

Memorandum



Date: October 15, 2026

To: Honorable Chairman Anthony Rodriguez
and Members, Board of County Commissioners

From: Daniella Levine Cava *Daniella Levine Cava*
Mayor

Subject: Resolution Approving and Authorizing Execution of a Memorandum of Understanding for the C-4 Basin Operating Plan with South Florida Water Management District, City of Miami, City of West Miami and City of Sweetwater

IITC

Agenda Item No. 3(D)

Executive Summary

The purpose of this item is to seek approval of the attached Memorandum of Understanding (MOU) between Miami-Dade County (County), the South Florida Water Management District (SFWMD), the City of Miami, the City of West Miami, and the City of Sweetwater (collectively, the Local Governments) regarding the C-4 Basin Operating Plan (Operating Plan).

The purpose of the MOU is to define the responsibilities of the parties in coordinating the operation of stormwater pump stations in order to reduce potential flooding and adverse water quantity impacts within the geographic areas of the Local Governments, the C-4 Basin, and downstream areas. The MOU applies during the period preceding, during, and immediately following major storm events when excessive rainfall is expected.

The Operating Plan, which was adopted by SFWMD, establishes operational guidelines for stormwater pump stations discharging into the C-4 Canal. Because the conveyance capacity of the C-4 Canal is limited, it may not be able to accommodate the combined discharge from all stormwater pump stations during periods of heavy rainfall. Accordingly, the participating governments agree to coordinate the operation of their stormwater pump stations and implement the Operating Plan to the greatest extent practicable.

The City of Miami adopted Resolution No. 25-0464 (attached as Exhibit 2 to the MOU), the City of West Miami adopted Resolution No. 2026-01 (attached as Exhibit 3 to the MOU), and the City of Sweetwater adopted Resolution No. 5231 (attached as Exhibit 4 to the MOU), authorizing their respective city managers to execute the MOU.

The agreement will remain in effect for an initial term of 10 years beginning on the date of final execution by all parties and may be renewed for one additional 10-year term upon the mutual written consent of all parties. The agreement may not be extended beyond the expected and/or actual life of the system and its critical components.

Recommendation

It is recommended that the Board of County Commissioners (Board) approve the attached resolution authorizing the execution of a Memorandum of Understanding (MOU) between Miami-Dade County, the South Florida Water Management District (SFWMD), the City of Miami, the City of West Miami, and the City of Sweetwater to define the responsibilities of the parties under the C-4 Basin Operating

Plan for stormwater pump stations discharging into the C-4 Canal. The resolution also authorizes the County Mayor or the County Mayor's designee to execute the MOU and exercise all provisions contained therein, including renewal and termination.

Scope

The areas affected by this MOU are located within multiple commission districts; therefore, the scope of this item is countywide in nature. The affected areas within the City of Miami are located within District 2, represented by Commissioner Marleine Bastien; District 3, represented by Commissioner Keon Hardemon; District 5, represented by Commissioner Vicki L. Lopez; District 6, represented by Commissioner Natalie Milian Orbis; and District 7, represented by Commissioner Raquel A. Regalado. The affected area within the City of West Miami is located within District 6, represented by Commissioner Natalie Milian Orbis. The affected area within the City of Sweetwater is located within District 12, represented by Commissioner Juan Carlos "JC" Bermudez.

Delegation of Authority

This item authorizes the County Mayor or County Mayor's designee to execute the MOU and exercise all provisions contained therein, including the authority to renew or terminate the agreement.

Fiscal Impact/Funding Source

Execution of this MOU will not have a negative fiscal impact on the County. Maintenance and operating costs associated with the stormwater pump stations within the Department of Transportation and Public Works' inventory are funded through the County's Stormwater Utility fees.

Track Record/Monitor

DTPW is the department responsible for administering this agreement. The individual responsible for monitoring the MOU is Maria D. Molina, P.E., Chief, Right-of-Way and Stormwater Planning and Design Division.

Background

On January 23, 2013, the Board adopted Resolution No. R-31-13, approving the C-4 Basin Operating Plan. The resolution also authorized the County Mayor or the County Mayor's designee to execute the original Memorandum of Understanding governing implementation of the plan. The 2013 MOU remained in effect for 10 years and expired on January 22, 2023.

The C-4 Basin has historically experienced flooding during significant rainfall events. Widespread flooding associated with Hurricane Irene in 1999 and a major storm event in October 2000 led to the development of a series of flood mitigation projects, including the installation of forward pumps at tidal outlets and back-pumping capabilities to divert excess runoff into the C-4 Emergency Detention Basin.

As additional flood mitigation infrastructure has been constructed, SFWMD has periodically updated the C-4 Basin Operating Plan to reflect changes to the system and establish operational guidelines intended to improve flood protection within the basin.

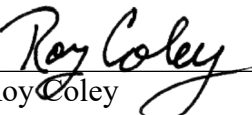
The purpose of the MOU is to define responsibilities among SFWMD, Miami-Dade County, the City of Miami, the City of West Miami, and the City of Sweetwater in coordinating stormwater pump

operations to reduce potential flooding and adverse water quantity impacts within the geographic areas of the Local Governments, the C-4 Basin, and downstream areas.

The Operating Plan identifies the conditions under which the operation of stormwater pump stations could increase the risk of flooding within the basin. The parties acknowledge that, under certain conditions, operation of the stormwater pumps may result in adverse flooding impacts to property owners within the basin. The parties also acknowledge that the conveyance capacity of the C-4 Canal is limited and may not be sufficient to accommodate the combined discharge from all stormwater pump stations during periods of heavy rainfall. Therefore, by executing the MOU, the Local Governments agree to coordinate the operation of their respective stormwater pump stations in accordance with the Operating Plan to the greatest extent practicable.

In the event that SFWMD determines that an emergency exists within its geographic jurisdiction, the Executive Director may issue an emergency order describing the conditions causing the emergency and the corrective actions necessary to minimize or abate the emergency condition. Any actions taken pursuant to SFWMD's emergency authority will supersede the provisions of the MOU.

SFWMD has adopted the Operating Plan, and the City of Miami, the City of West Miami, and the City of Sweetwater have each adopted resolutions authorizing their respective city managers to execute the MOU.


Roy Coley
Deputy Mayor



MEMORANDUM

(Revised)

TO: Honorable Chairman Anthony Rodriguez
and Members, Board of County Commissioners

DATE: November 17, 2026

FROM: 
Gen Bonzon-Keenan
County Attorney

SUBJECT: Agenda Item No.

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**
- _____ **Requires more than a majority vote (i.e., 2/3's present ____, 2/3 membership ____, 3/5's ____, unanimous ____, majority plus one ____, CDMP 7 votes (majority of membership) ____, CDMP 2/3 members present but not less than 7 votes (majority of membership) ____, CDMP 9 votes (2/3 membership) ____) 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.

RESOLUTION NO. _____

RESOLUTION APPROVING A MEMORANDUM OF UNDERSTANDING BETWEEN MIAMI-DADE COUNTY, THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT, THE CITY OF MIAMI, THE CITY OF WEST MIAMI, AND THE CITY OF SWEETWATER DEFINING THE C-4 BASIN OPERATING PLAN FOR DISCHARGES INTO THE C-4 CANAL; AND AUTHORIZING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO EXECUTE SUCH MEMORANDUM OF UNDERSTANDING AND TO EXERCISE ALL PROVISIONS CONTAINED THEREIN, INCLUDING TERMINATION AND RENEWAL

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

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

Section 1. Approves and incorporates the foregoing recital as though fully set forth herein.

Section 2. Approves the Memorandum of Understanding between Miami-Dade County, the South Florida Water Management District, the City of Miami, the City of West Miami, and the City of Sweetwater, defining the C-4 Basin Operating Plan for discharges into the C-4 Canal, in substantially the form attached to the Mayor's memorandum and incorporated herein.

Section 3. Authorizes the County Mayor or County Mayor's designee to execute the Memorandum of Understanding and to exercise all the provisions contained therein, including termination.

The foregoing resolution 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:

Anthony Rodriguez, Chairman	
Kionne L. McGhee, Vice Chairman	
Marleine Bastien	Juan Carlos Bermudez
Sen. René García	Oliver G. Gilbert, III
Roberto J. Gonzalez	Keon Hardemon
Danielle Cohen Higgins	Vicki L. Lopez
Natalie Milian Orbis	Raquel A. Regalado
Micky Steinberg	

The Chairperson thereupon declared this resolution duly passed and adopted this 17th day of November, 2026. 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

JUAN FERNANDEZ-BARQUIN, CLERK

By: _____
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.



Bruce Libhaber



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

4600005300

MEMORANDUM OF UNDERSTANDING

BETWEEN THE

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

AND

MIAMI-DADE COUNTY

AND

CITY OF MIAMI

AND

CITY OF WEST MIAMI

AND

CITY OF SWEETWATER

This Memorandum of Understanding (**MOU**) is made and entered into on, _____, 2026, by and between the "Parties," the South Florida Water Management District, hereunder referred to as the "**DISTRICT**", and Miami-Dade County, City of Miami, City of West Miami, City of Sweetwater (collectively referred to as **LOCAL GOVERNMENTS**).

INTRODUCTION/BACKGROUND

This MOU is designed to be applied in the time period preceding, during and immediately following storm events where excessive rain is expected in the geographic area of the Local Governments (hereinafter referred to as "major storm")

The purpose of this MOU is to define responsibilities for the cooperation among the parties to this agreement in order to reduce potential flooding and adverse water quantity impacts within the geographic areas of the Local Government, C-4 Basin and downstream areas.

The **DISTRICT** has adopted the C-4 Basin Operating Plan (Operating Plan) for discharges into the C-4 Canal, a copy of which is attached as Exhibit "1", as may be amended by the **DISTRICT** from time to time. The **DISTRICT** believes that operation consistent with the Operating Plan

will provide the best framework to reduce potential flooding and adverse water quantity impacts in the geographic area of the Local Governments, C-4 basin and downstream areas.

Local Governments acknowledge that the Operating Plan identifies the conditions in the C-4 basin under which Stormwater Pump operations could result in an increased risk of flooding in the C-4 Basin. Local Governments understand that under certain conditions, the operation of the Stormwater Pumps may result in adverse flood impacts to property owners within the basin.

Local Governments, as the operators of the Stormwater Pumps, acknowledge that the conveyance capacity of the C-4 Canal is limited and may not be able to accept the full combined flow of the Stormwater Pumps during heavy rainfall/flooding conditions.

After notification by the **DISTRICT** of the potential of a major storm event, Local Governments agree to coordinate with each other on the operation of each pump so as to comply to the extent possible with the Operating Plan.

The parties to this MOU fully understand that the available capacity of the C-4 Canal is limited and therefore requires cooperation between the parties regarding the operation of Stormwater Pumps during a major storm event. The parties additionally understand that the operation of the associated Stormwater Pump will not provide Local Governments with ideal drainage. Operation of the Stormwater Pumps by the Local Governments pursuant to the Operating Plan are intended to improve upon the drainage currently experienced by Local Governments but due to capacity constraints in the C-4 Canal, will not provide full drainage to their communities.

The parties acknowledge that pursuant to Rule 40E-4.451, Fla. Admin. Code: "Upon the (**DISTRICT**'s) determination that an emergency exists within its geographic jurisdiction or any part thereof, as defined in subsection (1)(b)(1-2), the Executive Director shall issue an emergency order which shall describe the conditions which are causing the emergency and the type of corrective action necessary to minimize or abate the emergency condition." Actions pursuant to the **DISTRICT**'s emergency authority will supersede this MOU.

WITNESSETH THAT:

WHEREAS, the **DISTRICT** is a public corporation of the State of Florida, created by the Florida Legislature and given those powers and responsibilities enumerated in Chapter 373, Florida Statutes to include entering into contracts and agreements with public agencies, private corporations or other persons; and

WHEREAS, Pursuant to Chapter 373, Florida Statutes, and the rules promulgated thereunder, this Memorandum of Understanding (MOU) defining the process for cooperation in the operation of the **LOCAL GOVERNMENTS** stormwater pump stations discharging to C-4 Canal (hereinafter called Stormwater Pumps) is entered into between the **DISTRICT** and **LOCAL GOVERNMENTS**, by mutual consent, and without this MOU constituting a waiver of any authority of the **LOCAL GOVERNMENTS** and the **DISTRICT** under Chapter 373, Florida Statutes.

WHEREAS, each party to this **MOU** warrants and represents that it has no obligation or indebtedness that would impair its ability to fulfill the terms and conditions of this **MOU**.

WHEREAS, Miami-Dade County is a political subdivision of the State of Florida and is the Applicant of ERP Permit Application No. 060525-24, which requests authorization for Miami-Dade to construct and operate a surface water management system including pump discharge to

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the C-4 Canal.

WHEREAS, City of Miami is a local municipality and is the Applicant of ERP Permit Application No. 030311-10, which requests authorization for Miami to construct and operate a surface water management system including pump discharge to the C-4 Canal.

WHEREAS, City of West Miami is a local municipality and is the Applicant of ERP Permit Application No. 030401-4, which requests authorization for West Miami to construct and operate a surface water management system including pump discharge to the C-4 and C-3 Canals.

WHEREAS, City of Sweetwater is a local municipality and is the Permittee of ERP Permit Nos. 1301660-P and 13-02009-P, which granted authorization for Sweetwater to construct and operate a surface water management system including pump discharge to the C-4 Canal; and

NOW THEREFORE, in consideration of the covenants and representations set forth herein and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Parties agree as follows:

ARTICLE 1 – RESPONSIBILITIES OF THE PARTIES

JOINT RESPONSIBILITIES

- 1.1 Not later than thirty (30) days after the effective date of this MOU, **LOCAL GOVERNMENTS** shall each designate, in writing, a principle contact person to coordinate operation of the Stormwater Pumps. Each **LOCAL GOVERNMENT** shall provide the **DISTRICT** contact person with a list of contacts and contact information in writing prior to the 1st day of May of each year for the term of this MOU
- 1.2 The parties shall meet at least annually to assess whether the operation of the Stormwater Pumps has resulted in any adverse impacts to the C-4 Basin and downstream areas.
- 1.3 This MOU may be amended only by mutual written agreement of all of the parties to this agreement.

LOCAL GOVERNMENTS' RESPONSIBILITIES

- 1.4 **LOCAL GOVERNMENTS** shall coordinate with each other in the operation of the Stormwater Pumps upon notification by the **DISTRICT** of the expectation of a major storm event, the contacts listed herein, or their designees, shall meet as soon as reasonably practicable to discuss cooperative operation of the **LOCAL GOVERNMENTS'** pumps in order to reduce flooding and adverse water quantity impacts within the geographic area of the **LOCAL GOVERNMENTS**, C-4 Basin and downstream areas. These discussions shall include a consideration of the Operating Plan.
- 1.5 **LOCAL GOVERNMENTS** shall provide and maintain locks on the control mechanism for their respective Stormwater Pumps to prevent their unauthorized operation
- 1.6 **LOCAL GOVERNMENTS** shall prohibit and otherwise prevent unauthorized operation of the Stormwater Pumps. **LOCAL GOVERNMENTS** shall maintain a record or log of the operation of the Stormwater Pumps. The record or log may be kept manually or electronically

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and shall provide an accurate record of times, dates and periods that the Stormwater Pumps are in operation.

- 1.7 **LOCAL GOVERNMENTS** acknowledge that as a result of the operation of the Stormwater Pumps adverse impacts prohibited by the applicable Permit(s), Chapter 373, Florida Statutes, or the **DISTRICT** rule, may occur to either the water resources or other C4, C-3, C-2 Canal or downstream system users. Each **LOCAL GOVERNMENT** operating the pumps shall be responsible for any liability or claims of liability resulting from the operation of the pumps by such **LOCAL GOVERNMENT**.
- 1.8 **LOCAL GOVERNMENTS** shall be the sole contact with the **DISTRICT** for the operation of the Stormwater Pumps. It shall be the obligation of the **LOCAL GOVERNMENTS** to inform the residents of their respective communities of the provisions of this MOU.
- 1.9 **LOCAL GOVERNMENTS** shall require their respective staff to review and become familiar with the terms and conditions of the Permit(s), this MOU and the Operating Plan.
- 1.10 If any other regulatory agency requires changes to the construction or operation of the Stormwater Pumps, **LOCAL GOVERNMENTS** shall notify the **DISTRICT** in writing of the changes prior to implementation so that a determination can be made as to whether or not a modification to the Permit(s) or this MOU or both is required. Changes requiring a modification to the Permit(s) or this MOU or both shall not be implemented until the modification is approved by the **DISTRICT**.
- 1.11 This MOU does not obviate the necessity to obtain any required federal, state, local and special district authorizations prior to the commencement of any activity authorized by the Permit(s) or this MOU. This MOU neither creates nor otherwise conveys to **LOCAL GOVERNMENTS** any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by **LOCAL GOVERNMENTS**, nor does it convey any rights or privileges other than those specified in the MOU, the Permit(s), and Chapter 40E-4 or Chapter 40E-40, Fla. Admin. Code.

DISTRICT RESPONSIBILITIES

- 1.12 The **DISTRICT** agrees to install telemetry that will provide operating information on the stormwater pumps referenced herein to the **DISTRICT'S** West Palm Beach Control Room. Telemetry shall be installed based on available funding. The **DISTRICT** shall make this telemetry information available electronically on the **DISTRICT's** website.
- 1.13 The **DISTRICT** agrees to provide email and telephone notification to the contacts listed herein of the **LOCAL GOVERNMENTS** of the expectation of a major storm event.

ARTICLE 2 – COMPENSATION/CONSIDERATION

- 2.1 This **MOU** defines in general terms the basis on which the Parties to this agreement will cooperate. No funds will be exchanged between the cooperating Parties on the basis of this **MOU**.
- 2.2 **Expenses.** Unless agreed to otherwise in writing, each party bears all of its own costs and expenses in connection with this MOU and the party's obligations under this MOU.

ARTICLE 3 - TERM OF THE MOU

- 3.1 This agreement shall be effective for a period of ten (10) years, beginning on the last date of execution of this agreement. The parties shall have an option to renew this agreement for another ten (10) year period effective upon mutual written consent of all of the parties. At no point should this agreement be extended beyond the expected and/or actual life of the system and/or its critical components.

ARTICLE 4 - PROJECT MANAGEMENT/NOTICE

- 4.1 The Project Manager for the **DISTRICT** is Armando Vilaboy, at South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33406, telephone (305) 513-3420.
- 4.2 **LOCAL GOVERNMENTS** shall also provide a copy of all notices to the **DISTRICT'S** Project Manager. All notices required by this **MOU** shall be considered delivered upon receipt. Should any party change its mailing address, written notice of such new address shall promptly be sent to the other parties.

All correspondence to the **DISTRICT** under this **MOU** shall reference the **DISTRICT'S** Contract Number 4600005300.

ARTICLE 5 - TERMINATION

- 5.1 Any party hereto may terminate its respective obligations pursuant to this **MOU** at any time for convenience by providing written notice of termination to the other parties not less than sixty (60) calendar days prior to the intended date of termination. The performance of work under this **MOU** may be terminated in accordance with this clause in whole, or from time to time in part, whenever a party hereto determines that such termination is in its best interest. Any such termination shall be affected by delivery of a Notice of Termination to the other parties specifying the extent to which performance of work under the **MOU** is terminated, and the date upon which such termination becomes effective.
- 5.2 If any party hereto fails to fulfill its obligations under this **MOU** in a timely and proper manner, the other parties shall have the right to terminate this **MOU** by giving written notice of any deficiency. The party in default shall then have ten (10) calendar days from receipt of notice to correct the deficiency. If the defaulting party fails to correct the deficiency within this time, the non-defaulting parties shall have the option to terminate this **MOU** at the expiration of the ten (10) daytime period.

ARTICLE 6 - STANDARDS OF COMPLIANCE

- 6.1 The parties to this **MOU** will not discriminate against any person on legally protected bases in any activity under this agreement.
- 6.2 **LOCAL GOVERNMENTS** shall allow public access to all project documents and materials in accordance with the provisions of Chapter 119, Florida Statutes. Should the **LOCAL GOVERNMENTS** assert any exemptions to the requirements of Chapter 119 and related Statutes, the burden of establishing such exemption, by way of injunctive or other relief as provided by law, shall be upon the **LOCAL GOVERNMENTS**.

- 6.3 **LOCAL GOVERNMENTS**, its employees, subcontractors or assigns, shall comply with all applicable federal, state, and local laws and regulations relating to the performance of this **MOU**. The **DISTRICT** undertakes no duty to ensure such compliance but will attempt to advise the **LOCAL GOVERNMENTS** upon request, as to any such laws of which it has present knowledge.

ARTICLE 7 - RELATIONSHIP BETWEEN THE PARTIES

- 7.1 The parties to this **MOU** are independent entities and are not employees or agents of the other parties. Nothing in this **MOU** shall be interpreted to establish any relationship other than that of independent entities, between the **DISTRICT**, **LOCAL GOVERNMENTS** their employees, agents, subcontractors, or assigns, during or after the term of this **MOU**.
- 7.2 The parties to this **MOU** shall not assign, delegate, or otherwise transfer their rights and obligations as set forth in this **MOU** without the prior written consent of the other parties. Any attempted assignment in violation of this provision shall be void.

ARTICLE 8 – MAINTENANCE OF RECORDS

- 8.1 The Parties to this **MOU** shall maintain records and the other party shall have inspection and audit rights as follows:
- A. Maintenance of Records: Each party shall maintain all financial and non-financial records and reports directly or indirectly related to this **MOU**. Such records shall be maintained and made available for inspection for a period of five years from the expiration or termination date of this **MOU**.
 - B. Examination of Records: Each party or its designated agent shall have the right to examine in accordance with generally accepted governmental auditing standards all records directly or indirectly related to this **MOU**. Such examination may be made only within five years from the expiration or termination date of this **MOU** and upon reasonable notice, time and place.
 - C. Extended Availability of Records for Legal Disputes: In the event that the **DISTRICT** should become involved in a legal dispute with a third party arising from performance under this **MOU**, the **LOCAL GOVERNMENTS** shall extend the period of maintenance for all records relating to the **MOU** until the final disposition of the legal dispute, and all such records shall be made readily available to the **DISTRICT**.

ARTICLE 9 - GENERAL PROVISIONS

- 9.1 This **MOU**, together with the Operating Plan, incorporates, embodies and expresses all agreements and understandings regarding the Stormwater Pumps between the **DISTRICT** and **LOCAL GOVERNMENTS** and may not be altered except as authorized herein.
- 9.2 This **MOU** shall not constitute a waiver of the **DISTRICT**'s regulatory jurisdiction, nor be construed to authorize any activity within the jurisdiction of the **DISTRICT** except in accordance with the express terms of this **MOU**, the Permit(s) and the Operating Plan.
- 9.3 Nothing in this **MOU**, whether expressed or implied, is intended to confer upon any person other than the Parties hereto any rights or remedies under or by reason of this **MOU**

- 9.4 There shall be no waiver of any right contained in this MOU unless in writing signed by the party waiving such right. No delay or failure to exercise a right under this MOU shall impair such right or be construed to be a waiver thereof. Any waiver shall be limited to the particular rights so waived and shall not be deemed a continuing waiver of the same right or of any other right under this MOU.
- 9.5 The invalidity of one or more of the terms or conditions contained in this MOU shall not affect the validity of the remaining portion of the MOU provided that the material purposes of this MOU can be determined and effectuated. In the event of a conflict between the provisions of this MOU and the Permit(s), the provisions of the Permit(s) shall prevail.
- 9.6 In the event any provisions of this MOU shall conflict, or appear to conflict, the MOU, including all exhibits, attachments and all documents specifically incorporated by reference, shall be interpreted as a whole to resolve any inconsistency.
- 9.7 Should any term or provision of this MOU be held, to any extent, invalid or unenforceable, as against any person, entity or circumstance during the term hereof, by force of any statute, law, or ruling of any forum of competent jurisdiction, such invalidity shall not affect any other term or provision of this MOU, to the extent that the MOU shall remain operable, enforceable and in full force and effect to the extent permitted by law.
- 9.8 Notwithstanding any provisions of this MOU to the contrary, the parties shall not be held liable for any failure or delay in the performance of this MOU that arises from fires, floods, strikes, embargoes, acts of the public enemy, unusually severe weather, outbreak of war, restraint of Government, riots, civil commotion, force majeure, act of God, or for any other cause of the same character which is unavoidable through the exercise of due care and beyond the control of the parties. Failure to perform shall be excused during the continuance of such circumstances, but this MOU shall otherwise remain in effect.
- 9.9 This MOU states the entire understanding and agreement between the parties and supersedes any and all written or oral representations, statements, negotiations, or agreements previously existing between the parties with respect to the subject matter of this MOU.
- 9.10 The **LOCAL GOVERNMENTS** recognize that any representations, statements or negotiations made by **DISTRICT** staff do not suffice to legally bind **DISTRICT** in a contractual relationship unless they have been reduced to writing and signed by an authorized **DISTRICT** representative. This MOU shall inure to the benefit of and shall be binding upon the parties, their respective assigns, and successors in interest.
- 9.11 Any dispute arising under this MOU which cannot be readily resolved shall be submitted jointly to the signatories of this MOU with each party agreeing to seek in good faith to resolve the issue through negotiation or other forms of non-binding alternative disputes resolution mutually acceptable to the parties. A joint decision of the signatories, or their designees, shall be the disposition of such dispute.
- 9.12 **LOCAL GOVERNMENTS** assume any and all risks of personal injury, bodily injury and property damage attributable to the negligent acts or omissions which may arise solely as a result of the operation of the Stormwater Pumps by the **LOCAL GOVERNMENTS** and the officers,

employees, servants, and agents thereof. The **LOCAL GOVERNMENTS** warrants and represents that it is self-funded for Worker's compensation and liability insurance, covering at a minimum bodily injury, personal injury and property damage with protection being applicable to the **LOCAL GOVERNMENTS** officers, employees, servants and agents while acting within the scope of their employment during performance under this **MOU**. **LOCAL GOVERNMENTS** hereby agree to indemnify and hold harmless the **DISTRICT** to the extent and within the limitations of Section 768.28, Florida Statutes. The **LOCAL GOVERNMENTS** and the **DISTRICT** further agree that nothing contained herein shall be construed or interpreted as (1) denying to either party any remedy or defense available to such party under the laws of the State of Florida; (2) the consent of the State of Florida or its agents and agencies to be sued; or (3) a waiver of sovereign immunity of the State of Florida beyond the waiver provided in Section 768.28, Florida Statutes.

ARTICLE 10 – APPLICABLE LAW

- 10.1 Each party, to the extent permitted by law, knowingly, voluntarily, and intentionally waives its right to a trial by jury in any action or other legal proceeding arising out of or relating to this **MOU** and the transactions it contemplates. This waiver applies to an action or legal proceeding, whether sounding in contract, tort or otherwise.
- 10.2 The laws of the State of Florida shall govern all aspects of this **MOU**. In the event it is necessary for either party to initiate legal action regarding this **MOU**, venue shall be in the Fifteenth Judicial Circuit for claims under state law and in the Southern District of Florida for any claims which are justiciable in federal court.

IN WITNESS WHEREOF, the parties or their duly authorized representative hereby execute this **MOU** on the date first written above.

**SOUTH FLORIDA WATER MANAGEMENT DISTRICT
BY ITS GOVERNING BOARD**

By: _____
Drew Bartlett
Executive Director

By: _____
Candida Heater, Division Director
Administrative Services Division

Legal Form Approved
SFWMD Office Of Counsel

BY: Karl C. Brown
DATE: 11/20/2026

SFWMD Procurement Approved

BY: SE Rora
DATE: 01/13/2025

Passed and approved by the Board of County Commissioners of Miami-Dade County, Florida, this _____ day of _____, 2026.

ATTEST:

MIAMI-DADE COUNTY

BY: _____
Name:
Title:

BY: _____
Name:
Title:

LEGAL FORM APPROVED:

BY: _____
Name:
Title:

Passed and approved by the City of Commissioners of the City of Miami, Florida, this _____ day of _____, 2026.

ATTEST:

CITY OF MIAMI

BY: _____
Name:
Title:

BY: _____
Name:
Title:

LEGAL FORM APPROVED:

BY: _____
Name:
Title:

Passed and approved by the City of Commissioners of the City of West Miami, Florida, this _____ day of _____, 2026.

ATTEST:

CITY OF WEST MIAMI

BY: _____
Name:
Title:

BY: _____
Name:
Title:

LEGAL FORM APPROVED:

BY: _____
Name:
Title:

Passed and approved by the City of Commissioners of the City of Sweetwater, Florida, this _____ day of _____, 2026.

ATTEST:

CITY OF SWEETWATER

BY: _____
Name:
Title:

BY: _____
Name:
Title:

LEGAL FORM APPROVED:

BY: _____
Name:
Title:

Exhibit 1

**MIAMI DADE COUNTY FLOOD MITIGATION PROGRAM
C-4 BASIN**

C-4 BASIN OPERATION PLAN

Prepared by:

*South Florida Water Management District
July 2024*



C-4 BASIN OPERATION PLAN STRUCTURE REFERENCE

Structure ID	Structure Type [High x Wide]	Function	Design Capacity (cfs)	Design Headwater and Tailwater [feet NAVD (feet NGVD)]	Emergency Back-up Power	Operation Type	Page Containing Description	Notes
G-93	Two 5-foot x 10-foot gated spillway	Flood Protection; salinity control	2@320 Total: 640	HW = 3.0 (4.5) TW = 1.5 (3.0)	LP gas powered generator	Local & Remote	3	
G-119	Two 72 inch CMP Gated culvert	Water Supply	2@100 Total: 200	HW = 2.7 (4.2) TW = 2.2 (3.7)	N/A	Local	4	
G-420	Pump station	C-4 Detention Basin Inflow	3@223 Total: 670	N/A	Onan diesel generator	Local & Remote	5	
G-420S	Pump station	C-4 Detention Basin Seepage Pump	1@100 Total: 100	N/A	N/A	Local & Remote	5	
G-421	One 5-foot x 20-foot gated spillway	C-4 Detention Basin Outflow	N/A	N/A	N/A	Local & Remote	5	
G-422	Pump station	C-4 Detention Basin Inflow	7@89 Total: 623	HW = N/A TW = 8.4 (10)	Onan diesel generator	Local & Remote	6	
G-423	Six 5-foot x 10-foot gated box culverts	Inter-Cell flow transfer	N/A	N/A	N/A	Local & Remote	6	
S-22	Two 15-foot x 17-foot gated spillway	C-2 (Snapper Creek)	Total: 1915	HW = 2.0 (3.5) TW = 1.2 (2.7)	LP gas powered generator	Local & Remote	3	
S-25B	Two 11.9-foot x 22-foot gated spillway	Flood Protection; salinity control	2000	HW = 2.85 (4.4) TW = 2.55 (4.1)	LP gas powered generator	Local & Remote	4	
S-25B Forward Pump	Pump station	Flood Protection	600	N/A	Onan diesel generator	Local & Remote	4	
S-26	Two 14.1-foot x 26-foot gated spillway	Flood Protection; salinity control	3,470	HW = 2.9 (4.4) TW = 2.4 (2.9)	LP gas powered generator	Local & Remote	5	



C-4 BASIN OPERATION PLAN STRUCTURE REFERENCE

Structure ID	Structure Type [High x Wide]	Function	Design Capacity (cfs)	Design Headwater and Tailwater [feet NAVD (feet NGVD)]	Emergency Back-up Power	Operation Type	Page Containing Description	Notes
S-26 Forward Pump	Pump station	Flood Protection	600	N/A	Onan diesel generator	Local & Remote	5	
S-380	Five 72 inch CMP Gated culvert	Seepage Reduction and Water Supply	Total:400	N/A	LP gas powered generator	Local & Remote	4	

cfs = cubic feet per second
cmp = corrugated metal pipe
HW = headwater
N/A = Not Applicable
NAVD = North American Vertical Datum of 1988
NGVD = National Geodetic Vertical Datum of 1929
TW = tailwater



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1. BACKGROUND

The C-4 Basin in Miami-Dade County has historically experienced frequent flooding during the wet season. Widespread flooding during Hurricane Irene (1999) and the unnamed storm in October of 2000 prompted the development of a series of flood mitigation projects including the installation of forward pumps at tidal outlets, and back-pumping capability for excess runoff from local municipalities into a western detention facility – the C-4 Emergency Detention Basin (EDB). The purpose of the C-4 Emergency Impoundment Project is to provide a storage basin and additional structures to reduce the level of flooding in Miami-Dade County during heavy rainfall events. With the implementation of flood mitigation projects for the C-4 Basin, it is necessary to periodically update the C-4 Basin Operation Plan (the Plan) to provide guidelines for the District and affected municipalities so as to assist in achieving the benefits afforded by the improving system. This plan is an update to the 2019 interim plan to take into account project components currently in place. Installation of turning vanes in the inflow canal upstream of G420, installation of new suction bells at G420, and removal of concrete barrier walls around the G420S seepage pump were completed in December 2021.

