

APPENDIX D

REAL ESTATE

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LOXAHATCHEE RIVER WATERSHED RESTORATION PROJECT**Palm Beach and Martin Counties****Project Implementation Report and Environmental Impact Statement****REAL ESTATE PLAN****D. STATEMENT OF PURPOSE**

The purpose of this Real Estate Plan is to identify and describe the real estate to support Loxahatchee River Watershed Restoration Project (LRWRP). The LRWRP is included in the Comprehensive Everglades Restoration Plan (CERP). The CERP, as documented in the 1999 Central and Southern Florida (C&SF) Project Comprehensive Review Study Final Integrated Feasibility Report and Programmatic Environmental Impact Statement (Yellow Book), consists of 68 different components. The purpose of the CERP is to modify structural and operational components of the C&SF Project to achieve restoration of the Everglades and the south Florida ecosystem, while providing for other water related needs such as urban and agricultural water supply and flood protection. LRWRP contains 3 of the 68 total CERP components.

The purpose of LRWRP is to restore and sustain the overall quantity, quality, timing, and distribution of freshwaters to the federally designated “National Wild and Scenic” Northwest Fork of the Loxahatchee River (NWFLR) for current and future generations. This project also seeks to restore, sustain, and reconnect the area’s wetlands and watersheds that form the historic headwaters for the river. These areas include Jonathan Dickinson State Park (JDSP), Pal Mar East/Cypress Creek, Dupuis Wildlife and Environmental Management Areas, J.W. Corbett Wildlife Management Area (WMA), Grassy Waters Preserve (GWP), Loxahatchee Slough, the last remaining riverine cypress stands in Southeast Florida in the Loxahatchee River, and the Loxahatchee River Estuary.

The Real Estate Plan is tentative in nature; it is for planning purposes only and both the final real estate cost estimates provided are subject to change even after approval of the Loxahatchee River Watershed Restoration Project Implementation Report.

D.1 PROJECT AND STUDY AUTHORIZATION

The Water Resources Development Act of 2000 (WRDA, 2000) (Public Law No. 106-541, of the 106th Congress), Title VI, Section 601 provides for and guides modifications to the Central and Southern Florida (C&SF) project and describes authorizations specific to the Comprehensive Everglades Restoration Plan (CERP). Section 601(b)(A) of the Act, “Comprehensive Everglades Restoration Plan Approval,” provides authority for CERP. Section 601(d) “Authorization of Future Projects” provides the authority for the preparation of Project Implementation Reports.

D.2 PROJECT LOCATION AND STUDY AREA**D.2.1 Location**

The project is generally located in South Florida within the vicinity of Martin and Palm Beach Counties (Figure D-1.).

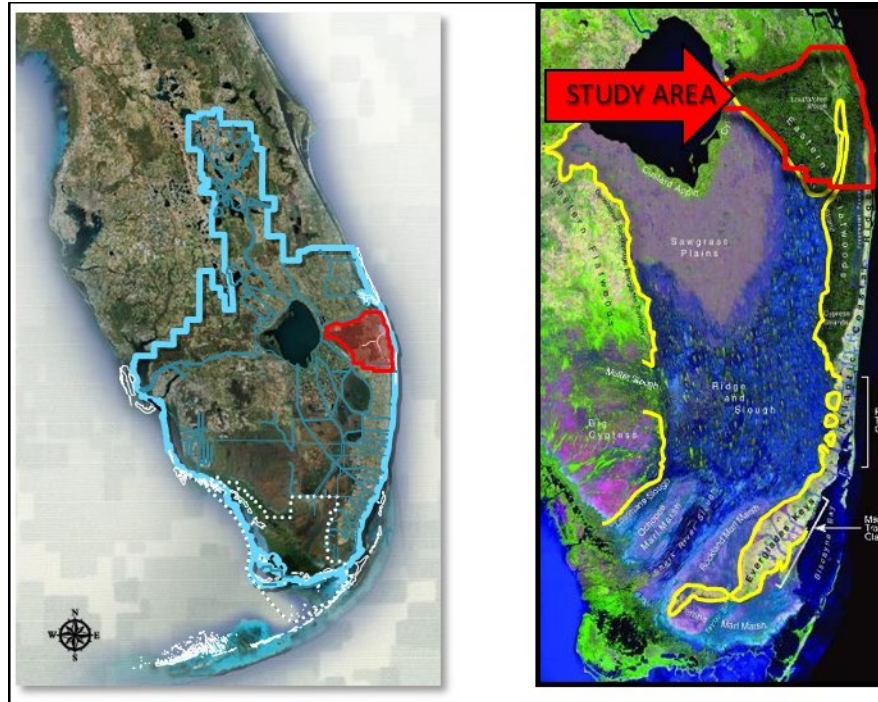


Figure D-1. Project Location.

