



Carlos A. Gimenez, Mayor

Department of Regulatory and Economic Resources

Environmental Resources Management

701 NW 1st Court, 6th Floor

Miami, Florida 33136-3912

T 305-372-6567 F 305-372-6407

miamidade.gov

August 22, 2014

City of Miami
c/o Daniel Alfonso, City Manager
2540 South Bayshore Drive
Coconut Grove, Florida 33133

CERTIFIED MAIL NO. 7004 0750 0001 9159 1816
RETURN RECEIPT REQUESTED

Re: Miami-Dade County Class I Permit 2008-CLI-PER-0248: City of Miami – Maintenance Dredging located at Wagner Creek and Seybold Canal, Miami, Miami-Dade County, Florida.

Dear Mr. Alfonso:

The Department of Regulatory and Economic Resources, Division of Environmental Resources Management (DERM) has reviewed your request to extend the above referenced permit, which is scheduled to expire on January 14, 2015. Because there has been no substantial change in the environment at the location of the work authorized by the Class I Permit and pursuant to Section 24-48.9(2), of the Code of Miami-Dade County, the Department hereby grants an extension of time to perform the work until January 14, 2017.

Please note that this letter must be attached to the original permit 2008-CLI-PER-00248 as evidence of this permit extension. The entire permit shall be kept on-site during any construction work.

Should you have further questions or need additional information, please contact me at (305) 372-6549 or via email at hoppsc@miamidade.gov.

Sincerely,

A handwritten signature in blue ink that reads "Chrissy Hopps".

Chrissy Hopps, ERPS
Coastal and Wetlands Resources Section

cc: Jose Lago, City of Miami
Daniel Dietch, CH2M HILL

Delivering Excellence Every Day



Carlos A. Gimenez, Mayor

Department of Regulatory and Economic Resources

Environmental Resources Management

701 NW 1st Court, 6th Floor

Miami, Florida 33136-3912

T 305-372-6567 F 305-372-6407

miamidade.gov

December 7, 2012

City of Miami
c/o Johnny Martinez, Manager
444 SW 2 Avenue
Miami, Florida 33130

CERTIFIED MAIL NO. 7004 0750 0001 9159 7566
RETURN RECEIPT REQUESTED

Re: Miami-Dade County Class I Permit 2008-CLI-PER-00248: City of Miami – Maintenance Dredging located at Wagner Creek and Seybold Canal, Miami, Miami-Dade County, Florida.

Dear Mr. Martinez:

The Department of Regulatory and Economic Resources (RER) has reviewed your request to extend the above referenced permit, which is scheduled to expire on January 14, 2013. Because there has been no substantial change in the environment at the location of the work authorized by the Class I Permit and pursuant to Section 24-48.9(2), of the code of Miami-Dade County, the Department hereby grants an extension of time to perform the work until January 14, 2015.

Please note that this letter must be attached to the original permit 2008-CLI-PER-00248 as evidence of this permit extension from RER. The entire permit shall be kept on-site during any construction work.

Should you have further questions or need additional information, please contact Chrissy Hopps, ERPS, Coastal and Wetlands Resources Section at (305) 372-6549 or via email at hoppsc@miamidade.gov.

Sincerely,

A handwritten signature in blue ink that reads "Chrissy Hopps".

Chrissy Hopps, ERPS
Coastal Resources Section

cc: Jose Lago





Class I Construction Permit

Permit Number: 2008-CLI-PER-00248
DERM Project Manager: Chrissy Hopps

Issue Date: 01/14/2011
Expiration Date: 01/14/2013

Permittee

City of Miami
c/o Tony E. Crapp Jr., City Manager
444 S.W. 2nd Avenue
Miami, FL 33130

Contractor

To Be Determined

Bond/BBEETF

Performance Bond: N/A
Mitigation Bond: N/A
BBEETF Contribution: N/A

Engineer

Michael D. Halil, P.E. #58049
904-777-4812

THE ABOVE NAMED PERMITTEE IS HEREBY AUTHORIZED TO PERFORM THE WORK SHOWN ON THE APPLICATION AND APPROVED DRAWINGS, PLANS, AND OTHER DOCUMENTS ATTACHED HERETO OR ON FILE WITH THE DEPARTMENT AND MADE PART HEREOF, SUBJECT TO THE ATTACHED GENERAL AND SPECIAL CONDITIONS.

Plans Entitled: MAP SHOWING A HYDROGRAPHIC & TOPOGRAPHIC SURVEY OF:
WAGNER CREEK & SEYBOLD CANAL
DADE COUNTY, FLORIDA
FOR: CH2MHILL
&
DADE COUNTY, FLORIDA
WAGNER CREEK & SEYBOLD CANAL
MIAMI, FLORIDA

Date Signed and Sealed: 12/16/2010

Project Location: Wagner Creek and Seybold Canal, Miami, Florida

Project Description: Maintenance dredging of 46,041 cubic yards of sediment within Wagner Creek and Seybold Canal to be completed as follows:

- Operational Section 1 (between NW 20th Street and NW 14th Avenue)
- Operational Section 2 (between NW 14th Avenue and NW 15th Street)
- Operational Section 3 (between NW 15th Street and NW 14th Street)
- Operational Section 4 (between NW 14th Street and S.R. 836)
- Operational Section 5 (between S.R. 836 and NW 11th Street)
- Operational Section 6 (between NW 11th Street and the Miami River)