2. OBJECTIVES

It is necessary to make clear that the projects implemented as part of this program will not provide the full level of flood protection that would be ideal for the local communities, namely the ability to handle a 100 year storm frequency without flooding finished floors. Nevertheless, the projects will have the potential to increase the current level of flood protection in the affected communities.

The objective of the Plan is to develop guidelines which will assist in achieving the benefits afforded by the improved system. In order to do this, the system must be operated in a way that is most effective for all communities served by the C-4. It is important that emergency components, such as the EDB, not be operated more often than necessary since early filling of the EDB could make it unavailable for receiving additional water if the storm event is prolonged. Additionally, the systems must be operated so as not to adversely impact other communities along the C-4 Canal and the Miami River. Therefore, these structures will be operated based on stages within the canal system and the EDB. Stages are monitored in real time via telemetry at several locations, including those identified in the table below.

Table 1 Stage Monitoring Sites

Project Component	Stage Monitoring Station	Description
C-4 Canal	T5W	Near the Turnpike.
	C4 Coral	Near Palmetto Expressway.
	S-25B	Structure S-25B.
Emergency Detention Basin	G-420	Inflow pump station.
	G-422	Inflow pump station.
	C4EDBSW	Inside Emergency Detention Basin
Miami River	MRMS1	South of intersection of C-4 Canal and Miami River.

These stage monitoring stations and others are shown on Figure 1.

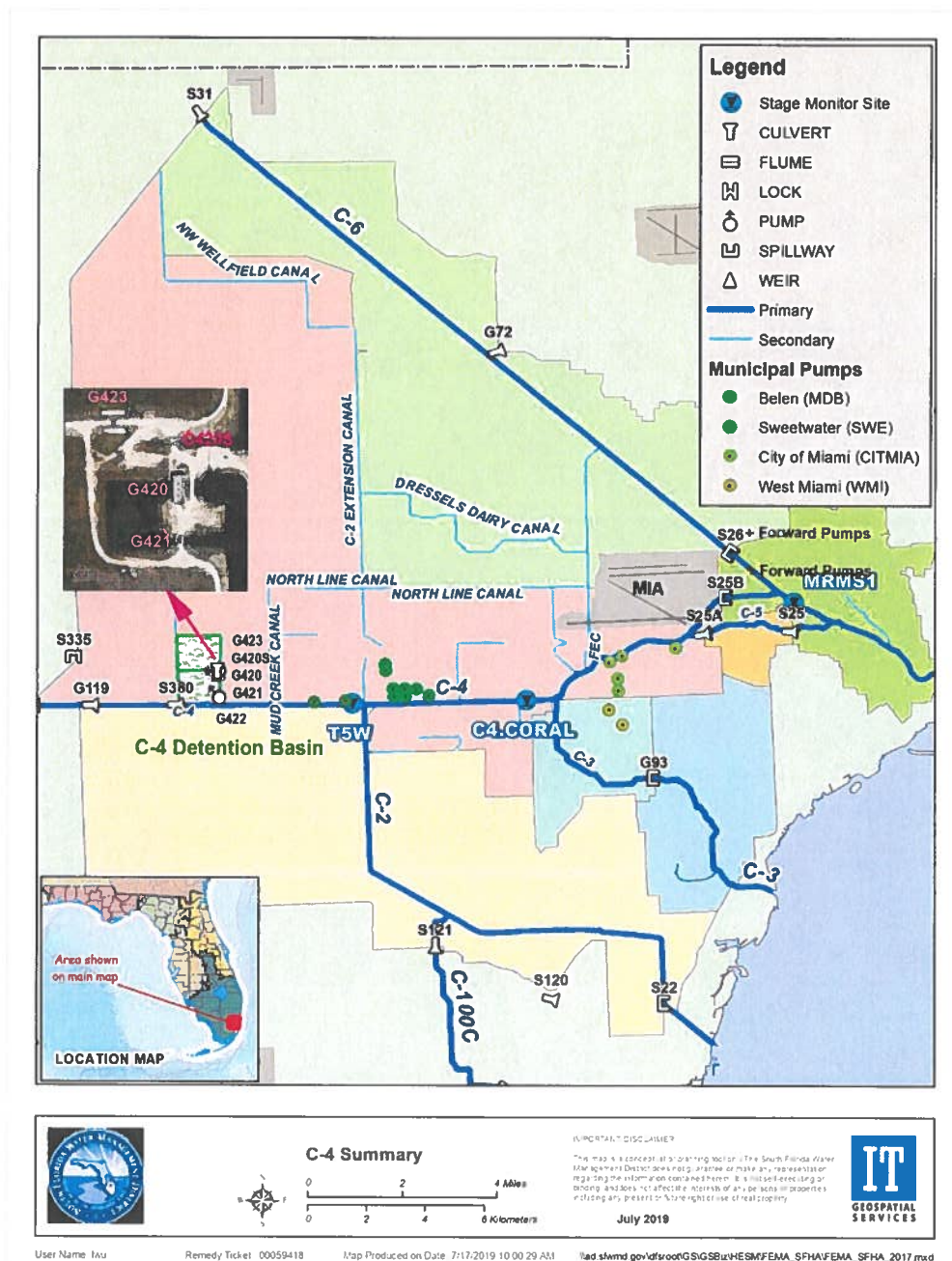


Figure 1: C-4 Basin Components



3. SYSTEM COMPONENTS

The C-4 Basin consists of a main canal: the C-4 Canal; associated lateral discharge canals that have an open connection to the C-4 Canal: C-2 Canal (Snapper Creek), and the C-3 Canal (Coral Gables); and a series of original structures with flood protection and water supply functions: G-119, S-380, S-25B, G-93 (C-3 Canal) and S-22 (C-2 Canal) all of which are shown on Figure 1.

The new structures in the system, added as part of this program, include the S-25B Forward Pump Station, S-26 Forward Pump Station, G-420 Pump Station, G420 Seepage Pump, G-421 Outlet Spillway, G-422 Inflow Pump Station, and G-423 Inter-cell Transfer Structure.

Historically, the system discharges to the east through the C-4 Canal, which in turn discharges into the Miami River and Biscayne Bay. Discharges from the C-4 into the Miami River are mostly through the S-25B gated spillway structure. C-4 is open connected to C-2 and C-3. When conveyance capacity is available, additional discharges from the C-4 Canal are routed to the ocean through the C-2 Canal (Snapper Creek) and structure S-22, and through the C-3 Canal (Coral Gables) and structure G-93. (Reference Figure 1 for locations).

The additional components of the system are also shown in Figure 1 and include the following:

- S-25B Forward Pump Station
- S-26 Forward Pump Station
- C-4 Emergency Detention Basin Phase I which includes the G-420 Inflow Structure and G-421 Outlet Spillway
- C-4 Emergency Detention Basin Phase II including G-422 Inflow Pump Station and G-423 Inter-Cell Transfer Structure

3.1 C-2 Canal Structures

3.1.1 S-22

S-22 consists of two (2) 15 feet high by 17 feet wide cable operated vertical lift gates. It is designed to provide approximately 1,905 cfs of flow capacity. The design capacity of S-22 is based on a headwater stage of 2.0 feet NAVD (+3.5 feet NGVD) and a tailwater stage of +1.2 feet NAVD (+2.7 feet NGVD). The discharge from the structure is controlled by an electric driven cable drum operated vertical lift gate. The gates can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. S-22 is equipped with L.P. gas driven generator as emergency back-up power. S-22 structure details are provided in Appendix 1.

3.2 C-3 Canal Structures

3.2.1 G-93

G-93 consists of two (2) 5 feet high by 10 feet wide cable operated vertical lift gates. It is designed to provide approximately 640 cfs of flow capacity. The design capacity of G-93 is based on a headwater stage of 2.9 feet NAVD (+4.5 feet NGVD) and a tailwater stage of +1.4 feet NAVD (+3.0 feet NGVD). The discharge from the structure is controlled by two (2) stem operated vertical lift roller gates. The gates can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. G-93 is



equipped with L.P. gas driven generator as emergency back-up power. G-93 structure details are provided in Appendix 1.

3.3 C-4 Canal Structures

3.3.1 G-119

G-119 consists of two (2) 72 inch CMP culverts with the invert elevation of the culvert barrels at -5.0 feet NAVD (-3.5 NGVD). It is designed to provide approximately 200 cfs of flow capacity. The design capacity of G-119 is based on a headwater stage of 2.6 feet NAVD (+4.2 feet NGVD) and a tailwater stage of +2.1 feet NAVD (+3.7 feet NGVD). Control is affected by (2) two manually operated 6.0 feet square sluice gates mounted on a frame on the upstream or west end of the structure. G-119 does not require emergency power. G-119 structure details are provided in Appendix 1.

3.3.2 S-380

S-380 is a five (5) 72 inch CMP culvert located in the C-4 (Tamiami) Canal. It has the design capacity of 400 cfs. Control is affected by single stem sluice gates mounted on a frame on the upstream (west end of the structure). The gates can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. S-380 is equipped with L.P. gas driven generator as emergency back-up power. S-380 structure details are provided in Appendix 1.

3.3.3 S-25B

S-25B consists of two (2) 11.9 feet high by 22.8 feet wide hydraulically driven cable operated vertical lift gates. It is designed to provide approximately 2,000 cfs of flow capacity. The design capacity of S-25B is based on a headwater stage of 2.8 feet NAVD (+4.4 feet NGVD) and a tailwater stage of +2.5 feet NAVD (+4.1 feet NGVD). The discharge from the structure is controlled by two (2) hydraulically driven cable operated vertical lift gates. The gates can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. S-25B is equipped with L.P. gas driven generator as emergency back-up power. S-25B structure details are provided in Appendix 1.

3.3.4 S-25B Forward Pumps

Structure S-25B Pump is a reinforced concrete, electric pump station, with discharge controlled by three (3) 200 cfs operated pumps. The pumps can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. This structure is operated in coordination with the adjacent S-25B spillway. S-25B Forward Pumps are equipped with Onan diesel generator as emergency back-up power. S-25B Forward Pumps structure details are provided in Appendix 1.

3.4 C-6 Canal Structures

3.4.1 S-26

S-26 consists of two (2) 14.1 feet high by 26 feet wide hydraulically driven cable operated vertical lift gates. It is designed to provide approximately 3,470 cfs of flow capacity. The design capacity of S-26 is based on a headwater stage of 2.9 feet NAVD (+4.4 feet NGVD) and a tailwater stage of +2.4 feet NAVD (+3.9 feet NGVD). The discharge from the structure is controlled by two (2) hydraulically driven cable operated vertical lift gates. The gates can either be remotely operated from the SFWMD Operation Control Center



or controlled on-site. S-26 is equipped with L.P. gas driven generator as emergency back-up power. S-26 structure details are provided in Appendix 1.

3.4.2 S-26 Forward Pumps

Structure S-26 Pump is a reinforced concrete, electric pump station, with discharge controlled by three (3) 200 cfs operated pumps. The pumps can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. This structure is operated in coordination with the adjacent S-26 spillway. S-26 Forward Pumps are equipped with Onan diesel generator as emergency back-up power. S-26 Forward Pumps structure details are provided in Appendix 1.

3.5 C-4 Detention Basin Structures

3.5.1 G-420

The G-420 is a three-unit diesel pump station with total capacity of 670 cfs. G-420 is to pump water from C-4 into the C-4 EDB for flood control. The pumps can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. G-420 does not require backup emergency power. Pump G-420 structure details are provided in Appendix 1.

3.5.2 G-420S

G-420S seepage pump consists of a 100-cfs submersed electric pump. G-420S seepage pump is to recirculate water collected in the seepage collection canal. The pumps can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. G-420S does not require backup emergency power. Pump G-420S structure details are provided in Appendix 1.

3.5.3 G-421

G-421 consists of one (1) 4 feet high by 20 feet wide cable operated vertical lift gate. G-421 is used to release water from the EDB basin back to the C-4 after the storm event has passed. The gate can either be remotely operated from the SFWMD Operation Control Center or controlled on-site and does not require emergency backup power. G-421 structure details are provided in Appendix 1.

3.5.4 G-422

The G-422 is a seven-unit electric pump station with total capacity of 623 cfs. G-422 is to pump water from C-4 Canal into the southern cell of the EDB for flood control. The pumps can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. G-422 is equipped with two 450 KW and one 200 KW Onan diesel generator as emergency back-up power. Pump G-422 structure details are provided in Appendix 1.

3.5.5 G-423

Structure G-423 is located at C-4 EDB. It is the control structure between northern and southern cells of C-4 EDB. This structure is used to transfer water between the north and south cells as needed. G-423 consists of six 5-feet high by 10-feet wide reinforced concrete box culverts approximately 30 feet long. The invert elevation of each culvert is 3.4 feet NAVD (5.0 feet NGVD). Each culvert has a vertical lift gate (each 5-



feet high by 10-feet wide) control gate at its upstream end. The gates can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. G-423 utilizes L.P. Gas driven generator at G-420 as emergency back-up power. G-423 structure details are provided in Appendix 1.

4. OPERATING PLAN FOR C-4 BASIN

The structure description for the new structures (G-420, G-420S, G-421, G-422 and G-423) and existing structures (S-25, S-25A, S-25B, S-26, G-93, G-119 and S-22) is incorporated into this report as part of Appendix 1. For more details about the operation of the existing structures please refer to the corresponding Water Control Plan or System Operating Manual.

In the event of a storm, the system will be operated as follows:

- 1) Discharges in C-4 shall continue to flow in the historic manner, that is, be routed towards the east to S-25B.
- 2) Consistent with past practices, discharges are also routed south and east through the C-2 (Snapper Creek) and C-3 (Coral Gables Canal) if conveyance capacity in these systems is available. These systems will continue to be used so long as conveyance capacity exists as this is an open connection.
- 3) Both S-25B and S-26 forward pumps will be operated when the water level in Canal C-4, as measured at T5W, rises above 3.6 feet NGVD.
- 4) Both S-25B and S-26 forward pumping will stop when the stage in the Miami River as measured at MRMS1 monitoring station equals or exceeds elevation 4.75 feet NGVD, or once T5W has recovered to below 3.5 feet NGVD and is receding.
- 5) Once the stage at T5W stage monitoring station reaches an elevation of 4.0 feet NGVD, pumping into the EDB begins with either all 3 pumps at G-420 (total 669 cfs) or all 7 pumps at G-422 (total 623 cfs) turned on. If not already opened, G-423 will be opened fully at this time as well. When T5W stage rises above 4.2 feet NGVD, pumping into the EDB will increase to a maximum of 1,292 cfs (G-420 with 3 pumps = 669 cfs plus G-422 with 7 pumps = 623 cfs)

NOTE: The northern cell of the C-4 EDB is intended to be mined in the future. There is no required change in operations or restrictions on operations once mining begins. The entire EDB will continue to be fully available before, during, and after mining operations. The G-423 culverts may at times be closed to facilitate mining operations when conditions allow and potentially during some rain events if conditions allow. However, there is no requirement to keep the G-423 culverts closed. The G-423 culverts can and will be opened at will by the SFWMD.

- 6) When the stage at the T5W stage monitoring station reaches an elevation of 4.00 feet NGVD, S-380 will be partially closed to limit discharges through only one culvert barrel. Therefore, 4 of the 5 culvert gates will be closed completely. Should the stage at T5W increase to 4.5 feet NGVD, all gates at S-380 will be closed until the stage at T5W recedes to 4.0 feet NGVD.
- 7) Flood pumping into the EDB shall continue until at least one of the following conditions occurs:



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- a. Stages in the EDB have reached elevation 8.0 feet NGVD and stages at T5W begin to recede below elevation 4.2 feet NGVD (also see note below) or;
- b. The stage immediately upstream of the G-420 pump station is at or below elevation 2.6 feet NGVD29 or;
- c. Stages at T5W show a receding trend evidencing that the rest of the system can handle and convey the inflows from the C-4 to tide or;
- d. The stage in the EDB has reached a maximum elevation 10.00 feet NGVD29;

NOTE: When stages in the EDB are at 8.00 feet NGVD29 (half full), the District will assess conditions and forecast and may temporarily reduce or terminate pumping. If the stage at T5W rises to 4.4 feet NGVD29, then pumping into the EDB will resume until T5W stages recede or the EDB is full (elevation 10.0 feet NGVD29).

- 8) Once a stage between 9.5 to 9.8 feet NGVD29 has been reached in the EDB, Miami-Dade County and the Cities of Miami, Sweetwater, and West Miami will be notified to terminate pumping until advised by the District that conditions in the primary system have improved and they may resume pumping. The stage for notification within the 9.5 to 9.8 feet range will be based on potential for rainfall and rate of rise of the EDB. Resumption of pumping may be limited to a partial capacity until conditions in the C-4 Canal improve to allow incrementally greater or full capacity.
- 9) The District will consider commencing discharges out of the EDB through structure G-421 once the storm event has passed and the stage at T5W recedes below elevation 4.0 feet NGVD. The discharges will be regulated so as to not overtax the C-4 Canal. Gate operations will be performed while monitoring stages at T5W and C4 Coral stage monitoring stations and maintaining a maximum stage of 4.0 feet at T5W. If the stages in the C-4 Canal allow it (T5W stage is below elevation 4.0 feet NGVD29 and trend is receding), the gate opening may be increased, until the system is discharged completely. Once the EDB has been emptied, the S-380 structure may be fully opened to drain the area west of S-380 down to a stage of 4.0 feet NGVD29.

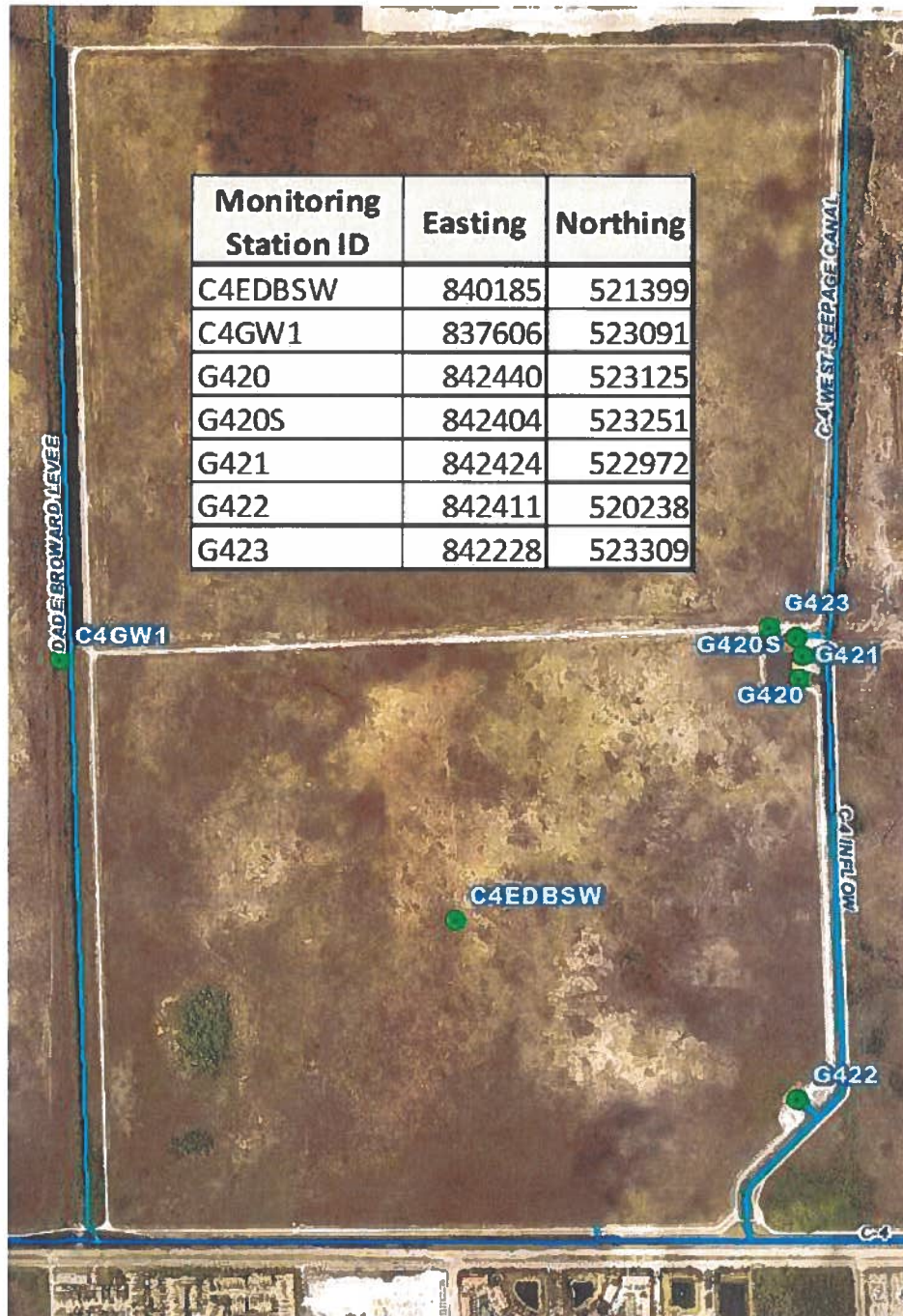


Figure 2: C-4 Emergency Detention Basin Monitoring Stations

APPENDIX 1 - WATER CONTROL STRUCTURES INFORMATION

S-25B – STRUCTURE [NAVD88 = NGVD29 - 1.55 FEET]

STRUCTURE S-25B SPILLWAY

The S-25B is a two-bay, reinforced concrete gated spillway located in the City of Miami immediately east of the Northwest 42nd Avenue (Le Jeune Road) crossing of the C-4 (Tamiami) Canal, east of Miami international airport. The structure is currently maintained by Miami Field Station.

The structure consists of two (2) 11.9 feet high by 22.8 feet wide gates with sill elevations of -7.9 feet NGVD29. The discharge from the structure is controlled by two (2) hydraulically driven cable operated vertical lift gates. The gates can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. To maintain flood protection for the C-4 basin, a 600 cfs pump station was added to S-25B spillway as part of the Miami Dade County Flood Mitigation Program (SFWMD, 2000a¹).

PURPOSE

Structure S-25B controls flow from the C-4 canal to the Miami Canal downstream of S-26. The structure maintains optimum water control stages upstream in the C-4 Canal; it was designed to pass 100% of the Standard Project Flood (SPF) for the eastern portion of the C-4 basin without exceeding upstream flood design stage and restricts downstream flood stages and discharge velocities to non-damaging levels; and it prevents saltwater intrusion from Miami Canal during periods of high tides.

OPERATIONS

This structure will operate to maintain an optimum headwater elevation of 2.8 feet NGVD29 but includes seasonal variability from a low of 0.0 feet NGVD29 to a maximum of 3.0 feet NGVD29. The automatic controls on gates will function as follows:

Normal Range

Normal operational range is from 2.0 feet NGVD29 to 3.0 feet NGVD29. During very dry conditions the bottom of normal range may be raised by 0.5 feet (2.5 feet NGVD29) to prevent saltwater intrusion.

Low Range

Low operational range is from 1.0 feet NGVD29 to 2.0 feet NGVD29. During very wet conditions in the C-4 Basin or when C-4 detention basin EDB is used for flood control, an operational range of 0.0 to 1.0 feet NGVD29 may be used.

For manatee protection the minimum gate opening is 2.5 feet. The SFWMD has installed manatee sensor devices consisting of a series of pressure sensitive plates on the bottom of the vertical lift gates which transmit a signal used to reverse gate direction when resistance is encountered. When the sensors are enacted, the gate will pause for 3 seconds and return to 2.5 feet. When it reaches 2.5 feet, it will fully close unless something is still under the gate. The controls for the manatee sensor devices override those for the alternate gate operation.

¹ SFWMD, 2000a. Flood Mitigation Projects, Miami-Dade County, Florida. SFWMD, Emergency Operations Center, Recovery Task Force Recommendations, October 24, 2000.

S-25B – STRUCTURE [NAVD88 = NGVD29 - 1.55 FEET]

During severe storms and hurricanes for which the probability of inundation of the backup generator is high, S-25B is locked open and the generator which normally auto-start during power failures are deactivated to facilitate rapid recommissioning following the storm.

Table 1. Discharge Characteristics of Structure S-25B Spillway

DISCHARGE CHARACTERISTICS	
Design Discharge	2,000 cfs (100% SPF for eastern C-4 basin)
SPF Discharge	2,000 cfs
Design Headwater Elevation	4.4 feet NGVD29 ¹
SPF Headwater Elevation	4.4 feet NGVD29 ¹
Design Tailwater Elevation	4.1 feet NGVD29
SPF Tailwater Elevation	4.1 feet NGVD29
Optimum Headwater Elevation	2.8 feet NGVD29
Optimum Tailwater Elevation	Tidal
Minimum Headwater Elevation	N/A
Minimum Tailwater Elevation	1.5 feet NGVD29 (MWVM, V.5, 1995)
Type of Discharge	Uncontrolled submerged
Generator Finished Floor Elevation	10.7 feet NGVD29
Storm Surge - MOM Elevation ²	
Hurricane Category 1	5.15 feet NGVD29
Hurricane Category 2	5.65 feet NGVD29
Hurricane Category 3	6.45 feet NGVD29
Hurricane Category 4	7.65 feet NGVD29
Hurricane Category 5	9.85 feet NGVD29

¹Allowing for 0.3-feet head loss due to debris and vegetation, the design and SPF HW would be 4.7 feet NGVD29 (MWCM, A-S25B-2, V.5, 1995).

² MOM Elevation is SLOSH (2009-2010) model output corresponding to maximum of MEOW (Maximum Envelope of Water with high tide as initial condition).

Table 2. Hydraulic Description of Structure S-25B Spillway

DESCRIPTION OF STRUCTURE	
Type	Fixed crest reinforced concrete gated spillway
Weir crest:	Trapezoidal
Net crest length:	44.0 feet
Crest elevation:	-7.9 feet NGVD29
Service bridge elevation:	8.7 feet NGVD29
Water level which will bypass structure:	5.7 feet NGVD29
Gates	
Number:	2

S-25B – STRUCTURE [NAVD88 = NGVD29 - 1.55 FEET]

DESCRIPTION OF STRUCTURE	
Size:	11.9 feet high by 22.8 feet wide
Type:	Vertical lift
Gate Control:	Remote and automatic on-site control
Bottom elevation of gate full open:	5.7 feet NGVD29
Top elevation of gate full closed:	4.0 feet NGVD29
Apron	
Apron elevation:	-9.9 feet NGVD29
Apron length:	20.0 feet
End sill elevation:	-8.9 feet NGVD29
Riprap Length (downstream):	20 feet
Canal Description (upstream and downstream)	
Bottom width:	Both 75 feet
Bottom elevation:	Both -12.0 feet NGVD29
Side Slope (V): (H):	Both 1:2
Lift Mechanism	
Normal Power Source:	Commercial electricity
Emergency Power Source:	L. P. gas driven generator
Type:	Hydraulic cylinder actuated by electric motor driven pump, with emergency hand pump; connected to gate by steel cables
Hydraulic and Hydrologic Measurements	
Water Level:	Telemetered headwater (HW) and tailwater (TW)
Gate Position Recorder:	Telemetered gate sensor
Date of Transfer:	Unknown
Dewatering Facilities:	
Storage:	Needles at Miami Field Station Beams at West Palm Beach Field Station
Type:	Needle beams and vertical aluminum needles
Size and Nos (per bay):	Upstream and downstream Number – 2 beam; needles, 5 @ 4', 1 @ 3', 1 @ 2' wide Size – beam needles 20' long
Manatee Protection System	Yes
Access	Access to the structure is gained by a short access road (about 600 feet) from N.W. 21st Street just east of Le Jeune Road in the City of Miami.

STRUCTURE S-25B FORWARD PUMP STATION

The S-25B Forward Pump is a reinforced concrete, electric pump station, with discharge controlled by three (3) 200 cfs pumps. These pumps were added to the gravity structure S-25B in 2002 to maintain discharges from the land side to the seaside of the structure when gravity capacity is limited, or the gates need to be closed due to the threat of saltwater intrusion. The pumped water flows into the 120 feet box culvert that runs under and along the edge of a golf course south of the S-25B spillway and discharges downstream (east) of S-25B into the C-4 canal. The culvert is 10 feet high by 8 feet wide and consists of segmental sections with bell and spigot type connections.

The pumps can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. This structure is operated in coordination with the adjacent S-25B spillway.

PURPOSE

Operation of the S-25B Forward Pump Station allows additional discharge capacity during high tide or storm surge events when downstream water levels are elevated.

OPERATIONS

Operation of the S-25B Forward Pump Station is an integral part of C-4 Basin Operating Plan (SFWMD, 2024) and at least one unit will be operated to control upstream stages when all of the conditions listed below occur concurrently:

1. The T5W gage stage exceeds 3.6 feet NGVD29. The T5W gage is located on the C-4 canal, just upstream from its crossing under the Florida Turnpike.
2. The Miami River Stage Monitoring Station 1 (MRMS1) is less than 4.75 feet NGVD29, or T5W has not recovered to below 3.5 feet NGVD29. The MRMS1 gage is located on the Miami Canal (C-6) just downstream of the NW 27th Ave Bridge.
3. The headwater elevation at S-25B is above 1.0 feet NGVD29.

When S-25B spillway is discharging more than 600 cfs the pumps may be secured, or they may be run 24/7 if the conditions warrant it. 24/7 operations are subject to the headwater low limit of 1.0 feet NGVD29.

S-25B – STRUCTURE [NAVD88 = NGVD29 - 1.55 FEET]

Table 3. Discharge Characteristics of S-25B Forward Pump

DISCHARGE CHARACTERISTICS	
Design Discharge Capacity Total	600 cfs (3×200 cfs)
Design Discharge Capacity Per Pump	200 cfs
Design Headwater Elevation	N/A
Minimum Low Water (Headwater) Elevation	0.9 feet NGVD29
Generator Finished Floor Elevation	10.7 feet NGVD29
Storm Surge - MOM Elevation ¹	
Hurricane Category 1	5.15 feet NGVD29
Hurricane Category 2	5.65 feet NGVD29
Hurricane Category 3	6.45 feet NGVD29
Hurricane Category 4	7.65 feet NGVD29
Hurricane Category 5	9.85 feet NGVD29

¹MOM Elevation is SLOSH (2009-2010) model output corresponding to maximum of MEOW (Maximum Envelope of Water with high tide as initial condition).

Table 4. Hydraulic Description of S-25B Forward Pump

DESCRIPTION OF STRUCTURE	
Type	Submersible Pumps with a 54" vertical lift Impeller
Pump	
Number:	3
Manufacturer:	MWI
Model:	SEA354
Impeller Size:	4.5 feet
Impeller Speed:	305 rpm
Engine Speed:	1,780 RPM
Engine horsepower:	400 HP
Intake and Discharge Pipe Diameter:	N/A (Submersible)
Discharge Pipe Length:	N/A (Submersible)
Service Bridge Elevation:	8.7 feet NGVD29
Inundation Level (Operating Floor):	N/A (Submersible)
Invert elevation	
Intake Bell:	-7.33 feet NGVD29
Discharge Weir Crest:	6.0 feet NGVD29
Bottom Elevation of Inlet Bay:	-10.0 feet NGVD29
Power	
Normal:	Commercial electricity during off-peak hours; Onan diesel generator model DFEC-5002522, 450 KW during peak hours and emergencies.
Emergency:	Onan diesel generator model DFEC 450 KW

S-25B – STRUCTURE [NAVD88 = NGVD29 - 1.55 FEET]

DESCRIPTION OF STRUCTURE	
Gate	
Type:	N/A
Gate Size:	N/A
Hydraulic and Hydrology Measurements	
Water Level:	Telemetered Headwater (HW) and Tailwater (TW)
Pump Status:	Telemetry recorder
Rain Gauge:	No
Canal Description (upstream; downstream)	
Bottom width:	Both 75 feet
Bottom elevation:	Both -12.0 feet NGVD29
Side Slope (V): (H):	Both 1:2
Manatee Protection System	Yes
Date of Transfer/Operation:	2004
ACCESS	Access to the structure is gained by a short access road (about 600 feet) from N.W. 21st Street just east of Le Jeune Road in the City of Miami.