D.2.2 Study Area

The LRWRP study area is approximately 480,000 acres (750 square miles) and is located in northern Palm Beach County and southern Martin County. The study area is characterized as highly urbanized in the eastern portion, and transitions to extensive natural areas to the west and north. The study area is bounded on the north by the C-44 Canal, on the south by the C-51 Canal, on the west by the L-8 Canal and Lake Okeechobee, and on the east by the Loxahatchee River Estuary and Lake Worth Lagoon. The project area includes all of the Loxahatchee River watershed and limited portions of the St. Lucie River watershed. Central and Southern Florida Project features within the study area include the L-8 Canal, the east and west legs of the C-18 Canal, and the C-51 Canal. Transportation infrastructure within the project area includes the Florida Turnpike and Interstate 95, as well as several major east/west county and state roadways (Indiantown Road [SR 706], PGA Boulevard [SR 708], Beeline Highway [SR 710], and Northlake Boulevard). This infrastructure and other development within the watershed have resulted in lowered groundwater levels and altered drainage patterns and flow regimes within the natural and less developed areas.

The LRWRP study includes eight major named natural areas under state, county, and city ownership. See **Table D-D-1** for descriptions and Figure D-2 for the location of these natural areas. Figure D-3 shows the major drainage basins and structures within the study area. Each of these areas have experienced some level of impacts from the drainage, water supply, and flood protection afforded by C&SF Project and the agricultural and urban development that followed.

Table D-1. Description of the LRWRP natural areas.

Natural Area	Description
Jonathan Dickinson State Park	Jonathan Dickinson State Park (JDSP) is located in the northeast section of the project area within Martin and Palm Beach Counties and is comprised of 11,471 acres. The park contains portions of several branches of the Loxahatchee River and its upstream tributaries (Northwest Fork, upper reaches of the North Fork, Cypress Creek, Moonshine Creek, Hobe Grove Ditch, Wilson's Creek, and Kitching Creek).
Northwest Fork of the Loxahatchee River (NWFLR)	The Northwest Fork of the Loxahatchee River (NWFLR), one of Florida's two federally designated National Wild and Scenic Rivers, is a natural river channel that originates in the Loxahatchee and Hungryland Sloughs. Downstream from these sloughs, the NWFLR receives additional input from the other major tributaries of the Loxahatchee River: Cypress Creek/Ranch Colony Canal, Hobe Grove Ditch, and Kitching Creek. A cypress river swamp community historically dominated the floodplain of the Loxahatchee River with freshwater stream swamps and Cypress communities present upstream from river mile 6.5 and dominant within the floodplain above river mile 8.0.
Loxahatchee River Estuary	The Loxahatchee River Estuary is downstream from the designated National Wild and Scenic River. Salt water from the Atlantic Ocean flows through Jupiter Inlet, merging with the freshwater that flows in from the north, northwest and southwest forks of the river, forming the estuary. This shallow embayment has an average depth of 3.5 feet, a maximum depth of 15 feet and covers an area of approximately 380 acres.
Pal-Mar	Pal-Mar comprises more than 37,000 acres in southern Martin and northern Palm Beach counties. Pal-Mar forms a linkage between J.W. Corbett WMA and JDSP. Prior to development, much of the Pal-Mar area drained toward Cypress Creek. Due to the transformation of the historic creek into the Cypress Creek Canal and the diversion of water from the historic creek into the Ranch Colony Canal, flows into the creek have been greatly altered and it is no longer a receiving body of Pal-Mar surface water. Western Pal-Mar is primarily a natural area and occurs as a mosaic of wetland/upland communities including depression marsh, wet prairie, dome and strand swamps, pine flatwoods and sloughs. The northern and eastern portions of Pal-Mar have been converted to agricultural usage and have undergone significant hydrological changes.
J.W. Corbett Wildlife Management Area	J.W. Corbett WMA encompasses approximately 62,000 acres in the northwest section of the project area. It contains extensive hydric/mesic flatwoods, depression marshes, wet prairies, strand and dome swamps and hydric/mesic hammocks. An intact Everglades sawgrass marsh ecosystem, considered a remnant of the Greater Everglades ecosystem, occurs along the southern boundary of J.W. Corbett WMA.
Loxahatchee Slough	Loxahatchee Slough was historically one of the most prominent flow ways in the study area and contained a large portion of the historic headwaters of the Northwest and Southwest Forks of the Loxahatchee River. The 12,000 acre site is the single most ecologically-diverse tract of protected land in Palm Beach County, including nine distinct community types. The slough used to extend all the way to what now is the Loxahatchee National Wildlife Refuge, but has been cut off by the levees that surround the Refuge, by the C-51 and C-18 canals, and by several highways that traverse the project area. These features have altered historic drainage patterns in this area and have allowed for extensive invasions by melaleuca.
Grassy Waters Preserve	The southern half of the historical Loxahatchee Slough has been impounded to form the GWP. The GWP is a managed wetland ecosystem, approximately 12,800 acres (20 square