Attachment A: Manatee Protection Plan

**THIS PERMIT AND PLANS SHALL BE KEPT ON SITE
DURING ALL PHASES OF CONSTRUCTION**

Specific Conditions

1. **The work authorized by this permit shall not commence until the name, address, telephone number, and license number of the contractor who will be performing the work has been submitted and written acceptance of the contractor by The DERM Coastal Resources Section Compliance and Enforcement Group has been issued.**
2. **A pre-work conference shall be held between the Contractor, a representative of the permittee, and DERM prior to the commencement of work under this permit. Said conference shall be requested a minimum of 14 business days prior to the commencement of work. Please contact the DERM Coastal Resources Section Compliance and Enforcement Group at (305) 372-6575 to schedule said pre-work conference.**
3. The contractor shall provide notice to the DERM Coastal Resources Section Compliance and Enforcement Group at (305) 372-6575 a minimum of 14 business days prior to the installation of the manatee barriers. All work associated with the barrier installation, monitoring, and maintenance shall be consistent with the DERM-approved Wagner Creek Seybold Canal Manatee Protection Plan (Attachment A). Any proposed deviation from said plan shall be submitted in writing, reviewed, and approved by the DERM Coastal Resources Section Compliance and Enforcement Group prior to the start of work.
4. The contractor shall request an inspection by DERM within 24 hours of installation of any manatee barrier, and shall take any corrective measures necessary as determined by DERM staff. The manatee barriers must be approved by The DERM Coastal Resources Section Compliance and Enforcement Group prior to the commencement of dredging activities.
5. The contractor shall provide a minimum of 2 business days and a maximum of 5 business days notice to the DERM Coastal Resources Section Compliance and Enforcement Group at (305) 372-6575 prior to the commencement of dredging activities.
6. Prior to the commencement of dredging at each Operational Section, plans signed and sealed by a Florida P.E. depicting canal banks, bulkheads, and structures located adjacent to the dredge area shall be submitted to the Coastal Resources Section Compliance and Enforcement Group of DERM. The permittee and the contractor are responsible for ensuring that the dredging will not compromise the structural integrity of any canal bank, bulkhead, or other structures within the project area.
7. Prior to the commencement of dredging at each Operational Section, the contractor shall provide a methodology for the work, including the specific types of equipment to be used, identifying staging areas for all equipment, outlining a proposed timeline for the completion of work, and a contingency plan in the event any structures within or adjacent to the project area fail as a direct or indirect result of dredge operations. The methodologies are required to be reviewed and approved by the DERM Coastal Resources Section Compliance and Enforcement Group prior to the commencement of dredging.
8. The extent and components of the required water quality monitoring will be dependent on the equipment utilized for the project, the type and extent of contamination in the sediments, the methods of removal and handling of the dredge spoil, and the potential for downstream effects from the dredging activities. Prior to the commencement of any dredging activities, the contractor shall submit a Water Quality Monitoring Plan which shall be developed in consideration of the methods and equipment being employed. The monitoring plan shall be specific to each Operational Section of the project, and specify required sampling locations, parameters to be sampled, and sampling frequencies. The Plan shall be reviewed and approved by the DERM Coastal Resources Section's Compliance and Enforcement Group and the Pollution Control Division prior to initiation of any dredging activity.
9. Surface water samples shall be collected on a quarterly basis for a minimum of one year subsequent to the completion of dredging activities. The first sampling event shall be completed within thirty days after completion of dredging. A Post Dredge Surface Water sampling plan which shall include a representative number of sampling locations shall be submitted to DERM for review and approval prior to implementation. **Work authorized by this permit may not commence until the post-dredge sampling plan has received written approval from the DERM Pollution Control Division.**

**THIS PERMIT AND PLANS SHALL BE KEPT ON SITE
DURING ALL PHASES OF CONSTRUCTION**

10. In areas where access limitations preclude the removal of contaminated sediments, an engineering control shall be implemented subsequent to dredging to prevent or minimize the potential residual risk and contaminant leaching. **The engineering control plan shall be submitted to the DERM Pollution Control Division, and the Coastal Resources Section Compliance and Enforcement Group for review and approval prior to implementation.**
11. **Prior to installation of the "air curtain", the contractor shall submit a methodology for installation and maintenance of the "air curtain".** Said methodology shall also include information on the method for securing the curtain in the proposed location, and any equipment required for installation.
12. **The mouth of Seybold Canal shall be monitored for manatees prior to and during the installation and operation of the "air curtain".** All monitoring shall occur in accordance with the requirements of Attachment A. If any aberrant or unusual manatee behavior in the vicinity of the "air curtain" is noted, or if the "air curtain" appears to serve as an attractant to manatees, or produces a situation in which there is an increased risk of manatee impact from the Seybold Canal dredge operation or boat/manatee collisions in the vicinity of the "air curtain" location, the "air curtain" will be removed and additional turbidity control measures will be implemented.
13. All work associated with maintenance dredging, including the dredge spoil handling, storage and disposal site, shall strictly conform to the Corrective Action Plan (CAP) approved by DERM on October 16, 2009, herein incorporated by reference. Any deviation from the CAP shall be submitted in writing, reviewed, and approved by the DERM Pollution Control Division, and the Coastal Resources Section Compliance and Enforcement Group prior to implementation.
14. All water and dredge spoil associated with the dredging shall be disposed of in accordance with all Federal, State, and local regulations, and the CAP approved by DERM on October 16, 2009.
15. **Prior to the commencement of dredging, the contractor/permittee shall provide written approval to the Coastal Resources Section Compliance and Enforcement Group of DERM from a permitted wastewater treatment plant, indicating that their facility will accept the residual water (e.g. free dredge water, dredge run-off, collected water) associated with the dredging of Wagner Creek and Seybold Canal. There shall be no dewatering of the dredged material.**
16. All reports or notices relating to this permit shall be sent to DERM Coastal Resources Section Compliance and Enforcement Group at 701 NW 1st Court, 6th Floor, Miami, FL 33136.
17. "Hotspot" areas for the purposes of sediment removal, management, and disposal shall be defined as the entire vertical column within an area extending, in both directions, from a sampling location with dioxin concentration above 1 parts per billion (ppb) to the nearest sample location with dioxin concentration at or below the 1 ppb threshold. Sediments removed from "hotspot" areas shall be processed and managed for disposal at an approved landfill outside the state of Florida (e.g. Emelle, Alabama).
18. The contractor shall be responsible for notifying the DERM Pollution Control Division at (305) 372-6700, the Coastal Resources Section Compliance and Enforcement Group at (305) 372-6575, and the City of Miami, within 24 hours of any pollutant spill or operational failure associated with the project.
19. This permit does not authorize any work other than maintenance dredging. Any additional work in, on, over, or upon tidal waters that may be necessary as a direct or indirect result of the dredge operations will require a Class I permit prior to commencement of said work. A Class I permit application is required to be signed by the fee simple property owner(s) of the location where the work will occur.
20. The permittee shall submit drawings (as-builts) signed and sealed by a Florida professional engineer of the post-dredge conditions to the DERM Coastal Resources Section Compliance and Enforcement Group within thirty (30) days of completion of each Operational Section. The drawings shall be in a format that will facilitate a direct comparison of the permitted activities and the work that was performed.
21. This permit specifically prohibits any non-maintenance dredging (i.e. removal of previously undredged limerock substrate). There shall be no use of equipment to break up the limestone substrate under the accumulated silt and sediment. Failure to comply with this condition shall result in enforcement action by the Department. In addition, the contractor and permittee shall be required to obtain all required Federal, State and local authorizations for non-maintenance dredging activities or restore the affected area within 60 days of DERM's

**THIS PERMIT AND PLANS SHALL BE KEPT ON SITE
DURING ALL PHASES OF CONSTRUCTION**

determination that non-maintenance dredging has occurred.