S-25B – STRUCTURE [NAVD88 = NGVD29 - 1.55 FEET]

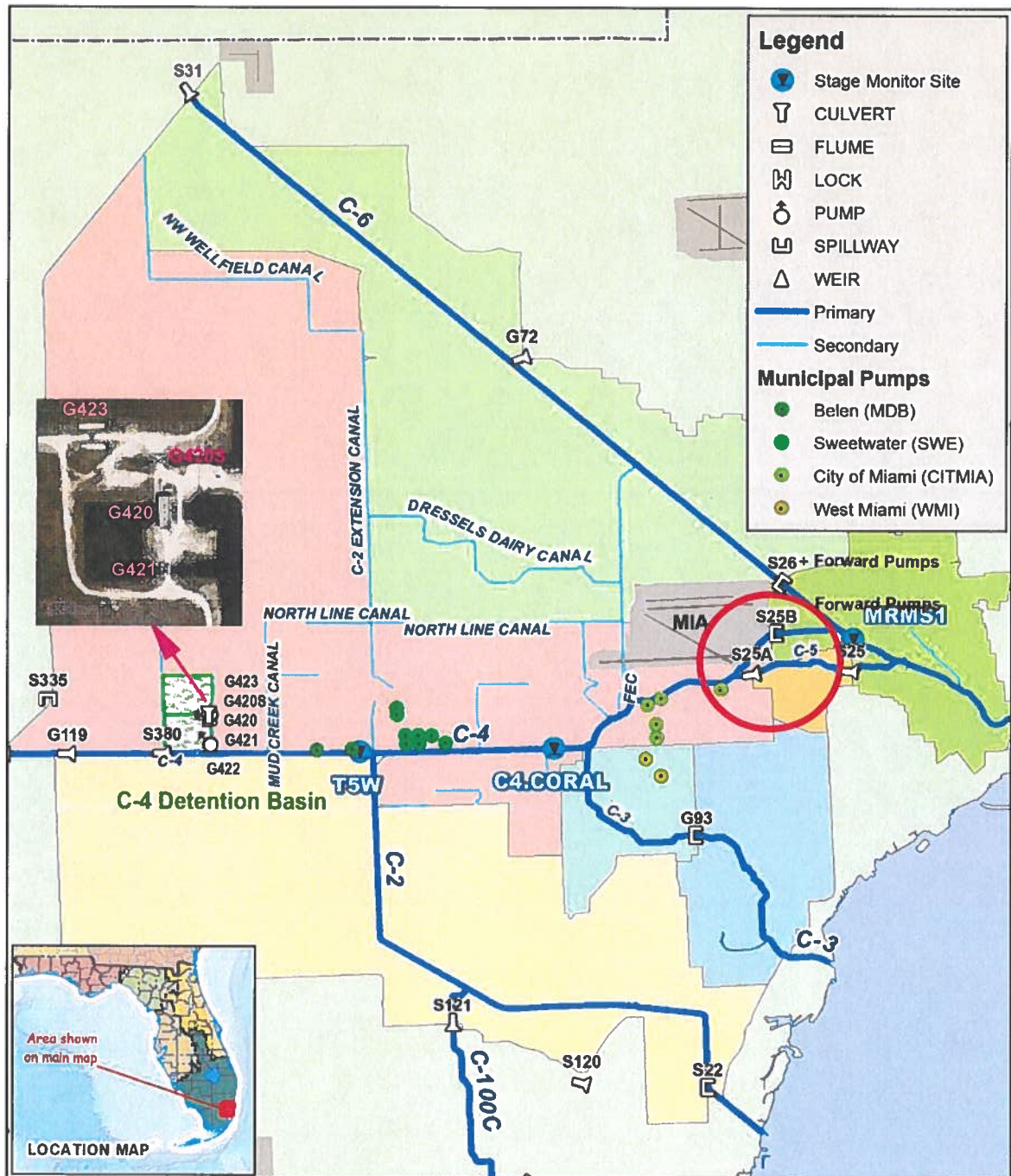


Figure 1: Structure S-25B Location

S-25B – STRUCTURE [NAVD88 = NGVD29 - 1.55 FEET]



Figure 2: Structure S-25B- Upstream View

S-25B – STRUCTURE [NAVD88 = NGVD29 - 1.55 FEET]



Figure 3: Structure S-25B Forward Pump – Upstream and Aerial View

S-25B – STRUCTURE [NAVD88 = NGVD29 - 1.55 FEET]

S-25B RECORD OF CHANGE			
Type	Editor (s)	Date	Reason for Change
Water Manager review	Water Managers	7/24/2024	Final approval
Structure Information Sheet Update	Z. Li	7/16/2024	Update new structural information sheet; operation; and format.
Structure Information Sheet Update	S. Hajimirzaie	05/02/2019	Update new structural information sheet; operation; and format
Editorial	C. Qi	09/16/2014	Added NAVD 88 conversion factor; verified and modified section on Manatee sensors.
Editorial	Unknown	02/28/2012	Added record of change table. Updated to be consistent with the C4 Canal Operating Plan. Minimum head differential before gates close was changed from 0.3 to 0.1 feet.
Format	T. Strowd	07/26/2002	No changes

S-25BP RECORD OF CHANGE			
Type	Editor (s)	Date	Reason for Change
Structure Information Sheet Update	S. Hajimirzaie	05/02/2019	Update new structural information sheet; operation; and format
Editorial and Format	J. Brecher	7/21/2015	Update format of document.
Format	T. Strowd	05/2/2002	No changes

STRUCTURE S-26 SPILLWAY

S-26 is a two-bay, reinforced concrete gated spillway located in the City of Miami at the NW 36th Street crossing of the Miami (C-6) Canal, between NW North River Drive and NW South River Drive, northeast of the Miami International Airport. The structure is currently maintained by the Miami Field Station.

The structure consists of two (2) 14.1 feet high by 26.0 feet wide gates with sill elevations of -10.1 feet NGVD29. The discharge from the structure is controlled by two (2) hydraulically driven cable operated vertical lift gates. The gates can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. To maintain flood protection for the C-6 basin, a 600 cfs pump station was added to S-26 spillway as part of the Miami Dade County Flood Mitigation Program (SFWMD, 2000a¹).

PURPOSE

The S-26 is the outlet to tide for the C-6 basin. The structure maintains optimum water control stages upstream in C-6 Canal; it was designed to pass 100% of the Standard Project Flood (SPF) without exceeding upstream flood design stage and restricts downstream flood stages and discharge velocities to non-damaging levels; and it prevents saltwater intrusion during periods of high tides.

OPERATIONS

This structure will operate to maintain an optimum headwater stage of 2.5 feet NGVD29 but includes seasonal variability from a low of 1.2 feet NGVD29 to a maximum of 2.8 feet NGVD29. The automatic controls on gates will function as follows:

Normal Range

Normal operational range is from 2.3 feet NGVD29 to 2.8 feet NGVD29. During very dry conditions normal operational range may be raised by 0.2 feet to prevent saltwater intrusion.

Low Range

Low operational range is from 1.2 feet NGVD29 to 1.7 feet NGVD29. During very wet conditions in the C-6 basin, or when the C-4 EDB is used for flood control, an operational range of 0.0 to 1.0 feet NGVD29 may be used.

To meet structural and stability requirements, the maximum allowable head differential on S-26 should not exceed 5.0 feet.

For manatee protection the minimum gate opening is 2.5 feet. The SFWMD has installed manatee sensor devices consisting of a series of pressure sensitive plates on the bottom of the vertical lift gates which transmit a signal used to reverse gate direction when resistance is encountered. When the sensors are enacted, the gate will pause

¹ SFWMD, 2000a. Flood Mitigation Projects, Miami-Dade County, Florida. SFWMD, Emergency Operations Center, Recovery Task Force Recommendations, October 24, 2000.

S-26 – STRUCTURE [NAVD88 = NGVD29 - 1.54 FEET]

for 3 seconds and return to 2.5 feet. When it reaches 2.5 feet, it will fully close unless something is still under the gate. The controls for the manatee sensor devices override those for the alternate gate operation.

During severe storms and hurricanes for which the probability of inundation of the backup generator is high, S-26 is locked open and the generator which normally auto-start during power failures are deactivated to facilitate rapid recommissioning following the storm.

Table 1. Discharge Characteristics of Structure S-26 Spillway

DISCHARGE CHARACTERISTICS	
Design Discharge	3,470 cfs (100% SPF)
SPF Discharge	3,470 cfs
Optimum Headwater Elevation	2.5 feet NGVD29
Design Headwater Elevation	4.4 feet NGVD29
Design Tailwater Elevation	3.9 feet NGVD29
SPF Headwater Elevation	4.4 feet NGVD29
SPF Tailwater Elevation	3.9 feet NGVD29
Optimum Tailwater Elevation	Tidal
Type of Discharge	Uncontrolled submerged
Generator Finished Floor Elevation	10.3 feet NGVD29
Storm Surge - MOM Elevation ¹	
Hurricane Category 1	5.84 feet NGVD29
Hurricane Category 2	6.34 feet NGVD29
Hurricane Category 3	7.04 feet NGVD29
Hurricane Category 4	9.04 feet NGVD29
Hurricane Category 5	10.84 feet NGVD29

¹MOM Elevation is SLOSH (2009-2010) model output corresponding to maximum of MEOW (Maximum Envelope of Water with high tide as initial condition).

Table 2. Hydraulic Description of Structure S-26 Spillway

DESCRIPTION OF STRUCTURE	
Type	Fixed crest reinforced concrete gated spillway
Weir crest:	Trapezoidal
Net crest length:	52.0 feet
Crest elevation:	-10.1 feet NGVD29
Service bridge elevation:	8.4 feet NGVD29
Water level which will bypass structure:	5.5 feet NGVD29
Gates	
Number:	2
Size:	14.1 feet high by 26.81 feet wide
Type:	Vertical lift
Gate Control:	Remote and automatic on-site control
Bottom elevation of gate full open:	5.4 feet NGVD29

S-26 – STRUCTURE [NAVD88 = NGVD29 - 1.54 FEET]

DESCRIPTION OF STRUCTURE	
Top elevation of gate full closed:	4.0 feet NGVD29
Apron	
Apron elevation:	-11.0 feet NGVD29
Apron length:	7.9 feet
End sill elevation:	None
Riprap length (downstream):	None (down to bedrock)
Canal Description (upstream and downstream)	
Bottom width:	Both 60 feet
Bottom elevation:	Both -10.0 feet NGVD29
Side Slope (V): (H):	Both 1:1
Lift Mechanism	
Normal Power Source:	Commercial electricity
Emergency Power Source:	L. P. gas driven generator
Type:	Hydraulic cylinder actuated by electric motor driven pump, with emergency hand pump; connected to gate by steel cables
Hydraulic and Hydrologic Measurements	
Water Level:	Telemetered headwater (HW) and tailwater (TW)
Gate Position Recorder:	Telemetered gate sensor
Date of Transfer:	Unknown
Dewatering Facilities:	
Storage:	Needles at Miami Field Station Beams at West Palm Beach Field Station
Type:	Needle beams and vertical aluminum needles
Size and Nos (per bay):	Beam 27WF84 with ends cut down to 18", length 27' - 11" needles 20' long
Manatee Protection System	Yes
Access	The structure is located about 150 feet northeast of NW South River Drive just downstream from NW 36th Street, City of Miami.

STRUCTURE S-26 FORWARD PUMP STATION

S-26 Forward Pump is a reinforced concrete, electric pump station, with discharge controlled by three (3) 200 cfs pumps. These pumps were added to the gravity structure S-26 to maintain discharges from the land side to the seaside of the structure when gravity capacity is limited, or the gates need to be closed due to the threat of saltwater intrusion. The pumps can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. This structure is operated in coordination with the adjacent S-26 spillway.

PURPOSE

Operation of the S-26 Forward Pump Station allows additional discharge capacity during high tide or storm surge events when downstream water levels are elevated. Also, when the S-25B (south of S-26 on C-4 canal) forward pump station is operating, and the S-26 spillway capacity is reduced, the S-26 forward pump station will be operated to maintain upstream flood control protection.

OPERATIONS

The S-26 forward pump station will be operated to maintain an upstream flood control range of 1.0 to 1.4 feet NGVD29. This pump station is turned on whenever all the following conditions occur concurrently:

- 1) The S-25B forward pumps are discharging, and;
- 2) The HW stage measured at the pump station is above elevation 1.4 feet NGVD29.
- 3) The water level in Canal C-4, as measured at T5W, rises above 3.6 feet NGVD29.

The pump station will be turned off whenever any of the following conditions occur:

- 1) The S-25B forward pump station is turned off, or;
- 2) the stage measured at the pump station recedes below elevation 1.0 feet NGVD29, or;
- 3) the S-26 spillway has sufficient available capacity;
- 4) Miami River Stage Monitoring Station 1 (MRMS1), 1.7 Miles downstream of S-26, is greater than 4.75 feet NGVD29.
- 5) T5W has recovered to below 3.5 feet NGVD29 and is receding.

When S-26 spillway is discharging more than 600 cfs the pumps may be secured, or they may be run 24/7 if the conditions warrant. 24/7 operations are subject to the headwater low limit of 1.0 feet NGVD29.

This pump station may also be used during very wet conditions in the C-6 basin or when moving water to tide from Water Conservation Area 3A (WCA-3A).

S-26 – STRUCTURE [NAVD88 = NGVD29 - 1.54 FEET]

Table 3. Discharge Characteristics of S-26 Forward Pump

DISCHARGE CHARACTERISTICS	
Design Discharge Capacity Total	600 cfs (3×200 cfs)
Design Discharge Capacity Per Pump	200 cfs
Design Headwater Elevation	N/A
Minimum Low Water (Headwater) Elevation	0.9 feet NGVD29 (0.0 design value)
Generator Finished Floor Elevation	8.34 feet NGVD29
Storm Surge - MOM Elevation ¹	
Hurricane Category 1	5.84 feet NGVD29
Hurricane Category 2	6.34 feet NGVD29
Hurricane Category 3	7.04 feet NGVD29
Hurricane Category 4	9.04 feet NGVD29
Hurricane Category 5	10.84 feet NGVD29

¹MOM Elevation is SLOSH (2009-2010) model output corresponding to maximum of MEOW (Maximum Envelope of Water with high tide as initial condition).

S-26 – STRUCTURE [NAVD88 = NGVD29 - 1.54 FEET]

Table 4. Hydraulic Description of S-26 Forward pump

DESCRIPTION OF STRUCTURE	
Type	Submersible Pumps with a 54" vertical lift Impeller
Pump	
Number:	3
Manufacturer:	MWI
Model:	SEA354
Impeller Size:	4.5 feet
Impeller Speed:	305 RPM
Engine Speed:	1,780 RPM
Engine horsepower:	400 HP
Intake and Discharge Pipe Diameter:	N/A (Submersible)
Discharge Pipe Length:	N/A (Submersible)
Service Bridge Elevation:	8.5 feet NGVD29
Inundation Level (Operating Floor):	N/A (Submersible)
Invert elevation	
Intake Bell:	-7.33 feet NGVD29
Discharge Weir Crest:	6.0 feet NGVD29
Bottom Elevation of Inlet Bay:	-10.0 feet NGVD29
Power	
Normal:	Commercial electricity during off-peak hours; Onan diesel generator model DFEC-5002522, 450 KW during peak hours and emergencies.
Emergency:	Onan diesel generator model DFEC 450 KW
Gate	
Type:	N/A
Gate Size:	N/A
Hydraulic and Hydrology Measurements	
Water Level:	Telemetered Headwater (HW) and Tailwater (TW)
Pump Status:	Telemetry recorder
Rain Gauge:	Yes (S26_R)
Canal Description (upstream; downstream)	
Bottom width:	Both 60 feet
Bottom elevation:	Both -10.0 feet NGVD29
Side Slope (V): (H):	Both 1:1
Manatee Protection System	Yes
Date of Transfer/Operation:	2004
Access	The structure is located about 150 feet northeast of NW South River Drive just downstream from NW 36th Street, City of Miami.

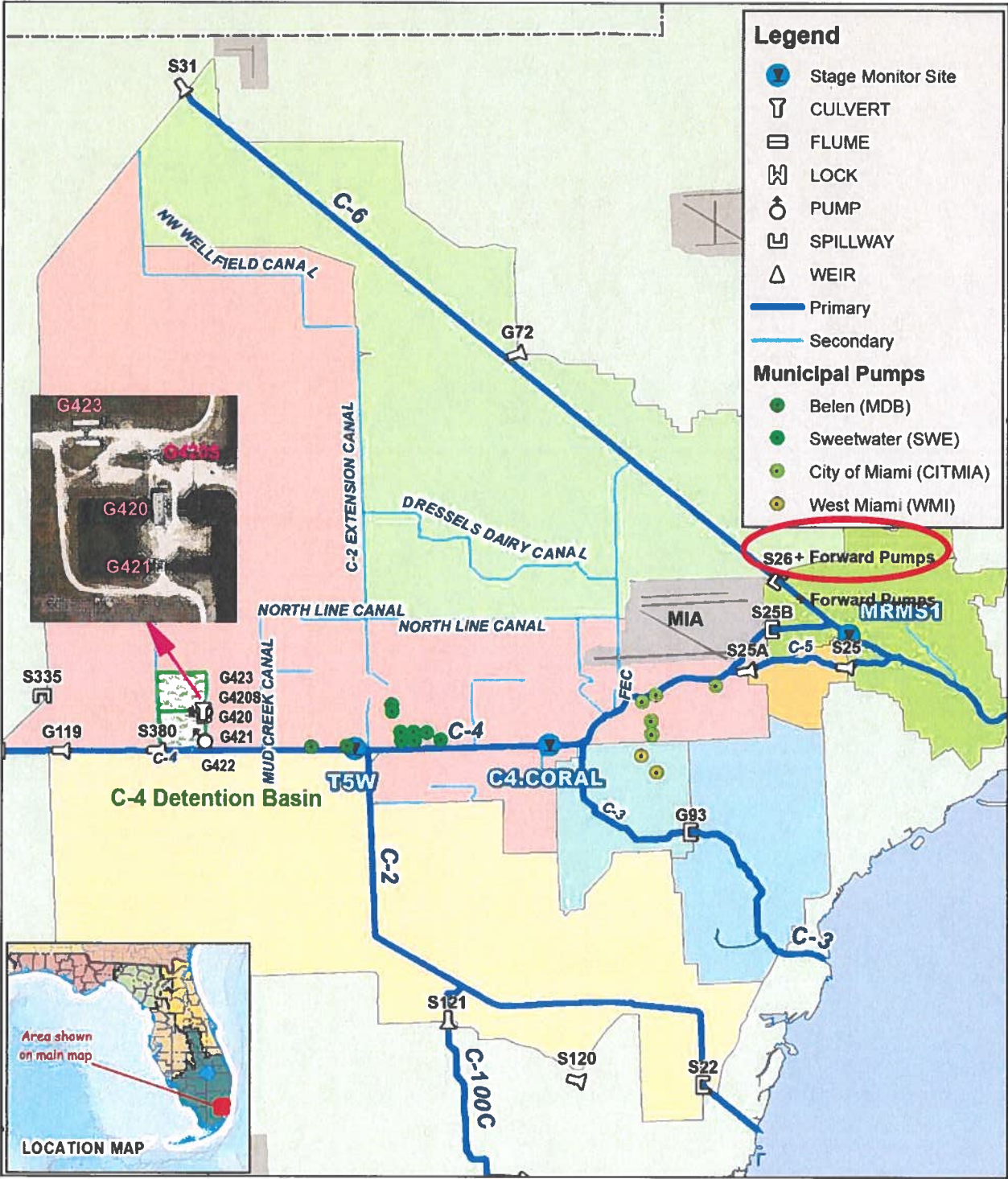


Figure 1: Structure S-26 Location

S-26 – STRUCTURE [NAVD88 = NGVD29 - 1.54 FEET]



Figure 2: Structure S-26 Aerial View

S-26 – STRUCTURE [NAVD88 = NGVD29 - 1.54 FEET]

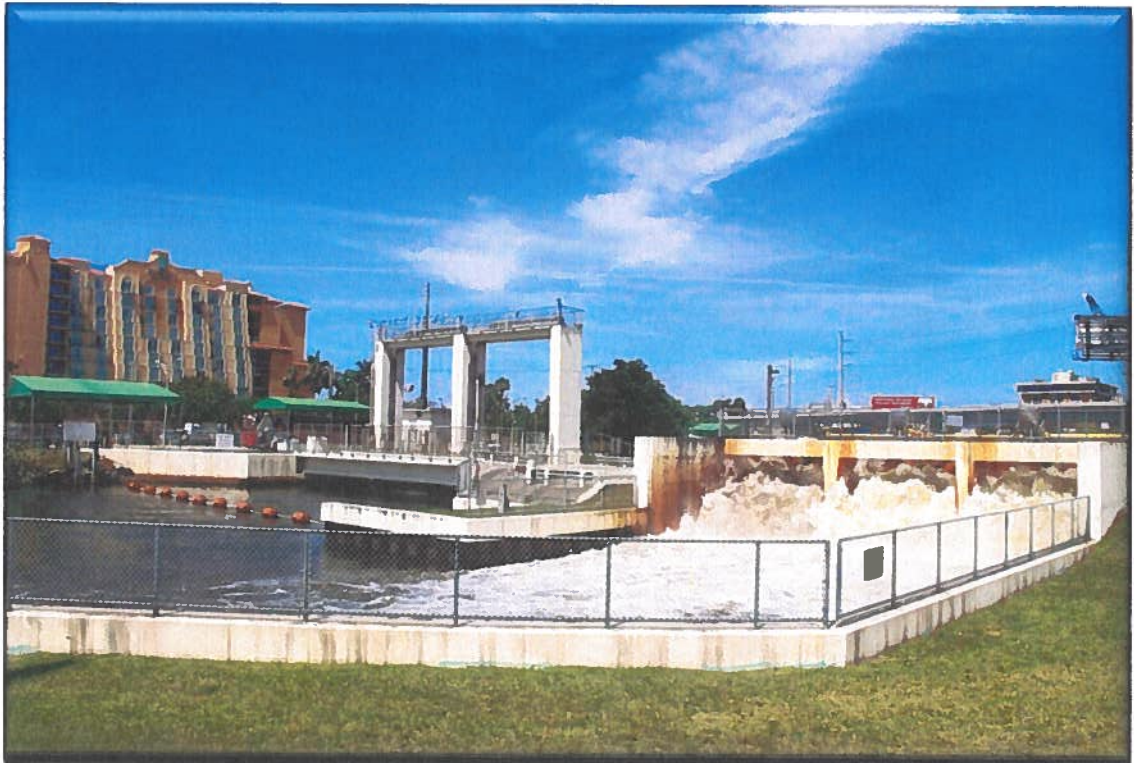
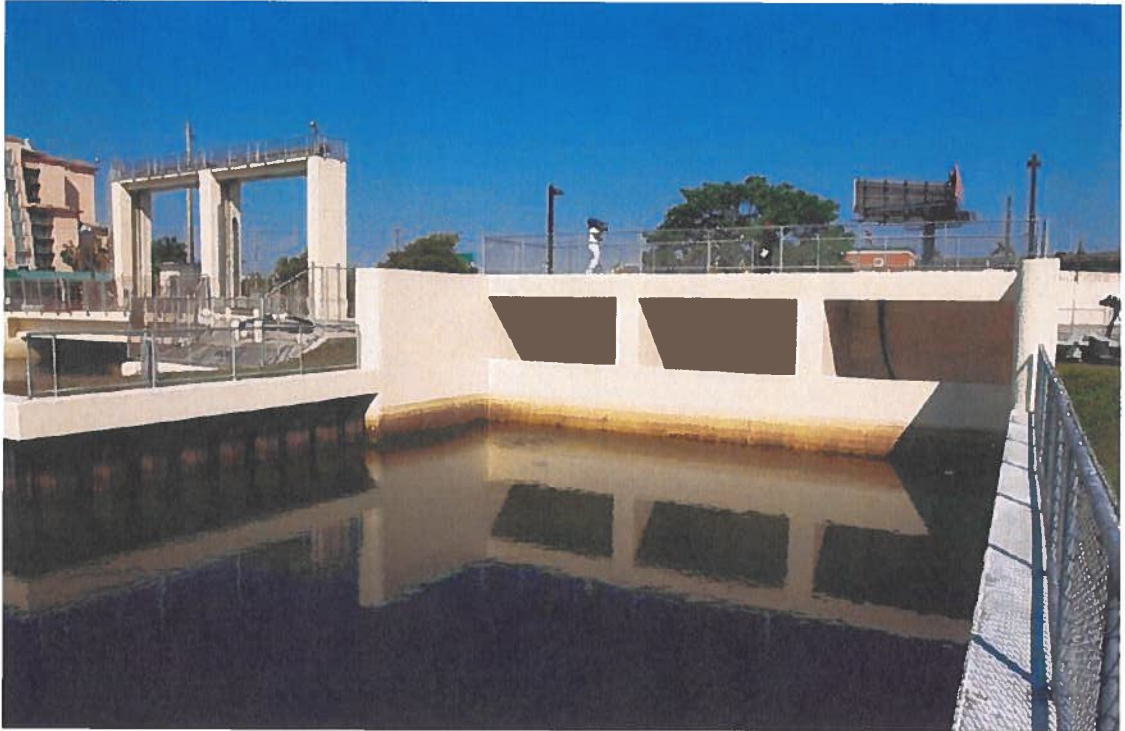


Figure 3: Downstream of the S-26 Structure Looking at the Three Forward Pumps Located Adjacent to the S-26 Spillway Being Tested.

S-26 – STRUCTURE [NAVD88 = NGVD29 - 1.54 FEET]

S-26 RECORD OF CHANGE			
Type	Editor (s)	Date	Reason for Change
Field Station Revisions		07/2002	No changes
Operational Revisions		01/12/2003	Review completed. Under "Water Level" change: • On-site analog, on-site digital (USGS), and remote digital upstream and downstream recorders.
Format and Fact Check		2/27/2015	QA/QC and updating the format of the structure information sheet
Structure Information Sheet Update	S. Hajimirzaie	05/14/2019	Update new structural information sheet
Structure Information Sheet Update	Z. Li	7/16/2024	Update new structural information sheet; operation; and format.
Water Manager review	Water Managers	7/24/2024	Final approval

S-26P RECORD OF CHANGE			
Type	Editor (s)	Date	Reason for Change
Field Station Revisions		07/2002	No changes
Structure Information Sheet Update	G. Hwa, R. Mierau, and C. Neidrauer	05/05/2005	S-26 Pump
Format	J. Brecher	7/22/15	Update format of document
Structure Information Sheet Update	S. Hajimirzaie	05/14/2019	Update new structural information sheet

S-22 – STRUCTURE [NAVD88 = NGVD29 - 1.54 FEET]

DESCRIPTION

S-22 is a two-bay, reinforced concrete gated spillway located in C-2 (Snapper Creek) Canal, about 7,000 feet from the mouth of Biscayne Bay and about ten miles southwest of downtown Miami. The C-2 Canal has as an open channel connection with C-4 Canal, west of intersection of Turnpike and Miami SW 8th Street. The structure is currently maintained by the Miami Field Station.

The structure consists of two (2) 15.0 feet high by 17.7 feet wide gates with sill elevations of -11.0 feet NGVD29. The discharge from the structure is controlled by an electric driven cable drum operated vertical lift gate. The gates can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. Operation of the gate is automatically controlled so that the gate opens or closes in accordance with the operational criteria.

PURPOSE

The purpose of S-22 is to permit release of flood runoff from the tributary basin, prevent over-drainage and saltwater intrusion during periods of high tides and from storm surges. The structure maintains optimum water control stages upstream in C-2 Canal; it was designed to pass 100% of the Standard Project Flood (SPF) without exceeding upstream flood design stage. The design tailwater of S-22 in 1963 had a 5-yr return frequency; it now has a 2-yr return frequency (C-4 Watershed LOS, 2016).

OPERATIONS

This structure will operate to maintain an optimum headwater elevation of 2.9 feet NGVD29 but includes seasonal variability from a low of 0.0 feet NGVD29 to a maximum of 3.5 feet NGVD29. The automatic controls on gates will function as follows:

Normal Range

Normal operational range is from 2.5 feet NGVD29 to 3.5 feet NGVD29. During very dry conditions the bottom of normal range may be raised by 0.5 feet (3.0 feet NGVD29) to prevent saltwater intrusion.

Low Range

Low operational range is from 1.5 feet NGVD29 to 2.5 feet NGVD29. During very wet conditions in the C-4, C-3 and C-2 basins, an operational range of 0.0 to 1.0 feet NGVD29 may be used.

To prevent saltwater intrusion during periods of high tides, the automatic controls on S-22 closes the gates, regardless of the upstream water level, whenever the differential between the head and tailwater pool elevations fall below 0.1 feet.

For manatee protection, the minimum gate opening is 2.5 feet. The SFWMD has installed manatee sensor devices consisting of a series of pressure sensitive plates on the bottom of the vertical lift gates which transmit a signal used to reverse gate direction when resistance is encountered. When the sensors are enacted, the gate will pause for 3 seconds and return to 2.5 feet. When it reaches 2.5 feet, it will fully close unless something is still under the gate. The controls for the manatee sensor devices override those for the alternate gate operation.

S-22 – STRUCTURE [NAVD88 = NGVD29 - 1.54 FEET]

During severe storms and hurricanes for which the probability of inundation of the backup generator is high, S-22 is locked open and the generator which normally auto-start during power failures are deactivated to facilitate rapid recommissioning following the storm.

Table 1. Discharge Characteristics of Structure S-22

DISCHARGE CHARACTERISTICS	
Design Discharge	1,905 cfs ¹ (100% SPF)
SPF Discharge	1,905 cfs
Design Headwater Elevation	3.2 feet NGVD29 ²
Design Tailwater Elevation	2.7 feet NGVD29
Optimum Headwater Elevation	2.9 feet NGVD29
Optimum Tailwater Elevation	Tidal
Minimum Headwater Elevation	N/A
Minimum Tailwater Elevation	N/A
Type of Discharge	Uncontrolled submerged
Generator Finished Floor Elevation	9.4 feet NGVD29
Storm Surge - MOM Elevation ³	
Hurricane Category 1	N/A feet NGVD29
Hurricane Category 2	9.44 feet NGVD29
Hurricane Category 3	11.54 feet NGVD29
Hurricane Category 4	14.24 feet NGVD29
Hurricane Category 5	17.04 feet NGVD29

¹ Calculated based on head differential of 0.2 feet (0.3 feet losses due to debris)- DDM Part V Sup 14.

² MVCM, V.5, 1995

³ MOM Elevation is SLOSH (2009-2010) model output corresponding to maximum of MEOW (Maximum Envelope of Water with high tide as initial condition).

S-22 – STRUCTURE [NAVD88 = NGVD29 - 1.54 FEET]

Table 2. Hydraulic Description of Structure S-22

DESCRIPTION OF STRUCTURE	
Type	Fixed crest, reinforced concrete gated spillway
Weir crest:	Trapezoidal
Net crest length:	34.0 feet
Crest elevation:	-11.0 feet NGVD29
Service bridge elevation:	8.5 feet NGVD29
Water level which will bypass structure:	7.5 feet NGVD29 Strive 2001 taken at SE corner of structure: 8.48 feet NGVD29)
Gates	
Number:	2
Size:	15.0 feet high by 17.7 feet wide
Type:	Vertical lift
Gate control:	Remote and automatic on-site control
Bottom elevation of gate full open	4.0 feet NGVD29
Top elevation of gate full closed	4.0 feet NGVD29
Apron	
Apron elevation:	-12.0 feet NGVD29
Apron length:	20.5 feet
End sill elevation:	-11.5 feet NGVD29
Riprap Length (downstream):	20 feet
Canal Description (upstream and downstream)	
Bottom width:	Both 24 feet
Bottom elevation:	Both -15 feet NGVD29
Side Slope (H): (V):	Both 1H:1V
Lift Mechanism	
Normal power source:	Commercial electricity
Emergency power source:	L.P. gas driven generator
Type:	Direct drive electric motor gear, connected to gear box and stems
Hydraulic and Hydrologic Measurements	
Water Level:	Telemetered Headwater (HW) and Tailwater (TW)
Gate Position Recorder:	Telemetered gate sensor
Rain Gauge:	N/A
Date of Transfer	June 25, 1956
Dewatering Facilities	
Storage:	Needles at Miami Field Station; beams at West Palm Beach Field Station

S-22 – STRUCTURE [NAVD88 = NGVD29 - 1.54 FEET]

DESCRIPTION OF STRUCTURE	
Type:	Needle beams and vertical aluminum needles
Size and No (per bay):	Upstream and downstream 1 beam; needles, 5 @ 4', 1 @ 3' wide, 1 @ 2' wide beam 14WF78, length 18' -10" needles 20' long
Manatee Protection System	Yes
Access	The structure is located adjacent to Red Road (57th Avenue), approximately 0.1 mile north of Killian Drive (SW 111 St.), across the street from Parrot Jungle.

