



# FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

MARJORY STONEMAN DOUGLAS BUILDING  
3900 COMMONWEALTH BOULEVARD  
TALLAHASSEE, FLORIDA 32399-3000

RICK SCOTT  
GOVERNOR

HERSCHEL T. VINYARD JR.  
SECRETARY

## COMPREHENSIVE EVERGLADES RESTORATION PLAN REGULATION ACT (CERPRA) PERMIT CONSTRUCTION AND INTERIM OPERATIONS AUTHORIZATION

**PERMITTEE:**

**U.S. Army Corps of Engineers, Jacksonville District**  
701 San Marco Boulevard  
Jacksonville, FL 32207

**ATTENTION:**

**Mr. Eric Summa**  
Chief, Environmental Branch  
Planning Division

**Permit Number:** 0288313-008

**Project:** Picayune Strand Restoration Project  
**Phase:** Merritt, Faka Union, and Miller Canal Pump  
Stations and Road Removal  
**County:** Collier

**Date of Original**

**Permit Issuance:** March 20, 2009  
**Renewal Date:** June 14, 2010  
**Date of Major Modification:** TBD, 2013  
**Expiration Date:** June 14, 2015

This permit is issued under the authority of the Comprehensive Everglades Restoration Plan Regulation Act (CERPRA), Section 373.1502, Florida Statutes (F.S.); Title 62, Florida Administrative Code (F.A.C.); and pursuant to the Department of Environmental Protection's (Department) authority under Chapters 373 and 403, F.S. The activity is not exempt from the requirement to obtain a CERPRA Permit.

The above named permittee is hereby authorized to initiate the activities described on the application, associated drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof. The activities authorized by this permit must be conducted in conformance with all the provisions of this permit. Failure to comply with all permit conditions and documents referenced herein shall constitute grounds for revocation of the permit and appropriate enforcement action.

This permit constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act, 16 U.S.C. § 1456, and constitutes certification of compliance with water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. § 1341 authorization pursuant to Chapter 373, F.S. The Department's 1) finding of consistency with Florida's Coastal Zone Management Program and 2) certification of compliance with water quality standards, are both conditioned upon the U.S. Army Corps of Engineers (Corps/permittee) compliance with all the general and specific permit conditions herein.

**PROJECT DESCRIPTION:**

The Picayune Strand Restoration Project (Picayune Strand), a 'project component' as defined in Section 373.1501(1), F.S., is a Comprehensive Everglades Restoration Plan (CERP) project. The Water Resources Development Act of 2000 approved CERP under Section 601 as a framework for modifications to the Central and South Florida (C&SF) Project necessary to restore the South Florida ecosystem. The Picayune Strand was also identified as an expedited project (formerly Acceler8), which the State of Florida is accelerating the funding, design, and construction of in order to realize immediate environmental benefits. The objective of the Picayune Strand is to restore the hydrological and ecological function of the region by establishing pre-development sheet flows and hydroperiods.

Picayune Strand is bound by Interstate Highway 75 (I-75) to the north, Prairie Canal/Basil Road to the east, U.S. Highway 41 (Tamiami Trail) to the south, and Miller Boulevard to the west. Picayune Strand encompasses the area formerly known as Southern Golden Gate Estates (SGGE), located in southwestern Collier County, Florida. More specifically, SGGE is located southwest of the Florida Panther National Wildlife Refuge, west of the Fakahatchee Strand State Preserve and the Big Cypress National Preserve, northwest of the Everglades National Park, north of

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the Ten Thousand Islands National Wildlife Refuge (TTINWR), northeast of the Collier-Seminole State Park and the Rookery Bay National Estuarine Research Preserve, and east of the South Belle Meade State Conservation and Recreation Lands (CARL) project.

SGGE was planned as a large residential subdivision encompassing over 55,000 acres of land in the 1950s with roads and drainage canals constructed in the 1960s and early 1970s. The planned residential development failed, and the system of roads and four large canals has over-drained the area resulting in a reduction of aquifer recharge, increased freshwater shock load discharges to estuaries to the south, invasion by upland vegetation, loss of ecological connectivity and associated habitat, and increased frequency of forest fires. The overall project goals are to remove the infrastructure of the subdivision and restore its pre-drainage hydrology and ecology, generating positive effects on the hydrology, vegetation, and wildlife of the project area and surrounding public lands.

Water flows from the northeast to the southwest direction. The Miller, Faka Union, Merritt, and Prairie Canals (north-south canals located west to east, respectively) ultimately delivered all drainage to the lower end of the Faka Union Canal. These canals provided conveyance for water drained from Northern Golden Gate Estates, north of Interstate Highway 75 (I-75). The existing canal system in Northern Golden Gate Estates drains water into the SGGE Project Area via the Miller and Faka Union Canals. At project completion, the restored overland flow will continue southward with the natural contours and travel ultimately to the TTINWR and surrounding estuaries via culverts under U.S. Highway 41. The Port of the Isles (POI) community is located at the far south end of the project adjacent to the section of the Faka Union Canal that will remain.

Previously, the Department issued permits and associated modifications (File No. 0221670-001-GL through 0221670-007-EM, File No. 0211812-002) to the South Florida Water Management District (District) for the installation of earthen plugs within the Prairie Canal, removal of roads east of the Merritt Canal (Prairie Canal Backfill and Road Removal Project) and construction of culverts under Stewart Boulevard and Jane's Scenic Highway. These restoration activities, which involved the eastern portion of Picayune Strand, have all been completed by the District. The Water Resources Development Act (WRDA) of 2007 provided authorization for Federal participation in the Picayune Strand Restoration Project, including construction of the three pump stations, tie-back levees, and spreader systems in addition to the continuation of road removal and canal plugging activities.

In 2009, the Department issued a permit and associated modification (File No. 0288313-001-GL and File No. 0288313-002-EM) to the Corps for construction and interim operation of the Merritt Canal Pump Station and associated components, removal of roads west of the Merritt Canal and east of the Faka Union Canal and installation of earthen plugs within the Merritt Canal. Construction of the pump station and associated components for the Merritt Canal phase began in January 2010. In 2010, the Department issued a major modification (File No. 0288313-003) to the Corps for construction of the Faka Union Canal Pump Station, associated components, and removal of the roads between Faka Union and Miller Canals. Construction of the pump station and associated components for the Faka Union Canal phase began in May 2011. This authorization adds construction of Miller Canal Pump Station, associated components and removal of the roads west of the Miller Canal.

This permit only authorizes activities associated with the Merritt, Faka Union, and Miller Canals Pump Stations and road removal projects, specifically the project components identified below.

#### **PROJECT LOCATION:**

Picayune Strand is bound by I-75 to the north, Prairie Canal/Basil Road to the east, U.S. Highway 41 (Tamiami Trail) to the south, and Miller Boulevard to the west. It is located southwest of the Florida Panther National Wildlife Refuge, north of the (TTINWR), east of the South Belle Meade State CARL project, west of the Fakahatchee Strand State Preserve, and northeast of Collier-Seminole State Park. The total area for construction activities associated with Picayune Strand, including previously authorized and future phases, is based on the CERP boundary for SGGE of 55,294 acres. The restoration area will be greater following operations.

The Merritt Canal Pump Station and Road Removal portion of the Picayune Strand Restoration Project encompasses an area of approximately 30,905 acres of land in southwestern Collier County, Florida within Sections 1-6, 9-12, 13-

16, 21-24, 25-28, and 33-36, Township 50 South, Range 28 East; Sections 1-4, 9-12, 13-16, 21-24, 25-28, 34-35, Township 51 South, Range 28 East.

The Faka Union Canal Pump Station and Road Removal portion includes an additional area of approximately 15,829 acres of land with construction for this phase occurring within Sections 5, 6, 7, 8, 15, 16, 17, 18, 19, 20, 29, 30, 31, and 32, Township 50 South, and Range 28 East; Sections 5, 6, 7, 8, 9, 17, 18, 19, 20, 29, 30, 31, 32, and 33, Township 51 South, Range 28 East; and Sections 4-6, Township 52 South, Range 28 East.

The Miller Canal Pump Station and Road Removal portion includes an additional area of approximately 6,400 acres of land with construction for this phase occurring within Sections 1, 11, 12, 13, 14, 24, 25, and 36, Township 50 South, Range 27 East; Sections 1, 12, 13, 24, 25, and 36, Township 51 South, Range 27 East; Section 1, Township 52 South, Range 27 East; and Sections 6, 7, and 18, Township 50 South, Range 28 East.