22. Florida Administrative Code 62-302.300 for Outstanding Florida Waters and Miami-Dade County water quality standards as stipulated in Chapter 24-42(4) of the Code shall be met during dredging activities within the Biscayne Bay Aquatic Preserve (i.e. Seybold Canal).
23. Turbidity curtains shall completely enclose the work area and shall not be removed until turbidity levels within the enclosed area return to background levels. This permit authorizes the use of an "air curtain" turbidity control method to be used in conjunction with turbidity curtains as specified in Attachment A. If it is determined that the "air curtain" device does not achieve the turbidity control results expected, it will be removed, and alternate turbidity control measures will be implemented.
24. Turbidity shall be monitored twice a day, four (4) hours apart, during construction operations or whenever a turbidity plume is visible outside the area defined by turbidity control mechanisms. Turbidity shall be monitored both at the background and compliance locations and shall be measured and reported in Nephelometric Turbidity Units (NTU).
25. Turbidity may not exceed zero (0) NTU above background beyond the work area defined by the turbidity curtains within the Seybold Canal, and may not exceed twenty-nine (29) NTU above background beyond the work area defined by the turbidity curtains within Wagner Creek. If the turbidity levels exceed the above-referenced limits outside the work areas defined by the turbidity curtains, the following measures shall be taken:
 - a) All work shall cease immediately. Operations shall not resume until corrective measures have been taken and turbidity levels have returned to background levels.
 - b) The incident shall be immediately reported to the DERM Coastal Resources Section Compliance and Enforcement Group at (305) 372-6575 and documented in the logs and reports. When the allowable turbidity levels are exceeded at the edge of the mixing zone (as defined by the area within the turbidity curtain), additional compliance sampling shall be conducted.
 - c) The contractor shall modify any work procedures that caused the violation, install additional turbidity containment devices, and repair or replace any non functioning turbidity containment devices. All turbidity curtains shall remain in place until turbidity within the curtains subsides.
26. The background location shall be 100 feet up-current from the project location, outside of any visible turbidity plume, taken at mid-depth.
27. The compliance location shall be immediately outside of the turbidity curtains surrounding the project, within the densest portion of any visible plume, taken at mid-depth.
28. Turbidity monitoring equipment and personnel trained to use said equipment shall be available onsite at all times during work that could generate turbidity. The contractor shall monitor turbidity levels in accordance with the criteria outlined in the specific conditions of this permit.
29. A summary of turbidity monitoring data shall be submitted to the Coastal Resources Section Compliance and Enforcement Group of DERM within one week of analysis with documents containing the following information: (1) permit number; (2) dates and times of sampling and analysis; (3) depth of water body; (4) depth of sample; (5) weather conditions; (6) direction of flow; (7) wind direction and velocity; (8) a statement describing the methods used in collection and analysis of the samples; (9) a map indicating the sampling locations; (10) a statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data.
30. **The contractor must contact the DERM Coastal Resources Section Compliance and Enforcement Group a minimum of 48 hours (2 business days) prior to the removal of any dredged material from the site.** Removal of the material from the site prior to DERM's inspection shall constitute a violation of this permit and may result in enforcement action by the Department.
31. The contractor shall maintain all receipts/manifests for the disposal of the dredged material. Said documents shall be provided to DERM within 30 days of the completion of the dredging.

**THIS PERMIT AND PLANS SHALL BE KEPT ON SITE
DURING ALL PHASES OF CONSTRUCTION**

32. In the event that any items or features of potential archaeological or historic significance are encountered during the course of this project, the contractor shall immediately cease and desist from further work and notify the Miami-Dade County Office of Historic Preservation (OHP) at (305) 375-4958. Work shall not resume until the find(s) are assessed by the OHP, and the OHP provides a written notice to proceed. The contractor and permittee shall allow representatives of the OHP to access the project area as necessary in order to conduct monitoring.
33. Since the Florida manatee occurs in the waters at and adjacent to the property, the permittee and contractor shall take measures to protect manatees during and after construction. Failure to comply with any of the below-listed measures may result in enforcement action by the Department. These measures shall include the following:
- a) All construction personnel shall be notified in writing of the possible presence of manatees in the area and the precautions that should be taken during the construction period. Copies of these written notifications shall be sent to DERM.
 - b) All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act of 1978. The permittee and contractor will be held jointly responsible for any manatee harmed, harassed, or killed as a result of the construction activities.
 - c) Temporary signs concerning manatees shall be posted prior to and during all in-water construction. Only awareness signs that have already been approved by the FFWCC shall be used. Each vessel involved in the construction shall display in a prominent location, visible to the operator an 8 1/2" x 11" temporary placard reading, "Caution Manatee Habitat Idle Speed/No Wake". In the absence of a vessel the placard will be located prominently adjacent to the issued construction permit. A second temporary 30" x 24" placard reading, "Caution Boaters" will be posted in a location prominently visible to water related construction crews.
 - d) Turbidity control related devices (e.g. curtains, siltation barriers, etc.) shall be made of material in which manatees cannot become entangled. Said devices shall be properly secured, regularly monitored to avoid manatee entrapment, and shall not block manatee entry to or exit from essential habitat.
 - e) All vessels associated with the project shall operate at "no wake/idle" speeds at all times while in waters adjacent to the project. All vessels will follow routes of deep water whenever possible.
 - f) All in-water construction activities shall cease upon the sighting of a manatee(s) within 50 feet of the project area. Construction activities will not resume until the manatee(s) has departed the project area.
 - g) Any collision with or injury to a manatee shall be reported immediately to the "Manatee Hotline" (1-888-404-FWCC) and to the U.S. Fish and Wildlife Service, Vero Beach Office (1-772-562-3909), and to DERM (305-372-6575).
 - h) The contractor shall maintain a log detailing sightings, collisions, or injuries to manatees should they occur during the contract period. Following project completion, a report summarizing the above incidents and sightings shall be submitted to the Florida Department of Environmental Protection (FDEP), Marine Research Institute Office of Protected Species Research, 620 S. Meridian St., Tallahassee, Florida 32399-1600; to the U.S. Fish & Wildlife Service, 3100 University Blvd., Jacksonville, Florida 32216, and to DERM within 60 days of project completion.
34. At least one person shall be designated as a manatee observer when in-water work is being performed. That person shall have experience in manatee observation, and be equipped with polarized sunglasses to aid in observation. The manatee observer must be on-site during all in water construction activities and shall advise personnel to cease operation upon sighting a manatee within 50 feet of any in-water construction activity. Movement of a work barge, other associated vessels, or any in-water work shall not be performed after sunset, when the possibility of spotting a manatee is negligible.