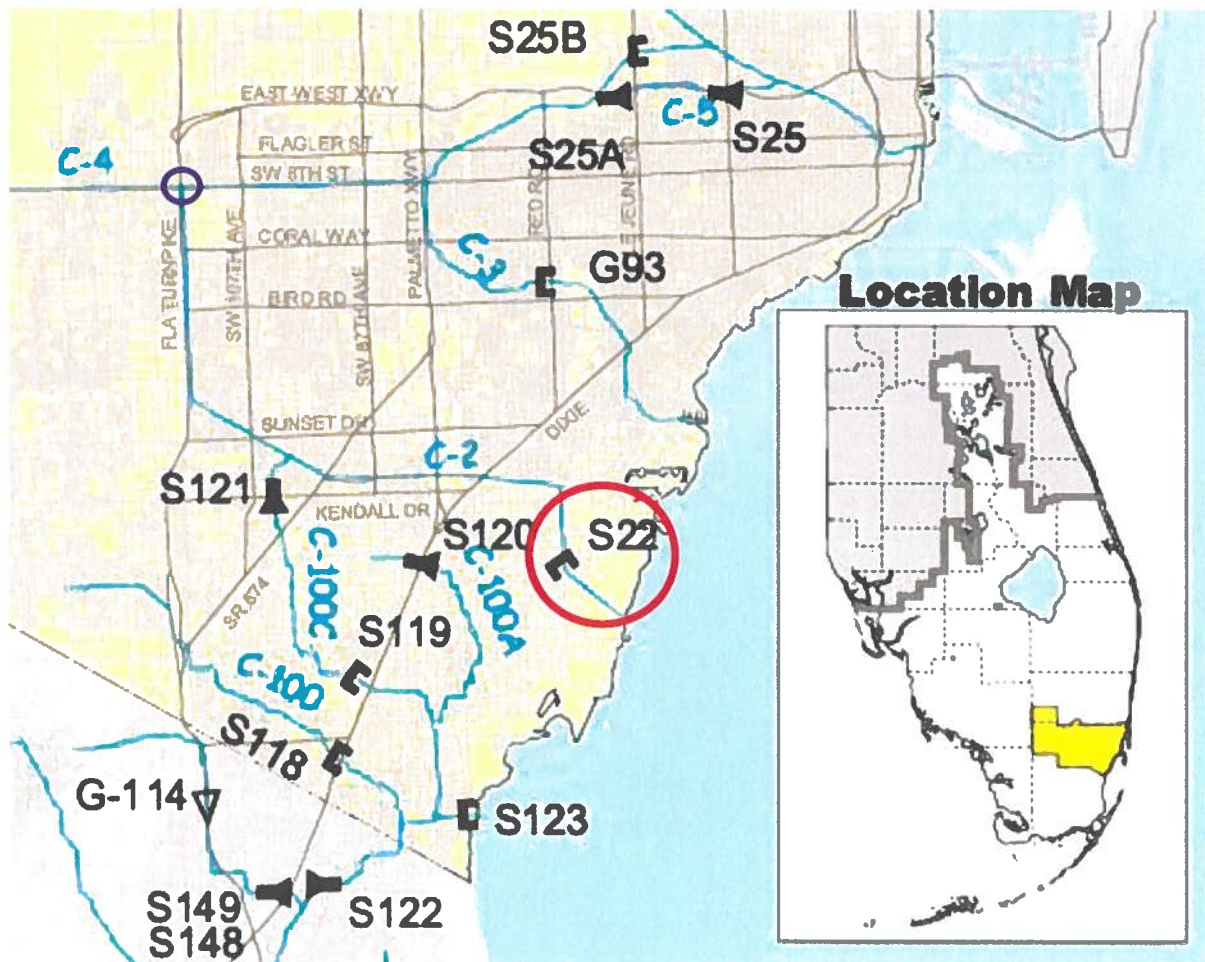


Figure 1: Structure S-22 Location. C-2 Canal open junction with C-4 Canal is shown as well.



Figure 2: Structure S-22 - Upstream View

**RECORD OF CHANGES
RECORDED AS OF JANUARY 1, 2002
S-22**

Date Revised

07/2002

Field Station Revisions:

- No Changes.

01/16/2003

Operational Revisions:

Review completed. Under "Water Level" change:

- ~~On-site analog, on-site digital (USGS),~~ and remote digital upstream and downstream recorders.
- Gate Position Recorder: ~~On-site analog recorder on #1 gate and~~ digital remote recorder on both gates.

7/15/2015

Format and Fact Check

- Design head water was changed from 3.5 to 3.2 feet NGVD 29 (Source: Water Control Plan)

4/8/2019

Structure Information Sheet Update:

- Update new structural information sheet.

5/02/2019

Water Managers Review

- Standardization of format/tables.
- Operational Revisions: Intermediate ranges were removed. Gates become stationary were removed from both low/high ranges: ~~When the headwater elevation rises or falls to 2.9 feet, the gates will become stationary.~~
- Low operational range values were added.
- For the probability of the inundation of the backup generator during severe storms and hurricanes, this standard language was added: During severe storms and hurricanes for which the probability of inundation of the backup generator is high, S-22 is locked open and the generator which normally auto-start during power failures are deactivated to facilitate rapid recommissioning following the storm.

01/13/2020

Water Managers Approval:

- Final review and approval.

DESCRIPTION

Structure G-93 is a two-bay, reinforced concrete gated spillway on the C-3 (Coral Gables) Canal, west of Southwest 57th Ave (Red Road or SR 959) in the City of Coral Gables. The C-3 Canal has an open connection to C-4 Canal just east of the Palmetto Expressway and continues about 4.1 miles downstream of G-93 through highly urbanized south Miami areas before discharging to Biscayne Bay at Sunrise Harbor. The original structure, G-97, was replaced in January 1990 by G-93. The structure is currently maintained by Miami Field Station.

The structure consists of two (2) 5.0 feet high by 10.0 feet wide gates with sill elevations of -1.8 feet NGVD29. The discharge from the structure is controlled by two (2) stem operated vertical lift roller gates. The gates can either be remotely operated from the SFWMD Operation Control Center or controlled on-site.

PURPOSE

The structure maintains optimum upstream water control stages; it was designed to pass 40% of the Standard Project Flood (SPF) plus a small discharge from the C-4 basin without exceeding upstream flood design stage and restricts downstream flood stages and discharge velocities to non-damaging levels; and it prevents saltwater intrusion during periods of high tides.

OPERATIONS

This structure, together with S-25B on the C-4 (Tamiami) Canal and S-22 on C-2 Canal, is remotely operated to maintain the optimum headwater elevation of 2.8 feet NGVD29 insofar as possible.

Normal Range

Under the Normal Operating Range, the gate opens when the upstream water level reaches 3.0 feet NGVD29 and closes when upstream water level falls to 2.1 feet NGVD29. To prevent excessive gate cycling, the normal range can be set to 1.0 to 3.3 feet NGVD29.

Low Range

A low range is used under storm conditions or when Emergency Flood Control releases are required in C-4. Under the Low Operating Range, the gate opens when the upstream water level reaches 2.3 feet NGVD29 and closes when upstream water level falls to 1.0 feet NGVD29. During very wet conditions in the C-4, C-3 and C-2 basins, an operational range of 0.0 to 1.0 feet NGVD29 may be used.

For manatee protection the minimum gate opening is 2.5 feet. The SFWMD has installed manatee sensor devices consisting of a series of pressure sensitive plates on the bottom of the vertical lift gates which transmit a signal used to reverse gate direction when resistance is encountered. When the sensors are enacted, the gate will pause for 3 seconds and return to 2.5 feet. When it reaches 2.5 feet, it will fully close unless something is still under the gate. The controls for the manatee sensor devices override those for the alternate gate operation.

During severe storms and hurricanes for which the probability of inundation of the backup generator is high, G-93 is locked open and the generator which normally auto-start during power failures are deactivated to facilitate rapid recommissioning following the storm.

G-93 – STRUCTURE [NAVD88 = NGVD29 - 1.56 FEET]

Table 1. Discharge Characteristics of Structure G-93

DISCHARGE CHARACTERISTICS	
Design Discharge	640 cfs (40% SPF)
SPF Discharge	1,600 cfs
Optimum Headwater Elevation	2.8 feet NGVD29
Design Headwater Elevation	4.5 feet NGVD29
Design Tailwater Elevation	3.0 feet NGVD29
SPF Headwater Elevation	N/A
SPF Tailwater Elevation	N/A
Optimum Tailwater Elevation	Tidal
Design Discharge Flow Type	Controlled submerged
Generator Finished Floor Elevation	9.5 feet NGVD29
Storm Surge - MOM Elevation ¹	
Hurricane Category 1	N/A
Hurricane Category 2	7.06 feet NGVD29
Hurricane Category 3	9.06 feet NGVD29
Hurricane Category 4	9.56 feet NGVD29
Hurricane Category 5	10.96 feet NGVD29

¹MOM Elevation is SLOSH (2009-2010) model output corresponding to maximum of MEOW (Maximum Envelope of Water with high tide as initial condition).

Table 2. Hydraulic Description of Structure G-93

DESCRIPTION OF STRUCTURE	
Type	Fixed crest reinforced concrete gated spillway
Weir crest:	Trapezoidal
Net crest length:	20.0 feet
Crest elevation:	-1.8 feet NGVD29
Service bridge elevation:	7.6 feet NGVD29
Water level which will bypass structure:	6.0 feet NGVD29
Maximum permissible head:	Unknown
Gates	
Number:	2
Size:	5.0 feet high by 10.0 feet wide
Type:	Single stem vertical lift
Gate Control:	Remote and automatic on-site control
Bottom elevation of gate full open:	6.7 feet NGVD29
Top elevation of gate full closed:	3.2 feet NGVD29
Apron	
Apron elevation:	-5.5 feet NGVD29
Apron length:	19.5 feet
End sill elevation:	No End Sill
Riprap Length (downstream):	None

G-93 – STRUCTURE [NAVD88 = NGVD29 - 1.56 FEET]

DESCRIPTION OF STRUCTURE	
Canal Description (upstream and downstream)	
Bottom width:	Both 25 feet
Bottom elevation:	Both -5.5 feet NGVD29
Side Slope (V): (H):	Both 1:2.5
Lift Mechanism	
Normal Power Source:	Commercial electricity
Emergency Power Source:	L. P. gas driven generator
Type:	Hydraulic cylinder actuated by electric motor driven pump, with emergency hand pump; connected to gate by steel cables
Hydraulic and Hydrologic Measurements	
Water Level:	Telemetered headwater (HW) and tailwater (TW)
Gate Position Recorder:	Telemetered gate sensor
Date of Transfer:	Unknown
Dewatering Facilities:	
Storage:	Needles at Miami Field Station Beams at West Palm Beach Field Station
Type:	Galvanized beams
Size and Nos (per bay):	Two W8 X 24 beams, each 10' 10" long
Manatee Protection System	Yes (installed in 2002)
Access	The structure is in the Coral Gables Wayside Park, 5710 SW 35th St, Coral Gables.

G-93 – STRUCTURE [NAVD88 = NGVD29 - 1.56 FEET]

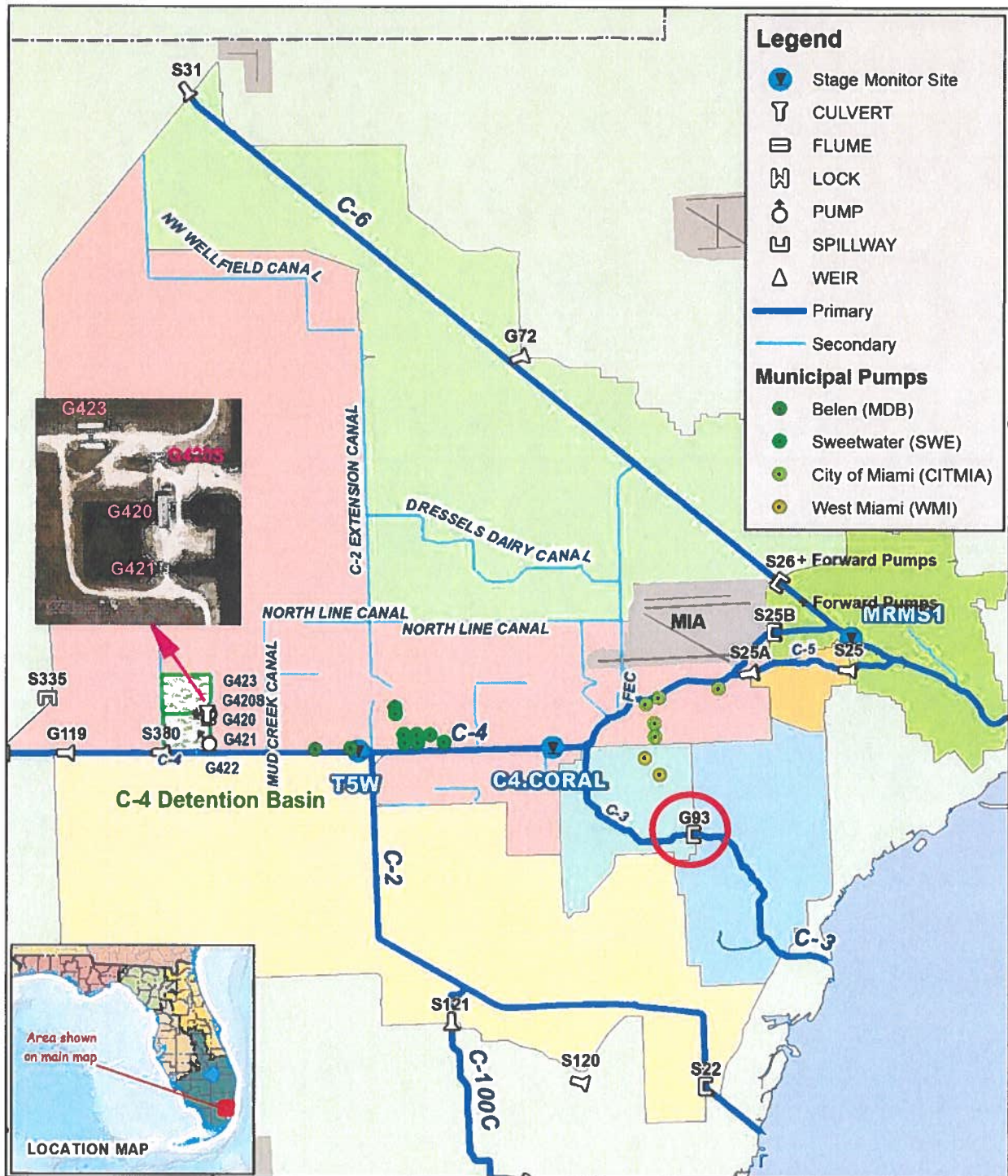


Figure 1: Structure G-93 Location

G-93 – STRUCTURE [NAVD88 = NGVD29 - 1.56 FEET]



Figure 2: Structure G-93 on the C-3 (Coral Gables) Canal, the Coral Gables Wayside Park. G-93 controls are located in the Coral Gables Wayside Park's historical towers (U.S. National Register of Historic Places 1989)

G-93 – STRUCTURE [NAVD88 = NGVD29 - 1.56 FEET]

Type	Date	Reason for Change
Field Station Revisions	07/2002	No changes
Operational Revisions	12/26/2002	Review Completed - no changes as of 11/18/97
Survey	01/22/2008	NGVD88 conversion factor was added.
Verification of Component upgrade	4/30/2012	RACU Replacement Project: Motorola ACE3640 RTU replaced the RACU and a Solar Power was added. All other site Parameters remained unchanged. (Verified: Site Registration Form)
Fact check	02/03/2015	Added confirmation of the information
Fact check	02/03/2015	Removed reference to G-93 being <u>manually</u> operated including the statement "An automatic device has not been installed due to the possibility of injury to manatees." As MPS installed in 2002. And "During storm events, the gates will be opened." Since that was due to the need for a crane to be mobilized and now the structure is automated.
Structure Information Sheet Update	08/07/2019	Water Managers Review: • Update new structural information sheet (format change) • Standardization of format/tables. • Added under Description: "The structure consists of two (2) 5.0 feet high by 10.0 feet wide gates with sill elevations of -1.8 feet NGVD29. The discharge from the structure is controlled by two (2) stem operated vertical lift roller gates. The gates can either be remotely operated from the SFWMD Operation Control Center or controlled on-site." • Operation: Normal and low ranges are added. Manatee protection paragraph is added. Backup generator paragraph is added.
Water Managers Approval	01/13/2020	Final review and approval.

G-119 –STRUCTURE [NAVD88 = NGVD29 - 1.56 FEET]

DESCRIPTION

The structure G-119 is a double-barreled, cast in place (CIP) concrete box culvert located in the C-4 (Tamiami) Canal, about 0.25 mile east of the Krome Avenue crossing of the Tamiami Canal, 19 miles west of Miami. The original structure was replaced in 2015 by Miami-Dade County Park & Recreation during the widening of access roadway to the Trail Glades Shooting Range facility.

Control is affected by (2) two manually operated 6.0 feet square sluice gates mounted on a frame on the upstream or west end of the structure. The structure is currently maintained by the Miami Field Station.

PURPOSE

This structure permits supplemental deliveries from Water Conservation Area 3A (WCA-3A) for water supply needs in eastern Miami-Dade County via the L-30 or L-29 Canals. It can also be used to discharge limited quantities of excess water from WCA-3A or from the L-31N, L-29, and L-30 drainage basins east and south of WCA-3B when capacity is available in the C-4 Canal.

OPERATION

This structure is operated to make supplemental deliveries to East Miami-Dade County. Such releases may be initiated when the headwater stage at either S-25B, S-22 or G-93 falls below the optimum stage of 2.0 feet NGVD29 during dry periods. The structure may also be used to make flood releases when downstream conditions will not be aggravated. The structure may also be used to deliver water to Biscayne Bay Coastal Wetlands (BBCW) if water is available upstream, however this is an inefficient delivery method to BBCW.

Table 1. Discharge Characteristics of Control Structure G-119

DISCHARGE CHARACTERISTICS	
Design Discharge	200 cfs ¹
Optimum Headwater	N/A
Design Headwater Elevation	4.2 feet NGVD29
Design Tailwater Elevation	3.7 feet NGVD29
Design Discharge Flow Type	Controlled Submerged

¹ %SPF not provided because the structure is not designed for a specific SPF flood flow. Maximum breakpoint flow of 355 cfs occurred in January 1995.

Table 2. Description of Control Structure G-119

DESCRIPTION OF STRUCTURE	
Type	Cast in Place (CIP) Concrete Gated Box Culvert
Barrels	
Number:	2
Size:	6.0 feet diameter
Length:	60.0 feet
Invert Elevation:	-3.5 feet NGVD29
Service Bridge Elevation:	11.20 feet NGVD29
Water Level Which Will Bypass Structure:	10.0 feet NGVD29

G-119 –STRUCTURE [NAVD88 = NGVD29 - 1.56 FEET]

DESCRIPTION OF STRUCTURE	
Headwall Top Elevation:	4.9 feet NGVD29
Gates	
Number:	2
Size:	6.0 feet high and 6.0 feet wide
Type:	Stainless Steel sluice gate
Gate Control:	Local control
Bottom elevation of gate full open:	9.5 feet NGVD29
Top elevation of gate full closed:	-3.0 feet NGVD29
Stop Logs	
Number Per Culvert:	N/A
Size:	N/A
Elevation of Control Weir:	N/A
Canal Description (upstream; downstream)	
Bottom width:	Both 40 feet
Bottom elevation:	Both -13.0 feet NGVD29
Side Slope (V): (H):	1:1
Lift Mechanism	
Normal Power Source:	No power
Emergency Power Source:	N/A
Type:	Vertical lift
Hydraulic and Hydrology Measurements	
Water Level:	Upstream and downstream staff gauges
Gate Position Recorder:	None
Rain Gauge:	N/A
Date of Transfer:	2015
Dewatering Facilities	
Storage:	N/A
Type:	N/A
Size:	N/A
Manatee Protection System	N/A
Access	Structure located on C-4 Canal, adjacent to U.S. Highway 41 (Tamiami Trail), 0.25 Miles east of Krome Ave and 1.2 miles East of S-336.

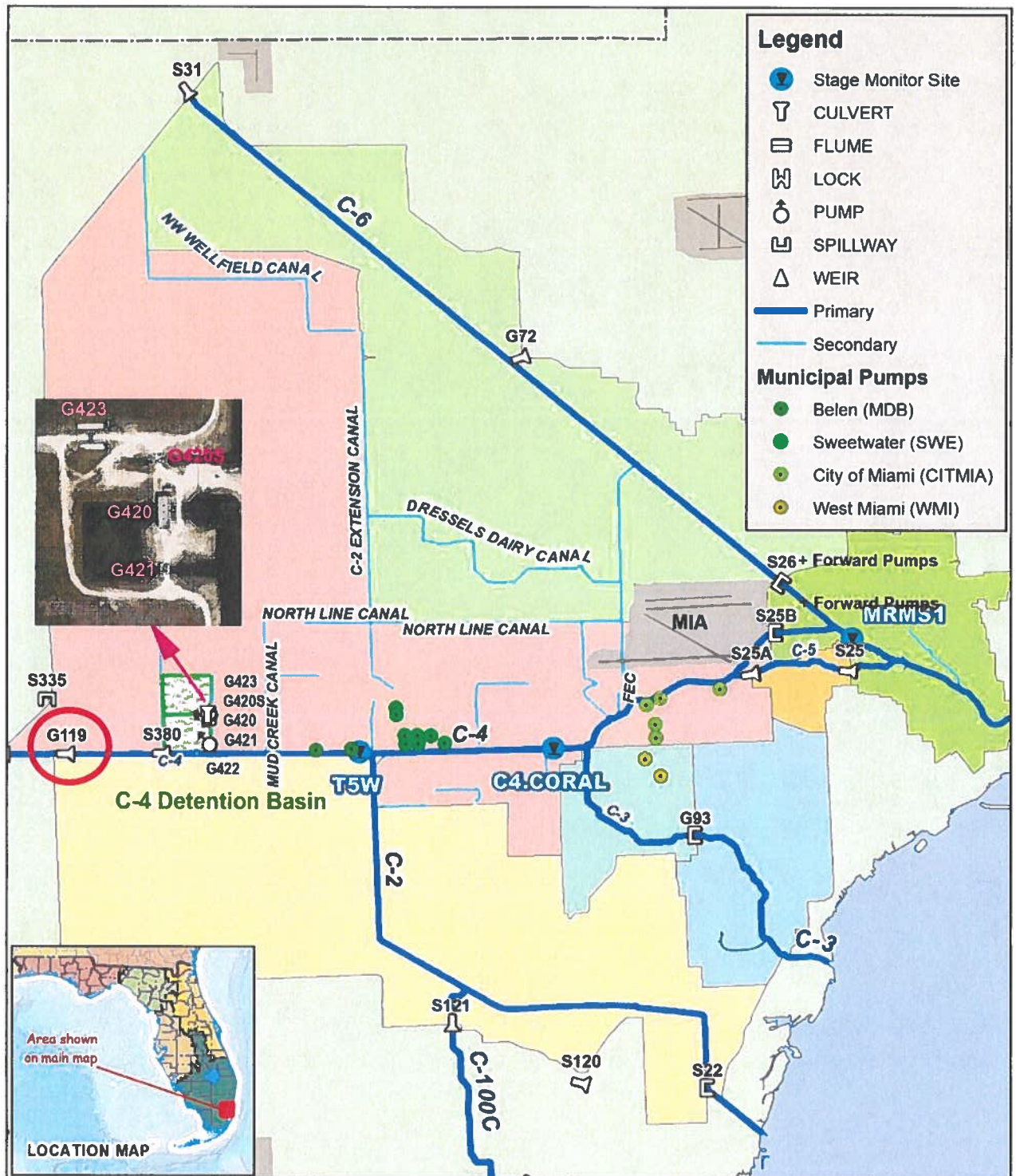


Figure 1: Structure G-119 Location



Figure 2: Structure G-119 Upstream View (photo by S. Hajimirzaie 11/09/2019)

G-119 –STRUCTURE [NAVD88 = NGVD29 - 1.56 FEET]

Type	Date	Reason for Change
Water Managers Approval	01/13/2020	Final review and approval
Water Manager Review	10/10/2019	- Standardization of format/tables. - Operational Revisions: Such releases may be initiated when the headwater stage at either S-25B, S-22 or <u>G-93</u> falls below the optimum stage of 2.0 feet NGVD29 during dry periods. The structure may also be used to make flood releases when downstream conditions will not be aggravated. <u>The structure may also be used to deliver water to Biscayne Bay Coastal Wetlands (BBCW) if water is available upstream, however this is an inefficient delivery method to BBCW.</u>
Structure Information Sheet Update	8/14/2019	Update new structural information sheet
Structure Refurbishment	8/8/2019	- The existing double-barrel, corrugated metal pipe culvert was replaced (by Miami-Dade Parks, Recreation and Open Spaces or PROS) in 2015 by a double-barrel, 6 feet square reinforced-concrete, gated box culvert. - Control is affected by (2) two manually operated 6.0 feet square sluice gates mounted on a frame on the upstream or west end of the structure.
Operations Revisions	01/22/2003	Review Completed. Under "Operation", change as follows: Such releases are initiated when the headwater stage at either S25B or S-22 falls below the optimum stage of 2.8 2.0 during dry periods. The structure may also be used to make flood releases when downstream conditions will not be aggravated (when the stage at T-5 the junction of C-4 and C-2 is less than 4.0 3.0).
Field Station Revisions	07/2002	No Changes

S-380 –STRUCTURE [NAVD88 = NGVD29 - 1.56 FEET]

DESCRIPTION

S-380 is a five-barrel corrugated metal pipe (CMP) culvert located in the C-4 (Tamiami) Canal, approximately 2 miles east of Krome Avenue, west of Miami in western Miami-Dade County.

Control is affected by single stem sluice gates mounted on a frame on the upstream (west end of the structure). The gates can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. The structure is currently maintained by the Miami Field Station.

PURPOSE

The purpose of S-380 is to maintain stages to create and preserve nearby wetlands as well as enhance water supply by providing aquifer recharge. S-380 will be operated to enhance approximately 4,000 acres of wetlands in the southern end of the adjacent Pennsuco Wetlands and enhance habitat for plants and animals by increasing surface and subsurface storage of water. This will be accomplished by reducing seepage and drainage out of Water Conservation Area 3B (WCA-3B). The Pennsuco Wetlands cover approximately 13,000 acres. Pennsuco is bordered on the west and north by Krome Avenue, to the south by Tamiami Trail (US 41) and to the east by the Dade-Broward Levee.

In addition, the structure will permit supplemental deliveries from Water Conservation Area 3A (WCA-3A) to supply water needs in eastern Miami-Dade County via the L-30 or L-29 Canals.

OPERATION

S-380 will be operated to maintain an optimum headwater stage of 4.0 feet NGVD29. This optimum stage will allow for seepage reduction to be extended from G-119 to S-380 (Dade-Broward Levee). Also, when supplemental water supply deliveries from WCA-3A are made to supply water needs in eastern Dade County via the L-30 or L-29 canals, S-380 will be opened in conjunction with G-119, and water levels may vary from the optimum.

Dry Season Criteria (December through May)

The structure will operate to maintain a stage range between 3.8 feet NGVD29 to 4.2 feet NGVD29.

Wet Season Criteria (June through November)

S-380 typically remains open during the wet season effectively maintaining the control of this reach of canal at G-119.

When the stage at the T5W stage monitoring station reaches elevation of 4.0 feet NGVD29, S-380 will be partially closed to limit discharges through only one culvert barrel. Therefore, 4 of the 5 culvert gates will be closed completely. Should the stage at T5W increase to 4.5 feet NGVD29 all gates at S-380 will be closed until the stage at T5W recedes to 4.0 feet NGVD29.

Water Supply Criteria

The structure will permit supplemental deliveries from WCA-3A to supply water needs in eastern Miami-Dade County via the L-30 or L-29 canals.

S-380 –STRUCTURE [NAVD88 = NGVD29 - 1.56 FEET]

Flood Control Criteria

During storm events, S-380 may be opened to allow for pre-storm operations to lower the C-4 canal from G-119 to the coast. This operation will typically be necessary during the dry season because the gates may be closed due to the normal dry season operating criteria stated above.

Table 1. Discharge Characteristics of Control Structure S-380

DISCHARGE CHARACTERISTICS	
Design Discharge	400 cfs ¹
Optimum Headwater	N/A
Design Headwater Elevation	N/A
Design Tailwater Elevation	N/A
Design Discharge Flow Type	Controlled Submerged
Storm Surge - MOM Elevation ²	
Hurricane Category 1	N/A
Hurricane Category 2	N/A
Hurricane Category 3	N/A
Hurricane Category 4	N/A
Hurricane Category 5	11.46 feet NGVD29

¹ %SPF not provided because the structure is not designed for a specific SPF flood flow.

²MOM Elevation is SLOSH (2009-2010) model output corresponding to maximum of MEOW (Maximum Envelope of Water with high tide as initial condition).

S-380 –STRUCTURE [NAVD88 = NGVD29 - 1.56 FEET]

Table 2. Description of Control Structure S-380

DESCRIPTION OF STRUCTURE	
Type	Gated Corrugated Metal Pipe (CMP) Culvert
Barrels	
Number:	5
Size:	6.0 feet diameter
Length:	96.0 feet (94.5, 94.3, 94.8, 94.4, and 94.5 feet for culverts 1 to 5, respectively. Source: STRIVE Report 9/10/04)
Invert Elevation:	-3.0 feet NGVD29
Service Bridge Elevation:	9.8 feet NGVD29
Water Level Which Will Bypass Structure:	9.4 feet NGVD29 (STRIVE 2004, taken on top of levee at the south end of the structure)
Headwall Top Elevation:	N/A
Gates	
Number:	5
Size:	6.0 feet high by 6.0 feet wide
Type:	Stainless Steel
Gate Control:	Local and remote control
Bottom elevation of gate full open:	4.0 feet NGVD29
Top elevation of gate full closed:	3.0 feet NGVD29
Stop Logs	N/A
Canal Description (upstream; downstream)	
Bottom width:	40 feet
Bottom elevation:	-13.0 feet NGVD29
Side Slope (V): (H):	1:1
Lift Mechanism	
Normal Power Source:	Commercial power
Emergency Power Source:	L.P. gas driven generator
Type:	Vertical lift
Hydraulic and Hydrology Measurements	
Water Level:	Upstream and downstream staff gauges and Telemetered Headwater (HW) and Tailwater (TW)
Gate Position Recorder:	Telemetered gate sensor
Rain Gauge:	N/A
Date of Transfer:	N/A
Dewatering Facilities	N/A
Manatee Protection System	Yes (450 feet downstream of the structure)
Access	Structure located on C-4 Canal, adjacent to U.S. Highway 41 (Tamiami Trail), about 2.0 Miles east of Krome Ave.