## PROJECT COMPONENTS:

### 1. Merritt Canal Pump Station and Road Removal Project

The Merritt Canal Pump Station and the associated road removal for the Picayune Strand, as identified in Figure 1, consist of the following individual components:

- **Merritt Canal Pump Station (S-488)** – this facility will pump water from the Merritt Canal into a spreader basin for release to the downstream restoration area. The S-488 pump station is comprised of two (2) 75 cfs electrical pumps and four (4) 220 cfs diesel pumps for a total capacity of 1,030 cfs; however, the maximum design flow for flood protection is 880 cfs using the four (4) high flow pumps. Dry detention areas are provided for water quality treatment of run-off from the paved areas around the station. Upstream of the S-488 pump station is an inflow compliance monitoring point for the Picayune Strand Restoration Project.
- **Tie-Back Levee** – a tie-back levee with a 14-foot wide access road is located along the northern extent of the restoration area and is intended to prohibit flow to the north during pump operations. The eastern tie-back levee is approximately 11,760 lineal feet extending from the pump station site eastward to Basil Road, which is adjacent to the Prairie Canal area. The western tie-back levee is primarily a north-south levee located adjacent to existing roadways, Merritt Boulevard and 66<sup>th</sup> Avenue SE. This levee, which is approximately 11,030 feet in length, begins at the pump station site and ends west of Merritt Boulevard on 66<sup>th</sup> Avenue SE. The levee elevation varies from 14.0 to 15.0 ft. NAVD with the highest section near the pump station site.
- **Borrow Canal** – this borrow area, which parallels the tie-back levee, is located north of the east tie-back levee and west of the west tie-back levee, essentially outside of the restoration area. The borrow area provides the material for the tie-back levee, is non-continuous and has a maximum bottom elevation of 6.0-ft. to 7.0 ft. NAVD.
- **Spreader Berm/Basin and Weirs** – approximately 3,500 lineal feet of spreader berm oriented in an east-west direction connects to the tie-back levees on either side of the pump station site to create a spreader basin. Existing vegetation within the spreader basin will be removed. The pump station discharges into this spreader basin, which fills and overflows into the restoration area via multiple concrete weirs (S-488A through S-488I) with varying widths and elevations. Overflow weirs S-488A and S-488B are at elevation 10.0-ft. NAVD with a width of 150 feet; secondary weirs S-488C, S-488D and S-488F through S-488I are all 45 feet wide at elevation 9.5-ft. NAVD; and the primary weir, S-488E, is 65 feet wide with an elevation of 9.0-ft. NAVD. A distribution canal located on the interior of the spreader basin improves the distribution of flow while providing material for the berm construction.
- **Borrow/Distribution Canals** – this canal (or distribution channel), which extends eastward from the spreader berm near W-9 along the south side of the eastern tie-back levee, will improve the distribution of

water to the east side of the restoration area. This canal is shallow with a maximum bottom elevation of 8.0-ft. NAVD and gradual side slopes of 6:1.

- **Road Removal** – removal and degradation of existing roadways (except primary access roads), tram roads, berms and vegetation throughout the Picayune Strand Restoration Area is required in order to restore the hydrology of the area to a more natural sheet flow regime. Clearing of vegetation extends for approximately 125 feet on either side of the centerline of the access roads depending on the location of the existing berms. Asphalt will be removed and either hauled offsite or stockpiled onsite at the Hardy Pit site for use by the Florida Forest Service. For the tram roads, a maximum clearing width of 75 feet will be required to remove the vegetation and degrade the elevated areas. Existing vegetation for the tram roads will remain in the vicinity of the cleared areas. Vegetation for the road clearing activities will either be removed from the site or burned and disposed of on-site.
  - **Road Removal for the Merritt Canal Pump Station Project:** All remaining asphalt roads south of I-75 between the Prairie Canal and the Faka Union Canal, with the exception of the primary access roads (Berson Avenue/52<sup>nd</sup> Ave SE, Francis Street and Stewart Boulevard), will be degraded to natural grade. Primary access roads within the restoration area will still require removal of the asphalt material and clearing of vegetation. For Stewart Boulevard between Patterson Boulevard and the Merritt Canal, the asphalt was previously removed during the initial phases; however, the road section between the Merritt Canal and the Faka Union Canal will require removal of the asphalt. Refer to Figure 1 and the Post Restoration Road Plan for the specific road classes and locations.
  - **Removal of Tram Roads (Prairie Canal to Faka Union Canal):** Tram roads south of I-75 between Prairie Canal and the Faka Union Canal will be degraded to natural grade. The majority of these elevated tram roads are identified on Figure 1. Additional tram roads or berms within this corridor that may be identified during construction, or at a later date, are also included in this authorization.
  - **Culverts for Primary Roads in the Restoration Area:** Since primary roads will remain elevated and restrict natural flow patterns, three 30” culverts with endwalls and sumps will be installed at 11 locations under Stewart Boulevard from the Patterson Boulevard west to the Faka Union Canal to allow sheet flow to continue south.
- **Pump Station Access Road/Berson Road** – this 24-foot wide stabilized access road, which is primarily an improved Berson Road (52<sup>nd</sup> Avenue SE), begins approximately 1,700 feet west of Merritt Boulevard and continues east to Francis then south to the pump station site. The stabilized access road within the pump station site is a new section. The total length of the access road is approximately 3,980 feet. The existing roadside swales along Berson Road and Francis will remain.
- **Canal Plugs** – earthen canal plugs, with a minimum length 100 feet per plug, are located within the Merritt Canal and the south section of the Prairie Canal at the intersection of the roads with the canals. The existing spoil material along the top of bank on either side of the Merritt and Prairie Canals is the primary source of material for the canal plugs. The Merritt Canal plugs begin at 56<sup>th</sup> Avenue SE and continue south to 134<sup>th</sup> Avenue South with additional plugs in the east-west section of the Merritt Canal east of the Faka Union Canal. For the Prairie Canal, earthen plugs, which are located approximately 1,300 feet apart, begin west of the southernmost existing plug and continue to the west, then south, then west to where the Prairie Canal intersects the Merritt Canal. Plugs may not exist at every location depending on fill availability; however, all spoil material along the canals within the project limits will be returned to the canal. Additionally, an existing farm ditch located between the Merritt Canal and the Prairie Canal will be completely backfilled to natural grade.
- **Demolition of Structures and Bridges** – two control structures, the Lucky Lake Weir and the Merritt1 Weir, and three bridges within the Merritt Canal will be demolished as part of the restoration efforts for the Merritt Canal Pump Station.

- **I-75 Temporary Access Road** – approximately 280 feet of road for a new access ramp (one-way) from the outer eastbound lane of I-75 into the project. This ramp connects to Everglades Boulevard through restoration of an existing limerock road. Dual 24” culverts under the road connect an existing culvert from the east to an existing ditch to the west with incidental filling and regrading on either side of the road.

## 2. **Faka Union Canal Pump Station and Road Removal Project**

The Faka Union Canal Pump Station and the associated road removal for the Picayune Strand, as identified in Figure 1, consist of the following individual components:

- **Faka Union Canal Pump Station (S-487)** – this facility will pump water from the Faka Union Canal into a spreader basin for release into the downstream restoration area. The S-487 pump station is comprised of three (3) 100 cfs electrical pumps and five (5) 470 cfs diesel pumps for a total capacity of 2,650 cfs; however, the maximum design flow for flood protection is 2,350 cfs using the five (5) high flow pumps. Dry detention areas are provided for water quality treatment of run-off from the paved areas around the station. Upstream of the S-487 pump station is an inflow compliance monitoring point for the Picayune Strand Restoration Project.
- **Tie-Back Levee** – a tie-back levee with a 14-foot wide access road is located along the northern extent of the restoration area and is intended to prohibit flow to the north during pump operations. The eastern tie-back levee is approximately 5,680 lineal feet extending from the pump station site to the west end of the Merritt tie-back levee along the south side of 66th Avenue SE. The western tie-back levee, which is approximately 7,800 lineal feet, is primarily located along the south side of 66<sup>th</sup> Avenue SE until Everglades Boulevard where it jogs north to the south side of 64<sup>th</sup> Avenue SE, then continues east to the future Miller Canal Pump Station site. The levee elevation varies from 15.3 to 16.0-ft. NAVD with the highest section near the pump station site.
- **Borrow Canal** – this borrow area, which parallels the tie-back levees on the north side, is essentially located outside of the restoration area. The borrow area provides the material for the tie-back levee, is non-continuous and has a maximum bottom elevation of 5.0-ft. NAVD.
- **Spreader Berm/Basin and Weirs** – approximately 9,290 lineal feet of spreader berm oriented in an east-west direction connects to the tie-back levees on either side of the pump station site to create a spreader basin. Existing vegetation within the spreader basin will be removed. The pump station discharges into this spreader basin, which fills and overflows into the restoration area via multiple concrete weirs (S-487A through S-487T) with varying widths and elevations. All of the weirs are all 80 feet wide at elevation 9.5-ft. NAVD (secondary weirs) with the exception of the following: the overflow weirs, S-487D, S-487G, S-487N and S-487R, are at elevation 10.0-ft. NAVD with a width of 110 feet and the S-487H weir is 45 feet wide with an elevation of 10.0-ft. NAVD. A distribution canal located on the interior of the spreader basin improves the distribution of flow while providing material for the berm construction.
- **Borrow/Distribution Canal** – this canal (or distribution channel), which extends eastward from the spreader berm near the S-487T weir and adjacent to the tie-back levee, will improve the distribution of water toward the east. This canal is shallow with a maximum bottom elevation of 6.0-ft. NAVD and gradual side slopes of 6:1.
- **Road Removal** – Activities associated with the road removal for the Faka Union Canal project will be the same as the Merritt Canal as outlined above.
  - **Road Removal for the Faka Union Canal Pump Station Project:** All remaining asphalt roads south of I-75 and between the Faka Union Canal and Miller Canal, with the exception of the primary access roads (Berson Avenue/52<sup>nd</sup> Avenue SE, Everglades Boulevard and Naomi Street) will be degraded to

natural grade. Primary access roads within the restoration area will still require removal of the asphalt material and clearing of vegetation. Refer to Figure 1 for the specific road classes and locations.