**THIS PERMIT AND PLANS SHALL BE KEPT ON SITE
DURING ALL PHASES OF CONSTRUCTION**

35. The Director of DERM has agreed to waive the performance bonding requirements for the subject project provided that the City of Miami provides written proof of holding said bond with the contractor who will perform the subject work. Same shall be provided in writing and approved by the Coastal Resources Section Compliance and Enforcement Group of DERM prior to the commencement of any work.
36. (See general conditions).

**THIS PERMIT AND PLANS SHALL BE KEPT ON SITE
DURING ALL PHASES OF CONSTRUCTION**

General Permit Conditions

1. This permit must be kept onsite during all phases of construction.
2. All work shall be performed in accordance with the above referenced plans and in accordance with the attached specific and general permit conditions. If a General Condition(s) conflicts with a Specific Condition(s) in this permit document, the Specific Condition shall be the controlling condition for work authorized by this permit.
3. This permit only authorizes the work described in page 1 under PROPOSED WORK. Any additional work in, on, over or upon tidal waters or coastal wetlands at the property shall require additional Class I approval.
4. Any deviation from the approved plans for this project shall be submitted in writing to, and approved by DERM prior to the commencement of this project. The contractor and the permittee shall take whatever remedial action is necessary to bring the project into compliance with the permit and approved plans upon determination by DERM that the structure is not in compliance with such.
5. DERM shall be notified no later than forty-eight (48) hours and no earlier than five (5) days prior to the commencement of the work authorized by this permit, unless otherwise noted herein. The permittee and/or contractor may notify DERM by calling (305) 372-6575 or by submitting the attached Notice of Commencement of Construction via hand delivery, U.S. Mail, or facsimile at (305) 372-6479.
6. Prior to performing any work, the contractor shall verify the location of all underground and overhead utility lines and verify that no utilities will be damaged by the work. Contact Sunshine State One-Call of Florida at 1-800-432-4770 or on the web at <http://www.callsunshine.com/corp/before/submitting.html> for locating underground utility lines.
7. The permittee and the contractor are hereby advised that under Florida law, no person shall commence any excavation, filling, construction, or other activity involving the use of sovereign or other lands of the State, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Florida Department of Environmental Protection (FDEP), until such person has received the required authorization for the proposed use from the Board of Trustees or FDEP. If such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to \$10,000 per offense pursuant to the Florida Administrative Code.
8. The permittee and contractor shall obtain all required approvals from all local, state and federal agencies prior to performing the work authorized by this permit.
9. All work authorized by this permit shall be performed by the contractor and/or subcontractor holding an applicable certificate of competency and shall be licensed in Miami-Dade County to perform such work. Any work that is subcontracted shall require that the permittee and contractor (i.e. the contractor listed on this permit) notify the project manager at DERM at (305) 372-6575 or by facsimile at (305) 372-6479 a minimum of seventy-two hours prior to the subcontractor performing any work. Notification shall include the name of the subcontractor performing the work, the subcontractor's Miami-Dade County license number or state general contractor license number, and scope of work.
10. The contractor shall take all necessary precautions to prevent construction or demolition debris from falling into the water or adjacent wetlands. Any debris that falls into the water and/or adjacent wetlands shall be removed immediately. Construction and demolition debris shall be disposed of in accordance with all federal, state and local regulations.
11. Turbidity controls (such as, but not limited to, turbidity curtains) shall be implemented whenever visible plumes are present to ensure compliance with the water quality standards stipulated in Section 24-42(3), of the Code of Miami-Dade County. Turbidity controls shall be employed and maintained in the most effective manner possible to prevent turbidity from extending beyond the control mechanism in place.
12. Turbidity may not exceed twenty-nine (29) Nephelometric Turbidity Units (NTU's) above background beyond fifty (50) feet from the point of discharge. Turbidity levels shall be monitored continuously when turbidity plumes are visible beyond a fifty (50) foot radius of the point of discharge. If the turbidity levels exceed the above standard, all construction shall stop and additional turbidity controls shall be implemented. Work shall not resume until the contractor has implemented adequate turbidity control methods and has received authorization from DERM to recommence work. At

**THIS PERMIT AND PLANS SHALL BE KEPT ON SITE
DURING ALL PHASES OF CONSTRUCTION**

DERM's discretion, turbidity samples may be required and shall be collected in accordance with Section 24-44.2(3), of the Code of Miami-Dade County, or as specified by DERM, and the results sent directly to the DERM Project Manager on a weekly basis.

13. If any work or activity associated with this project is to take place in navigable waters, the contractor shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collision with manatees. All vessels associated with the project must operate at "Idle Speed/No Wake" at all times while in water where the draft of the vessel provides less than a four (4) foot clearance from the bottom. Additionally, all vessels will follow routes of deep water whenever possible. All in-water construction activities shall cease upon the sighting of a manatee(s) within fifty (50) feet of the project area and will not resume until the manatee(s) has departed the project area. Any collision with and/or injury to a manatee shall be reported immediately to the "Manatee Hotline" (1-888-404-FWCC), the U.S. Fish and Wildlife Service, Jacksonville Field Office (904) 791-2580, and DERM (305) 372-6854.