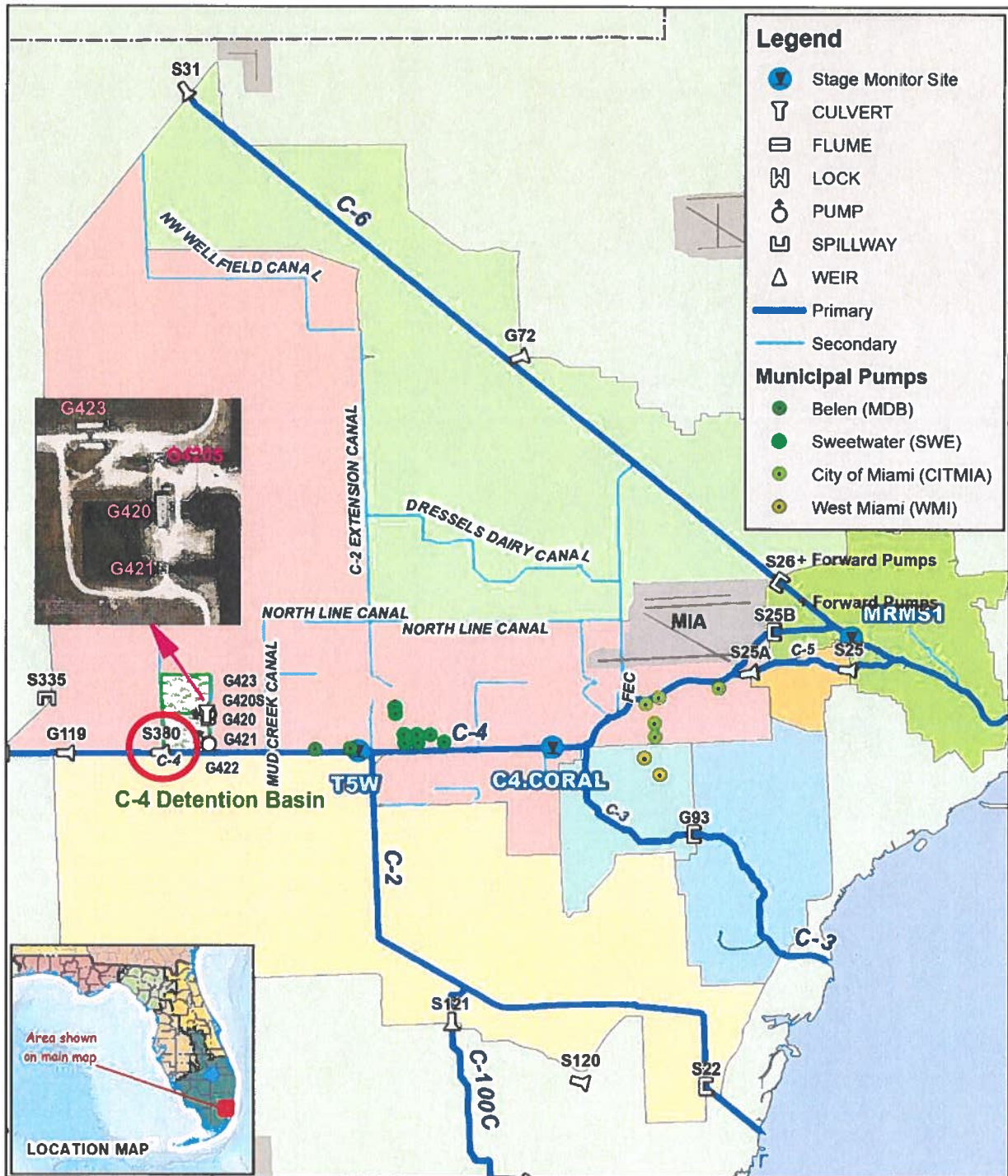


Figure 1: S-380 Location

S-380 –STRUCTURE [NAVD88 = NGVD29 - 1.56 FEET]



Figure 2: A trash rake and manatee barrier exist about 450 feet downstream of the S-380.

S-380 –STRUCTURE [NAVD88 = NGVD29 - 1.56 FEET]



Figure 3: Structure S-380 Upstream (top) and downstream trash rake (bottom) View

S-380– STRUCTURE [NAVD88 = NGVD29 - 1.56 FEET]

RECORD OF CHANGE			
Type	Editor (s)	Date	Reason for Change
Water Manager review	Water Managers	7/24/2024	Final approval
Structure Information Sheet Update	Z. Li	7/16/2024	Update new structural information sheet; operation; and format.

DESCRIPTION of G-420 INFLOW PUMP STATION

G-420 is a three-unit pump station located north of the C-4 Canal at junction of US 41 and SW 137th Ave, in Miami-Dade County. The pump station is part of FEMA's Hazard Grant Mitigation Program funding with the objective of implementing a series of improvements including Emergency Detention Basin (EDB) in the C-4 basin to increase the level of flood protection. The C-4 EDB covers 831 acres and was constructed in two phases.

Construction of the G-420 and G-420S pumps was completed in March 2002. The G-420 can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. This station is currently maintained by the Miami Field Station.

PURPOSE

This structure pumps water from C-4 Canal into the C-4 EDB for flood control.

OPERATION

The G-420 inflow pump station will be operated according to the Miami Dade County Flood Mitigation Program, C-4 Basin Operating Plan (SFWMD, 2024).

Once the stage at T5W monitoring station (2.9 Miles east of the C-4 EDB in C-4 Canal at intersection with the C-2 Canal, west of Florida turnpike) reaches elevation of 4.0 feet NGVD29, pumping into the EDB begins with either all 3 pumps at G-420 (total 669 cfs) or all 7 pumps at G-422 (total 623 cfs) turned on. If not already opened, G-423 will be opened fully at this time as well. When T5W stage rises above 4.20 feet NGVD29, pumping into the EDB will increase to a maximum of 1,292 cfs (G-420 with 3 pumps = 669 cfs plus G-422 with 7 pumps = 623 cfs).

Flood pumping into the EDB shall cease when at least one of the following conditions occurs:

- 1) Stages in the EDB have reached elevation 8.0 feet NGVD29 and stages at T5W begin to recede below elevation 4.2 feet NGVD29 (also see note below) or;
- 2) The stage immediately upstream of the G-420 pump station is at or below elevation 2.60 feet NGVD29 or;
- 3) Stage at T5W recedes indicating that the rest of the system can handle and convey the inflows from the C-4 to tide or;
- 4) The stage in the EDB has reached a maximum elevation 10.0 feet NGVD29.

Note: When stages in the EDB are at 8.00 feet NGVD29 (half full), the District will assess conditions and forecast and may temporarily reduce or terminate pumping. If the stage at T5W rises to 4.4 feet NGVD29, then pumping into the EDB will resume until T5W stage recedes or the EDB is full (10.0 feet NGVD29).

G-420 and G-420S– PUMP STATION [NAVD88 = NGVD29 - 1.57 FEET]

Table 1. Discharge Characteristics of Control Structure G-420

DISCHARGE CHARACTERISTICS	
Design Discharge Capacity Total	670 cfs (3×223 cfs)
Design Discharge Capacity Per Pump	223 cfs
Design Headwater Elevation	N/A
Maximum Intake Water Elevation	5.0 feet NGVD29 ¹
Minimum Low Water (Headwater) Elevation	3.6 feet NGVD29 ¹
Generator Finished Floor Elevation	10.1 feet NGVD29
Storm Surge - MOM Elevation ²	
Hurricane Category 1	N/A
Hurricane Category 2	N/A
Hurricane Category 3	N/A
Hurricane Category 4	N/A
Hurricane Category 5	10.67 feet NGVD29

¹As-built, drawing sheet 2 of 20

²MOM Elevation is SLOSH (2009-2010) model output corresponding to maximum of MEOW (Maximum Envelope of Water with high tide as initial condition).

G-420 and G-420S– PUMP STATION [NAVD88 = NGVD29 - 1.57 FEET]

Table 2. Description of Control Structure G-420

DESCRIPTION OF STRUCTURE	
Type	Diesel
Pump	
Number:	3
Manufacturer:	Morrison Pump Company
Model:	Cat C-15
Impeller Size:	5.0 feet
Impeller Speed:	1,060 RPM
Engine Speed:	270 RPM
Engine Horsepower:	500 HP
Intake and Discharge Pipe Diameter:	5.0 feet
Discharge Pipe Length:	39.0 feet
Service Bridge Elevation:	10.10 feet NGVD29
Inundation Level (Operating Floor):	10.09 feet NGVD29
Invert elevation	
Inlet Pipe:	-9.70 feet NGVD29
Discharge Pipe:	1.5 feet NGVD29
Bottom Elevation of Inlet Bay:	-13.28 feet NGVD29
Power	
Normal:	Diesel
Emergency:	N/A
Gate	
Type:	Flap gate
Gate Size:	3.5 feet diameter
Hydraulic and Hydrology Measurements	
Water Level:	Telemetered Headwater (HW) and Tailwater (TW)
Pump Status:	Telemetry recorder
Rain Gauge:	None
Canal Description (upstream; downstream)	(C-4 Seepage Canal; C-4 EDB)
Bottom width:	10.0 feet (Upstream)
Bottom elevation:	-7.0; 5.5 feet NGVD29
Side Slope (V): (H):	1:1 (Upstream)
Manatee Protection System	N/A
Date of Transfer/Operation:	N/A
Access	This structure can be accessed from the west side of SW 137 th Ave, 100 north of SW 8 th St (SR 41). The gate is 1.1 miles west of SW 137 th Ave.

G-420 and G-420S– PUMP STATION [NAVD88 = NGVD29 - 1.57 FEET]

DESCRIPTION of G-420S SEEPAGE PUMP

G-420S seepage pump is one unit, submersed electric pump located just to the northeast of G-420. Construction of the G-420 and the G-420S pumps was completed in March 2002. The G-420S pump was replaced in April 2006. The station can either be remotely operated from the SFWMD Operation Control Center or controlled on-site.

PURPOSE

G-420S pumps water collected in the C-4 West seepage Canal, which runs from north to south along the north EDB levee, back into the C-4 EDB.

OPERATION

Pump can be operated to keep C-4 West seepage Canal between 4.0 to 5.0 feet NGVD29.

Table 1. Discharge Characteristics of Control Structure G-420S

DISCHARGE CHARACTERISTICS	
Design Discharge	100 cfs
Design Discharge Capacity Per Pump	100 cfs
Design Headwater Elevation	10.6 feet NGVD29 ¹
Maximum Intake Water Elevation	N/A
Minimum Low Water (Headwater) Elevation	0.9 feet NGVD29 ²
Storm Surge - MOM Elevation ³	
Hurricane Category 1	N/A
Hurricane Category 2	N/A
Hurricane Category 3	N/A
Hurricane Category 4	N/A
Hurricane Category 5	10.67 feet NGVD29

¹ Structure Inspection Program (SIP), pp 2, September 2008.

² As-built, drawing sheet 2 of 20.

³ MOM Elevation is SLOSH (2009-2010) model output corresponding to maximum of MEOW (Maximum Envelope of Water with high tide as initial condition).

G-420 and G-420S– PUMP STATION [NAVD88 = NGVD29 - 1.57 FEET]

Table 2. Description of Control Structure G-420S

DESCRIPTION OF STRUCTURE	
Type	Horizontal Submersible Electric
Pump	
Number:	1
Manufacturer:	MWI
Model:	Not available
Impeller Size:	3.5 feet
Impeller Speed:	305 RPM
Engine Speed:	1,800 RPM
Engine Horsepower:	125 HP
Intake and Discharge Pipe Diameter:	3.5 feet
Discharge Pipe Length:	42.0 feet
Service Bridge Elevation:	13.0 feet NGVD29
Inundation Level (Operating Floor):	N/A
Invert elevation	
Inlet Pipe:	-3.1 feet NGVD 29
Discharge Pipe:	-3.0 feet NGVD29
Bottom Elevation of Inlet Bay:	-3.1 feet NGVD29
Power	
Normal:	Commercial electricity
Emergency:	No back up power
Gate	
Type:	Flap gate
Gate Size:	3.5 feet diameter
Hydraulic and Hydrology Measurements	
Water Level:	Telemetered Headwater (HW) and Tailwater (TW)
Pump Status:	Telemetry recorder
Rain Gauge:	None
Canal Description (upstream; downstream)	(C-4 West Seepage Canal; C-4 EDB)
Bottom width:	10.0 feet (Upstream)
Bottom elevation:	-7.0; 5.5 feet NGVD29
Side Slope (V): (H):	1:1 (Upstream)
Manatee Protection System	N/A
Date of Transfer/Operation:	2004
Access	This structure can be accessed from the west side of SW 137 th Ave, 100 north of SW 8 th St (SR 41). The gate is 1.1 miles west of SW 137 th Ave.

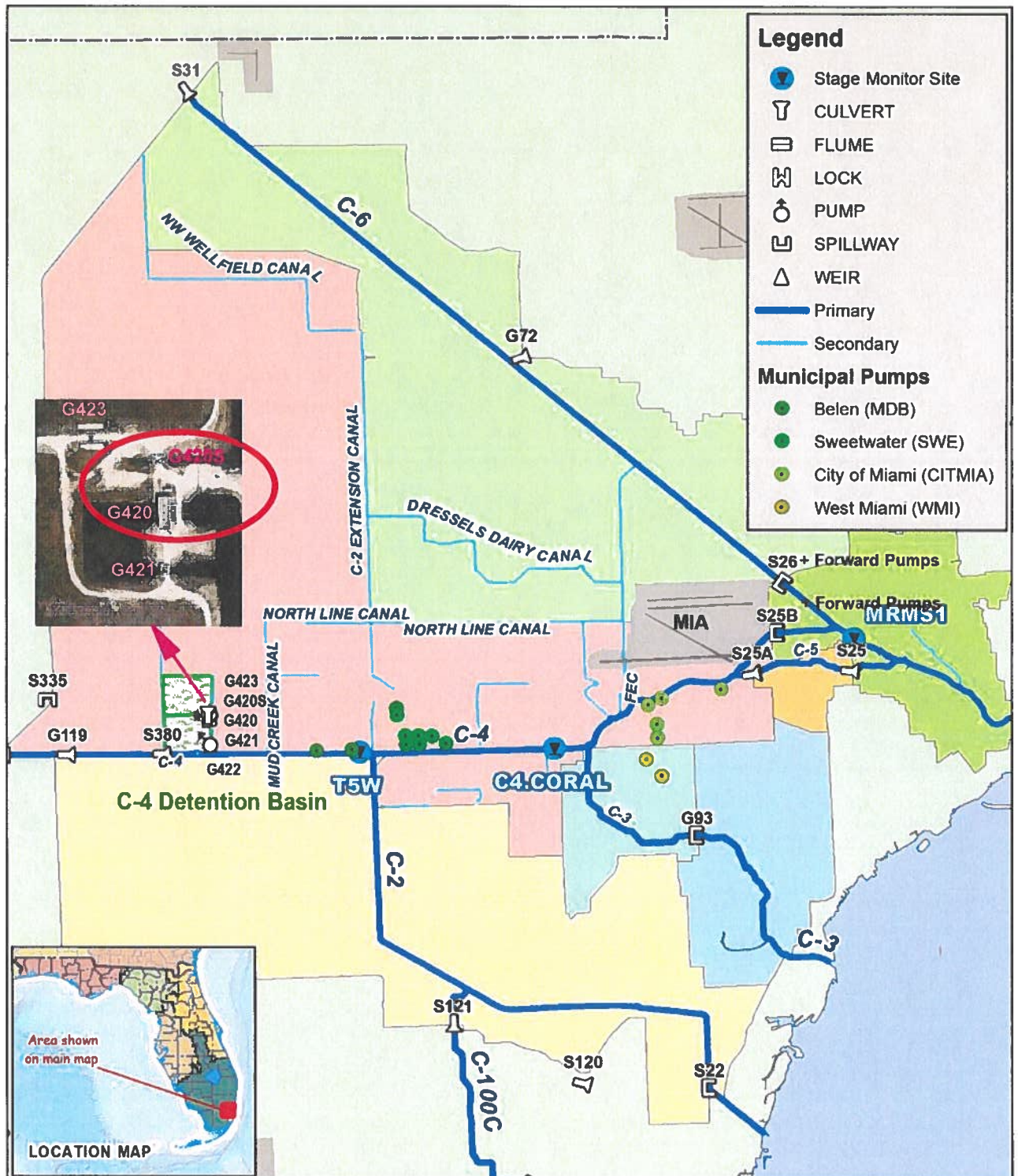


Figure 1: Location of G-420 and G-420S pump stations on C-4 EDB northern section (EDBN)

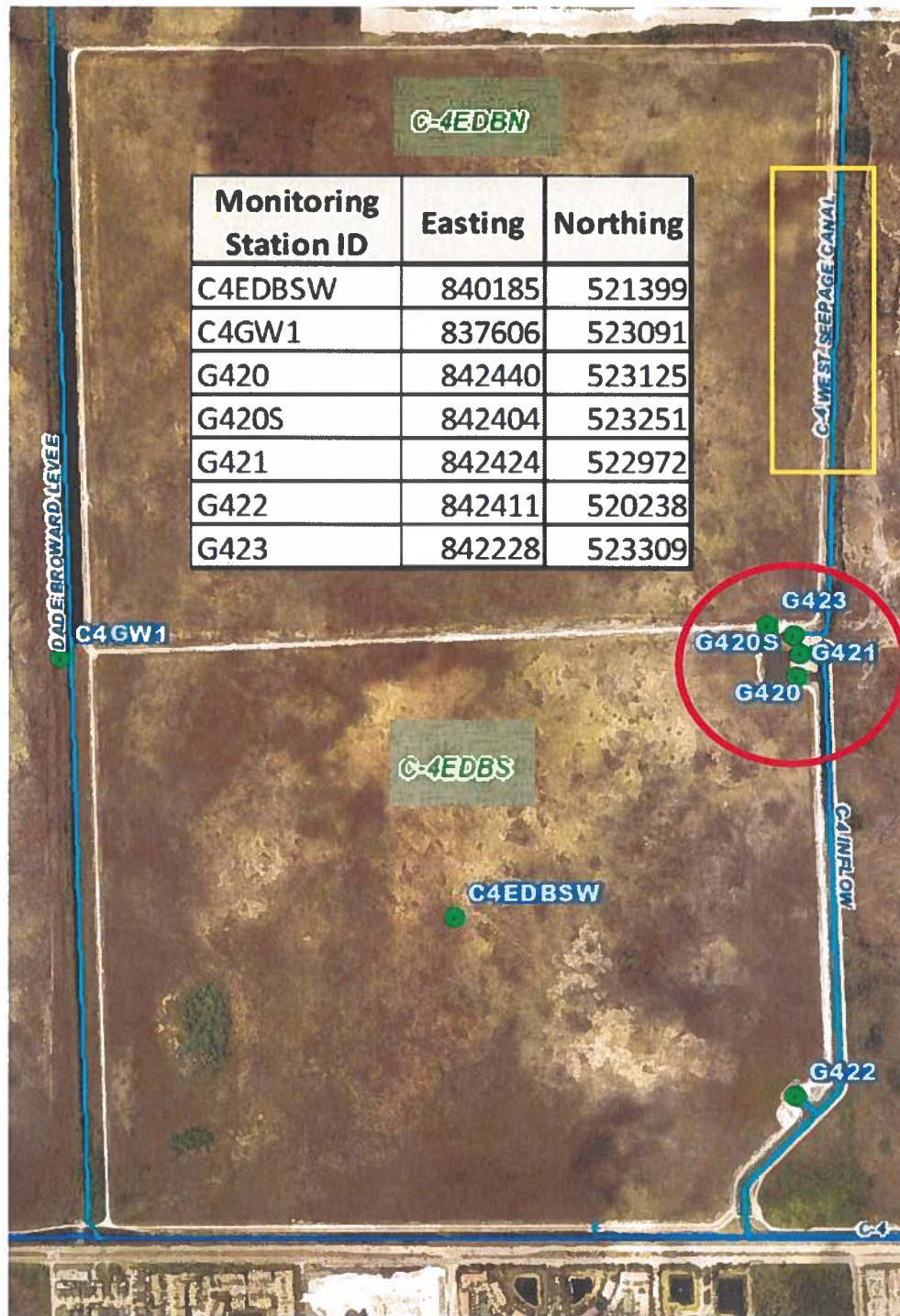


Figure 2: Location of G-420 and G-420S pump stations as part of C-4 EDB. Monitoring stations are shown. C-4 EDBN and EDBS encompass 415 and 416 acres, respectively.

G-420 and G-420S– PUMP STATION [NAVD88 = NGVD29 - 1.57 FEET]



Figure 3: G-420 Pump Station – Looking west



[Upstream and downstream photos]

Figure 4: G-420S Pump Station

G-420 and G-420S– PUMP STATION [NAVD88 = NGVD29 - 1.57 FEET]

G-420 RECORD OF CHANGE			
Type	Editor (s)	Date	Reason for Change
Corrections	Z. Li /A. Nasr	7/3/2024	Updated Operations to C-4 EDB Operating Plan (July 2024)
Correction	A. Zuniga	11/30/2023	Structure Information Sheet Update: • Updated type of structure from "Electric" to "Diesel". • Updated Normal Power from "Commercial electricity" to "Diesel". • Updated Emergency Power from "Onan Diesel generator" to "N/A".
Water Managers Approval		1/13/2020	Final review and approval.
WM Review		9/26/2019	Structure Information Sheet Update: • Update new structural information sheet. • Standardization of format/tables. • Operational Revisions
Update format	S. Hajimirzaie	8/22/2019	C-4 EDB Permit updates
Editorial	C. Qi	9/2/2015	Updated Low Level Shutoff per Design and As-built. Update format of the document
Fact check	S. Sylvester	2/3/2015	N/A
Verify component upgrade		4/30/2012	RACU Replacement Project
Survey		1/22/2008	NAVD 88 conversion factor was added

G-420 and G-420S– PUMP STATION [NAVD88 = NGVD29 - 1.57 FEET]

G-420S RECORD OF CHANGE			
Type	Editor (s)	Date	Reason for Change
Correction	A. Zuniga	3/2/2023	Corrected design discharge based on manufacturer's pump performance curve
Water Managers Approval		1/13/2020	Final review and approval.
WM Review		9/26/2019	Structure Information Sheet Update: • Update new structural information sheet. • Standardization of format/tables. • Operational Revisions
Update format	S. Hajimirzaie	8/22/2019	C-4 EDB Permit updates
Format	J. Brecher	7/22/2015	Update format of document

G-421 – STRUCTURE [NAVD88 = NGVD29 - 1.57 FEET]

DESCRIPTION

Structure G-421 is a reinforced concrete, gated spillway located at C-4 Emergency Detention Basin (EDB), immediately south of G-420 pump station. The C-4 EDB covers 831 acres. The structure consists of one (1) 4.0 feet high by 20.8 feet wide gate with sill elevation of 6.0 feet NGVD29. The discharge from the structure is controlled by one (1) electronically driven cable operated vertical lift gates. The gate can either be remotely operated from the SFWMD Operation Control Center or controlled on-site.

The G-421 was constructed in 2004 and is currently maintained by Miami Field Station.

PURPOSE

The structure is the outlet spillway of the C-4 EDB. This structure is used to release water from the detention basin after the storm event has passed.

OPERATIONS

The G-421 will be operated according to the Miami Dade County Flood Mitigation Program, C-4 Basin Operating Plan (SFWMD, 2024).

The District will consider commencing discharges out of the EDB through structure G-421 once the storm event has passed and the stage at T5W recedes below elevation 4.0 feet NGVD29. The discharges will be regulated to not exceed 4.0 feet NGVD29 at T5W. Gate operations will be performed while monitoring stages at T5W and C-4 Coral. If the stages in the C-4 Canal allow it (T5W stage is below elevation 4.0 feet NGVD29 and stage trend is receding), the gate opening may be increased, until the EDB is completely emptied.

Table 1. Discharge Characteristics of Structure G-421

DISCHARGE CHARACTERISTICS	
Design Discharge	N/A ¹
SPF Discharge	N/A
Design Headwater Elevation	N/A
Design Tailwater Elevation	N/A
SPF Headwater Elevation	N/A
SPF Tailwater Elevation	N/A
Type of Discharge	N/A
Storm Surge - MOM Elevation ²	
Hurricane Category 1	N/A
Hurricane Category 2	N/A
Hurricane Category 3	N/A
Hurricane Category 4	N/A
Hurricane Category 5	10.67 feet NGVD29

¹Existing flow rating equation provides a maximum flow of 480 cfs (Uncontrolled free, Headwater 10 feet NGVD29, tailwater 3.5 feet NGVD29). Maximum observed breakpoint flow in POR (2004-2019) is 81 cfs (Jan 16, 2013).

²MOM Elevation is SLOSH (2009-2010) model output corresponding to maximum of MEOW (Maximum Envelope of Water with high tide as initial condition).

G-421 – STRUCTURE [NAVD88 = NGVD29 - 1.57 FEET]

Table 2. Hydraulic Description of Structure G-421

DESCRIPTION OF STRUCTURE	
Type	Fixed crest reinforced concrete gated spillway
Weir crest:	Ogee
Net crest length:	20.0 feet
Crest elevation:	6.0 feet NGVD29
Service bridge elevation:	13.06 feet NGVD29
Water level which will bypass structure:	13.0 feet NGVD29
Gates	
Number:	1
Size:	4.0 feet high by 20.81 feet wide
Type:	Vertical lift
Gate Control:	Remote and automatic on-site control
Bottom elevation of gate full open:	12.0 feet NGVD29
Top elevation of gate full closed:	10.0 feet NGVD29
Apron	
Apron elevation:	-3.0 feet NGVD29
Apron length:	32.0 feet
End sill elevation:	-2.0 feet NGVD29
Riprap Length (downstream):	25.0 feet
Canal Description (upstream and downstream)	(C-4 EDB; C-4 Seepage Canal)
Bottom width:	N/A; 10 feet
Bottom elevation:	5.5; -7.0 feet NGVD29
Side Slope (V): (H):	1:1
Lift Mechanism	
Normal Power Source:	Commercial electricity
Emergency Power Source:	N/A
Type:	Electric driven cable drum
Hydraulic and Hydrologic Measurements	
Water Level:	Telemetered headwater (HW) and tailwater (TW)
Gate Position Recorder:	Telemetered gate sensor
Date of Transfer:	N/A
Dewatering Facilities	
Storage:	N/A
Type:	N/A
Size and Nos (per bay):	N/A
Manatee Protection System	N/A
Access	This structure can be accessed from the west side of SW 137th Ave, 100 north of SW 8th St (SR 41).

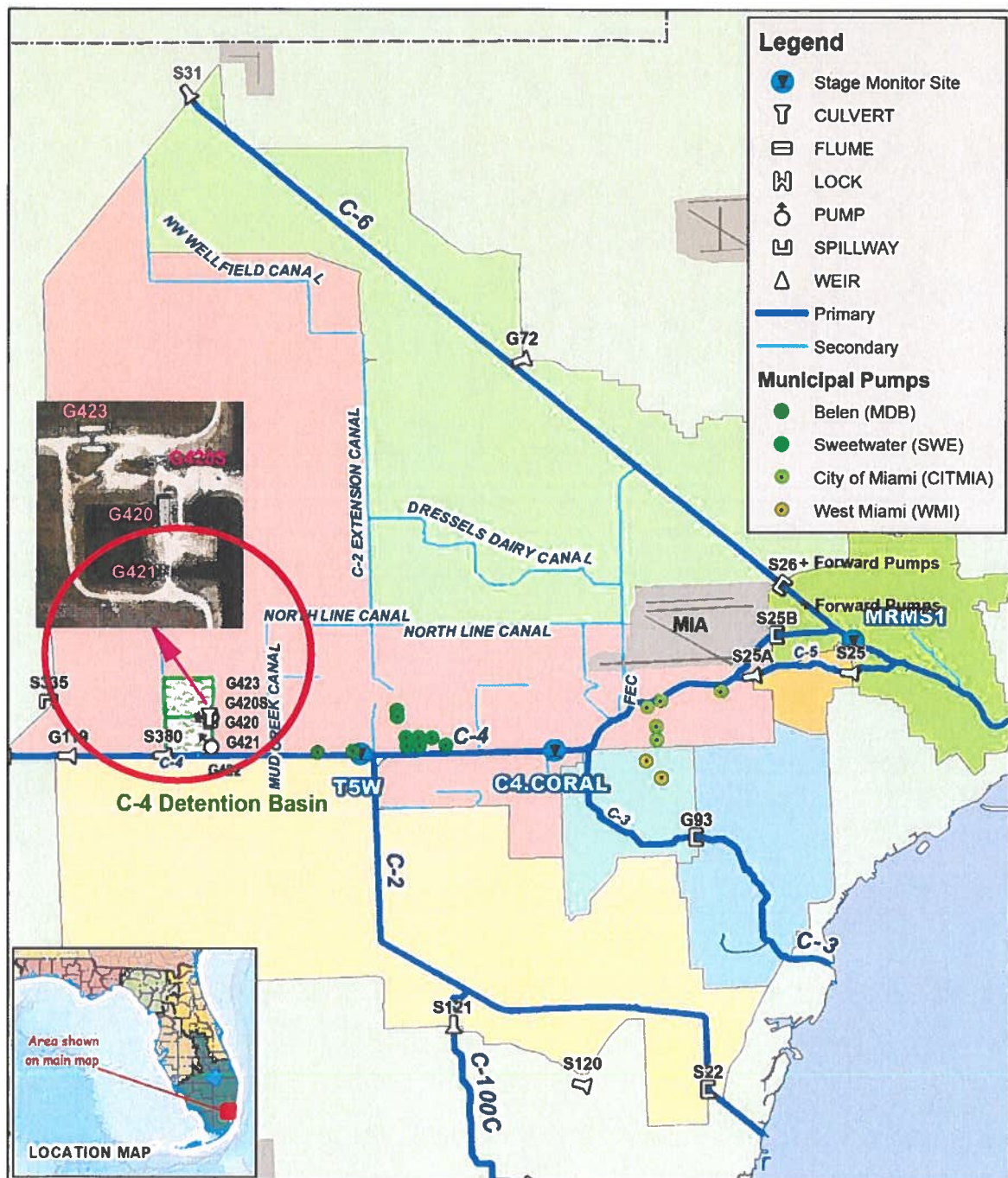


Figure 1: Structure G-421 Location

G-421 – STRUCTURE [NAVD88 = NGVD29 - 1.57 FEET]



Figure 2: Structure G-421 – External View (Looking East)

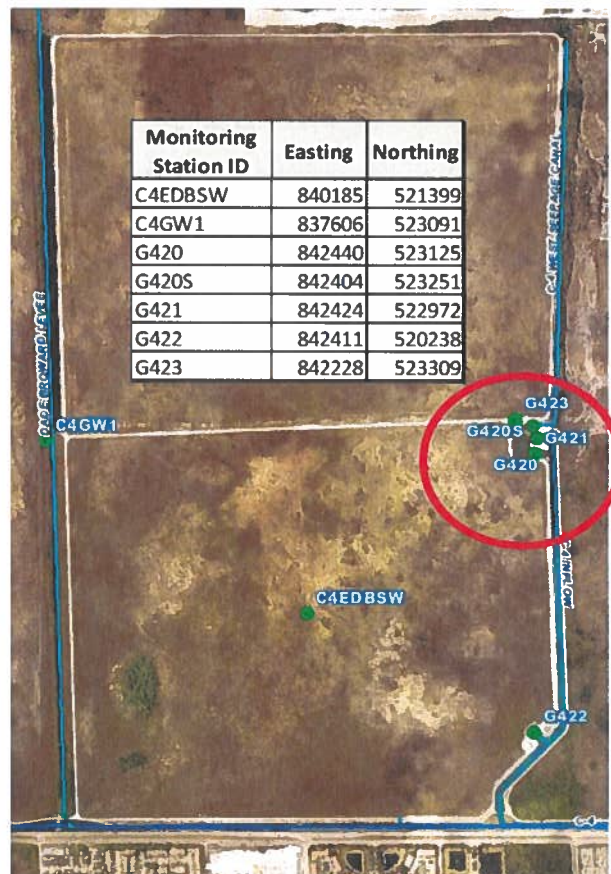


Figure 2: G-421 outlet spillway as part of C-4 EDB. Monitoring stations are shown.

G-421 – STRUCTURE [NAVD88 = NGVD29 - 1.57 FEET]

RECORD OF CHANGE			
Type	Editor (s)	Date	Reason for Change
Corrections	Z. Li /A. Nasr	7/3/2024	Updated Operations to C-4 EDB Operating Plan (July 2024)
Water Managers Approval		01/13/2020	Final review and approval.
WM Review		9/26/2019	Structure Information Sheet Update: • Update new structural information sheet. • Standardization of format/tables. • Operational Revisions
Structure sheet Update	S. Hajimirzaie	8/21/2019	C-4 EDB Permit updates
Fact Check and Format	C. Qi	9/4/2015	N/A Reformatted the tables to be consistent with other structure information sheets
Formatting	J. Otero	2/9/2015	Initial creation under new format

G-422– PUMP STATION [NAVD88 = NGVD29 - 1.57 FEET]

DESCRIPTION

The G-422 is a seven-unit, electric submersible pump located north of C-4 Canal at junction of US 41 and SW 137th Ave, in Miami-Dade County. The pump station is part of FEMA's Hazard Grant Mitigation Program Funding with the objective of implementing a series of improvements including an Emergency Detention Basin (EDB) in the C-4 basin to increase the level of flood protection. The C-4 EDB covers 831 acres and was constructed in two phases.