- **Removal of Tram Roads (Faka Union Canal to Miller Canal):** Tram roads south of I-75 between the Faka Union Canal and Miller Canal will be degraded to natural grade. The majority of these elevated tram roads are identified on Figure 1. Additional tram roads or berms within this corridor that may be identified during construction, or at a later date, are also included in this authorization.
  - **Culverts for Primary Roads in the Restoration Area:** Since primary roads will remain elevated and restrict natural flow patterns, three (3) 30" culverts will be installed at eight (8) locations under Stewart Boulevard between Everglades Boulevard and the Faka Union Canal to allow sheet flow to continue south. Three (3) 30" culverts will also be installed under Everglades Boulevard at eleven (11) locations between Stewart Boulevard and 84<sup>th</sup> Avenue SE to allow sheet flow to continue west. All culverts will have endwalls and sumps.
  - **Pump Station Access Road (Berson Road and Naomi Street)** – this 24-foot wide stabilized access road, which is an improved Berson Road (52<sup>nd</sup> Avenue SE), begins at Everglades Boulevard and continues east approximately 2.6 miles to the terminus of the improved road section completed under the Merritt Canal project. Naomi Street, which is located along the east side of the Faka Union Canal, provides an access road to the pump station from Berson Road. This stabilized access road is approximately 7,770 feet long. The existing roadside swales along Berson Road will remain and Naomi Street will have swales along the east side of the road.
  - **Demolition of Structures and Bridges** – the FU3 Weir within the Faka Union Canal will be demolished as part of the restoration efforts following testing and commission of the Faka Union Canal Pump Station.
3. **Miller Canal Pump Station and Road Removal Project**  
The Miller Canal Pump Station and the associated road removal for the Picayune Strand, as identified in Figure 1, consist of the following individual components:
- **Miller Canal Pump Station (S-486)** – this facility will pump water from the Miller Canal into a spreader basin for release into the downstream restoration area. The Miller pump station is comprised of two (2) 75 cfs low-flow pumps and six (6) 235 cfs pumps (with one 75 cfs and one 235 cfs unit serving as a back-up pump) for a capacity of 1,250 cfs and 8 bays. Dry detention areas are provided for water quality treatment of run-off from the paved areas around the station. Upstream of the pump station is an inflow compliance monitoring point for the Picayune Strand Restoration Project.
  - **Tie-Back Levee** – a tie-back levee with a 14-foot wide access road is located along the northern extent of the restoration area and is intended to prohibit flow to the north during pump operations. The eastern tie-back levee will be extended for approximately 2,800 lineal feet to meet the western end of the Faka Union tie-back levee; this construction will follow along the south side of 64<sup>th</sup> Avenue SE and will complete the entire 10,600 lineal feet tie-back levee connection between the Miller and Faka Union pump stations. The western tie-back levee is approximately 6,000 lineal feet extending from the west side of the pump station, along the south side of 64<sup>th</sup> Avenue SE.
  - **Spreader Berm/Basin and Weirs** – approximately 7,200 lineal feet of spreader berm oriented in an east-west direction connects to the tie-back levees on either side of the pump station site to create a spreader basin. Existing vegetation within the spreader basin will be removed. The structured spreader system consists of a spreader berm that is notched by distribution weirs and an east-west distribution canal. The spreader berm and weirs have been designed to allow maintenance vehicles to pass along the top of the structure during the dry season or times of low flow.

- **Access Road** – access to the site will be directly from a new road constructed along 62<sup>nd</sup> Avenue SE from Everglades Boulevard.
- **Private Lands Drainage Canal** – a realigned Private Lands Drainage Canal will provide existing levels of drainage to the community located northwest of the pump station. The existing drainage canal will be interrupted with the design of the tieback levee, requiring the realignment. The new canal will be 4,000 feet long, have a 25 foot base width, a 1 on 3 side slope and 9 foot depth. Design is based on current configuration of the existing canal and will discharge into the Miller Canal north of the pump station.
- **Road Removal** – activities associated with the road removal for the Miller Canal project will be the same as the Merritt Canal as outlined above.
  - **Road Removal for the Miller Canal Pump Station Project:** All remaining asphalt roads south of I-75 and west of Miller Canal, as shown in Figure 1, with the exception of the primary access roads will be degraded to natural grade. Primary access roads within the restoration area will still require removal of the asphalt material and clearing of vegetation. Refer to Figure 1 for the specific road classes and locations.
  - **Removal of Tram Roads:** Remaining tram roads south of I-75 will be degraded to natural grade. The majority of these elevated tram roads are identified on Figure 1. Additional tram roads or berms within this corridor that may be identified during construction, or at a later date, are also included in this authorization.
  - **Culverts for Primary Roads in Restoration Area:** Two (2) 72” culverts will be installed along the Private Lands Drainage Canal.

#### CONCEPTUALLY APPROVED PROJECT COMPONENTS:

The following components are conceptually approved based on the information submitted to the Department as part of the application process. A modification to this permit to authorize the construction activities associated with these features, or a subset of these features, or additional protection features, may be required depending on the results of the additional hydrologic and hydraulic modeling effort associated with project assurances. As required in General Condition No. 2, the Department shall be consulted upon any changes to the project requirements as a result of this hydrologic and hydraulic modeling effort to determine whether a modification to the permit is required. Any modification to this permit resulting through such consultation shall be required prior to construction of said conceptually approved features and/or interim operations of the project commencing.

- **Canal Plugs** – earthen canal plugs, with a minimum length 100 feet per plug, will be located within the Faka Union and Miller Canals at the intersection of the roads with the canals. The existing spoil material along the top of bank on either side of the canals is the primary source of material for the canal plugs. The Faka Union Canal and Miller Canal plugs begin at 70<sup>th</sup> Avenue SE and continue south to 128<sup>th</sup> Avenue SE/Lynch Boulevard. Plugs may not exist at every location depending on fill availability; however, all spoil material along the canals within the project limits will be returned to the canal. Special canal plugs that will be constructed under the tie-back levee and spreader berm along with backfilling of the canal from the tie-back levee north to the intake canal are authorized and are not subject to this conceptual authorization.
- **Demolition of Structures and Bridges** – the FU2 Weir and two bridges within the Faka Union Canal will be demolished as part of the restoration efforts for the Faka Union Canal Pump Station project in conjunction with the canal plugging. In addition, the Miller1 and Miller2 weirs and two bridges at Lynch Boulevard and Stewart Boulevard will be demolished, and plugs to allow for continued maintenance access will be installed as part of the restoration efforts of the Miller Canal Pump Station project in conjunction with canal plugging.
- **Road Removal** – The remaining roads not identified in Figure 1 may be removed as part of the restoration efforts of the Miller Canal Pump Station project in conjunction with canal plugging.

**DECLARATION OF REASONABLE ASSURANCES:**

In issuing this permit, the Department finds that the Corps has provided reasonable assurances sufficient to satisfy the requirements of Section 373.1502, F.S. The Department bases these findings on the following documents:

- 1) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project - Merritt Canal Comprehensive Everglades Restoration Plan Permit Application and associated materials (May 2008);
- 2) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project - Merritt Canal Permit Application Request for Additional Information-1 Response Package (August 2008);
- 3) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project, Phase 2 Permit Application Informal Request for Additional Information-2 Response Package (November 2008);
- 4) United States Army Corps of Engineers, Jacksonville District, Final Integrated Project Implementation Report and Environmental Impact Statement Picayune Strand Restoration Project (September 2004);
- 5) United States Fish and Wildlife Service, Picayune Strand Restoration Project Coordination Act Report (November 2004);
- 6) South Florida Water Management District, Picayune Strand Restoration Project Merritt Pump Station & Levees, Canals, and Roads Final Design Report (February 2008);
- 7) South Florida Water Management District, Picayune Strand Restoration Project Basis of Design Report - Pump Stations (July 2005; amended September 2005);
- 8) South Florida Water Management District, Basis of Design Report-LCR Picayune Strand Restoration Project (August 2006);
- 9) South Florida Water Management District, Design Memorandum Picayune Strand Restoration Merritt Pump Station LCR (October 2007);
- 10) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project Biological Assessment (October 2004);
- 11) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project Supplemental Biological Assessment (November 2008);
- 12) United States Fish and Wildlife Service, Picayune Strand Restoration Project Biological Opinion (March 2009);
- 13) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project Environmental Monitoring Plan (August 2009);
- 14) United States Army Corps of Engineers, Jacksonville District, Phase II Cultural Resource Survey Picayune Strand Restoration Project (February 2007);
- 15) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project Interim Operations Water Quality Monitoring Plan (revised January 2012);
- 16) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project Draft Project Operating Manual for Initial Operation of Merritt Canal Pump Station (October 2009);
- 17) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project Draft Project Operating Manual for Initial Operation of Faka Union Canal Pump Station (January 2010);
- 18) Florida Department of Environmental Protection, Picayune Strand Restoration Project Merritt Canal Permit Wetland Impact Supplemental Evaluation (December 2008);



- 19) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project – Merritt Canal Road Removal Modification Comprehensive Everglades Restoration Plan Permit Application and associated materials (April 2009);
- 20) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project – Faka Union Canal Comprehensive Everglades Restoration Plan Permit Application and associated materials (August 2009);
- 21) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project – Faka Union Canal Permit Application Request for Additional Information-1 Response Package (January 2010);
- 22) South Florida Water Management District, Picayune Strand Restoration Project Faka Union Pump Station & Levees, Canals, and Roads Final Design Report (May 2008);
- 23) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project – Faka Union Canal Final Plans and Specifications (May 2010);
- 24) South Florida Water Management District, Phase III Environmental Site Assessment for Southern Golden Gate Estates, Belle Meade, Collier County, Florida (February 2005);
- 25) South Florida Water Management District, Soil Inversion Demonstration Report for Picayune Strand Restoration Project Located Within Southern Golden Gate Estates, Collier County, Florida (August 2006);
- 26) South Florida Water Management District, Interim Corrective Action Report for Picayune Strand Restoration Project, Located Within Southern Golden Gate Estates, Collier County, Florida (September 2007);
- 27) South Florida Water Management District, Soil Removal Plan, SFWMD Gun Range Property, Picayune Strand State Forest, Collier County, Florida (June 2008);
- 28) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project – Miller Canal Road Removal Modification Comprehensive Everglades Restoration Plan Permit Application and associated materials (January 2013);
- 29) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project – Miller Canal Pump Station and Road Removal Construction Phase Wetland Assessment (January 2013);
- 30) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project – Miller Canal Pump Station Modeling Report (January 2013);
- 31) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project – Miller Permit Application Request for Additional Information-1 Response Package (February 2013); and
- 32) United States Army Corps of Engineers, Jacksonville District, Picayune Strand Restoration Project – Miller Canal Final Plans and Specifications (February 2013).