14. The contractor shall ensure that all vessels associated with the construction shall operate within waters of sufficient depth so as to preclude bottom scouring or prop dredging and shall maintain a minimum of one (1) foot of water between the vessel bottom and submerged aquatic resources.

15. The contractor shall ensure that there are no impacts to seagrass, hard corals, or soft corals as a result of construction operations, such as, but not limited to, propeller scouring; and vessel or barge anchoring, grounding or spudding. The marine contractor and permittee shall be held jointly liable for any of these unauthorized impacts. For any impacts caused by the construction operation, DERM shall require, at a minimum, restoration and mitigation.

16. For the purposes of this permit, "vessel" is herein defined as any craft designed to float or navigate on water, including but not limited to: sailboats, powerboats, rowboats, boats, ships, skiffs, houseboats, personal watercraft and inflatable boats.

17. Pursuant to Section 24-48.10, of the Code of Miami-Dade County, the work or structures authorized under this permit shall be privately maintained by the applicant, his successors and assigns. Whenever, in the opinion of the Director of the DERM, said work or structures are not maintained in such a manner so as to prevent deterioration to the extent that they become a hazard to the public or to navigation, or create an obstruction of flow, or prevent access for drainage maintenance purposes, or may damage adjacent property, then the owner is required to perform any necessary remedial work.

18. Unless otherwise authorized in this permit and pursuant to Section 24-48.24 of the Code of Miami-Dade County, the installation or construction of non-water-dependent fixed structures (i.e. covered structures, canopies, helicopter pads, commercial signs, etc.) is prohibited in, on, over or upon any of the tidal waters of Miami-Dade County and constitutes a violation of this permit. Failure to comply with this condition may subject the permittee to enforcement action without further warning.

19. The time allotted to complete the work for which this permit has been issued shall be limited to the period stipulated on the permit unless the permittee requests an extension of time from the Department in writing at least thirty (30) days prior to the date of permit expiration. Applications for extensions of time that are not timely filed pursuant to Section 24-48.9(2)(b), of the Code of Miami-Dade County will be returned to the applicant.

20. An Application for Transfer of a Class I Permit may be filed with DERM at any time prior to the transfer of property ownership up to 120 days after the date of transfer of fee simple ownership of the property that is the subject of the permit. The Application for Transfer must be signed by both the transferee and transferor. Applications for Transfer shall be filed in the form prescribed by DERM and shall not be processed if the filed Application for Transfer is not fully complete in all respects pursuant to Section 24-48.18, of the Code of Miami-Dade County within 120 days of the date of transfer of property ownership.

21. If the project involves construction, replacement, or repair of a seawall, the new seawall cap shall be a minimum of six (6) inches above the final grade of the uplands immediately adjacent, and in order to prevent positive drainage of stormwater into the waterway, all uplands immediately adjacent to the new seawall shall be graded away from the waterway.

22. A performance and/or mitigation bond may be held to ensure compliance with the aforementioned conditions and the completion of any required mitigation. Failure to comply with any of these conditions may result in the revocation by Miami-Dade County of all or a portion of the bond without further notice.

**THIS PERMIT AND PLANS SHALL BE KEPT ON SITE
DURING ALL PHASES OF CONSTRUCTION**

**THIS PERMIT AND PLANS SHALL BE KEPT ON SITE
DURING ALL PHASES OF CONSTRUCTION**

FINAL MANATEE PROTECTION PLAN

1.0 INTRODUCTION

The West Indian manatee was listed as an endangered species by the Florida Fish and Wildlife Service (FFWS) on June 2, 1970. This species habitat range is rivers, estuaries, and coastal areas of subtropical and tropical areas. The West Indian manatee is a herbivore that migrates to warmer waters during the colder months. In Florida, most migrate south during the winter and congregate mainly in estuaries and canals. They prefer brackish over marine environments. The present distribution of the West Indian manatee includes the coasts and rivers of Florida, the Greater Antilles, eastern Mexico and Central America and northern and eastern South America. A critical habitat was established for the West Indian manatee in 1976. It includes Biscayne Bay, and all adjoining and connected lakes, rivers, canals, and waterways from the southern tip of Key Biscayne (FFWS, 1999).

During sampling events for Wagner Creek and Seybold Canal it was noted that Manatees frequent both the creek and canal. During the June/July 2008 sampling event, Manatees were sighted up to the NW 15th St. Bridge (adjacent to University of Miami Hospital). During the May 2009 sampling event, Manatees were sighted between the NW 14th Ave./NW 17th St. bridges (adjacent to VA Hospital). There is anecdotal evidence that Manatees have been sighted as far northwest as the NW 20th St. Culvert.

Because of the above, Manatee protection will be a daily concern during the dredging of Wagner Creek and Seybold Canal. The following are key issues to Manatee Protection during the work.

- Mechanical dredging will be utilized to remove the sediments. A manatee watch will be required to minimize the possibility that manatees will be adversely impacted by dredge operations.
- Control of water quality (turbidity) may require the use of multiple turbidity curtains during dredging. Protective actions will be required so the turbidity control measures do not adversely impact manatees.

The following manatee protection measures will be implemented to avoid potential impacts to manatees during the Wagner Creek and Seybold Canal project construction.

2.0 MANATEE PROTECTION MEASURES

1. All personnel associated with the project activities shall be instructed about the presence of manatees and manatee speed zones in the project area and the need to avoid collisions with, and injury to, manatees.

2. The dredge construction will begin at the North end of Wagner Creek. For Manatee protection during dredging activities in Wagner Creek, chain link fence barriers (Manatee Barriers) will be installed across the channel south of the construction area to prevent manatee access into the dredge area. Sketches showing typical design features and locations of manatee Barriers can be found in Attachment D-1 and Attachment D-2 to this plan.

Manatee Barriers will be located south of the dredging activities and be designed to;

- a. Extend to the sediment/water interface
- b. Match the contour at the sediment/water interface as well as shoreline contours up to at least one (1) foot above the High/High Waterline.
- c. Prevent Manatee movement north of the barrier and avoid manatee entanglement in the barrier.

