioner Eileen Higgins

SB 2502

The Governor signed into law SB 2502, a committee bill by the Senate Appropriations Committee. SB 2502 implements the state budget for fiscal year 2023-24 and only remains in effect for one year from July 1, 2023 to June 30, 2024.

<https://www.flsenate.gov/Session/Bill/2023/2502/BillText/er/PDF>

Among other provisions, SB 2502 includes a Fertilizer Ordinance Preemption for a one-year period and does not impact the existing Miami-Dade County fertilizer ordinance. The provision that preempts a county or municipal government from adopting or amending a fertilizer management ordinance, which provides for a prohibited application period not in existence on June 30, 2023.