Specifically, there are reasonable assurances, pursuant to Section 373.1502, F.S., that

- “The project component will achieve the design objectives set forth in the detailed design documents submitted as part of the application.” This finding is based on documents on file with the Department, including document 1, document 2, document 3, document 4, document 6, document 7, document 8, document 9, document 16, document 17, document 18, document 19, document 20, document 21, document 22, document 23, document 28, document 29, document 30, document 31, and document 32 in their entirety.
- “State water quality standards, including water quality criteria and moderating provisions, will be met. Under no circumstances shall the project component cause or contribute to violation of state water quality standards.” This finding is based on documents on file with the Department, including document 1, document 2, document 3, document 4, document 13, document 15, document 19, document 20, document 21, document 28, and document 31.

- “Discharges from the project component will not pose a serious danger to public health, safety, or welfare.” This finding is based on documents on file with the Department, including document 1, document 2, document 3, document 4, document 13, document 15, document 19, document 20, document 21, document 28, document 30, and document 31.
- “Any impacts to wetlands or threatened or endangered species resulting from implementation of the project component will be avoided, minimized, and mitigated, as appropriate.” This finding is based on documents on file with the Department, including document 1, document 19, document 20, document 28, document 29, and document 30 in their entirety, with emphasis on letters and e-mail communications between the U.S. Fish and Wildlife Service, document 2, document 3, document 4, document 5, document 10, document 11, document 12, document 18, and document 21, and the information on file with regard to document 18 and document 20.

The Corps agrees to construct the project in accordance with the provisions of this permit, permit application, and associated documentation on file with the Department. To the extent sovereign immunity has been waived under 33 U.S.C. §§ 1323 and 1344(t), the Corps’ agreement to construct the project in accordance with the provisions of this permit and supporting documentation is an enforceable condition of this permit.

The Corps is the federal sponsor of this project. The Corps and its designees are responsible for activities performed during the period of construction and interim operations. If interim operations or additional activities authorized by this permit are performed by any non federal sponsors, then the permit may be transferred in advance of such activities, or an additional authorization may be required. All conditions found herein apply to the Corps.

#### **GENERAL CONDITIONS:**

1. This permit, including its general and specific conditions, shall be construed in light of the February 2006 Interagency Cooperative Agreement for Civil Works Projects (ICA) between the Department and the Corps. As recognized in the ICA, the Department has the authority to include reasonable conditions in this permit. All of the conditions in this permit, both general and specific, are enforceable to the extent sovereign immunity has been waived under 33 U.S.C. §§ 1323 and 1344(t). The ICA is incorporated herein by reference.
2. All activities approved shall be implemented as set forth in the drawings incorporated by reference and in compliance with the conditions and requirements of this document. The Corps shall notify the Department in writing of any anticipated changes in:
  - A. operational plans;
  - B. project dimensions, size, or location;
  - C. ability to adhere to permit conditions;
  - D. project description included in the permit; and
  - E. monitoring plans.

If the Department determines that a modification to the permit is required then the Corps shall apply for and obtain the modification. Department approval of the modification shall be obtained prior to implementing the change, unless the change is determined by the Department to reduce the scope of work from that authorized under the original permit, and will not affect compliance with permit conditions or monitoring requirements.

3. If, for any reason, the Corps does not comply with any condition or limitation specified herein, the Corps shall immediately provide the Department with a written report containing the following information:
  - A. a description of and cause of noncompliance;
  - B. the period of noncompliance, including dates and times;
  - C. the impacts resulting or likely to result from the non-compliance;
  - D. steps being taken to correct the non-compliance; and

E. the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

Compliance with the provisions of this condition shall not preclude the Department from taking any enforcement action allowed under state law with respect to any non-compliance.

4. The Corps shall obtain any applicable licenses, permits, or other authorizations, which may be required by federal, state, local or special district laws and regulations. Nothing herein constitutes a waiver or approval of other Department permits or authorizations that may be required for other aspects of the total project.
5. Nothing herein conveys to the Corps or creates in the Corps any property right, any interest in real property, any title to land or water, constitutes State recognition or acknowledgment of title, or constitutes authority for the use of Florida's sovereign submerged lands seaward of the mean high-water line or an established erosion control line, unless herein provided, and the necessary title, lease, easement, or other form of consent authorizing the proposed use has been obtained from the State.
6. Any delineation of the extent of a wetland or other surface water submitted as part of the application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this authorization or a formal determination under section 373.421(2), F.S., provides otherwise.
7. Nothing herein authorizes any entrance upon or activities on property, which is not owned or controlled by the Corps or local sponsor, or conveys any vested rights or any exclusive privileges.
8. This document or a copy thereof, complete with all conditions, attachments, modifications, and time extensions shall be kept at the work site of the authorized activity. The Corps shall require the contractor to review this document prior to commencement of the authorized activity.
9. The Corps specifically agrees to allow Department personnel with proper identification, at reasonable times and in compliance with Corps specified safety standards access to the premises where the authorized activity is located or conducted for the purpose of ascertaining compliance with the terms of this document and with the rules of the Department and to have access to and copy any records that shall be kept; to inspect the facility, equipment, practices, or operations regulated or required; and to sample or monitor any substances or parameters at any location reasonably necessary to assure compliance. Reasonable time may depend on the nature of the concern being investigated.
10. At least forty-eight (48) hours prior to the commencement of authorized activity, the Corps shall submit to the Department a written notice of commencement of activities indicating the anticipated start date and the anticipated completion date.
11. If historic or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery, or physical remains, are discovered at any time on the project site, the Corps shall immediately stop all activities, which disturb the soil, and notify the Department and the State Historic Preservation Officer.
12. Within a reasonable time after completion of construction activities authorized by this permit, the Corps shall submit to the Department a written statement of completion. This statement shall notify the Department that the work has been completed as authorized and shall include a description of the actual work completed. The Department shall be provided a copy, if requested, of any as-built drawings required of the contractor or survey performed by the Corps.

#### **SPECIFIC CONDITIONS:**

1. **Addresses.** Reports and notices submitted to the Department in accordance with this permit, unless otherwise specified, shall be submitted to the Department's Office of Ecosystem Projects, 3900 Commonwealth Boulevard, MS 24, Tallahassee, Florida, 32399-3000, telephone number (850) 245-3166. Electronic copies of reports and notice required by this permit shall also be sent to [RPPS\\_Comp@dep.state.fl.us](mailto:RPPS_Comp@dep.state.fl.us).

2. **Threatened and Endangered Species.** The permittee shall coordinate with both the Florida Fish and Wildlife Conservation Commission (FWC) and the U.S. Fish and Wildlife Service (FWS) for appropriate guidance, recommendations, and/or necessary authorizations to avoid, minimize, or mitigate impacts to listed species.<sup>1</sup> The Corps shall comply with applicable federal and state law with regard to protected species and agree to consider input from and to comply with any applicable requirements of the FWC to the extent that to do so would not create an irreconcilable conflict with the Corps' federal responsibilities. Should a potential conflict between FWC's requirements and the Corps' federal responsibilities be identified, the Corps shall coordinate with all involved federal and state agencies to determine and implement reasonable alternatives, to the maximum extent practicable, in order to avoid such a conflict. The Corps shall adhere to all the "Terms and Conditions" contained within the Biological Opinion (BO) and any subsequent consultation so as to avoid and mitigate any impacts to the species identified within. In addition, the permittee shall submit an Environmental Protection Plan to the Department, which addresses compliance with the requirements of the BO, prior to commencement of construction activities for each phase of the project in accordance with Specific Condition No. 10.
3. **Contaminated Sites and Residual Agrichemicals.** The permittee shall coordinate with the local sponsor, the South Florida Water Management District (District), and the Department concerning assessment and remediation of any contamination, including agricultural chemical residuals (hereafter collectively referred to as "contamination"), identified within the project footprint. The permittee shall coordinate with the District to redress any contamination within the project footprint so that 1) any detrimental impacts to Threatened or Endangered species are minimized to the maximum extent practicable and 2) state water quality standards are not violated by construction of the project and the interim operations covered by this permit. Any information on identification and delineation of the extent of the contamination shall be promptly provided to the Department. The permittee shall coordinate with the District and provide any District proposed remedial action plan to redress the contamination to the Department no later than 90 days prior to the initial operation or use of the completed project, unless the Department approves an alternative schedule, whichever is earlier. All assessment and remedial activities shall be performed in accordance with applicable Federal and State law. When contamination has been identified in the project footprint, operation of the facility shall not commence until the Department has reasonable assurance that the operation of the project will not cause the contamination to result in a violation of water quality standards for those particular contaminants of concern and that impacts to threatened or endangered species have been sufficiently addressed. If contamination is discovered after initial operations, any operations which may result in a violation of water quality standards shall cease until the permittee coordinates with the District to provide an assessment and remedial action plan for Department at the address listed in Specific Condition No. 1. Operations which may cause or contribute to a violation of water quality standards shall not re-commence until the Department has provided concurrence on the proposed remediation plan.
4. **Wetland Impact and Restoration.** This project is expected to result in permanent and temporary impacts to wetlands within the construction limits with a total impacted area of less than 32 acres of severely degraded wetlands in the Merritt Canal project footprint, less than 4 acres of wetlands in the Faka Union Canal project footprint, and less than 13 acres of wetlands in the Miller Canal project footprint. The project is intended to restore sheetflow which, if implemented successfully, will provide ecologic restoration to the Picayune Strand Restoration Project area and downstream estuaries. Thus, the ecologic restoration from the sheetflow restoration project will offset the functional loss that results from construction. At this time, the Department does not require any mitigation to offset the functional loss of wetland areas. However, if construction or operations are discontinued once impacts have occurred and the project has not been accepted by the local sponsor, the Corps shall coordinate with the Department to obtain a modification to the permit prior to renewal or expiration of the permit to address these impacts. As a result of the modification, the Department may

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<sup>1</sup> For example, the U.S. Fish and Wildlife Service's (FWS's) *Guidelines for Protection of Marine Animals During the Use of Explosives in the Waters of the State of Florida* as included in the *Guidelines for Manatee Conservation During Comprehensive Everglades Restoration Plan Implementation* document (FWS, May 2006).

require restoration or additional activities necessary to offset the functional loss of any impacted wetlands, acknowledging that future federal authorization and appropriations may be required.