Before installation of a manatee barrier, inspection of all areas north of the barrier location will be performed to confirm that Manatees are not present north of the proposed barrier location. If Manatees are sighted north of the proposed barrier location they will be allowed to leave on their own volition before the barrier is installed. Manatee Barriers will be installed by the dredging contractor at least two days prior to commencement of dredging activities north of the barrier and during the two days the area will be monitored to ensure no manatees are trapped north of the barrier.

Once installed, Manatee Barriers will remain in place until dredging north of the barrier is complete. Each day before dredging begins areas north of the barrier will be inspected by Manatee Watch personnel to determine if Manatees have moved north of the barrier. If Manatees are sighted north of the barrier, the barrier shall be opened so the manatee is able to leave the construction area on its own volition. The barrier will then be reinstalled as described above as well as modified to prevent manatee movement north of the barrier. Each morning the manatee barrier will be inspected to insure that no manatees are entangled in the barrier and there are no access points for manatees into the work area along the bottom, sides or over the top of the barrier. If a manatee becomes entangled in a manatee barrier the Florida Fish and Wildlife conservation Commission should be notified immediately at 1-888-404-FWCC.

3. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
4. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
5. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Except as described in number 2 above, siltation or turbidity barriers must not impede manatee movement.

6. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
7. At least one person shall be designated as a manatee observer when in-water work is being performed. That person shall have experience in manatee observation and be equipped with polarized sunglasses to aid in observation. The manatee observer must be on site during all in-water construction activities and will advise personnel to cease operation upon sighting a manatee within 50 feet of any in-water construction activity.
8. Movement of a work barge, other associated vessels, or any in-water work shall not be performed after sunset, when the possibility of spotting manatees is negligible, or at other times when observation becomes ineffective (e.g., in cases of rain, fog or limited visibility).
9. Any collision with or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida.
10. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used (see MyFWC.com). One sign which reads Caution: Boaters must be posted. A second sign measuring at least 8 1/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities.
11. The permittee shall ensure that the contractor maintains a log detailing sightings, collisions, or injuries to manatees should they occur during the contract period. Within 30 days following each event, the logs and a report summarizing incidents and sightings shall be submitted to the Florida Fish and Wildlife Conservation Commission, Imperiled Species Management Section at: ImperiledSpecies@myfwc.com.
12. Air Curtain technology as a turbidity control methodology will be tested at the confluence of the Seybold Canal and the Miami River. It is not known how manatees may react to air bubble emissions. Manatees may be attracted to bubbles associated with the aeration activity possibly increasing the number of manatees near the dredge operations and at a location in the Miami River where the risk of boat/manatee collisions is already high. Because the manatee attractant characteristics of the proposed are curtain are unknown, manatee protection measures in association with this technology are required.

Monitoring of manatee use and behavior at the air curtain site and the site vicinity shall be conducted by an independent third party approved by Miami-Dade DERM, the Florida DEP and the FWC Imperiled Species Management section (ISM). Approval for the observers shall be obtained prior to installation of the device. Prior to installation, observation for manatees in the

area must occur on at least seven (7) days. After installation, observation must occur at least twice a day, once in the a.m. and again in the p.m., for no less than thirty minutes per observation when the air curtain is in operation. Manatee monitoring reports describing manatee presence, absence, behavior and location in relation to the device shall be submitted by email to FWC ISM on a weekly basis to ImperiledSpecies@myfwc.com.

If any aberrant or unusual manatee behavior in the vicinity of the device is noted, or if the device appears to serve as an attractant to manatees, or produces a situation in which there is an increased risk of manatee impact from the Seybold Canal dredge operation or boat/manatee collisions in the vicinity of the air curtain location, the device will be removed and other turbidity control measures will be implemented.

If the Miami-Dade DERM and the DEP determine that the device does not achieve the turbidity control results expected from the device, it will be removed and other turbidity control measures will be implemented.

Attachment A

Final References to "Manatee" in CAP 2 body

FINAL- REFERENCES TO "MANATEE" in CAP2 body

Please also see Manatee Protection Plan Update (12-15-10)

REFERENCES in CAP2

This Work Plan addresses the need to minimize water volume generated during dredging operations, the management of water collected during dredging, and water quality controls to be implemented during the dredging activities. Finally, it describes the procedures to be implemented for endangered species protection (manatees) and structure protection during the dredging activities. [p. 2-1, Sec. 2.1]

Most areas of Wagner Creek and Seybold Canal are frequented by manatees (Section 3.5.8). A Manatee Watch will therefore be onsite at all times during the work. As discussed in the following sections, turbidity barrier design will account for turbidity control while generally allowing access for manatee movement. During Wagner Creek dredging, Manatee Barriers will be utilized to limit Manatee movement into the dredging area. Design and use of Manatee Barriers will be as described in Appendix D, Manatee Protection Plan. [p. 3-17, Sec. 3.5.2]

The primary water quality controls to be implemented during Wagner Creek dredging will be turbidity barriers and monitoring. Turbidity barriers will be installed and maintained both upstream and downstream of the active dredging area. Turbidity barriers for Wagner Creek will be solid construction and will be designed to minimize the potential for manatee entanglement. Figure 3-14 shows a typical barrier design.

Wagner Creek is narrow (20 ft to 35 ft) and shallow (2 ft to 4 ft deep in un-dredged areas). Turbidity barriers used in Wagner Creek will be designed to extend side to side and to the surface of underlying material. It is envisioned that a typical downstream barrier will be 25 ft wide x 4 ft deep. A typical upstream barrier will be 25 ft wide x 8 ft deep.

Turbidity barrier configuration for Wagner Creek dredging will depend on the following factors:

1. **Dredging Configuration** – Turbidity barrier configurations will be different when dredging to land based containers (WRCs) than when dredging to floating containers. An example of each configuration is shown in Figures 3-15 and 3-16.
2. **COPC Concentrations** – Portions of OS-1 exhibit elevated concentrations of TEQ (> 1 ppb). Monitoring, dredging production, and turbidity barriers will be configured to maintain turbidity levels at the compliance point stipulated by the permits.
3. **Manatee Movement** – Areas north of the active dredging area will be checked for manatees and monitored in accordance with the requirements outlined in Appendix D, Manatee Protection Plan.
4. **Turbidity Monitoring Results** – A Hach® 2100P (or equivalent) Portable Turbidity Meter will be utilized onsite to constantly check turbidity levels. These measurements will be used in the field to aid in selecting the number and proper placement of turbidity barriers.