The G-422 (EDB southern cell) was installed in 2004 and can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. This structure is currently maintained by the Miami Field Station.

PURPOSE

The structure is to pump water from C-4 Canal into the southern cell of the C-4 EDB for flood control.

OPERATION

The G-422 will be operated according to the Miami Dade County Flood Mitigation Program, C-4 Basin Operating Plan (SFWMD, 2024).

Once the stage at T5W monitoring station (2.9 Miles east of the C-4 Detention Basin in C-4 Canal at intersection with the C-2 Canal, west of Florida turnpike) reaches elevation of 4.0 feet NGVD29, pumping into the EDB begins with either all 3 pumps at G-420 (total 669 cfs) or all 7 pumps at G-422 (total 623 cfs) turned on and pumping into the EDB shall begin. If not already opened, G-423 will be opened fully at this time as well. When T5W stage rises above 4.20 feet NGVD29, pumping into the EDB will increase to a maximum of 1,292 cfs (G-420 with 3 pumps = 669 cfs plus G-422 with 7 pumps = 623 cfs).

Flood pumping into the EDB shall cease when at least one of the following conditions occurs:

- 1) Stages in the EDB have reached elevation 8.0 feet NGVD29 and stages at T5W begin to recede below elevation 4.2 feet NGVD29 (also see note below) or;
- 2) The stage immediately upstream of the G-420 pump station is at or below elevation 2.6 feet NGVD29 or;
- 3) Stage at T5W recedes indicating that the rest of the system can handle and convey the inflows from the C-4 to tide or;
- 4) The stage in the EDB has reached a maximum elevation 10.0 feet NGVD29.

Note: When stages in the EDB are at 8.00 feet NGVD29 (half full), the District the District will assess conditions and forecast and may temporarily reduce or terminate pumping. If the stage at T5W rises to 4.4 feet NGVD29, then pumping into the Detention Basin will resume until T5W stages recede or the EDB is full (10.0 feet NGVD29).

G-422– PUMP STATION [NAVD88 = NGVD29 - 1.57 FEET]

Table 1. Discharge Characteristics of Control Structure G-422

DISCHARGE CHARACTERISTICS	
Design Discharge	623 cfs (7× 89 cfs)
Design Discharge Capacity Per Pump	89 cfs
Design Headwater Elevation	N/A
Design Tailwater Elevation	N/A
Maximum Tailwater elevation	10.0 feet NGVD29
Minimum Low Water (Headwater) Elevation	4.0 feet NGVD29 ¹
Generator Finished Floor Elevation	12.35 feet NGVD29
Storm Surge - MOM Elevation ²	
Hurricane Category 1	N/A
Hurricane Category 2	N/A
Hurricane Category 3	N/A
Hurricane Category 4	N/A
Hurricane Category 5	10.87 feet NGVD29

¹Pump stations miscellaneous detail sheet S7 by URS, 4/25/2003.

²MOM Elevation is SLOSH (2009-2010) model output corresponding to maximum of MEOW (Maximum Envelope of Water with high tide as initial condition).

G-422– PUMP STATION [NAVD88 = NGVD29 - 1.57 FEET]

Table 2. Description of Control Structure G-422

DESCRIPTION OF STRUCTURE	
Type	Electric Horizontal Submersible Pump
Pump	
Number:	7
Manufacturer:	MWI
Model:	SEA 342
Impeller Size:	3.5 feet
Pump Speed:	297 RPM
Engine Speed:	1,800 RPM
Engine Horsepower:	125 HP
Discharge Pipe Diameter:	3.5 feet (Intake is a cone)
Discharge Pipe Length:	2.0 feet
Service Bridge Elevation:	12.27 feet NGVD29
Inundation Level (Operating Floor):	N/A (Submersible Pump)
Invert elevation	
Inlet Cone:	-5.1 feet NGVD29 (approximate)
Discharge Pipe:	-5.1 feet NGVD29
Bottom Elevation of Inlet Bay:	-6.6 feet NGVD29
Power	
Normal:	Commercial electricity; Commercial Diesel (6,000-gal tank)
Emergency:	Two 450 KW and one 200 KW Onan generator
Gate	
Type:	Flap gate (downstream end of discharge pipe)
Gate Size:	3.5 feet
Hydraulic and Hydrology Measurements	
Water Level:	Telemetered Headwater (HW) and Tailwater (TW)
Pump Status	Telemetry recorder
Rain Gauge:	None
Canal Description (upstream; downstream)	(C-4 Seepage Canal; C-4 Detention Pond)
Bottom width:	10: N/A feet
Bottom elevation:	-7.0; 5.5 feet NGVD29
Side Slope (H): (V):	1:1 (Upstream)
Manatee Protection System	N/A
Date of Transfer:	N/A
Access	This structure can be accessed from the west side of SW 137 th Ave, 100 north of SW 8 th St (SR 41). The gate is 1.1 miles west of SW 137 th Ave.

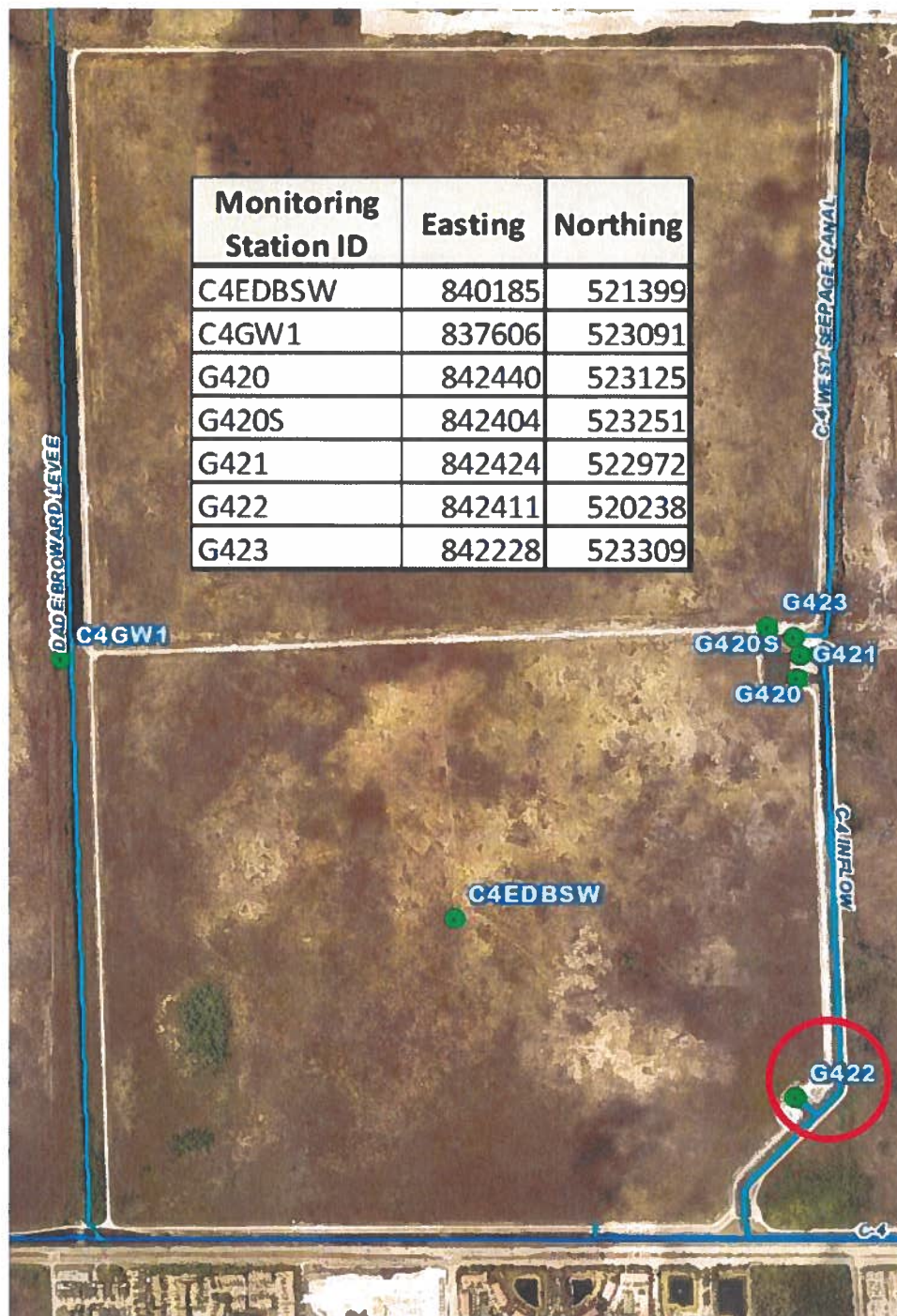


Figure 2: G-422 Pump Station as Part of C-4 EDB. Monitoring stations are shown. C-4 EDBN and EDBS encompass 415 and 416 acres, respectively.

G-422– PUMP STATION [NAVD88 = NGVD29 - 1.57 FEET]

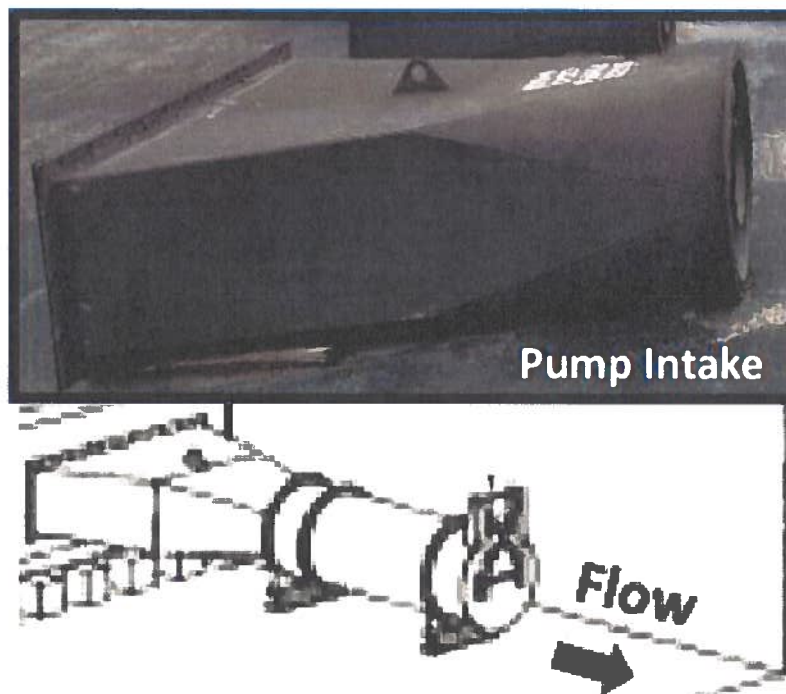
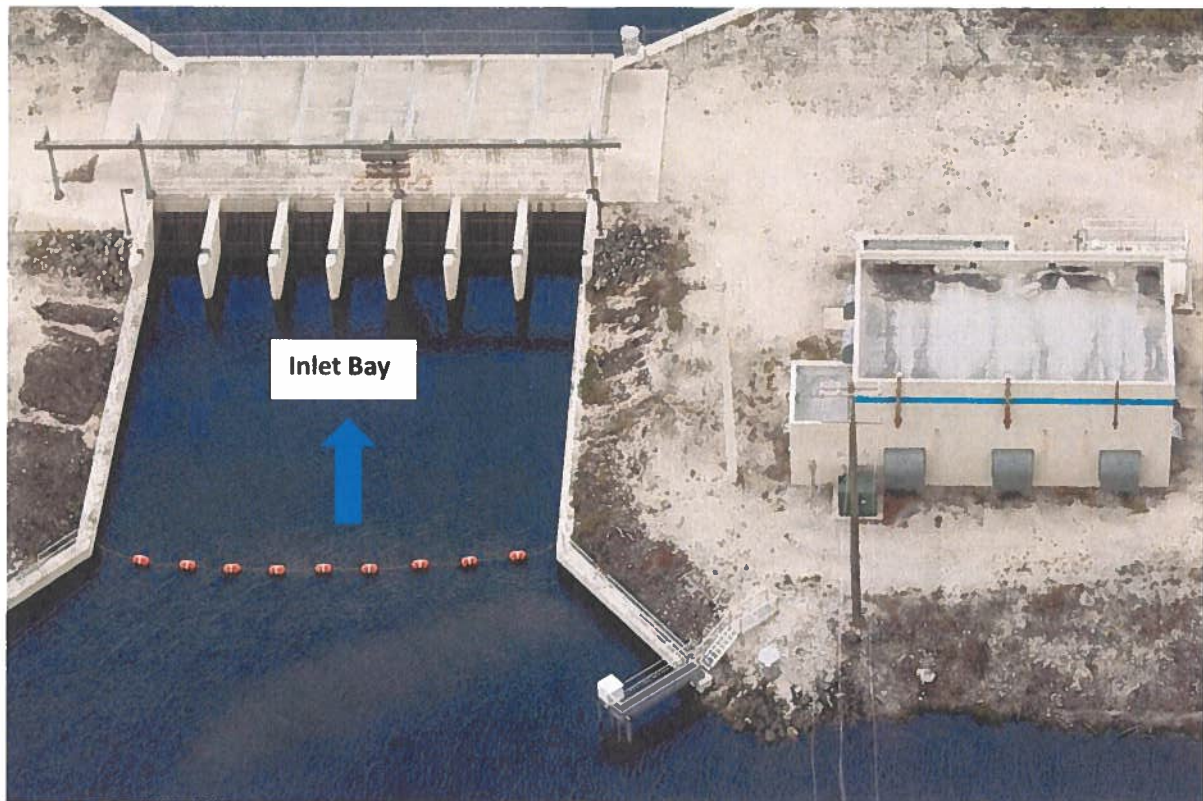


Figure 3: G-422 Pump Station. The submersible pumps were first used by the District as forward Lake Okeechobee pumps in 2001.

A1-65

Publish Date: 7/26/2024

MDC096

G-422– PUMP STATION [NAVD88 = NGVD29 - 1.57 FEET]

RECORD OF CHANGE			
Type	Editor (s)	Date	Reason for Change
Corrections	Z. Li /A. Nasr	7/3/2024	Updated Operations to C-4 EDB Operating Plan (July 2024)
Water Managers Approval		01/13/2020	Final review and approval.
WM Review		9/26/2019	Structure Information Sheet Update: • Update new structural information sheet. • Standardization of format/tables. • Operational Revisions
Update format	S. Hajimirzaie	8/22/2019	C-4 EDB Permit updates
Format	J. Brecher	7/22/2015	Update format of document
Survey Section Revision			N/A
Operations Revisions			N/A
Field Station Revisions			N/A

STRUCTURE G-423 – [NAVD88 = NGVD29 - 1.57 FEET]

DESCRIPTION

Structure G-423 is a six (6) barrel, bi-directional, concrete box culvert located at C-4 Emergency Detention Basin (EDB), Miami-Dade County. The C-4 EDB covers 831 acres. The structure consists of six (6) 5.0 feet high by 10.0 feet wide vertical lift gates. The gates can either be remotely operated from the SFWMD Operation Control Center or controlled on-site. The structure is currently maintained by Miami Field Station.

PURPOSE

The G-423 is an inter-cell transfer structure connecting northern and southern cells of C-4 EDB. The G-423 is used to transfer water between the north and south cells of the C-4 EDB as needed.

OPERATION

The G-423 will be operated according to the Miami Dade County Flood Mitigation Program, C-4 Basin Operating Plan (SFWMD, 2024). The gates are usually left fully open.

Once the stage at T5W monitoring station (2.9 Miles east of the C-4 Detention Basin in C-4 Canal at intersection with the C-2 Canal, west of Florida turnpike) reaches elevation of 4.0 feet NGVD29, pumping into the EDB begins with either all 3 pumps at G-420 (total 669 cfs) or all 7 pumps at G-422 (total 623 cfs) turned on. If not already opened, G-423 will be opened fully at this time as well. When T5W stage rises above 4.2 feet NGVD29, pumping into the EDB will increase to a maximum of 1,292 cfs (G-420 with 3 pumps = 669 cfs plus G-422 with 7 pumps = 623 cfs).

Note: The northern cell of the C-4 EDB is intended to be mined in the future. There is no required change in operations or restrictions on operations once mining begins. The entire EDB will continue to be fully available before, during, and after mining operations. The G-423 culverts may at times be closed to facilitate mining operations when conditions allow and potentially during some rain events if conditions allow. However, there is no requirement to keep the G-423 culverts closed. The G-423 culverts can and will be opened by the SFWMD.

Table 1. Discharge Characteristics of Control Structure G-423

DISCHARGE CHARACTERISTICS	
Design Discharge	N/A ¹
Optimum Headwater Elevation	N/A
Design Headwater Elevation	N/A
Design Tailwater Elevation	N/A
Design Discharge Flow Type	Submerged, uncontrolled
Storm Surge - MOM Elevation ²	
Hurricane Category 1	N/A
Hurricane Category 2	N/A
Hurricane Category 3	N/A
Hurricane Category 4	N/A
Hurricane Category 5	10.67 feet NGVD29

¹Maximum breakpoint flow in 2004-2019 is 475 cfs (Dec 9, 2015).

STRUCTURE G-423 – [NAVD88 = NGVD29 - 1.57 FEET]

²MOM Elevation is SLOSH (2009-2010) model output corresponding to maximum of MEOW (Maximum Envelope of Water with high tide as initial condition).

Table 2. Hydraulic Description of Control Structure G-423

DESCRIPTION OF STRUCTURE	
Type	Precast concrete, gated box culvert
Barrels	
Number:	6
Size:	5.0 feet high by 10.0 feet wide
Length:	30.0 feet
Invert Elevation:	5.0 feet NGVD29
Service Bridge Elevation:	13.0 feet NGVD29
Water Level Which Will Bypass Structure:	13.0 feet NGVD29
Headwall Top Elevation:	N/A
Gates	
Number:	6
Type:	Slide Gate
Size:	5.0 feet high by 10.0 feet wide
Gate Control:	Vertical Lift
Bottom elevation of gates full open:	9.5 feet NGVD29
Top elevation of gates full closed:	10.0 feet NGVD29
Canal Description (upstream; downstream)	(C-4 EDB)
Bottom width:	N/A
Bottom elevation:	N/A
Side Slope (V): (H):	N/A
Lift Mechanism	
Normal Power Source:	Commercial Electricity
Emergency Power Source:	L.P. Gas driven generator at G-420
Type:	Vertical Lift
Dewatering Facilities	
Storage:	N/A
Type:	N/A
Size:	N/A
Hydraulic and Hydrology Measurements	
Water Level:	Upstream and downstream staff gauges and Telemetered Headwater (HW) and Tailwater (TW)
Gate Position:	Digital Sensor
Rain Gauge:	N/A
Manatee Protection System	N/A
Date of Transfer/Operation:	2005
Access	This structure can be accessed from the west side of SW 137 th Ave, 100 north of SW 8 th St (SR 41). The gate is 1.1 miles west of SW 137 th Ave.

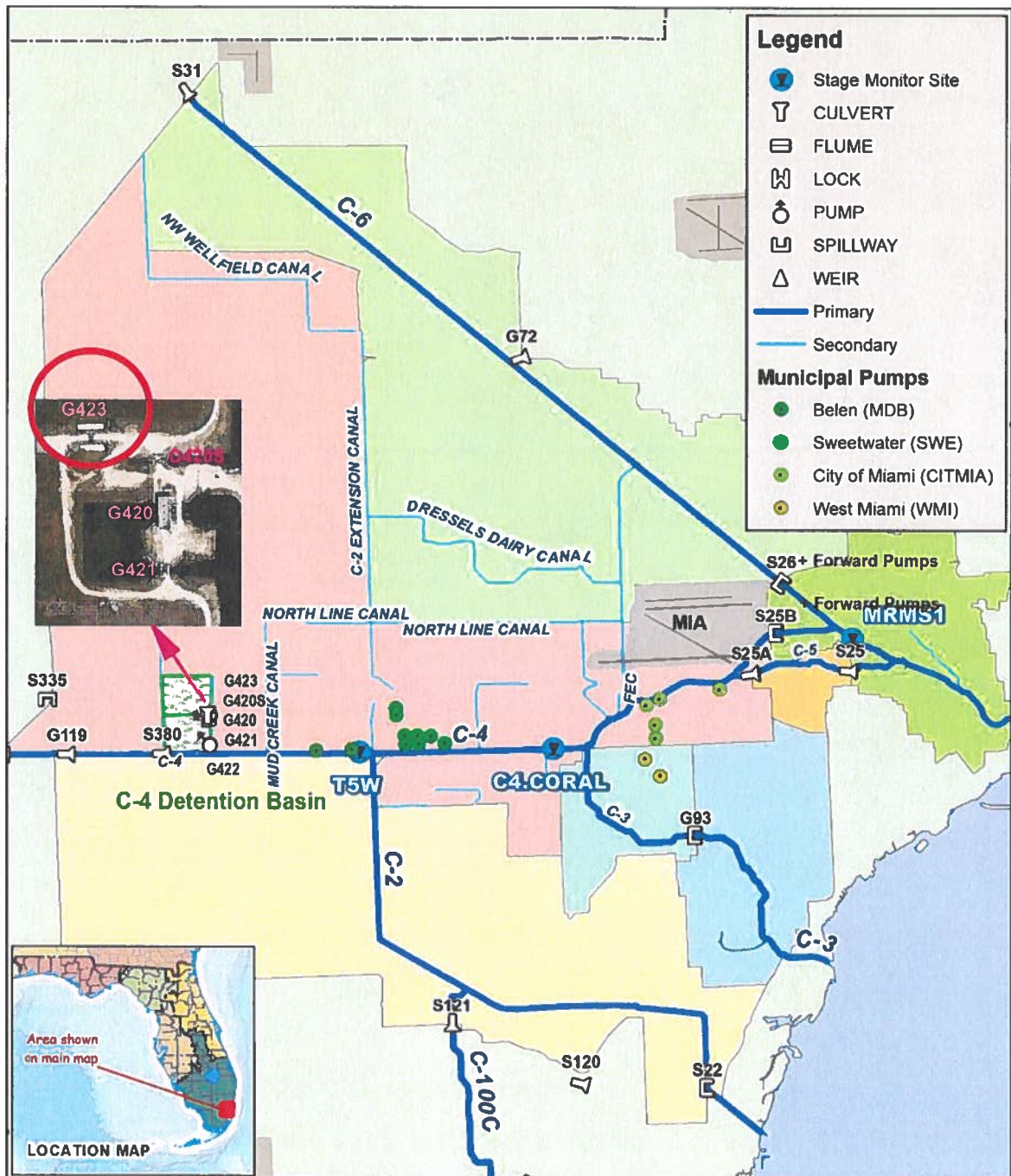


Figure 1: Location of G-423 Culvert along with the C-4 basin components. C-4 EDBN and EDBS encompass 415 and 416 acres, respectively.

STRUCTURE G-423 – [NAVD88 = NGVD29 - 1.57 FEET]

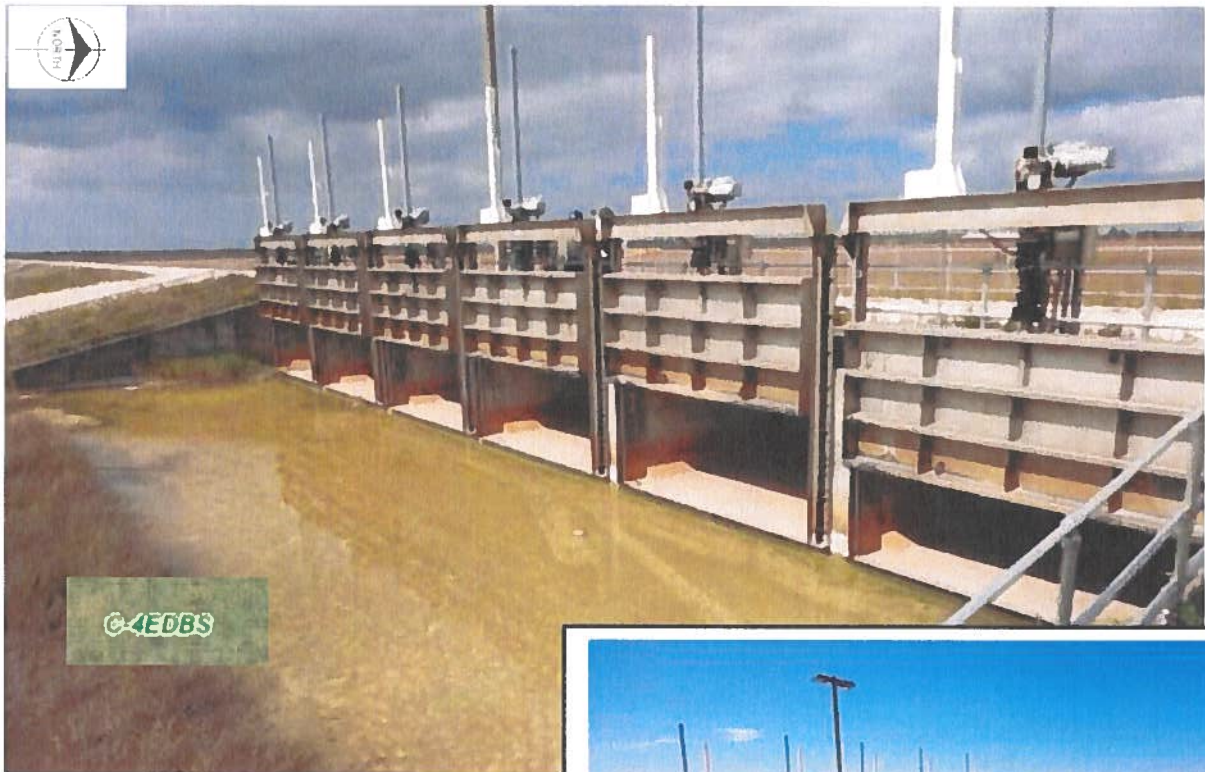


Figure 2: External View of Structure G-423: (top) Headwater, (bottom) Tailwater

STRUCTURE G-423 – [NAVD88 = NGVD29 - 1.57 FEET]

RECORD OF CHANGE			
Type	Editor (s)	Date	Reason for Change
Corrections	Z. Li /A. Nasr	7/3/2024	Updated Operations to C-4 EDB Operating Plan (July 2024)
Water Managers Approval		01/13/2020	Final review and approval.
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Update format	S. Hajimirzaie	8/22/2019	C-4 EDB Permit updates.
Standardization	S. Hajimirzaie	5/06/2019	Standardization of formats, languages, tables, and adding figures.
Format	J. Brecher	7/16/15	Update format of document.



City of Miami
Resolution R-25-0464

City Hall
3500 Pan American Drive
Miami, FL 33133
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Legislation

File Number: 18497

Final Action Date: 11/20/2025

A RESOLUTION OF THE MIAMI CITY COMMISSION, WITH ATTACHMENT(S), AUTHORIZING THE CITY MANAGER TO EXECUTE A MEMORANDUM OF UNDERSTANDING ("MOU"), IN SUBSTANTIALLY THE FORM ATTACHED AND INCORPORATED AS EXHIBIT "A," BETWEEN THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT AND THE CITY OF MIAMI FOR THE PURPOSE OF ESTABLISHING COOPERATIVE GUIDELINES FOR STORMWATER PUMP OPERATIONS AND IMPLEMENTATION OF THE C-4 BASIN OPERATING PLAN BEFORE, DURING, AND AFTER MAJOR STORM EVENTS; FURTHER AUTHORIZING THE CITY MANAGER TO EXECUTE ANY EXTENSIONS, AMENDMENTS, AND DOCUMENTS NECESSARY TO EFFECTUATE THE MOU; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the South Florida Water Management District ("District") has adopted the C-4 Basin Operating Plan ("Operating Plan") to minimize flooding and adverse water quantity impacts within the C-4 Basin and downstream communities; and

WHEREAS, the City of Miami ("City") operates stormwater pump stations that discharge into the C-4 Canal pursuant to Environmental Resource Permit Application No. 030311-10; and

WHEREAS, the District, Miami-Dade County, City of Miami, City of West Miami, and City of Sweetwater desire to enter into a Memorandum of Understanding ("MOU") to coordinate the operation of stormwater pumps prior to, during, and immediately following major storm events to reduce potential flooding impacts; and

WHEREAS, the MOU, attached and incorporated hereto as Exhibit "A," defines the responsibilities of the District and the participating local governments, including coordination, notification, pump operation protocols, data sharing, and recordkeeping; and

WHEREAS, the C-4 Basin Operating Plan, referenced within the MOU and attached and incorporated hereto as Exhibit "B," provides the framework for stormwater management operations and establishes conditions for stormwater pump coordination among the participating jurisdictions; and

WHEREAS, the City Commission finds that entering into this MOU and adopting the associated Operating Plan is in the best interest of the public health, safety, and welfare of the residents of the City;

NOW, THEREFORE, BE IT RESOLVED BY THE COMMISSION OF THE CITY OF MIAMI, FLORIDA:

Section 1. The recitals and findings contained in the Preamble to this Resolution are adopted by reference and incorporated as if fully set forth in this Section.

Section 2. The City Commission hereby approves the Memorandum of Understanding ("MOU") between the South Florida Water Management District, Miami-Dade County, the City of Miami, the City of West Miami, and the City of Sweetwater, in substantially the form attached and incorporated as Exhibit "A," and the C-4 Basin Operating Plan, attached and incorporated as Exhibit "B."

Section 3. The City Manager is authorized¹ to execute the MOU, in substantially the attached form, and to execute any amendments, extensions, renewals, or related documents necessary to implement the intent of this Resolution, in a form acceptable to the City Attorney.

Section 4. This Resolution shall become effective immediately upon its adoption.

APPROVED AS TO FORM AND CORRECTNESS:


George K. Wyrong III, City Attorney 11/10/2025

¹ The herein authorization is further subject to compliance with all legal requirements that may be imposed, including but not limited to those prescribed by applicable City Charter and City Code provisions.



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

4600005300

MEMORANDUM OF UNDERSTANDING

BETWEEN THE

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

AND

MIAMI-DADE COUNTY

AND

CITY OF MIAMI

AND

CITY OF WEST MIAMI

AND

CITY OF SWEETWATER

This Memorandum of Understanding (**MOU**) is made and entered into on, _____, 2026, by and between the "Parties," the South Florida Water Management District, hereunder referred to as the "**DISTRICT**", and Miami-Dade County, City of Miami, City of West Miami, City of Sweetwater (collectively referred to as **LOCAL GOVERNMENTS**).

INTRODUCTION/BACKGROUND

This MOU is designed to be applied in the time period preceding, during and immediately following storm events where excessive rain is expected in the geographic area of the Local Governments (hereinafter referred to as "major storm")

The purpose of this MOU is to define responsibilities for the cooperation among the parties to this agreement in order to reduce potential flooding and adverse water quantity impacts within the geographic areas of the Local Government, C-4 Basin and downstream areas.

The **DISTRICT** has adopted the C-4 Basin Operating Plan (Operating Plan) for discharges into the C-4 Canal, a copy of which is attached as Exhibit "1", as may be amended by the **DISTRICT** from time to time. The **DISTRICT** believes that operation consistent with the Operating Plan

will provide the best framework to reduce potential flooding and adverse water quantity impacts in the geographic area of the Local Governments, C-4 basin and downstream areas.

Local Governments acknowledge that the Operating Plan identifies the conditions in the C-4 basin under which Stormwater Pump operations could result in an increased risk of flooding in the C-4 Basin. Local Governments understand that under certain conditions, the operation of the Stormwater Pumps may result in adverse flood impacts to property owners within the basin.

Local Governments, as the operators of the Stormwater Pumps, acknowledge that the conveyance capacity of the C-4 Canal is limited and may not be able to accept the full combined flow of the Stormwater Pumps during heavy rainfall/flooding conditions.

After notification by the **DISTRICT** of the potential of a major storm event, Local Governments agree to coordinate with each other on the operation of each pump so as to comply to the extent possible with the Operating Plan.

The parties to this MOU fully understand that the available capacity of the C-4 Canal is limited and therefore requires cooperation between the parties regarding the operation of Stormwater Pumps during a major storm event. The parties additionally understand that the operation of the associated Stormwater Pump will not provide Local Governments with ideal drainage. Operation of the Stormwater Pumps by the Local Governments pursuant to the Operating Plan are intended to improve upon the drainage currently experienced by Local Governments but due to capacity constraints in the C-4 Canal, will not provide full drainage to their communities.