5. **Real Estate.** Copies of all real estate authorizations (i.e., right-of-way(s), leases, easements, land certifications by the local sponsor, or other legal agreements that authorize the applicant to perform the activities described herein) shall be provided to the Department, at the address listed in Specific Condition No. 1, prior to initiation of construction or operational activities. All real estate information should include the tract numbers, folio numbers, section/township/range, and the status of the tracts. Construction activities shall not be permitted to commence on properties beyond public rights-of-way where real estate authorizations have not been received.

### **Construction**

6. **Authorized Construction.** This permit allows for the construction of pump stations, spreader berms, tie-back levees, and other activities as outlined in the "Project Components" section of this permit. The permittee shall submit final plans and technical specifications, signed and sealed, to the Department for all authorized components for consistency review at least 60 days prior to initiating construction activities. Upon review of the submitted plans and specifications, the Department will determine whether a permit modification will be required.
7. **Blasting Activities.** Blasting is authorized as part of the construction activities associated with this permit. The activities shall be consistent with the requirements outlined in Specific Condition No. 2.
8. **Road Removal and Canal Plugging.** Road removal and canal plugging for any future phases of the Picayune Strand Restoration Project will be evaluated once a modification request to this permit from the Corps has been received.
  - A. Removal of control structures and canal plugging within the Merritt Canal shall not commence until approval and completion of road removal within the restoration area south of the pump station associated with those activities.
  - B. Removal of control structures and canal plugging within the Faka Union and Miller Canals shall not commence until the Department has reviewed supporting documentation and calculations in order to determine that interim operation of this pump station with the plugs in place will not cause adverse impacts to adjacent properties. The information to be submitted to the Department shall include, at a minimum, the following:
    - i. The hydrologic and hydraulic modeling analysis demonstrating that the full operation of the Merritt Pump Station, Faka Union Pump Station, and Miller Canal Pump Station will not cause significant adverse impacts to existing lands with the canal plugs in place.
    - ii. Modifications to design plans and specifications associated with changes to the limits of canal plugging, as applicable.If the modeling analysis determines that adverse impacts may occur during operations, a modification to this authorization shall be required.
  - C. All asphalt material removed from paved roadways shall be stockpiled outside of the restoration limits within areas that have previously been cleared, such as the Florida Forest Service and Corps designated areas near the Faka Union Pump Station site.
  - D. All spoil material along the canals and ditches will be returned to the canal or ditch to maximize plugging.
  - E. Burned vegetative material, such as large tree trunks, may be placed within open sections of canals between plugs in order to provide additional fill material, and provide some habitat for aquatic organisms.

9. **Instructions to Contractors.** The permittee shall ensure that the permit conditions are explained to all construction personnel working on the project component and shall give a copy of this permit to each contractor and subcontractor before the authorized work begins. Prior to construction of each project phase, the permittee shall schedule a pre-construction meeting for attendance by the contractor(s), and representatives from the Corps, the Department, and other environmental regulatory agencies. The Department shall receive at least two weeks' notice of the meeting. Within 30 days from the Notice-to Proceed to the Contractor or upon Corps approval of a proposed construction schedule, whichever occurs first, the Corps shall provide the proposed construction schedule to the Department. Any modified schedules shall be provided to the Department at the earliest possible date.
10. **Environmental Protection Plan and Cultural Resource Protection Plan.** The permittee shall develop an Environmental Protection Plan and submit the plan to the Department to the addresses listed in Specific Condition No. 1, within 30 days prior to commencement of any construction activities. The Department will review and provide a determination of whether or not the plan is consistent with Department statutes and rules. In accordance with Specific Condition No. 2, the plan shall describe the methods used to protect environmental resources, including fish and wildlife, to ensure that there shall be no unauthorized impacts to listed species as a direct result of construction activities. In accordance with Specific Condition No. 4, the plan should also describe how impacts to wetland resources will be avoided and minimized, including limiting temporary wetland impacts to the extent practicable. Additionally, in order to protect the cultural resources located within the project area, the Corps shall require the contractor to develop a Cultural Resource Protection Plan, which may be included with the Environmental Protection Plan, to ensure that there will be no unauthorized impacts to cultural resource sites during construction. This plan should include on-site monitoring by a professional archaeologist and submittal of a monitoring report by the archaeologist to the State Historic Preservation Officer at completion of the project.
11. **Site Inspections and Construction Meetings.** Throughout the construction phases of the Picayune Strand Projects, the Department intends to conduct periodic site inspections to ensure permit compliance and to monitor progress. Upon, or prior to, receipt of the written statement of completion and certification, the Department shall conduct substantial and final inspections as defined in the Technical Specifications for the project. It is anticipated that this activity may be completed in conjunction with other regulatory agencies and may be accomplished in stages as the project progresses.
12. **Construction Quality Assurance/Control.** For quality control purposes, the Corps' Contracting Officer shall ensure that quality control testing and inspections occur during all phases of construction consistent with the accepted Contractor Quality Control Plan as outlined in the technical specifications.
13. **Construction Best Management Practices (BMPs).** At all times during the construction, the permittee shall use best management techniques for erosion and sedimentation control. All graded areas shall be stabilized and vegetated immediately after construction to prevent erosion. The permittee shall take all reasonable precautions to minimize the suspension and transport of soils, levee materials, and roadway materials into waters adjacent to or downstream of the construction site. Prior to commencement of construction activities for each project phase, the permittee shall submit a plan to the Department, which details the use of sediment controls to minimize the suspension and transport of soils, levee materials, and roadway materials into water adjacent to or downstream of the construction site, for review for consistency with Department statutes and rules. This plan is usually included as part of the Environmental Protection Plan mentioned in Specific Condition No. 10. Once installation of the erosion controls identified in the submitted plan has been completed, the permittee shall notify the Department at the address listed in Specific Condition No. 1. The barriers shall remain in place until all adjacent construction activities are complete.
14. **Adjacent Wetlands.** Wetlands adjacent to construction activities shall be staked and fenced off with construction fencing or other effective physical barriers to prevent encroachment into these wetlands prior to the commencement of construction. All areas of exposed soils shall be isolated from wetlands and surface waters to prevent erosion and deposition of sediments into these wetlands during permitted construction activities. All

excavated or dredged material shall be placed strategically to prevent the transport of any material into wetlands and surface waters both during and after completion of the construction. Upon completion of the barrier installation, the Corps shall notify the Department at the address listed in Specific Condition No. 1. The barriers shall remain in place until all adjacent construction activities are complete.

This condition shall apply to wetlands adjacent to the construction of permanent infrastructure, i.e., the pump stations, tie-back levees, borrow canals, spreader berms/basin & weirs, and the borrow/distribution canals. Unless further implementation guidance is provided by FDEP, this condition shall not apply to wetlands adjacent to enhancement activities, i.e., road removal and tram road removal.

15. **Vegetation Removal and Temporary Wetland Impacts.** Limits and extent of clearing and grubbing associated with construction and road removal activities shall consider minimizing or avoiding impacts to native vegetation, either within or immediately adjacent to the project area.
16. **Water Quantity, Water Quality, and Flooding Impacts.** The Corps shall be responsible for ensuring that the project is constructed and operated in the interim so as not to adversely affect adjacent lands outside the Picayune Strand project boundary with regards to water quantity, water quality, and/or flooding.
17. **NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities.** The issuance of this Permit does not constitute coverage under the National Pollutant Discharge Elimination System (NPDES) Generic Permit for Stormwater Discharges from Large and Small Construction Activities (CGP) pursuant to Rule 62-621.300(4)(a), F.A.C. Permittee is advised to contact the Department's NPDES Stormwater Program at (850) 245-7522 or toll free at (866) 336-6312 or to download application information at <http://www.dep.state.fl.us/water/stormwater/npdes/construction3.htm#permit> prior to the commencement of any construction.
18. **NPDES General Permit for the Discharge of Produced Ground Water from any Non-Contaminated Site Activity.** The issuance of this permit does not constitute coverage under the NPDES General Permit for the Discharge of Produced Ground Water from any Non-Contaminated Site Activity pursuant to Rule 62-621.300(2), F.A.C. or any other NPDES General Permit. If any offsite discharges will occur due to construction dewatering activities, then coverage under the aforementioned General Permit may be required and the permittee is advised to review Rule 62-621.300(2), F.A.C. Before discharge of produced ground water can occur, analytical tests on samples of the proposed discharge water shall be performed to determine if contamination exists. If the analytical results comply with applicable criteria for use of the General Permit, then a short summary of the proposed activity and copy of the analytical tests shall be sent to the addresses in Specific Condition No. 1 within one week after discharge begins, and the permittee may proceed with the project component while abiding by all conditions of the General Permit.
19. **Water Use Permits.** For activities that require a water use permit from the State, such as, but not limited to, construction dewatering, industrial use of surface or ground water, and public water supply wells, the Corps will require that their contractor(s) submit the required application, fees and applicable site-specific information to the District for authorization in accordance with the requirements of Rules 40E-2 and 40E-20, F.A.C., and as follows:
  - A. **Water Supply Wells.** For activities that require temporary use of a water supply well during construction (e.g. construction trailers), the Corps will require that their contractor(s) obtain all required permits. If the water supply well will serve permanent facilities (e.g., pump station), the Corps will direct the contractor to also submit site-specific information to FDEP OEP. Prior to transfer of the facility to the local sponsor for permanent operations, it is the local sponsor's responsibility to furnish to FDEP OEP a permit request and copies of the well permit for review and authorization by the Department under a separate action.
  - B. **Industrial Use of Surface or Ground Water.** For activities that require industrial use of surface or ground water within or adjacent to the project (e.g. soil-cement mixtures or equipment wash down), the Corps will require that their contractor(s) obtain all required permits. For larger or more complex facilities,

the Corps will require the contractor, upon submission to District, a copy of the application and site-specific information is also provided to FDEP OEP.