Dredging in Wagner Creek will progress slowly (30 to 50 ft/day). Wagner Creek is tidal, so both upstream and downstream barriers will be required. [p. 3-18, Sec. 3.5.2.1]

All barriers will be removed at the end of each work day once turbidity levels are at or below the compliance point stipulated by the permits. [p. 3-19, Sec. 3.5.2.1]

Turbidity barrier configurations for Seybold Canal dredging will depend on the following factors:

1. **Dredging configuration** – Turbidity barrier configurations for Seybold Canal will be installed to control turbidity while dredging to floating containers.
2. **COPC Concentrations** – There are no elevated TEQ areas in Seybold Canal. Monitoring, dredging production, and turbidity barriers will be configured to maintain turbidity levels at the compliance point stipulated by the permits.
3. **Manatee Movement** – Areas north of the active dredging area will be checked for manatees before barriers are deployed and monitored ~~before barriers are deployed~~ in accordance with the requirements outlined in Appendix D, Manatee Protection Plan.
4. **Boat Access** – Seybold Canal connects to the Miami River and therefore allows water access for small craft. There are many pleasure craft and small fishing vessels that use Seybold Canal for mooring. Boats will be moved to allow access to the immediate dredging areas. Access to areas north of the dredging will be allowed during non-work hours.
5. **Turbidity Monitoring Results** – A Hach® 2100P (or equivalent) Portable Turbidity Meter will be utilized onsite to constantly check turbidity levels. These measurements will be used in the field to aid in selecting the number and proper placement of turbidity barriers/~~bubble~~ Air Curtains. [p. 3-19, Sec. 3.5.2.1]

Dredging in Seybold Canal will progress at approximately 20 - 30 ft/day. As the dredging progresses toward the mouth of Seybold Canal, turbidity controls will become critical. For this reason, turbidity barriers will be installed and maintained both upstream and downstream of the active dredging area and an Air Curtain will be installed at the mouth of Seybold Canal. Turbidity barriers for Seybold Canal will be solid construction and will be designed to minimize the potential for manatee entanglement. [p. 3.20, Sec. 3.5.2.2]

Manatee protection will be a daily concern during the dredging of Wagner Creek and Seybold Canal and will be monitored in accordance with the requirements outlined in Appendix D, Manatee Protection Plan. A Manatee Protection Plan is presented in Appendix D. [p. 3.23 , Sec. 3.5.8]

The following summarizes the biological assessment findings:

- 238 instances of flora and fauna were observed along Wagner Creek and Seybold Canal.
- 39 species of trees, plants, and vines were observed, none of which are federally Listed as Threatened or Endangered Species.
- 15 wildlife species were observed. Two are considered Species of Special Concern by the Florida Fish and Wildlife Conservation Commission (FFWCC) and one is listed as Endangered by the USFWS.

Species of Special Concern:

- Tricolored Heron (*Egretta tricolor*)

- White Ibis (*Eudocimus albus*)

Endangered Species:

- West Indian Manatee (*Trichechus manatus*)

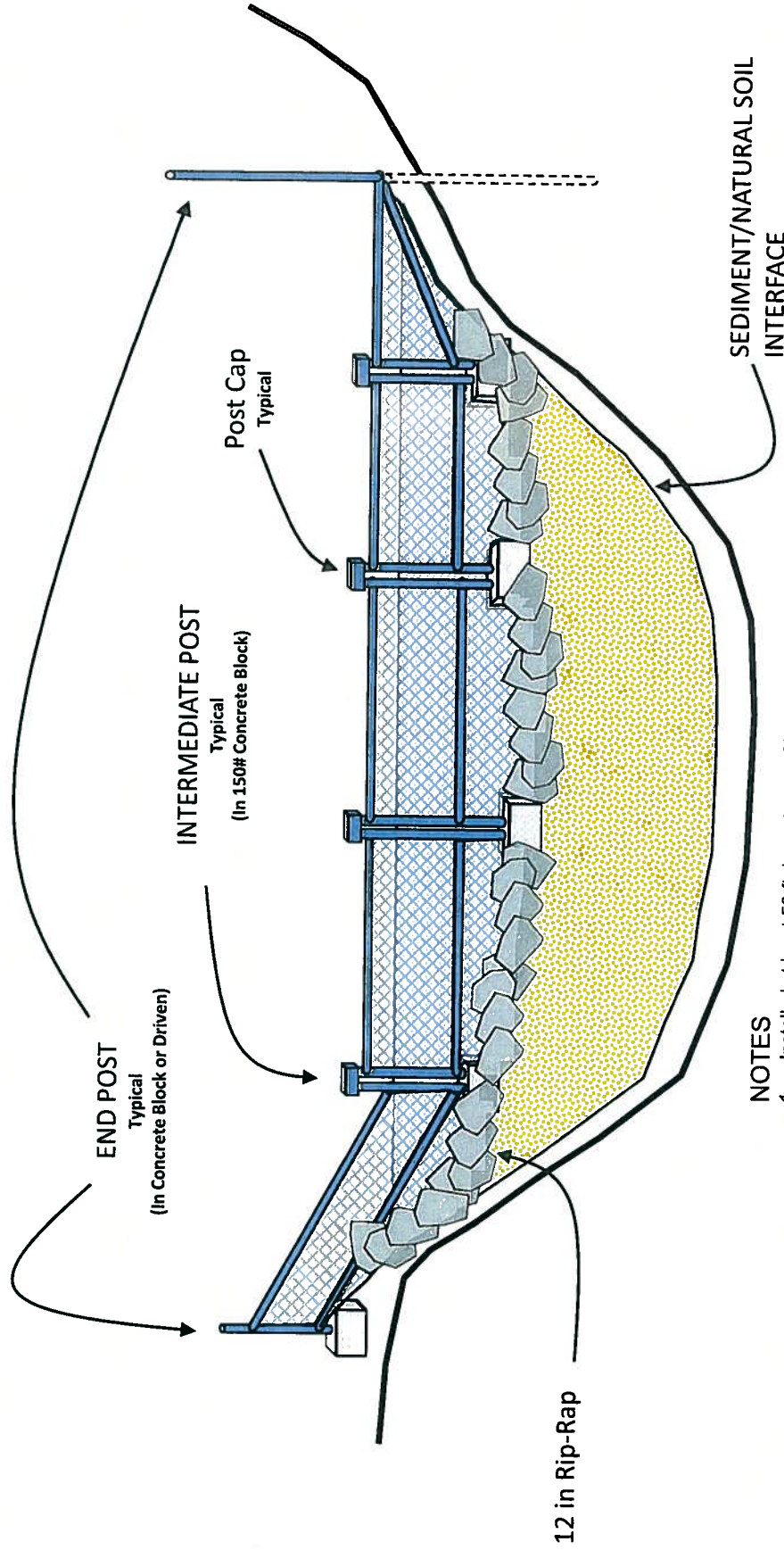
This investigation revealed that the project area consists only of disturbed lands and urban areas. It does not offer a high quality habitat to floral or faunal species. Standard precautionary measures will be employed during the construction phase of the project to protect the tricolored heron, white ibis, and West Indian manatee (Manatee Watch). Therefore, no significant impacts to federal, state, or locally listed species are anticipated as a result of this project. [p. 4.1 , Sec. 4]