The parties acknowledge that pursuant to Rule 40E-4.451, Fla. Admin. Code: "Upon the (**DISTRICT**'s) determination that an emergency exists within its geographic jurisdiction or any part thereof, as defined in subsection (1)(b)(1-2), the Executive Director shall issue an emergency order which shall describe the conditions which are causing the emergency and the type of corrective action necessary to minimize or abate the emergency condition." Actions pursuant to the **DISTRICT**'s emergency authority will supersede this MOU.

WITNESSETH THAT:

WHEREAS, the **DISTRICT** is a public corporation of the State of Florida, created by the Florida Legislature and given those powers and responsibilities enumerated in Chapter 373, Florida Statutes to include entering into contracts and agreements with public agencies, private corporations or other persons; and

WHEREAS, Pursuant to Chapter 373, Florida Statutes, and the rules promulgated thereunder, this Memorandum of Understanding (MOU) defining the process for cooperation in the operation of the **LOCAL GOVERNMENTS** stormwater pump stations discharging to C-4 Canal (hereinafter called Stormwater Pumps) is entered into between the **DISTRICT** and **LOCAL GOVERNMENTS**, by mutual consent, and without this MOU constituting a waiver of any authority of the **LOCAL GOVERNMENTS** and the **DISTRICT** under Chapter 373, Florida Statutes.

WHEREAS, each party to this **MOU** warrants and represents that it has no obligation or indebtedness that would impair its ability to fulfill the terms and conditions of this **MOU**.

WHEREAS, Miami-Dade County is a political subdivision of the State of Florida and is the Applicant of ERP Permit Application No. 060525-24, which requests authorization for Miami-Dade to construct and operate a surface water management system including pump discharge to

Memorandum of Understanding, 4600005300, Page 2 of 11

6/21/2022

the C-4 Canal.

WHEREAS, City of Miami is a local municipality and is the Applicant of ERP Permit Application No. 030311-10, which requests authorization for Miami to construct and operate a surface water management system including pump discharge to the C-4 Canal.

WHEREAS, City of West Miami is a local municipality and is the Applicant of ERP Permit Application No. 030401-4, which requests authorization for West Miami to construct and operate a surface water management system including pump discharge to the C-4 and C-3 Canals.

WHEREAS, City of Sweetwater is a local municipality and is the Permittee of ERP Permit Nos. 1301660-P and 13-02009-P, which granted authorization for Sweetwater to construct and operate a surface water management system including pump discharge to the C-4 Canal; and

NOW THEREFORE, in consideration of the covenants and representations set forth herein and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Parties agree as follows:

ARTICLE 1 – RESPONSIBILITIES OF THE PARTIES

JOINT RESPONSIBILITIES

- 1.1 Not later than thirty (30) days after the effective date of this MOU, **LOCAL GOVERNMENTS** shall each designate, in writing, a principle contact person to coordinate operation of the Stormwater Pumps. Each **LOCAL GOVERNMENT** shall provide the **DISTRICT** contact person with a list of contacts and contact information in writing prior to the 1st day of May of each year for the term of this MOU
- 1.2 The parties shall meet at least annually to assess whether the operation of the Stormwater Pumps has resulted in any adverse impacts to the C-4 Basin and downstream areas.
- 1.3 This MOU may be amended only by mutual written agreement of all of the parties to this agreement.

LOCAL GOVERNMENTS' RESPONSIBILITIES

- 1.4 **LOCAL GOVERNMENTS** shall coordinate with each other in the operation of the Stormwater Pumps upon notification by the **DISTRICT** of the expectation of a major storm event, the contacts listed herein, or their designees, shall meet as soon as reasonably practicable to discuss cooperative operation of the **LOCAL GOVERNMENTS'** pumps in order to reduce flooding and adverse water quantity impacts within the geographic area of the **LOCAL GOVERNMENTS**, C-4 Basin and downstream areas. These discussions shall include a consideration of the Operating Plan.
- 1.5 **LOCAL GOVERNMENTS** shall provide and maintain locks on the control mechanism for their respective Stormwater Pumps to prevent their unauthorized operation
- 1.6 **LOCAL GOVERNMENTS** shall prohibit and otherwise prevent unauthorized operation of the Stormwater Pumps. **LOCAL GOVERNMENTS** shall maintain a record or log of the operation of the Stormwater Pumps. The record or log may be kept manually or electronically

Memorandum of Understanding, 4600005300, Page 3 of 11

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and shall provide an accurate record of times, dates and periods that the Stormwater Pumps are in operation.

- 1.7 **LOCAL GOVERNMENTS** acknowledge that as a result of the operation of the Stormwater Pumps adverse impacts prohibited by the applicable Permit(s), Chapter 373, Florida Statutes, or the **DISTRICT** rule, may occur to either the water resources or other C4, C-3, C-2 Canal or downstream system users. Each **LOCAL GOVERNMENT** operating the pumps shall be responsible for any liability or claims of liability resulting from the operation of the pumps by such **LOCAL GOVERNMENT**.
- 1.8 **LOCAL GOVERNMENTS** shall be the sole contact with the **DISTRICT** for the operation of the Stormwater Pumps. It shall be the obligation of the **LOCAL GOVERNMENTS** to inform the residents of their respective communities of the provisions of this MOU.
- 1.9 **LOCAL GOVERNMENTS** shall require their respective staff to review and become familiar with the terms and conditions of the Permit(s), this MOU and the Operating Plan.
- 1.10 If any other regulatory agency requires changes to the construction or operation of the Stormwater Pumps, **LOCAL GOVERNMENTS** shall notify the **DISTRICT** in writing of the changes prior to implementation so that a determination can be made as to whether or not a modification to the Permit(s) or this MOU or both is required. Changes requiring a modification to the Permit(s) or this MOU or both shall not be implemented until the modification is approved by the **DISTRICT**.
- 1.11 This MOU does not obviate the necessity to obtain any required federal, state, local and special district authorizations prior to the commencement of any activity authorized by the Permit(s) or this MOU. This MOU neither creates nor otherwise conveys to **LOCAL GOVERNMENTS** any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by **LOCAL GOVERNMENTS**, nor does it convey any rights or privileges other than those specified in the MOU, the Permit(s), and Chapter 40E-4 or Chapter 40E-40, Fla. Admin. Code.

DISTRICT RESPONSIBILITIES

- 1.12 The **DISTRICT** agrees to install telemetry that will provide operating information on the stormwater pumps referenced herein to the **DISTRICT'S** West Palm Beach Control Room. Telemetry shall be installed based on available funding. The **DISTRICT** shall make this telemetry information available electronically on the **DISTRICT'S** website.
- 1.13 The **DISTRICT** agrees to provide email and telephone notification to the contacts listed herein of the **LOCAL GOVERNMENTS** of the expectation of a major storm event.

ARTICLE 2 – COMPENSATION/CONSIDERATION

- 2.1 This **MOU** defines in general terms the basis on which the Parties to this agreement will cooperate. No funds will be exchanged between the cooperating Parties on the basis of this **MOU**.
- 2.2 **Expenses.** Unless agreed to otherwise in writing, each party bears all of its own costs and expenses in connection with this MOU and the party's obligations under this MOU.

ARTICLE 3 - TERM OF THE MOU

- 3.1 This agreement shall be effective for a period of ten (10) years, beginning on the last date of execution of this agreement. The parties shall have an option to renew this agreement for another ten (10) year period effective upon mutual written consent of all of the parties. At no point should this agreement be extended beyond the expected and/or actual life of the system and/or its critical components.

ARTICLE 4 - PROJECT MANAGEMENT/NOTICE

- 4.1 The Project Manager for the **DISTRICT** is Armando Vilaboy, at South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33406, telephone (305) 513-3420.
- 4.2 **LOCAL GOVERNMENTS** shall also provide a copy of all notices to the **DISTRICT'S** Project Manager. All notices required by this **MOU** shall be considered delivered upon receipt. Should any party change its mailing address, written notice of such new address shall promptly be sent to the other parties.

All correspondence to the **DISTRICT** under this **MOU** shall reference the **DISTRICT'S** Contract Number 4600005300.

ARTICLE 5 - TERMINATION

- 5.1 Any party hereto may terminate its respective obligations pursuant to this **MOU** at any time for convenience by providing written notice of termination to the other parties not less than sixty (60) calendar days prior to the intended date of termination. The performance of work under this **MOU** may be terminated in accordance with this clause in whole, or from time to time in part, whenever a party hereto determines that such termination is in its best interest. Any such termination shall be affected by delivery of a Notice of Termination to the other parties specifying the extent to which performance of work under the **MOU** is terminated, and the date upon which such termination becomes effective.
- 5.2 If any party hereto fails to fulfill its obligations under this **MOU** in a timely and proper manner, the other parties shall have the right to terminate this **MOU** by giving written notice of any deficiency. The party in default shall then have ten (10) calendar days from receipt of notice to correct the deficiency. If the defaulting party fails to correct the deficiency within this time, the non-defaulting parties shall have the option to terminate this **MOU** at the expiration of the ten (10) daytime period.

ARTICLE 6 - STANDARDS OF COMPLIANCE

- 6.1 The parties to this **MOU** will not discriminate against any person on legally protected bases in any activity under this agreement.
- 6.2 **LOCAL GOVERNMENTS** shall allow public access to all project documents and materials in accordance with the provisions of Chapter 119, Florida Statutes. Should the **LOCAL GOVERNMENTS** assert any exemptions to the requirements of Chapter 119 and related Statutes, the burden of establishing such exemption, by way of injunctive or other relief as provided by law, shall be upon the **LOCAL GOVERNMENTS**.

- 6.3 **LOCAL GOVERNMENTS**, its employees, subcontractors or assigns, shall comply with all applicable federal, state, and local laws and regulations relating to the performance of this **MOU**. The **DISTRICT** undertakes no duty to ensure such compliance but will attempt to advise the **LOCAL GOVERNMENTS** upon request, as to any such laws of which it has present knowledge.

ARTICLE 7 - RELATIONSHIP BETWEEN THE PARTIES

- 7.1 The parties to this **MOU** are independent entities and are not employees or agents of the other parties. Nothing in this **MOU** shall be interpreted to establish any relationship other than that of independent entities, between the **DISTRICT**, **LOCAL GOVERNMENTS** their employees, agents, subcontractors, or assigns, during or after the term of this **MOU**.
- 7.2 The parties to this **MOU** shall not assign, delegate, or otherwise transfer their rights and obligations as set forth in this **MOU** without the prior written consent of the other parties. Any attempted assignment in violation of this provision shall be void.

ARTICLE 8 – MAINTENANCE OF RECORDS

- 8.1 The Parties to this **MOU** shall maintain records and the other party shall have inspection and audit rights as follows:
- A. Maintenance of Records: Each party shall maintain all financial and non-financial records and reports directly or indirectly related to this **MOU**. Such records shall be maintained and made available for inspection for a period of five years from the expiration or termination date of this **MOU**.
 - B. Examination of Records: Each party or its designated agent shall have the right to examine in accordance with generally accepted governmental auditing standards all records directly or indirectly related to this **MOU**. Such examination may be made only within five years from the expiration or termination date of this **MOU** and upon reasonable notice, time and place.
 - C. Extended Availability of Records for Legal Disputes: In the event that the **DISTRICT** should become involved in a legal dispute with a third party arising from performance under this **MOU**, the **LOCAL GOVERNMENTS** shall extend the period of maintenance for all records relating to the **MOU** until the final disposition of the legal dispute, and all such records shall be made readily available to the **DISTRICT**.

ARTICLE 9 - GENERAL PROVISIONS

- 9.1 This **MOU**, together with the Operating Plan, incorporates, embodies and expresses all agreements and understandings regarding the Stormwater Pumps between the **DISTRICT** and **LOCAL GOVERNMENTS** and may not be altered except as authorized herein.
- 9.2 This **MOU** shall not constitute a waiver of the **DISTRICT**'s regulatory jurisdiction, nor be construed to authorize any activity within the jurisdiction of the **DISTRICT** except in accordance with the express terms of this **MOU**, the Permit(s) and the Operating Plan.
- 9.3 Nothing in this **MOU**, whether expressed or implied, is intended to confer upon any person other than the Parties hereto any rights or remedies under or by reason of this **MOU**

- 9.4 There shall be no waiver of any right contained in this MOU unless in writing signed by the party waiving such right. No delay or failure to exercise a right under this MOU shall impair such right or be construed to be a waiver thereof. Any waiver shall be limited to the particular rights so waived and shall not be deemed a continuing waiver of the same right or of any other right under this MOU.
- 9.5 The invalidity of one or more of the terms or conditions contained in this MOU shall not affect the validity of the remaining portion of the MOU provided that the material purposes of this MOU can be determined and effectuated. In the event of a conflict between the provisions of this MOU and the Permit(s), the provisions of the Permit(s) shall prevail.
- 9.6 In the event any provisions of this **MOU** shall conflict, or appear to conflict, the **MOU**, including all exhibits, attachments and all documents specifically incorporated by reference, shall be interpreted as a whole to resolve any inconsistency.
- 9.7 Should any term or provision of this **MOU** be held, to any extent, invalid or unenforceable, as against any person, entity or circumstance during the term hereof, by force of any statute, law, or ruling of any forum of competent jurisdiction, such invalidity shall not affect any other term or provision of this **MOU**, to the extent that the **MOU** shall remain operable, enforceable and in full force and effect to the extent permitted by law.
- 9.8 Notwithstanding any provisions of this **MOU** to the contrary, the parties shall not be held liable for any failure or delay in the performance of this **MOU** that arises from fires, floods, strikes, embargoes, acts of the public enemy, unusually severe weather, outbreak of war, restraint of Government, riots, civil commotion, force majeure, act of God, or for any other cause of the same character which is unavoidable through the exercise of due care and beyond the control of the parties. Failure to perform shall be excused during the continuance of such circumstances, but this **MOU** shall otherwise remain in effect.
- 9.9 This **MOU** states the entire understanding and agreement between the parties and supersedes any and all written or oral representations, statements, negotiations, or agreements previously existing between the parties with respect to the subject matter of this **MOU**.
- 9.10 The **LOCAL GOVERNMENTS** recognize that any representations, statements or negotiations made by **DISTRICT** staff do not suffice to legally bind **DISTRICT** in a contractual relationship unless they have been reduced to writing and signed by an authorized **DISTRICT** representative. This **MOU** shall inure to the benefit of and shall be binding upon the parties, their respective assigns, and successors in interest.
- 9.11 Any dispute arising under this **MOU** which cannot be readily resolved shall be submitted jointly to the signatories of this **MOU** with each party agreeing to seek in good faith to resolve the issue through negotiation or other forms of non-binding alternative disputes resolution mutually acceptable to the parties. A joint decision of the signatories, or their designees, shall be the disposition of such dispute.
- 9.12 **LOCAL GOVERNMENTS** assume any and all risks of personal injury, bodily injury and property damage attributable to the negligent acts or omissions which may arise solely as a result of the operation of the Stormwater Pumps by the **LOCAL GOVERNMENTS** and the officers,

employees, servants, and agents thereof. The **LOCAL GOVERNMENTS** warrants and represents that it is self-funded for Worker's compensation and liability insurance, covering at a minimum bodily injury, personal injury and property damage with protection being applicable to the **LOCAL GOVERNMENTS** officers, employees, servants and agents while acting within the scope of their employment during performance under this **MOU**. **LOCAL GOVERNMENTS** hereby agree to indemnify and hold harmless the **DISTRICT** to the extent and within the limitations of Section 768.28, Florida Statutes. The **LOCAL GOVERNMENTS** and the **DISTRICT** further agree that nothing contained herein shall be construed or interpreted as (1) denying to either party any remedy or defense available to such party under the laws of the State of Florida; (2) the consent of the State of Florida or its agents and agencies to be sued; or (3) a waiver of sovereign immunity of the State of Florida beyond the waiver provided in Section 768.28, Florida Statutes.

ARTICLE 10 – APPLICABLE LAW

- 10.1 Each party, to the extent permitted by law, knowingly, voluntarily, and intentionally waives its right to a trial by jury in any action or other legal proceeding arising out of or relating to this **MOU** and the transactions it contemplates. This waiver applies to an action or legal proceeding, whether sounding in contract, tort or otherwise.
- 10.2 The laws of the State of Florida shall govern all aspects of this **MOU**. In the event it is necessary for either party to initiate legal action regarding this **MOU**, venue shall be in the Fifteenth Judicial Circuit for claims under state law and in the Southern District of Florida for any claims which are justiciable in federal court.

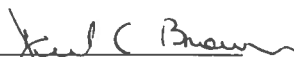
IN WITNESS WHEREOF, the parties or their duly authorized representative hereby execute this **MOU** on the date first written above.

**SOUTH FLORIDA WATER MANAGEMENT DISTRICT
BY ITS GOVERNING BOARD**

By: _____
Drew Bartlett
Executive Director

By: _____
Candida Heater, Division Director
Administrative Services Division

Legal Form Approved
SFWMD Office Of Counsel

BY: 
DATE: 1/20/2026

SFWMD Procurement Approved

BY: 
DATE: 01/13/2025

Passed and approved by the Board of County Commissioners of Miami-Dade County, Florida, this _____ day of _____, 2026.

ATTEST:

MIAMI-DADE COUNTY

BY: _____
Name:
Title:

BY: _____
Name:
Title:

LEGAL FORM APPROVED:

BY: _____
Name:
Title:

Passed and approved by the City of Commissioners of the City of Miami, Florida, this 20th day of November, 2025.

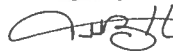
Signed by:



ATTEST: _____

**CITY OF MIAMI, a municipal
corporation of the State of Florida**

DocuSigned by:

 March 5, 2026 | 17:18:05 EST

E40D2800CF1459
Todd B. Hannon
City Clerk

Date:

Signed by:

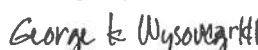
 March 5, 2026 | 15:23:49 EST

A68C250E2C6A478
James Reyes
City Manager

Date:

**APPROVED AS TO FORM AND
CORRECTNESS:**

DocuSigned by:

 March 4, 2026 | 16:54:23 EST

83776E9FEB82486
George K. Wysong III
City Attorney

Date:

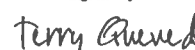
Signed by:

 #25-3464K/PMA

E2E13F0A6D0B412

**APPROVED AS TO INSURANCE
REQUIREMENTS:**

DocuSigned by:

 March 4, 2026 | 06:30:35 EST

55349E495F254B0
David Ruiz
Interim Director
Department of Risk Management

Date:

Passed and approved by the City of Commissioners of the City of West Miami, Florida, this _____ day of _____, 2026.

ATTEST: CITY OF WEST MIAMI

BY: _____ BY: _____
Name: Name:
Title: Title:

LEGAL FORM APPROVED:

BY: _____
Name:
Title:

Passed and approved by the City of Commissioners of the City of Sweetwater, Florida, this _____ day of _____, 2026.

ATTEST: CITY OF SWEETWATER

BY: _____ BY: _____
Name: Name:
Title: Title:

LEGAL FORM APPROVED:

BY: _____
Name:
Title:

Exhibit 3



RESOLUTION # 2026-01

A RESOLUTION OF THE MAYOR AND THE CITY COMMISSION OF THE CITY OF WEST MIAMI, ACCEPTING THE MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT AND THE CITY OF WEST MIAMI AND PROVIDING FOR AN EFFECTIVE DATE. *(Sponsored by Administration)*

WHEREAS, this MOU is designed to be applied in a time period preceding, during and immediately following storm events where excessive rain is expected in the geographic area; and

WHEREAS, the purpose of this MOU is to define the responsibilities for the cooperation to reduce potential flooding and adverse water quality impacts within the geographic areas affecting C-4 Basin and downstream areas; and

WHEREAS, the District has adopted the C-4 Basin Operating Plan for discharges into the C-4 canal; and

NOW, THEREFORE BE IT RESOLVED by the City Commission of the City of West Miami as follows:

Section 1: The foregoing "Whereas" clauses are hereby ratified and confirmed as being true and correct and are hereby made specific part of this Resolution upon adoption thereof.

Section 2: The City is hereby authorized to execute the Memorandum of Understanding (MOU) between the City of West Miami and the South Florida Water Management District

Section 3: This Resolution shall become effective upon its adoption.

PASSED and ADOPTED this 14th day of January 2026.

APPROVED:

A handwritten signature in blue ink, appearing to read "Eric", is written over a horizontal line.

ERIC DIAZ-PADRON, MAYOR

ATTEST:



ANNERY GONZALEZ, MMC
CITY CLERK

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:



DEXTER W. LEHTINEN, CITY ATTORNEY

ROLL CALL VOTE:

This Resolution was offered by Commissioner Suarez, who moved its adoption. The motion was seconded by Commissioner Blanes. The vote was as follows:

MAYOR ERIC DIAZ-PADRON	<u>Y</u>
VICE-MAYOR IVAN CHAVEZ, JR	<u>ABSENT</u>
COMMISSIONER JUAN M. BLANES	<u>Y</u>
COMMISSIONER GUSTAVO J. CEBALLOS	<u>Y</u>
COMMISSIONER LUCIANO L. SUAREZ	<u>Y</u>



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

4600005300

MEMORANDUM OF UNDERSTANDING

BETWEEN THE

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

AND

MIAMI-DADE COUNTY

AND

CITY OF MIAMI

AND

CITY OF WEST MIAMI

AND

CITY OF SWEETWATER

This Memorandum of Understanding (**MOU**) is made and entered into on, _____, 2026, by and between the "Parties," the South Florida Water Management District, hereunder referred to as the "**DISTRICT**", and Miami-Dade County, City of Miami, City of West Miami, City of Sweetwater (collectively referred to as **LOCAL GOVERNMENTS**).

INTRODUCTION/BACKGROUND

This MOU is designed to be applied in the time period preceding, during and immediately following storm events where excessive rain is expected in the geographic area of the Local Governments (hereinafter referred to as "major storm")

The purpose of this MOU is to define responsibilities for the cooperation among the parties to this agreement in order to reduce potential flooding and adverse water quantity impacts within the geographic areas of the Local Government, C-4 Basin and downstream areas.

The **DISTRICT** has adopted the C-4 Basin Operating Plan (Operating Plan) for discharges into the C-4 Canal, a copy of which is attached as Exhibit "1", as may be amended by the **DISTRICT** from time to time. The **DISTRICT** believes that operation consistent with the Operating Plan

will provide the best framework to reduce potential flooding and adverse water quantity impacts in the geographic area of the Local Governments, C-4 basin and downstream areas.

Local Governments acknowledge that the Operating Plan identifies the conditions in the C-4 basin under which Stormwater Pump operations could result in an increased risk of flooding in the C-4 Basin. Local Governments understand that under certain conditions, the operation of the Stormwater Pumps may result in adverse flood impacts to property owners within the basin.

Local Governments, as the operators of the Stormwater Pumps, acknowledge that the conveyance capacity of the C-4 Canal is limited and may not be able to accept the full combined flow of the Stormwater Pumps during heavy rainfall/flooding conditions.

After notification by the **DISTRICT** of the potential of a major storm event, Local Governments agree to coordinate with each other on the operation of each pump so as to comply to the extent possible with the Operating Plan.

The parties to this MOU fully understand that the available capacity of the C-4 Canal is limited and therefore requires cooperation between the parties regarding the operation of Stormwater Pumps during a major storm event. The parties additionally understand that the operation of the associated Stormwater Pump will not provide Local Governments with ideal drainage. Operation of the Stormwater Pumps by the Local Governments pursuant to the Operating Plan are intended to improve upon the drainage currently experienced by Local Governments but due to capacity constraints in the C-4 Canal, will not provide full drainage to their communities.

The parties acknowledge that pursuant to Rule 40E-4.451, Fla. Admin. Code: "Upon the (**DISTRICT**'s) determination that an emergency exists within its geographic jurisdiction or any part thereof, as defined in subsection (1)(b)(1-2), the Executive Director shall issue an emergency order which shall describe the conditions which are causing the emergency and the type of corrective action necessary to minimize or abate the emergency condition." Actions pursuant to the **DISTRICT**'s emergency authority will supersede this MOU.

WITNESSETH THAT:

WHEREAS, the **DISTRICT** is a public corporation of the State of Florida, created by the Florida Legislature and given those powers and responsibilities enumerated in Chapter 373, Florida Statutes to include entering into contracts and agreements with public agencies, private corporations or other persons; and

WHEREAS, Pursuant to Chapter 373, Florida Statutes, and the rules promulgated thereunder, this Memorandum of Understanding (MOU) defining the process for cooperation in the operation of the **LOCAL GOVERNMENTS** stormwater pump stations discharging to C-4 Canal (hereinafter called Stormwater Pumps) is entered into between the **DISTRICT** and **LOCAL GOVERNMENTS**, by mutual consent, and without this MOU constituting a waiver of any authority of the **LOCAL GOVERNMENTS** and the **DISTRICT** under Chapter 373, Florida Statutes.

WHEREAS, each party to this **MOU** warrants and represents that it has no obligation or indebtedness that would impair its ability to fulfill the terms and conditions of this **MOU**.

WHEREAS, Miami-Dade County is a political subdivision of the State of Florida and is the Applicant of ERP Permit Application No. 060525-24, which requests authorization for Miami-Dade to construct and operate a surface water management system including pump discharge to

Memorandum of Understanding, 4600005300, Page 2 of 11

6/21/2022

the C-4 Canal.

WHEREAS, City of Miami is a local municipality and is the Applicant of ERP Permit Application No. 030311-10, which requests authorization for Miami to construct and operate a surface water management system including pump discharge to the C-4 Canal.

WHEREAS, City of West Miami is a local municipality and is the Applicant of ERP Permit Application No. 030401-4, which requests authorization for West Miami to construct and operate a surface water management system including pump discharge to the C-4 and C-3 Canals.

WHEREAS, City of Sweetwater is a local municipality and is the Permittee of ERP Permit Nos. 1301660-P and 13-02009-P, which granted authorization for Sweetwater to construct and operate a surface water management system including pump discharge to the C-4 Canal; and

NOW THEREFORE, in consideration of the covenants and representations set forth herein and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Parties agree as follows:

ARTICLE 1 – RESPONSIBILITIES OF THE PARTIES

JOINT RESPONSIBILITIES

- 1.1 Not later than thirty (30) days after the effective date of this MOU, **LOCAL GOVERNMENTS** shall each designate, in writing, a principle contact person to coordinate operation of the Stormwater Pumps. Each **LOCAL GOVERNMENT** shall provide the **DISTRICT** contact person with a list of contacts and contact information in writing prior to the 1st day of May of each year for the term of this MOU
- 1.2 The parties shall meet at least annually to assess whether the operation of the Stormwater Pumps has resulted in any adverse impacts to the C-4 Basin and downstream areas.
- 1.3 This MOU may be amended only by mutual written agreement of all of the parties to this agreement.

LOCAL GOVERNMENTS' RESPONSIBILITIES

- 1.4 **LOCAL GOVERNMENTS** shall coordinate with each other in the operation of the Stormwater Pumps upon notification by the **DISTRICT** of the expectation of a major storm event, the contacts listed herein, or their designees, shall meet as soon as reasonably practicable to discuss cooperative operation of the **LOCAL GOVERNMENTS'** pumps in order to reduce flooding and adverse water quantity impacts within the geographic area of the **LOCAL GOVERNMENTS**, C-4 Basin and downstream areas. These discussions shall include a consideration of the Operating Plan.
- 1.5 **LOCAL GOVERNMENTS** shall provide and maintain locks on the control mechanism for their respective Stormwater Pumps to prevent their unauthorized operation
- 1.6 **LOCAL GOVERNMENTS** shall prohibit and otherwise prevent unauthorized operation of the Stormwater Pumps. **LOCAL GOVERNMENTS** shall maintain a record or log of the operation of the Stormwater Pumps. The record or log may be kept manually or electronically

Memorandum of Understanding, 4600005300, Page 3 of 11

6/21/2022

and shall provide an accurate record of times, dates and periods that the Stormwater Pumps are in operation.

- 1.7 **LOCAL GOVERNMENTS** acknowledge that as a result of the operation of the Stormwater Pumps adverse impacts prohibited by the applicable Permit(s), Chapter 373, Florida Statutes, or the **DISTRICT** rule, may occur to either the water resources or other C4, C-3, C-2 Canal or downstream system users. Each **LOCAL GOVERNMENT** operating the pumps shall be responsible for any liability or claims of liability resulting from the operation of the pumps by such **LOCAL GOVERNMENT**.
- 1.8 **LOCAL GOVERNMENTS** shall be the sole contact with the **DISTRICT** for the operation of the Stormwater Pumps. It shall be the obligation of the **LOCAL GOVERNMENTS** to inform the residents of their respective communities of the provisions of this MOU.
- 1.9 **LOCAL GOVERNMENTS** shall require their respective staff to review and become familiar with the terms and conditions of the Permit(s), this MOU and the Operating Plan.
- 1.10 If any other regulatory agency requires changes to the construction or operation of the Stormwater Pumps, **LOCAL GOVERNMENTS** shall notify the **DISTRICT** in writing of the changes prior to implementation so that a determination can be made as to whether or not a modification to the Permit(s) or this MOU or both is required. Changes requiring a modification to the Permit(s) or this MOU or both shall not be implemented until the modification is approved by the **DISTRICT**.
- 1.11 This MOU does not obviate the necessity to obtain any required federal, state, local and special district authorizations prior to the commencement of any activity authorized by the Permit(s) or this MOU. This MOU neither creates nor otherwise conveys to **LOCAL GOVERNMENTS** any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by **LOCAL GOVERNMENTS**, nor does it convey any rights or privileges other than those specified in the MOU, the Permit(s), and Chapter 40E-4 or Chapter 40E-40, Fla. Admin. Code.

DISTRICT RESPONSIBILITIES

- 1.12 The **DISTRICT** agrees to install telemetry that will provide operating information on the stormwater pumps referenced herein to the **DISTRICT'S** West Palm Beach Control Room. Telemetry shall be installed based on available funding. The **DISTRICT** shall make this telemetry information available electronically on the **DISTRICT'S** website.
- 1.13 The **DISTRICT** agrees to provide email and telephone notification to the contacts listed herein of the **LOCAL GOVERNMENTS** of the expectation of a major storm event.

ARTICLE 2 – COMPENSATION/CONSIDERATION

- 2.1 This **MOU** defines in general terms the basis on which the Parties to this agreement will cooperate. No funds will be exchanged between the cooperating Parties on the basis of this **MOU**.
- 2.2 **Expenses.** Unless agreed to otherwise in writing, each party bears all of its own costs and expenses in connection with this MOU and the party's obligations under this MOU.

ARTICLE 3 - TERM OF THE MOU

- 3.1 This agreement shall be effective for a period of ten (10) years, beginning on the last date of execution of this agreement. The parties shall have an option to renew this agreement for another ten (10) year period effective upon mutual written consent of all of the parties. At no point should this agreement be extended beyond the expected and/or actual life of the system and/or its critical components.

ARTICLE 4 - PROJECT MANAGEMENT/NOTICE

- 4.1 The Project Manager for the **DISTRICT** is Armando Vilaboy, at South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33406, telephone (305) 513-3420.
- 4.2 **LOCAL GOVERNMENTS** shall also provide a copy of all notices to the **DISTRICT'S** Project Manager. All notices required by this **MOU** shall be considered delivered upon receipt. Should any party change its mailing address, written notice of such new address shall promptly be sent to the other parties.

All correspondence to the **DISTRICT** under this **MOU** shall reference the **DISTRICT'S** Contract Number 4600005300.

ARTICLE 5 - TERMINATION

- 5.1 Any party hereto may terminate its respective obligations pursuant to this **MOU** at any time for convenience by providing written notice of termination to the other parties not less than sixty (60) calendar days prior to the intended date of termination. The performance of work under this **MOU** may be terminated in accordance with this clause in whole, or from time to time in part, whenever a party hereto determines that such termination is in its best interest. Any such termination shall be affected by delivery of a Notice of Termination to the other parties specifying the extent to which performance of work under the **MOU** is terminated, and the date upon which such termination becomes effective.
- 5.2 If any party hereto fails to fulfill its obligations under this **MOU** in a timely and proper manner, the other parties shall have the right to terminate this **MOU** by giving written notice of any deficiency. The party in default shall then have ten (10) calendar days from receipt of notice to correct the deficiency. If the defaulting party fails to correct the deficiency within this time, the non-defaulting parties shall have the option to terminate this **MOU** at the expiration of the ten (10) daytime period.