- C. **Construction Dewatering.** For activities that require removal of surface or ground water as part of construction, the Corps will require that their contractor(s) will obtain all required permits. If the contractor intends to commence dewatering activities under the conditions of the “No Notice” until a permit is issued, the contractor shall submit a notification to District and FDEP OEP accordingly. The Corps will require the contractor, upon submission to District, to also provide a copy of the application and site-specific information to FDEP OEP. In accordance with General Condition No. 2, the Corps shall also ensure that all proposed modifications to permitted activities proposed by their contractor(s) are submitted to District and FDEP OEP through the same process. All dewatering authorizations or modifications to existing authorizations that may be issued by the District for projects also permitted by FDEP OEP are subject to review for determination of consistency with Department rules and statutes prior to the issuance of authorization from the District.
20. **Water Quality Standards.** Under no circumstances shall the construction or interim operations of the Picayune Strand Project or a project component cause or contribute to violation of state water quality standards. The permittee shall comply with all applicable state water quality standards described in Chapter 62-302, F.A.C.
21. **Turbidity Monitoring.** Effective means of turbidity control, such as, but not limited to, turbidity curtains shall be employed during all construction activities that may create turbidity so that turbidity shall not exceed 0 nephelometric turbidity units (NTU) above background in receiving waters that are classified as Outstanding Florida Waters (OFW), and 29 NTUs above background in other Class III receiving waters. Turbidity controls shall be maintained around the work area in order to confine turbidity generated by the construction activities within the work area. All turbidity control devices and/or preventive operation procedures shall remain in place until all turbidity has subsided and the turbidity level at the construction zone meets state standards.

### Sampling Protocols

- A. Sampling and analyses shall be performed as required by Chapter 62-160, F.A.C (FDEP Standard Operating Procedures (FDEP-SOP), located at <http://www.dep.state.fl.us/water/sas/sop/sops.htm>). Turbidity monitoring equipment and personnel trained to use it shall be available on site at all times during construction activities that could result in project-generate turbidity levels beyond the work area that have the potential to be discharged to the receiving water body. During construction, the Corps shall monitor turbidity levels at least twice daily, with samples taken at a minimum of four hours apart, as follows:
1. Merritt Canal Pump Station Project:
    - i. **Background Turbidity Sampling:** Samples shall be taken within the Merritt Canal, at least 100 feet upstream of the construction work area and clearly outside of the influence of construction activities.
    - ii. **Compliance Turbidity Sampling:** Samples shall be taken within the Merritt Canal, downstream of the construction work area directly outside of the turbidity curtains and within the densest portion of any visible turbidity plume. If there are multiple work zones where construction is creating a visible turbidity plume, each construction activity shall be monitored separately.
    - iii. **Compliance Turbidity Sampling – Canal Plugging:** Samples shall be taken within the Merritt Canal, downstream of the canal plugging activity directly outside of the turbidity curtains and within the densest portion of any visible turbidity plume. During canal plugging for the north-south section, samples shall be taken at the southern end of Merritt Canal at the confluence with the Prairie Canal from the east. During canal plugging for the east-west section, samples shall be



taken at the westernmost end of the Merritt Canal at the "T". Turbidity levels shall not exceed 0 NTUs above background at the FU1 weir at any time.

2. Faka Union Canal Pump Station Project:

- i. Background Turbidity Sampling: Samples shall be taken within the Faka Union Canal, at least 100 feet upstream of the construction work area and clearly outside of the influence of construction activities.
- ii. Compliance Turbidity Sampling: Samples shall be taken within the Faka Union Canal, downstream of the construction work area directly outside of the turbidity curtains and within the densest portion of any visible turbidity plume. If there are multiple work zones where construction is creating a visible turbidity plume, each construction activity shall be monitored separately.
- iii. Compliance Turbidity Sampling – Canal Plugging: Samples shall be taken within the Faka Union Canal, downstream of the canal plugging activity directly outside of the turbidity curtains and within the densest portion of any visible turbidity plume. During canal plugging, samples shall be taken at the southern end of Faka Union Canal at the confluence with the Miller Canal from the west. Turbidity levels shall not exceed 0 NTUs above background at the FU1 weir at any time.

3. Miller Canal Pump Station Project:

- i. Background Turbidity Sampling: Samples shall be taken within the Miller Canal, at least 100 feet upstream of the construction work area and clearly outside of the influence of construction activities.
- ii. Compliance Turbidity Sampling: Samples shall be taken within the Miller Canal, downstream of the construction work area directly outside of the turbidity curtains and within the densest portion of any visible turbidity plume. If there are multiple work zones where construction is creating a visible turbidity plume, each construction activity shall be monitored separately.
- iii. Compliance Turbidity Sampling – Canal Plugging: Samples shall be taken within the Miller Canal, downstream of the canal plugging activity directly outside of the turbidity curtains and within the densest portion of any visible turbidity plume. During canal plugging, samples shall be taken at the southern end of Faka Union Canal at the confluence with the Miller Canal from the west. Turbidity levels shall not exceed 0 NTUs above background at the FU1 weir at any time.

**Turbidity Exceedance**

B. The following measures shall be taken whenever project-generated turbidity levels exceed the standard stated above in any receiving waters:

1. Immediately cease all project activities contributing to elevated turbidity;
2. Verbally notify the Department within 24 hours and submit follow up correspondence to [RPPS\\_Comp@dep.state.fl.us](mailto:RPPS_Comp@dep.state.fl.us) on the next consecutive business day.
3. Identify the possible cause of the violation;
4. Modify work procedures that may have contributed to the violation such as installing additional turbidity or erosion protection devices; repairing any non-functional turbidity containment devices, stabilizing exposed soils, and checking calibration of the meter.

5. Work shall not resume until the activities can be conducted in compliance with the turbidity standards. Please provide notification to the Department at [RPPS\\_Comp@dep.state.fl.us](mailto:RPPS_Comp@dep.state.fl.us) when compliance is achieved. If compliance is achieved after normal business hours then please notify the Department on the next consecutive business day.

### **Monitoring Logs and Reports**

- C. Turbidity monitoring results shall be compiled daily and summarized quarterly (every three calendar months) by project component beginning with the first calendar month in which construction or maintenance activities occur that could generate turbidity in receiving waters and continuing until all construction, dredging, stabilization and/or excavation is completed. Monitoring data with supporting documents shall be submitted to the Department quarterly, to the address identified in Specific Condition No. 1 or by email to the [RPPS\\_Comp@dep.state.fl.us](mailto:RPPS_Comp@dep.state.fl.us). If no construction activities occur that could generate turbidity and the project site has been stabilized, during the entire or a specific portion of the quarterly monitoring period, this shall be noted in the report and include information regarding continuation of monitoring.

1. Daily monitoring logs shall clearly identify the following information:

- i. Dates and time of sampling and analysis;
- ii. Name of individual collecting samples;
- iii. Identification of the specific instrument unit(s) used for sample collection, include brand and model;
- iv. Measurement value and reporting units;
- v. Water depth;
- vi. Depth of sample;
- vii. Weather conditions;
- viii. Water level stage in the canal or water body and direction of flow;
- ix. Clear description of project component activities taking place at the time of sampling that may have contributed to turbidity;

2. Quarterly reports shall include the following information:

- i. Project name and current permit number;
- ii. Summary of construction activities that have taken place (e.g., construction progress meeting minutes, SWPPP Inspection Reports, or other relevant information may be submitted to fulfill this requirement);
- iii. Statement describing the methods used in collection, handling, storage, and analysis of the samples;
- iv. Statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection, and accuracy of the data;
- v. Statement regarding sampling results, the net difference between compliance and background results, and whether the turbidity levels are in compliance;
- vi. Summary of any significant compliance issues and how they were resolved;
- vii. Statement which explains any gaps in sampling activity (e.g., contractor not onsite, work shut down due to weather conditions);
- viii. Map indicating the sampling locations and construction activity taken place during the reporting period;
- ix. Signature and statement of authenticity by a properly trained individual indicating that the instrument meets the outlined specifications and has been calibrated.

If no construction or maintenance activity occurs that could contribute to turbidity generation in receiving waters and the project site(s) are stabilized such that a rain event will not generate turbidity in receiving

waters during the entire quarterly monitoring period(s), the Permittee may submit a written statement to the [RPPS\\_Comp@dep.state.fl.us](mailto:RPPS_Comp@dep.state.fl.us) in lieu of a quarterly report.

22. **Future Phases.** This permit does not authorize any construction or long-term operational activities associated with future portions of the Picayune Strand Restoration Project. Future phases, including operations, shall require separate review and approval by the Department.