Attachment B

Final Figure D-1 Typical Manatee Barrier

TYPICAL MANATEE BARRIER

FIGURE D-1



NOTES

1. Installed at least 50 ft downstream of last Turbidity Barrier
2. Must be inspected, cleaned of all trash and repaired daily
3. Standard Chain Link Fencing with bottom sections that match the contour at the sediment water interface as well as shoreline contours up to at least 1 ft above the High/High water line. Bottom sections shall be secured with rip-rap boulders, or similar materials, to prevent manatee entanglement or entrapment.
4. The manatee barrier shall be monitored at least once in the morning for manatee entanglement or entrapment, and to insure there are no access points for manatees into the work area along the bottom, sides or over the top of the barrier. If a manatee becomes entangled in the Manatee Barrier, the Florida Fish and Wildlife Conservation Commission should be notified immediately at 1-888-404-FWCC.
5. Area north of Manatee Barrier to be inspected each day and prior to installation to ensure no manatees are trapped north of the barrier. If a manatee becomes entrapped north of the manatee barrier in the construction area the barrier shall be opened so the manatee is able to leave the construction area on its own volition.
6. Regulators to be notified if Manatee is sighted north of Manatee Barrier

Sediment



High/High Water Line



Concrete Block



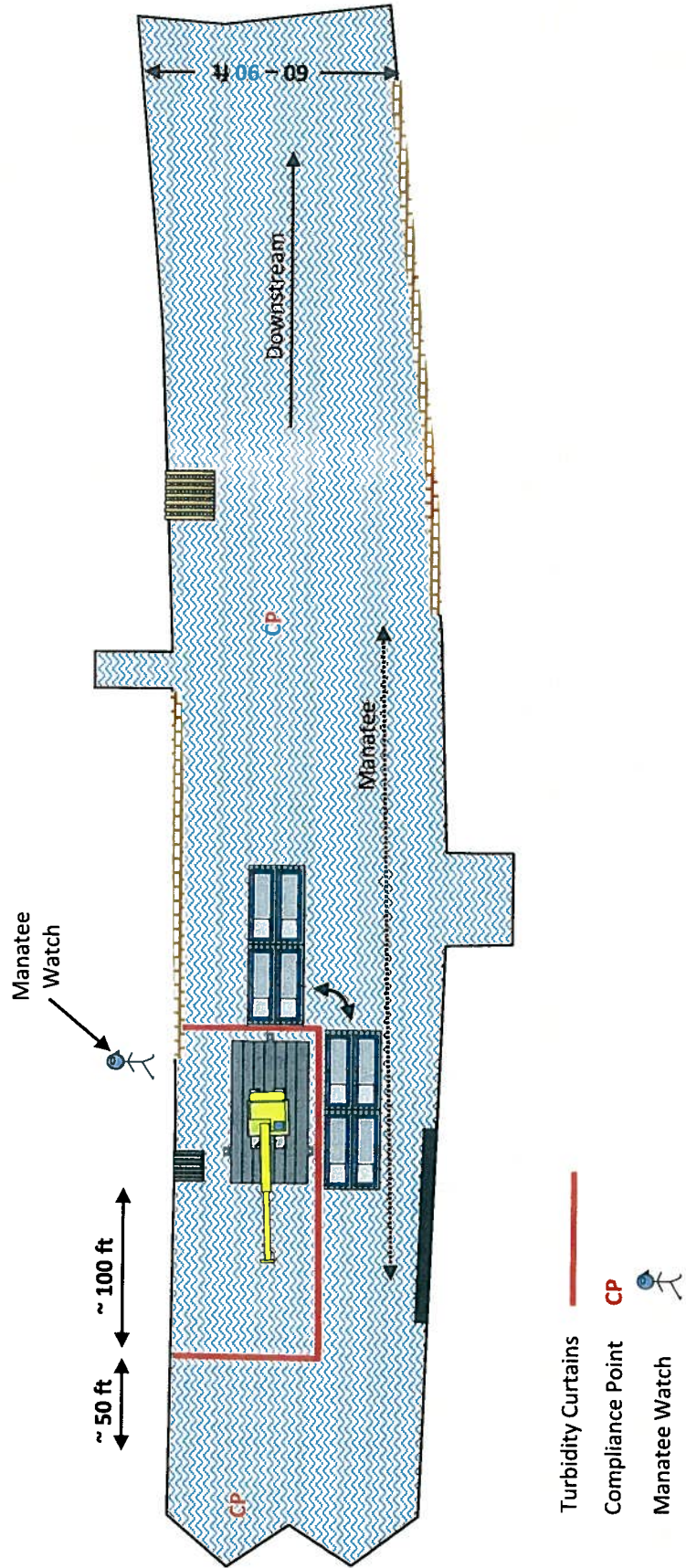
Attachment C

Final Figure 3-17

Seybold Canal Water Quality Control/Manatee Watch

FIGURE 3-17

Seybold Canal Water Quality Control/Manatee Watch



Attachment D

Final Figure 3-19

Dredging Near Mouth of Seybold Canal Water Quality
Control/Manatee Watch

Dredging Near Mouth of Seybold Canal Water Quality Control/Manatee Watch
 Figure 3-19