ARTICLE 6 - STANDARDS OF COMPLIANCE

- 6.1 The parties to this **MOU** will not discriminate against any person on legally protected bases in any activity under this agreement.
- 6.2 **LOCAL GOVERNMENTS** shall allow public access to all project documents and materials in accordance with the provisions of Chapter 119, Florida Statutes. Should the **LOCAL GOVERNMENTS** assert any exemptions to the requirements of Chapter 119 and related Statutes, the burden of establishing such exemption, by way of injunctive or other relief as provided by law, shall be upon the **LOCAL GOVERNMENTS**.

- 6.3 **LOCAL GOVERNMENTS**, its employees, subcontractors or assigns, shall comply with all applicable federal, state, and local laws and regulations relating to the performance of this **MOU**. The **DISTRICT** undertakes no duty to ensure such compliance but will attempt to advise the **LOCAL GOVERNMENTS** upon request, as to any such laws of which it has present knowledge.

ARTICLE 7 - RELATIONSHIP BETWEEN THE PARTIES

- 7.1 The parties to this **MOU** are independent entities and are not employees or agents of the other parties. Nothing in this **MOU** shall be interpreted to establish any relationship other than that of independent entities, between the **DISTRICT**, **LOCAL GOVERNMENTS** their employees, agents, subcontractors, or assigns, during or after the term of this **MOU**.
- 7.2 The parties to this **MOU** shall not assign, delegate, or otherwise transfer their rights and obligations as set forth in this **MOU** without the prior written consent of the other parties. Any attempted assignment in violation of this provision shall be void.

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- 9.2 This **MOU** shall not constitute a waiver of the **DISTRICT**'s regulatory jurisdiction, nor be construed to authorize any activity within the jurisdiction of the **DISTRICT** except in accordance with the express terms of this **MOU**, the Permit(s) and the Operating Plan.
- 9.3 Nothing in this **MOU**, whether expressed or implied, is intended to confer upon any person other than the Parties hereto any rights or remedies under or by reason of this **MOU**

- 9.4 There shall be no waiver of any right contained in this MOU unless in writing signed by the party waiving such right. No delay or failure to exercise a right under this MOU shall impair such right or be construed to be a waiver thereof. Any waiver shall be limited to the particular rights so waived and shall not be deemed a continuing waiver of the same right or of any other right under this MOU.
- 9.5 The invalidity of one or more of the terms or conditions contained in this MOU shall not affect the validity of the remaining portion of the MOU provided that the material purposes of this MOU can be determined and effectuated. In the event of a conflict between the provisions of this MOU and the Permit(s), the provisions of the Permit(s) shall prevail.
- 9.6 In the event any provisions of this **MOU** shall conflict, or appear to conflict, the **MOU**, including all exhibits, attachments and all documents specifically incorporated by reference, shall be interpreted as a whole to resolve any inconsistency.
- 9.7 Should any term or provision of this **MOU** be held, to any extent, invalid or unenforceable, as against any person, entity or circumstance during the term hereof, by force of any statute, law, or ruling of any forum of competent jurisdiction, such invalidity shall not affect any other term or provision of this **MOU**, to the extent that the **MOU** shall remain operable, enforceable and in full force and effect to the extent permitted by law.
- 9.8 Notwithstanding any provisions of this **MOU** to the contrary, the parties shall not be held liable for any failure or delay in the performance of this **MOU** that arises from fires, floods, strikes, embargoes, acts of the public enemy, unusually severe weather, outbreak of war, restraint of Government, riots, civil commotion, force majeure, act of God, or for any other cause of the same character which is unavoidable through the exercise of due care and beyond the control of the parties. Failure to perform shall be excused during the continuance of such circumstances, but this **MOU** shall otherwise remain in effect.
- 9.9 This **MOU** states the entire understanding and agreement between the parties and supersedes any and all written or oral representations, statements, negotiations, or agreements previously existing between the parties with respect to the subject matter of this **MOU**.
- 9.10 The **LOCAL GOVERNMENTS** recognize that any representations, statements or negotiations made by **DISTRICT** staff do not suffice to legally bind **DISTRICT** in a contractual relationship unless they have been reduced to writing and signed by an authorized **DISTRICT** representative. This **MOU** shall inure to the benefit of and shall be binding upon the parties, their respective assigns, and successors in interest.
- 9.11 Any dispute arising under this **MOU** which cannot be readily resolved shall be submitted jointly to the signatories of this **MOU** with each party agreeing to seek in good faith to resolve the issue through negotiation or other forms of non-binding alternative disputes resolution mutually acceptable to the parties. A joint decision of the signatories, or their designees, shall be the disposition of such dispute.
- 9.12 **LOCAL GOVERNMENTS** assume any and all risks of personal injury, bodily injury and property damage attributable to the negligent acts or omissions which may arise solely as a result of the operation of the Stormwater Pumps by the **LOCAL GOVERNMENTS** and the officers,

employees, servants, and agents thereof. The **LOCAL GOVERNMENTS** warrants and represents that it is self-funded for Worker's compensation and liability insurance, covering at a minimum bodily injury, personal injury and property damage with protection being applicable to the **LOCAL GOVERNMENTS** officers, employees, servants and agents while acting within the scope of their employment during performance under this **MOU**. **LOCAL GOVERNMENTS** hereby agree to indemnify and hold harmless the **DISTRICT** to the extent and within the limitations of Section 768.28, Florida Statutes. The **LOCAL GOVERNMENTS** and the **DISTRICT** further agree that nothing contained herein shall be construed or interpreted as (1) denying to either party any remedy or defense available to such party under the laws of the State of Florida; (2) the consent of the State of Florida or its agents and agencies to be sued; or (3) a waiver of sovereign immunity of the State of Florida beyond the waiver provided in Section 768.28, Florida Statutes.

ARTICLE 10 – APPLICABLE LAW

- 10.1 Each party, to the extent permitted by law, knowingly, voluntarily, and intentionally waives its right to a trial by jury in any action or other legal proceeding arising out of or relating to this **MOU** and the transactions it contemplates. This waiver applies to an action or legal proceeding, whether sounding in contract, tort or otherwise.
- 10.2 The laws of the State of Florida shall govern all aspects of this **MOU**. In the event it is necessary for either party to initiate legal action regarding this **MOU**, venue shall be in the Fifteenth Judicial Circuit for claims under state law and in the Southern District of Florida for any claims which are justiciable in federal court.

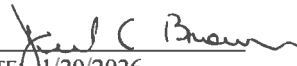
IN WITNESS WHEREOF, the parties or their duly authorized representative hereby execute this **MOU** on the date first written above.

**SOUTH FLORIDA WATER MANAGEMENT DISTRICT
BY ITS GOVERNING BOARD**

By: _____
Drew Bartlett
Executive Director

By: _____
Candida Heater, Division Director
Administrative Services Division

Legal Form Approved
SFWMD Office Of Counsel

BY: 
DATE: 11/20/2026

SFWMD Procurement Approved

BY: 
DATE: 01/13/2025

Passed and approved by the City of Commissioners of the City of West Miami, Florida, this
22ND day of JANUARY, 2026.

ATTEST:

CITY OF WEST MIAMI

BY:

Name: ANNERY GONZALEZ
Title: CITY CLERK

BY:

Name: EDWARD SILVA
Title: CITY MANAGER

LEGAL FORM APPROVED:

BY:

Name: DEXTER W. LEHTINEN
Title: CITY ATTORNEY



Passed and approved by the City of Commissioners of the City of Sweetwater, Florida, this
_____ day of _____, 2026.

ATTEST:

CITY OF SWEETWATER

BY:

Name: _____
Title: _____

BY:

Name: _____
Title: _____

LEGAL FORM APPROVED:

BY:

Name: _____
Title: _____

Passed and approved by the Board of County Commissioners of Miami-Dade County, Florida, this _____ day of _____, 2026.

ATTEST:

MIAMI-DADE COUNTY

BY: _____
Name:
Title:

BY: _____
Name:
Title:

LEGAL FORM APPROVED:

BY: _____
Name:
Title:

Passed and approved by the City of Commissioners of the City of Miami, Florida, this _____ day of _____, 2026.

ATTEST:

CITY OF MIAMI

BY: _____
Name:
Title:

BY: _____
Name:
Title:

LEGAL FORM APPROVED:

BY: _____
Name:
Title:

Exhibit 4

Resolution 5231

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF SWEETWATER DECLARING PUBLIC INTEREST; APPROVING MEMORANDUM OF UNDERSTANDING WITH THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT DEFINING THE PROCESS FOR COOPERATION BETWEEN IT, THE CITY AND NEIGHBORING MUNICIPALITIES IN THE OPERATION OF THEIR STORMWATER PUMP STATIONS DISCHARGING TO C-4 CANAL; PROVIDING FOR AUTHORIZATION; AND PROVIDING FOR EFFECTIVE DATE.

WHEREAS, the City of Sweetwater (the "City") is a local municipality and is the Permittee of ERP Permit Nos. 1301660-P and 13-02009-P, which grant authorization for the City to construct and operate a surface water management system including pump discharge to the C-4 Canal;

WHEREAS, the South Florida Water Management District (the "District") is a public corporation of the State of Florida, created by the Florida Legislature and given those powers and responsibilities enumerated in Chapter 373, Florida Statutes to include entering into contracts and agreements with public agencies, private corporations or other persons;

WHEREAS, Pursuant to Chapter 373, Florida Statutes, and the rules promulgated thereunder, the City and other local governments (collectively, the "Local Governments") wish to enter into the attached *Memorandum of Understanding* ("MOU") with the District defining the process for cooperation in the operation of the Local Governments stormwater pump stations discharging to C-4 Canal ("Stormwater Pumps");

WHEREAS, all parties to this MOU warrant and represent that they have no obligation or indebtedness that would impair their ability to fulfill the terms and conditions of this MOU;

WHEREAS, pursuant to §2-189, City Code of Ordinances, "No ordinance, contract, bond or other instrument in writing in which the city is concerned shall take effect" until approved by the City Commission;

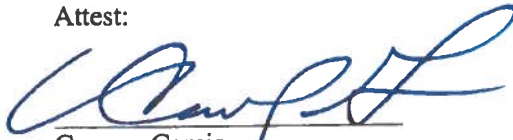
NOW THEREFORE, and in consideration of the covenants and representations set forth in the attached MOU and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, be it resolved by the City Commission of the City of Sweetwater:

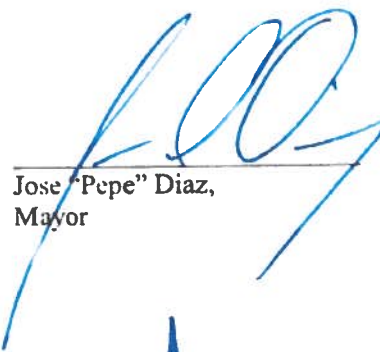
1. The foregoing recitals are incorporated herein by reference as if set forth in full.

2. The City Commission hereby declares that the attached MOU is in the City's interest and that of its residents.
3. Pursuant to §2-189 of the City Code of Ordinances, the City Commission hereby formally approves and adopts the attached MOU and authorizes the Mayor and City Clerk to execute same.
4. This resolution shall become effective upon its adoption by the City Commission and approval by the Mayor or if vetoed, upon its reenactment by the City Commission as provided by the Charter of the City of Sweetwater.

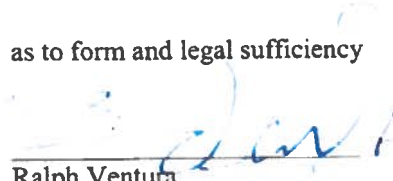
Passed and adopted on February 2, 2024

Attest:


Carmen Garcia,
City Clerk


Jose "Pepe" Diaz,
Mayor

as to form and legal sufficiency


Ralph Ventura
City Attorney


Marcos Villanueva,
Commission President

Marcos Villanueva, President of the City Commission	Yes
Jose Marti, Vice President of the City Commission	Yes
Saul Diaz, Commissioner	Yes
Idania Llanio, Commissioner	Yes
Reinaldo Rey, Commissioner	Yes
Isidro Ruiz, Commissioner	Yes
Ian Vallecillo, Commissioner	Yes

Res. #5231



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

4600005300

MEMORANDUM OF UNDERSTANDING

BETWEEN THE

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

AND

MIAMI-DADE COUNTY

AND

CITY OF MIAMI

AND

CITY OF WEST MIAMI

AND

CITY OF SWEETWATER

This Memorandum of Understanding (**MOU**) is made and entered into on, _____, 2026, by and between the "Parties," the South Florida Water Management District, hereunder referred to as the "**DISTRICT**", and Miami-Dade County, City of Miami, City of West Miami, City of Sweetwater (collectively referred to as **LOCAL GOVERNMENTS**).

INTRODUCTION/BACKGROUND

This **MOU** is designed to be applied in the time period preceding, during and immediately following storm events where excessive rain is expected in the geographic area of the Local Governments (hereinafter referred to as "major storm")

The purpose of this **MOU** is to define responsibilities for the cooperation among the parties to this agreement in order to reduce potential flooding and adverse water quantity impacts within the geographic areas of the Local Government, C-4 Basin and downstream areas.

The **DISTRICT** has adopted the C-4 Basin Operating Plan (Operating Plan) for discharges into the C-4 Canal, a copy of which is attached as Exhibit "1", as may be amended by the **DISTRICT** from time to time. The **DISTRICT** believes that operation consistent with the Operating Plan

will provide the best framework to reduce potential flooding and adverse water quantity impacts in the geographic area of the Local Governments, C-4 basin and downstream areas.

Local Governments acknowledge that the Operating Plan identifies the conditions in the C-4 basin under which Stormwater Pump operations could result in an increased risk of flooding in the C-4 Basin. Local Governments understand that under certain conditions, the operation of the Stormwater Pumps may result in adverse flood impacts to property owners within the basin.

Local Governments, as the operators of the Stormwater Pumps, acknowledge that the conveyance capacity of the C-4 Canal is limited and may not be able to accept the full combined flow of the Stormwater Pumps during heavy rainfall/flooding conditions.

After notification by the **DISTRICT** of the potential of a major storm event, Local Governments agree to coordinate with each other on the operation of each pump so as to comply to the extent possible with the Operating Plan.

The parties to this MOU fully understand that the available capacity of the C-4 Canal is limited and therefore requires cooperation between the parties regarding the operation of Stormwater Pumps during a major storm event. The parties additionally understand that the operation of the associated Stormwater Pump will not provide Local Governments with ideal drainage. Operation of the Stormwater Pumps by the Local Governments pursuant to the Operating Plan are intended to improve upon the drainage currently experienced by Local Governments but due to capacity constraints in the C-4 Canal, will not provide full drainage to their communities.

The parties acknowledge that pursuant to Rule 40E-4.451, Fla. Admin. Code: "Upon the (**DISTRICT**'s) determination that an emergency exists within its geographic jurisdiction or any part thereof, as defined in subsection (1)(b)(1-2), the Executive Director shall issue an emergency order which shall describe the conditions which are causing the emergency and the type of corrective action necessary to minimize or abate the emergency condition." Actions pursuant to the **DISTRICT**'s emergency authority will supersede this MOU.

WITNESSETH THAT:

WHEREAS, the **DISTRICT** is a public corporation of the State of Florida, created by the Florida Legislature and given those powers and responsibilities enumerated in Chapter 373, Florida Statutes to include entering into contracts and agreements with public agencies, private corporations or other persons; and

WHEREAS, Pursuant to Chapter 373, Florida Statutes, and the rules promulgated thereunder, this Memorandum of Understanding (MOU) defining the process for cooperation in the operation of the **LOCAL GOVERNMENTS** stormwater pump stations discharging to C-4 Canal (hereinafter called Stormwater Pumps) is entered into between the **DISTRICT** and **LOCAL GOVERNMENTS**, by mutual consent, and without this MOU constituting a waiver of any authority of the **LOCAL GOVERNMENTS** and the **DISTRICT** under Chapter 373, Florida Statutes.

WHEREAS, each party to this MOU warrants and represents that it has no obligation or indebtedness that would impair its ability to fulfill the terms and conditions of this MOU.

WHEREAS, Miami-Dade County is a political subdivision of the State of Florida and is the Applicant of ERP Permit Application No. 060525-24, which requests authorization for Miami-Dade to construct and operate a surface water management system including pump discharge to

Memorandum of Understanding, 4600005300, Page 2 of 11

6/21/2022

the C-4 Canal.

WHEREAS, City of Miami is a local municipality and is the Applicant of ERP Permit Application No. 030311-10, which requests authorization for Miami to construct and operate a surface water management system including pump discharge to the C-4 Canal.

WHEREAS, City of West Miami is a local municipality and is the Applicant of ERP Permit Application No. 030401-4, which requests authorization for West Miami to construct and operate a surface water management system including pump discharge to the C-4 and C-3 Canals.

WHEREAS, City of Sweetwater is a local municipality and is the Permittee of ERP Permit Nos. 1301660-P and 13-02009-P, which granted authorization for Sweetwater to construct and operate a surface water management system including pump discharge to the C-4 Canal; and

NOW THEREFORE, in consideration of the covenants and representations set forth herein and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Parties agree as follows:

ARTICLE 1 – RESPONSIBILITIES OF THE PARTIES

JOINT RESPONSIBILITIES

- 1.1 Not later than thirty (30) days after the effective date of this MOU, **LOCAL GOVERNMENTS** shall each designate, in writing, a principle contact person to coordinate operation of the Stormwater Pumps. Each **LOCAL GOVERNMENT** shall provide the **DISTRICT** contact person with a list of contacts and contact information in writing prior to the 1st day of May of each year for the term of this MOU
- 1.2 The parties shall meet at least annually to assess whether the operation of the Stormwater Pumps has resulted in any adverse impacts to the C-4 Basin and downstream areas.
- 1.3 This MOU may be amended only by mutual written agreement of all of the parties to this agreement.

LOCAL GOVERNMENTS' RESPONSIBILITIES

- 1.4 **LOCAL GOVERNMENTS** shall coordinate with each other in the operation of the Stormwater Pumps upon notification by the **DISTRICT** of the expectation of a major storm event, the contacts listed herein, or their designees, shall meet as soon as reasonably practicable to discuss cooperative operation of the **LOCAL GOVERNMENTS'** pumps in order to reduce flooding and adverse water quantity impacts within the geographic area of the **LOCAL GOVERNMENTS**, C-4 Basin and downstream areas. These discussions shall include a consideration of the Operating Plan.
- 1.5 **LOCAL GOVERNMENTS** shall provide and maintain locks on the control mechanism for their respective Stormwater Pumps to prevent their unauthorized operation
- 1.6 **LOCAL GOVERNMENTS** shall prohibit and otherwise prevent unauthorized operation of the Stormwater Pumps. **LOCAL GOVERNMENTS** shall maintain a record or log of the operation of the Stormwater Pumps. The record or log may be kept manually or electronically

Memorandum of Understanding, 4600005300, Page 3 of 11

6/21/2022

and shall provide an accurate record of times, dates and periods that the Stormwater Pumps are in operation.

- 1.7 **LOCAL GOVERNMENTS** acknowledge that as a result of the operation of the Stormwater Pumps adverse impacts prohibited by the applicable Permit(s), Chapter 373, Florida Statutes, or the **DISTRICT** rule, may occur to either the water resources or other C4, C-3, C-2 Canal or downstream system users. Each **LOCAL GOVERNMENT** operating the pumps shall be responsible for any liability or claims of liability resulting from the operation of the pumps by such **LOCAL GOVERNMENT**.
- 1.8 **LOCAL GOVERNMENTS** shall be the sole contact with the **DISTRICT** for the operation of the Stormwater Pumps. It shall be the obligation of the **LOCAL GOVERNMENTS** to inform the residents of their respective communities of the provisions of this MOU.
- 1.9 **LOCAL GOVERNMENTS** shall require their respective staff to review and become familiar with the terms and conditions of the Permit(s), this MOU and the Operating Plan.
- 1.10 If any other regulatory agency requires changes to the construction or operation of the Stormwater Pumps, **LOCAL GOVERNMENTS** shall notify the **DISTRICT** in writing of the changes prior to implementation so that a determination can be made as to whether or not a modification to the Permit(s) or this MOU or both is required. Changes requiring a modification to the Permit(s) or this MOU or both shall not be implemented until the modification is approved by the **DISTRICT**.
- 1.11 This MOU does not obviate the necessity to obtain any required federal, state, local and special district authorizations prior to the commencement of any activity authorized by the Permit(s) or this MOU. This MOU neither creates nor otherwise conveys to **LOCAL GOVERNMENTS** any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by **LOCAL GOVERNMENTS**, nor does it convey any rights or privileges other than those specified in the MOU, the Permit(s), and Chapter 40E-4 or Chapter 40E-40, Fla. Admin. Code.

DISTRICT RESPONSIBILITIES

- 1.12 The **DISTRICT** agrees to install telemetry that will provide operating information on the stormwater pumps referenced herein to the **DISTRICT'S** West Palm Beach Control Room. Telemetry shall be installed based on available funding. The **DISTRICT** shall make this telemetry information available electronically on the **DISTRICT's** website.
- 1.13 The **DISTRICT** agrees to provide email and telephone notification to the contacts listed herein of the **LOCAL GOVERNMENTS** of the expectation of a major storm event.

ARTICLE 2 – COMPENSATION/CONSIDERATION

- 2.1 This MOU defines in general terms the basis on which the Parties to this agreement will cooperate. No funds will be exchanged between the cooperating Parties on the basis of this MOU.
- 2.2 **Expenses.** Unless agreed to otherwise in writing, each party bears all of its own costs and expenses in connection with this MOU and the party's obligations under this MOU.

ARTICLE 3 - TERM OF THE MOU

- 3.1 This agreement shall be effective for a period of ten (10) years, beginning on the last date of execution of this agreement. The parties shall have an option to renew this agreement for another ten (10) year period effective upon mutual written consent of all of the parties. At no point should this agreement be extended beyond the expected and/or actual life of the system and/or its critical components.

ARTICLE 4 - PROJECT MANAGEMENT/NOTICE

- 4.1 The Project Manager for the **DISTRICT** is Armando Vilaboy, at South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33406, telephone (305) 513-3420.
- 4.2 **LOCAL GOVERNMENTS** shall also provide a copy of all notices to the **DISTRICT'S** Project Manager. All notices required by this **MOU** shall be considered delivered upon receipt. Should any party change its mailing address, written notice of such new address shall promptly be sent to the other parties.

All correspondence to the **DISTRICT** under this **MOU** shall reference the **DISTRICT'S** Contract Number 4600005300.

ARTICLE 5 - TERMINATION

- 5.1 Any party hereto may terminate its respective obligations pursuant to this **MOU** at any time for convenience by providing written notice of termination to the other parties not less than sixty (60) calendar days prior to the intended date of termination. The performance of work under this **MOU** may be terminated in accordance with this clause in whole, or from time to time in part, whenever a party hereto determines that such termination is in its best interest. Any such termination shall be affected by delivery of a Notice of Termination to the other parties specifying the extent to which performance of work under the **MOU** is terminated, and the date upon which such termination becomes effective.
- 5.2 If any party hereto fails to fulfill its obligations under this **MOU** in a timely and proper manner, the other parties shall have the right to terminate this **MOU** by giving written notice of any deficiency. The party in default shall then have ten (10) calendar days from receipt of notice to correct the deficiency. If the defaulting party fails to correct the deficiency within this time, the non-defaulting parties shall have the option to terminate this **MOU** at the expiration of the ten (10) daytime period.

ARTICLE 6 - STANDARDS OF COMPLIANCE

- 6.1 The parties to this **MOU** will not discriminate against any person on legally protected bases in any activity under this agreement.
- 6.2 **LOCAL GOVERNMENTS** shall allow public access to all project documents and materials in accordance with the provisions of Chapter 119, Florida Statutes. Should the **LOCAL GOVERNMENTS** assert any exemptions to the requirements of Chapter 119 and related Statutes, the burden of establishing such exemption, by way of injunctive or other relief as provided by law, shall be upon the **LOCAL GOVERNMENTS**.

- 6.3 **LOCAL GOVERNMENTS**, its employees, subcontractors or assigns, shall comply with all applicable federal, state, and local laws and regulations relating to the performance of this **MOU**. The **DISTRICT** undertakes no duty to ensure such compliance but will attempt to advise the **LOCAL GOVERNMENTS** upon request, as to any such laws of which it has present knowledge.

ARTICLE 7 - RELATIONSHIP BETWEEN THE PARTIES

- 7.1 The parties to this **MOU** are independent entities and are not employees or agents of the other parties. Nothing in this **MOU** shall be interpreted to establish any relationship other than that of independent entities, between the **DISTRICT**, **LOCAL GOVERNMENTS** their employees, agents, subcontractors, or assigns, during or after the term of this **MOU**.
- 7.2 The parties to this **MOU** shall not assign, delegate, or otherwise transfer their rights and obligations as set forth in this **MOU** without the prior written consent of the other parties. Any attempted assignment in violation of this provision shall be void.

ARTICLE 8 – MAINTENANCE OF RECORDS

- 8.1 The Parties to this **MOU** shall maintain records and the other party shall have inspection and audit rights as follows:
- A. Maintenance of Records: Each party shall maintain all financial and non-financial records and reports directly or indirectly related to this **MOU**. Such records shall be maintained and made available for inspection for a period of five years from the expiration or termination date of this **MOU**.
- B. Examination of Records: Each party or its designated agent shall have the right to examine in accordance with generally accepted governmental auditing standards all records directly or indirectly related to this **MOU**. Such examination may be made only within five years from the expiration or termination date of this **MOU** and upon reasonable notice, time and place.
- C. Extended Availability of Records for Legal Disputes: In the event that the **DISTRICT** should become involved in a legal dispute with a third party arising from performance under this **MOU**, the **LOCAL GOVERNMENTS** shall extend the period of maintenance for all records relating to the **MOU** until the final disposition of the legal dispute, and all such records shall be made readily available to the **DISTRICT**.

ARTICLE 9 - GENERAL PROVISIONS

- 9.1 This **MOU**, together with the Operating Plan, incorporates, embodies and expresses all agreements and understandings regarding the Stormwater Pumps between the **DISTRICT** and **LOCAL GOVERNMENTS** and may not be altered except as authorized herein.
- 9.2 This **MOU** shall not constitute a waiver of the **DISTRICT**'s regulatory jurisdiction, nor be construed to authorize any activity within the jurisdiction of the **DISTRICT** except in accordance with the express terms of this **MOU**, the Permit(s) and the Operating Plan.
- 9.3 Nothing in this **MOU**, whether expressed or implied, is intended to confer upon any person other than the Parties hereto any rights or remedies under or by reason of this **MOU**

- 9.4 There shall be no waiver of any right contained in this MOU unless in writing signed by the party waiving such right. No delay or failure to exercise a right under this MOU shall impair such right or be construed to be a waiver thereof. Any waiver shall be limited to the particular rights so waived and shall not be deemed a continuing waiver of the same right or of any other right under this MOU.
- 9.5 The invalidity of one or more of the terms or conditions contained in this MOU shall not affect the validity of the remaining portion of the MOU provided that the material purposes of this MOU can be determined and effectuated. In the event of a conflict between the provisions of this MOU and the Permit(s), the provisions of the Permit(s) shall prevail.
- 9.6 In the event any provisions of this MOU shall conflict, or appear to conflict, the MOU, including all exhibits, attachments and all documents specifically incorporated by reference, shall be interpreted as a whole to resolve any inconsistency.
- 9.7 Should any term or provision of this MOU be held, to any extent, invalid or unenforceable, as against any person, entity or circumstance during the term hereof, by force of any statute, law, or ruling of any forum of competent jurisdiction, such invalidity shall not affect any other term or provision of this MOU, to the extent that the MOU shall remain operable, enforceable and in full force and effect to the extent permitted by law.
- 9.8 Notwithstanding any provisions of this MOU to the contrary, the parties shall not be held liable for any failure or delay in the performance of this MOU that arises from fires, floods, strikes, embargoes, acts of the public enemy, unusually severe weather, outbreak of war, restraint of Government, riots, civil commotion, force majeure, act of God, or for any other cause of the same character which is unavoidable through the exercise of due care and beyond the control of the parties. Failure to perform shall be excused during the continuance of such circumstances, but this MOU shall otherwise remain in effect.
- 9.9 This MOU states the entire understanding and agreement between the parties and supersedes any and all written or oral representations, statements, negotiations, or agreements previously existing between the parties with respect to the subject matter of this MOU.
- 9.10 The LOCAL GOVERNMENTS recognize that any representations, statements or negotiations made by DISTRICT staff do not suffice to legally bind DISTRICT in a contractual relationship unless they have been reduced to writing and signed by an authorized DISTRICT representative. This MOU shall inure to the benefit of and shall be binding upon the parties, their respective assigns, and successors in interest.
- 9.11 Any dispute arising under this MOU which cannot be readily resolved shall be submitted jointly to the signatories of this MOU with each party agreeing to seek in good faith to resolve the issue through negotiation or other forms of non-binding alternative disputes resolution mutually acceptable to the parties. A joint decision of the signatories, or their designees, shall be the disposition of such dispute.
- 9.12 LOCAL GOVERNMENTS assume any and all risks of personal injury, bodily injury and property damage attributable to the negligent acts or omissions which may arise solely as a result of the operation of the Stormwater Pumps by the LOCAL GOVERNMENTS and the officers,

employees, servants, and agents thereof. The **LOCAL GOVERNMENTS** warrants and represents that it is self-funded for Worker's compensation and liability insurance, covering at a minimum bodily injury, personal injury and property damage with protection being applicable to the **LOCAL GOVERNMENTS** officers, employees, servants and agents while acting within the scope of their employment during performance under this **MOU**. **LOCAL GOVERNMENTS** hereby agree to indemnify and hold harmless the **DISTRICT** to the extent and within the limitations of Section 768.28, Florida Statutes. The **LOCAL GOVERNMENTS** and the **DISTRICT** further agree that nothing contained herein shall be construed or interpreted as (1) denying to either party any remedy or defense available to such party under the laws of the State of Florida; (2) the consent of the State of Florida or its agents and agencies to be sued; or (3) a waiver of sovereign immunity of the State of Florida beyond the waiver provided in Section 768.28, Florida Statutes.

ARTICLE 10 – APPLICABLE LAW

- 10.1 Each party, to the extent permitted by law, knowingly, voluntarily, and intentionally waives its right to a trial by jury in any action or other legal proceeding arising out of or relating to this **MOU** and the transactions it contemplates. This waiver applies to an action or legal proceeding, whether sounding in contract, tort or otherwise.
- 10.2 The laws of the State of Florida shall govern all aspects of this **MOU**. In the event it is necessary for either party to initiate legal action regarding this **MOU**, venue shall be in the Fifteenth Judicial Circuit for claims under state law and in the Southern District of Florida for any claims which are justiciable in federal court.

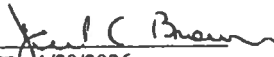
IN WITNESS WHEREOF, the parties or their duly authorized representative hereby execute this **MOU** on the date first written above.

**SOUTH FLORIDA WATER MANAGEMENT DISTRICT
BY ITS GOVERNING BOARD**

By: _____
Drew Bartlett
Executive Director

By: _____
Candida Heater, Division Director
Administrative Services Division

Legal Form Approved
SFWMD Office Of Counsel

BY: 
DATE: 11/20/2026

SFWMD Procurement Approved

BY: 
DATE: 01/13/2025

6/21/2022

Passed and approved by the Board of County Commissioners of Miami-Dade County, Florida, this _____ day of _____, 2026.

ATTEST: MIAMI-DADE COUNTY

BY: _____
Name:
Title:

BY: _____
Name:
Title:

LEGAL FORM APPROVED:

BY: _____
Name:
Title:

Passed and approved by the City of Commissioners of the City of Miami, Florida, this _____ day of _____, 2026.

ATTEST: CITY OF MIAMI

BY: _____
Name:
Title:

BY: _____
Name:
Title:

LEGAL FORM APPROVED:

BY: _____
Name:
Title:

Passed and approved by the City of Commissioners of the City of West Miami, Florida, this
_____ day of _____, 2026.

ATTEST:

CITY OF WEST MIAMI

BY: _____
Name:
Title:

BY: _____
Name:
Title:

LEGAL FORM APPROVED:

BY: _____
Name:
Title:

Passed and approved by the City of Commissioners of the City of Sweetwater, Florida, this
_____ day of _____, 2026.

ATTEST:

CITY OF SWEETWATER

BY: _____
Name: *Carmen J. Garcia*
Title: *City Clerk*

BY: _____
Name: *Jose Pepe Diaz*
Title: *Mayor*

LEGAL FORM APPROVED:

BY: _____
Name: Ralph Ventura
Title: City Attorney