### **Interim Operations**

23. **Project Operation Manual.** The Corps shall develop the latest version of the Project Operating Manual (POM) in accordance with the CERP Guidance Memorandum and shall submit that version of the POM for a determination of consistency with Department statutes and rules at least 60 days prior to initiation of interim operations of each project phase.
24. **Interim Operations Period.** Interim operations for each Pump Station project includes testing and commissioning of the pumps and the operational testing and monitoring period for the pump station facility. During the interim operations period, the permittee will be the entity ultimately responsible for operations, possibly with the assistance of third parties. If it is anticipated that Interim Operations will extend beyond the timeframes outlined in the Project Partnership Agreement or Transfer Agreement with the local sponsor, the Corps shall coordinate with the Department to determine if an additional authorization in the form of a modification to this permit or a separate operational permit may be required.
25. **Cultural Resources Consultation for Operations.** Prior to initiation of interim operations, the Department shall receive verification that the State Historic Preservation Officer has been consulted with and that SHPO consultation is complete for the operational phase of the project.
26. **Interagency Team for Operations.** Prior to initiation of interim operations, the permittee shall schedule a meeting with an interagency team, such as the Project Delivery Team (PDT), to review current site and meteorological conditions. Following the initial meeting, this interagency team may decide to meet at regular intervals in order to provide guidance and input on operational considerations during this interim period. The Department shall be notified and invited to participate on this interagency team.
27. **Initial Pump Testing and Maintenance.** In order to ensure operational readiness, testing and maintenance operations may be required by the construction contractor and/or permittee for the pumps authorized by this permit. Operational readiness requirements of the pump stations include operation of the pumps for approximately two to four hours per month, as necessary, to maintain their mechanical integrity. Operational water quality monitoring is not required during the initial pump testing period or during maintenance operations. However, the permittee shall include all other monitoring results, such discharge flows and loads during interim operations, as a part of the annual monitoring requirements of this permit.
28. **Public Health, Safety, and Welfare.** Pursuant to 373.1502, F.S., discharges from the Picayune Strand Restoration Project components shall not pose a serious danger to public health, safety, or welfare.

### **Monitoring**

29. **Monitoring of Upstream Groundwater and Surface Water Levels.** During interim operations, the Corps shall obtain, analyze, and summarize data from groundwater monitoring wells and surface water level stations within the contributing watersheds to Merritt, Faka Union, and Miller Canals, in order to demonstrate that pump station operations are not adversely affecting upstream wetlands. The pertinent data shall be compiled into an annual report (see Specific Condition 36(b)(iv and vi)), and include analysis of seasonal groundwater and surface water levels related to upstream wetlands, comparing data from before and after commencement of interim operations. The groundwater wells and surface water stations to be monitored include but are not limited to the SFWMD groundwater monitoring wells within Picayune Strand (listed below), as well as any other available data from groundwater wells or wetland surface water stations within the contributing

watershed, including the Florida Panther National Wildlife Refuge. The well identification numbers are listed below:

**Merritt Canal Pump Station (S-488):**

Groundwater Wells:

- a. SGT1W4
- b. LUCKW
- c. LUCKE
- d. SGT1W5

Surface Water Wells:

- e. MRTI75

**Faka Union Canal Pump Station (S-487):**

Groundwater Wells:

- a. SGT1W4
- b. NGT2W4
- c. NGT2W3
- d. NGT2W2
- e. NGT1W2
- f. NGT1W3
- g. NGT1W4

Surface Water Wells:

- h. FAKI75
- i. FU4

**Miller Canal Pump Station (S-486):**

Groundwater Wells:

- a. NGT1W1
- b. SGT1W1
- c. SGT1W2
- d. SGT2W1
- e. SGT2W2

Surface Water Wells:

- f. MLRI75

30. **Water Quality Monitoring.** The permittee shall collect and analyze surface water quality monitoring data in accordance with the Interim Operations Water Quality Monitoring Plan (Document No. 15) using the parameters and frequencies identified in Table 1 of this permit and at the sites shown on Figure 1 of the Interim Operations Water Quality Monitoring Plan. Any modifications to this document shall be submitted to the Department for review and for determination as to whether a modification to the permit is required.

- a. *Quality Assurance and Quality Control.* Sampling and monitoring data shall be collected, analyzed, reported and retained in accordance with Chapter 62-160, F.A.C. Any laboratory test required by this permit shall be performed by a laboratory that has been National Environmental Laboratory Accreditation Program (NELAP)-accredited (primary or secondary) with the Florida Department of Health (DOH) under Chapter 64E-1, F.A.C., where such certification is required by Rule 62-160.300, F.A.C. The laboratory must be certified for all specific method/analyte combinations that are used to comply with this permit. The analytical method used shall be appropriate so as to determine if the sample complies with Class III

surface water quality standards as specified in Chapter 62-302, F.A.C. All field activities including on-site tests and sample collection, whether performed by a laboratory or another organization, must follow all applicable procedures described in DEP-SOP-001/01 (December 3, 2008). Alternate field procedures and laboratory methods may be used if they have been approved according to the requirements of Rules 62-160.220, and 62-160.330, F.A.C.

- b. *Method Detection Limits.* The sample collection, analytical test methods, and method detection limits (MDLs) applicable to this permit shall be performed and reported in accordance with Rule 62-4.246, F.A.C. A list of Department established analytical methods, and corresponding MDLs and practical quantification limits (PQLs), which is titled "Florida Department of Environmental Protection Table as Required by Rule 62-4.246(4) Testing Methods for Discharges to Surface Water" dated April 25, 2006, is available from the Department on request. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values, and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. More stringent MDLs and PQLs may be necessary for specific parameters. If required, these will be identified in the permit monitoring table (Table 1).
31. **Removal of Monitoring Requirements.** Upon demonstration that a specific parameter(s) is not present or is found consistently in compliance with Class III water quality standards, the permittee may request a modification to the monitoring program as appropriate. A minimum of one year's worth of data, for those parameters being sampled quarterly or more frequently, will be required prior to the Department approving any modification to the monitoring program. The Department may approve a reduction of the monitoring frequency or waive the monitoring requirement for parameters that consistently are reported as in compliance with state water quality standards.
  32. **Addition of Monitoring Requirements.** If the Department has reason to believe that additional monitoring may be required or parameters exist that may cause or contribute to water quality violations or degradation of receiving waters, additional monitoring or parameters shall be added to the monitoring section of this permit through a permit modification.

### **Reports and Notices**

33. **Facility Inspection Plan and Reports.** No less than 30 days prior to initiation of interim operations of each pump station phase, the permittee shall submit the draft Operations, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R) Manual, to the Department at the address listed in Specific Condition No. 1 for annually evaluating the integrity and functionality of structures and above-ground features. During interim operations, the permittee shall be responsible for ensuring that facility inspections are completed in accordance with the OMRR&R Manual with a summary included in the Annual Report (Specific Condition No. 36(a)(v.)). Within 30 days of final acceptance and turnover to the local sponsor, the permittee shall provide a digital copy of the final OMRR&R Manual to the Department.
34. **Construction Status Reports.** Construction Status Reports or Construction Meeting Minutes for the project shall be provided to the Department upon request and such reports shall continue to be available throughout the construction activities until all disturbed areas are successfully stabilized. These Reports may be requested through the Project Manager, Construction Manager, or obtained at the construction meetings. In addition to providing status reports, the Corps shall coordinate the commencement of individual phases with the Department of Agriculture and Consumer Services, Florida Forest Service, who manages the Picayune Strand State Forest and the State of Florida Department of Environmental Protection, Division of Recreation and Parks, who manages the Fakahatchee Strand State Park.
35. **Construction Completion, As-Built Certification, and Record Drawings.** In accordance with General Condition No. 12, the permittee shall submit a written statement of construction completion signed by a Professional Engineer, and as-built drawings to the Department. The statement of completion shall be based on

on-site observation of construction and review of the as-built construction drawings for the purpose of determining whether or not the work was completed in compliance with permitted plans and specifications. If there is a deviation from the permitted plans, the construction completion statement shall note these deviations and may require inclusion of revised plan sheets and specifications identifying the changes. Note that major deviations may require a modification to this permit. Plans submitted to the Department shall be clearly labeled as "as-built" or "record" drawings with one electronic copy provided in PDF format and one hard copy. The permittee shall furnish the construction statement and record drawing information to the Department within a reasonable timeframe from substantial completion of construction.

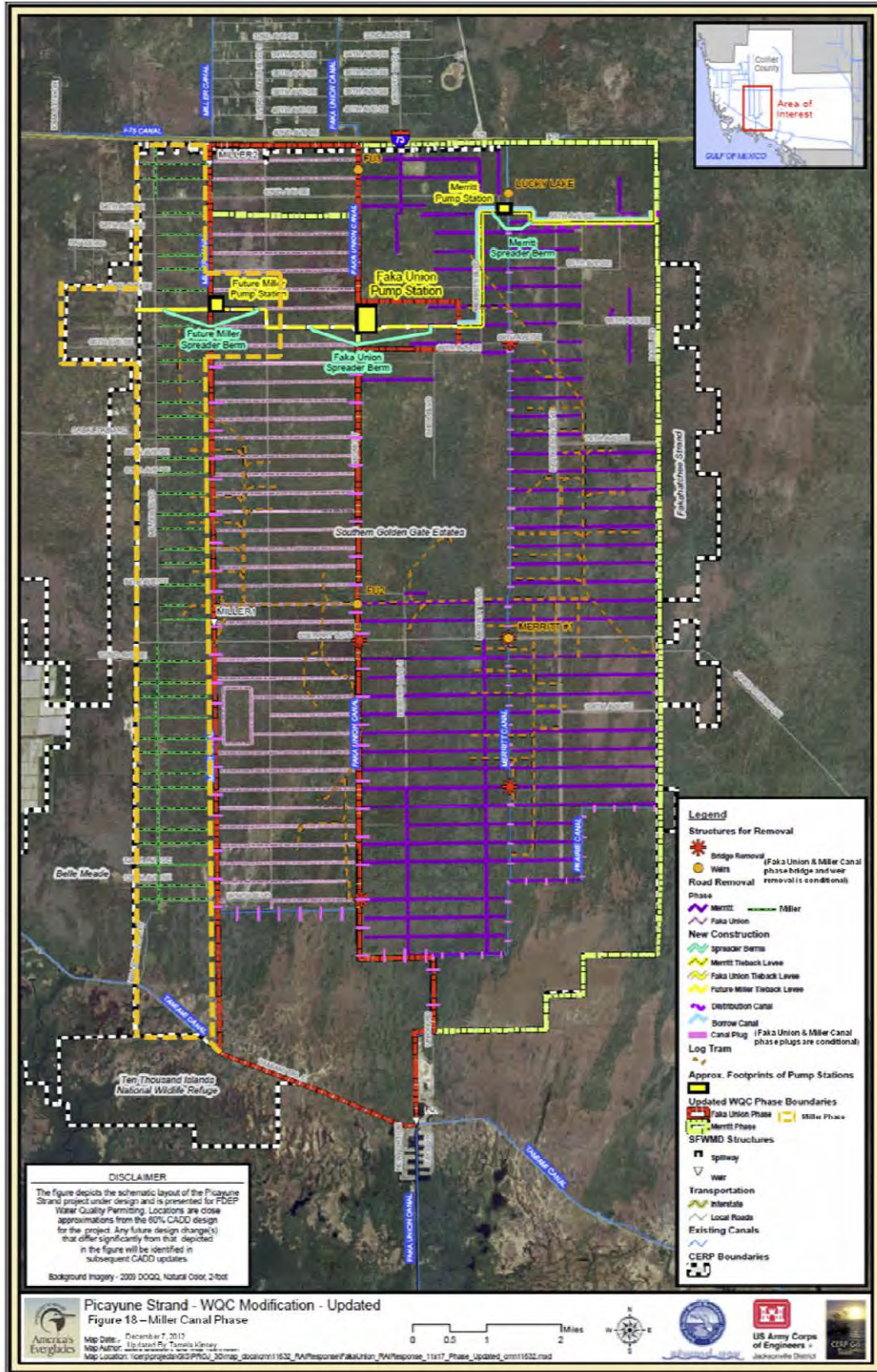
36. **Annual Reports.** The Corps shall submit an annual report to the Department detailing the construction and interim operations activities of the components authorized herein. These reports shall be submitted to the Department no later than March 1<sup>st</sup> of each year. The Corps may request a modification to the annual report submission date, and upon approval by the Department, the Corps may modify the submission date to coincide with other reporting requirements and time periods needed for data acquisition and analysis. At a minimum, the following information should be included in the annual reports:
- a. **General Information.**
    - i. Permit number;
    - ii. Permit name;
    - iii. Permit administrator;
    - iv. Summary of monitoring results from work conducted under Specific Condition Nos. 29 and 30;
    - v. Evaluation of project success in achieving its objectives;
    - vi. Problems encountered during period covered;
    - vii. Actions taken to address problems encountered; and,
    - viii. Any additional information specifically required by the conditions of this permit.
  - b. **Construction/Interim Operations.** A construction and/or operations summary shall include, at a minimum, for each phase of the project:
    - i. Construction/Inspections Progress Report;
    - ii. Annual Ecological Monitoring Summary Report;
    - iii. Annual Water Quality Monitoring Summary Report;
    - iv. Annual Groundwater Wells Monitoring Report;
    - v. Annual Facility Inspection Report; and
    - vi. Groundwater Monitoring Wells Baseline Data and Results Report.
  - c. **Surface Water Quality Data.** Data may be obtained from existing and/or proposed sampling locations. For proposed sampling locations, the Corps shall provide a schedule for installation of all monitoring stations/wells. Records of monitoring information, where applicable, shall include:
    - i. Date, location, and time of sampling or measurements;
    - ii. Person responsible for performing the sampling or measurements;
    - iii. Dates analyses were performed or the appropriate code as required by Chapter 62-160, F.A.C.;
    - iv. Person responsible for performing the analyses;
    - v. Analytical techniques or methods used, including MDL;
    - vi. Results of such analyses, including appropriate data qualifiers;
    - vii. Depth of samples;
    - viii. Flow conditions, including direction of flow, and weather conditions at time of sampling; and,
    - ix. Monthly flow volumes.
  - d. **Implementation Schedules.** When appropriate, the Corps shall include information on:
    - i. Merritt Canal and Faka Union Canal Projects and CERP implementation;

- ii. Program/Project level adaptive management;
  - iii. Project design modifications; and,
  - iv. Implementation of remedial measures in the event of noncompliance with permit conditions.
37. **Emergency Suspension of Sampling.** Under hurricane, tropical storm warnings, or other extreme weather conditions, the Corps' normal sampling schedule may be suspended if necessary. The Corps shall notify the Department at the address and telephone number listed in Specific Condition No. 1 of any suspension of sampling associated with hurricanes, tropical storms, or other extreme weather events that may require deviation from the normal sampling schedule. Within two days following the cessation of emergency conditions, the Corps shall notify the Department of when normal sampling is expected to resume.
38. **Factors Outside the Permittee's Control.** In the event that non-compliance or failure to achieve performance objectives occurs for any reason other than those listed below, the Corps shall take appropriate remedial measures.
- a. **Natural Background.** Deviations from water quality standards may occur as a result of natural background conditions, in accordance with Section 403.021(11), F.S.
  - b. **Random Variation.** The Corps shall report any statistical uncertainty in the methodology using acceptable scientific methods.
  - c. **Other Factors.** Unavoidable legal barriers or restraints, including those arising from actions or regulations not under control of the Corps.

#### **Renewals and Modifications**

39. **Permit Modifications.** The permittee shall submit proposed permit modifications of the Merritt Canal Pump Station, Faka Union Canal, and Miller Canal Pump Station Projects to the Department, prior to implementation of the modification, for review and approval by the Department.
40. **Permit Renewal.** At least 60 days prior to the expiration of this permit, the permittee shall apply for renewal of this permit. Renewal may be for a period of up to five years in accordance with Subsection (3)(g) of the CERPRA.
41. **Department Review and Approval.** Where conditions in this permit require Department review of remedial actions or plan modifications to be implemented pursuant to this permit, the Department shall consult with the permittee to ascertain whether mutual agreement can be reached. If mutual agreement on the remedial actions or plan modifications cannot be reached, the action of the Department shall be deemed final agency action and shall be subject to judicial or administrative review, as appropriate.

**Figure 1. Picayune Strand Restoration Project Components**





**Key for Table 1**

**Units**

NGVD	National Geodetic Vertical Datum (NGVD 1929)
NAVD	North American Vertical Datum (NAVD 1988)
°c	Degrees Celsius
ppt	Parts Per Thousand
µmhos	Micromhos
PCU	Platinum Cobalt Unit
NTU	Nephelometric Turbidity Unit
SU	Standard Units (pH)
mg/l	Milligrams per liter
µg/l	Micrograms per liter
Cfs	Cubic feet per second

**Sample Type**

CAL	Calculated Parameter
IN SITU	In Situ Field Sample
PR	Pump Record
G	Grab

**Sampling Frequency**

DAV	Daily Averages of Continuous Sampling
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**Sampling Location**

MCC-1	I-75 inflow to Merritt Canal pump station
MCC-2	South end of Merritt Canal sampling station
FCC-1	I-75 inflow to Faka Union Canal pump station
FCC-2	South end of Faka Union Canal sampling station
MiCC-1	I-75 inflow to Miller canal sampling station
MiCC-2	South end of Miller Canal sampling station

*Table 1. Water-Quality Monitoring During Interim Operations.*

<b>PARAMETER</b>	<b>UNITS</b>	<b>SAMPLE TYPE</b>	<b>SAMPLING FREQUENCY</b>	<b>SAMPLING LOCATION</b>
Stage (water level)	NGVD & NAVD	CAL	Monthly	ALL
Temperature	°C	<i>IN SITU</i>	Monthly	ALL
Salinity (S)	ppt	<i>IN SITU</i>	Monthly	ALL
Specific Conductance	µmhos	<i>IN SITU</i>	Monthly	ALL
Color	PCU	<i>IN SITU</i>	Monthly	ALL
Turbidity	NTU	G	Monthly	ALL
pH	SU	<i>IN SITU</i>	Monthly	ALL
Dissolved Oxygen (DO)	mg/l	<i>IN SITU</i>	Monthly	ALL
Alkalinity	mg/l	G	Monthly	ALL
Total Dissolved Solids (TDS)	mg/l	G	Monthly	ALL
Total Suspended Solids (TSS)	mg/l	G	Monthly	ALL
Ammonia (NH <sub>4</sub> )	mg/l	G	Monthly	ALL
Total Kjeldahl Nitrogen (TKN)	mg/l	G	Monthly	ALL
Nitrate + Nitrite (NO <sub>x</sub> )	mg/l	G	Monthly	ALL
Ortho-Phosphate (PO <sub>4</sub> )	mg/l	G	Monthly	ALL
Total Phosphorus (TP)	mg/l	G	Monthly	ALL
Sulfate (SO <sub>4</sub> )	mg/l	G	Monthly	ALL
Chlorophyll <i>a</i> (Phaeophytin corrected)	µg/l	G	Monthly	ALL
Flow	Cfs	PR/CAL	DAV	MCC-1,FCC-1, and MiCC-1
Direction of flow	N/A	<i>IN SITU</i>	Monthly	MCC-2,FCC-2, and MiCC-2

Permittee: U.S. Army Corps of Engineers  
Project: Picayune Strand Restoration Project  
Permit No.: 0288313-008  
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**STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION**

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Ernie Marks, Director  
Office of Ecosystem Projects

EM/dn/jp

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Executed in Tallahassee, Florida.

**FILING AND ACKNOWLEDGMENT**

FILED, on this date, pursuant to 120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

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Clerk

Date