Natural Area	Description
	<p>miles), which is owned and operated by the City of West Palm Beach. GWP serves as a surface water catchment, groundwater recharge and storage system for public water supply. GWP is also known as the West Palm Beach Water Catchment Area. The City's management of the GWP as an element of the water supply system has protected and sustained most of this system in a high quality wetland condition. The wetlands within this catchment area include wet prairies (sawgrass and spikerush), sloughs and cypress and other tree islands configured in a remarkably natural mosaic.</p>
Dupuis WEA	<p>The Dupuis Wildlife and Environmental Area includes 21,875 acres located in the westernmost section of the study area, between Corbett WMA and Lake Okeechobee. Once part of the Everglades ecosystem, the hydrology of the area was altered through drainage. Habitats on the property include ponds, wet prairies, cypress domes, pine flatwoods, and remnant Everglades marsh.</p>

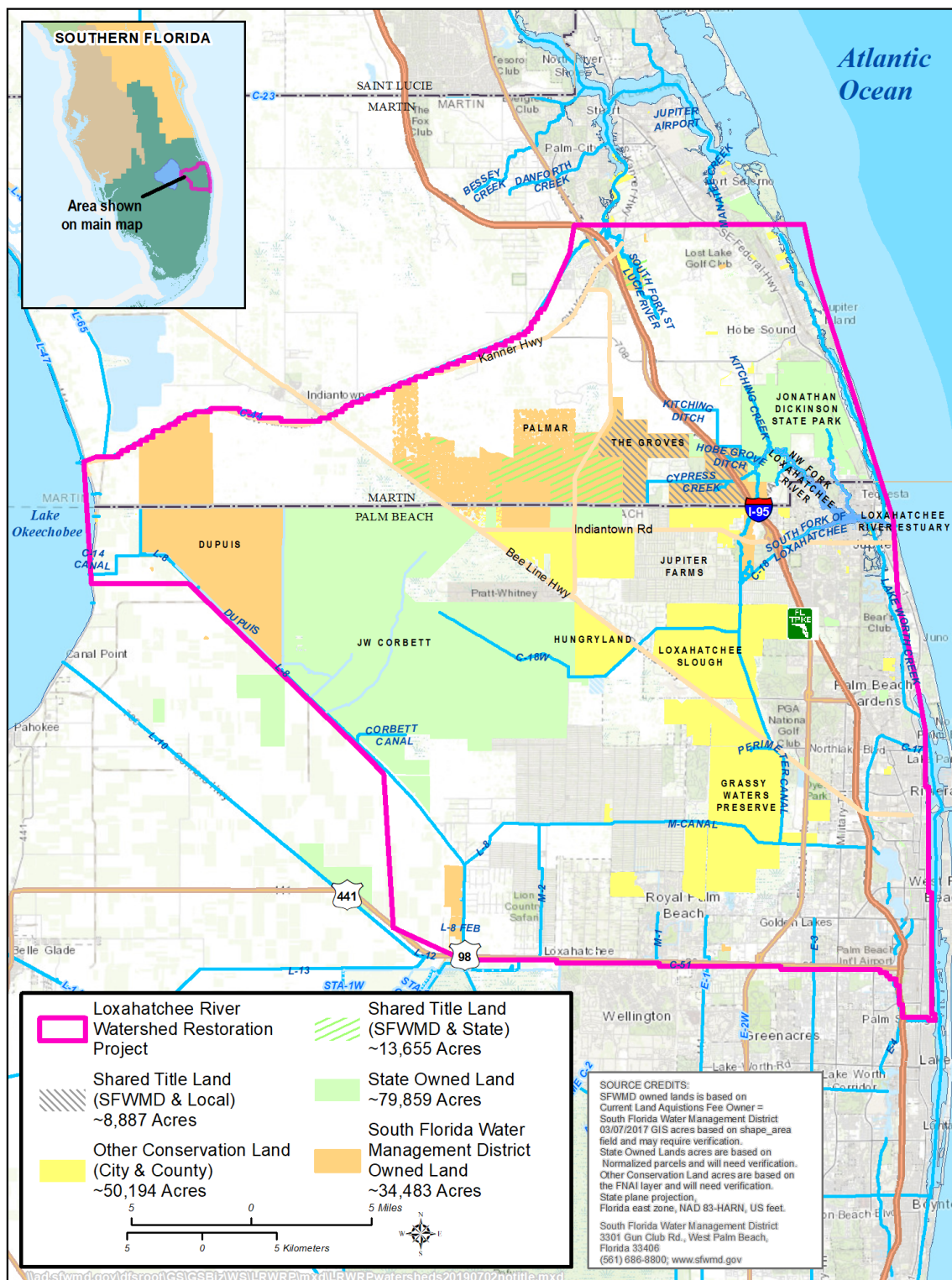


Figure D-2. Major canals and natural areas within the study area.

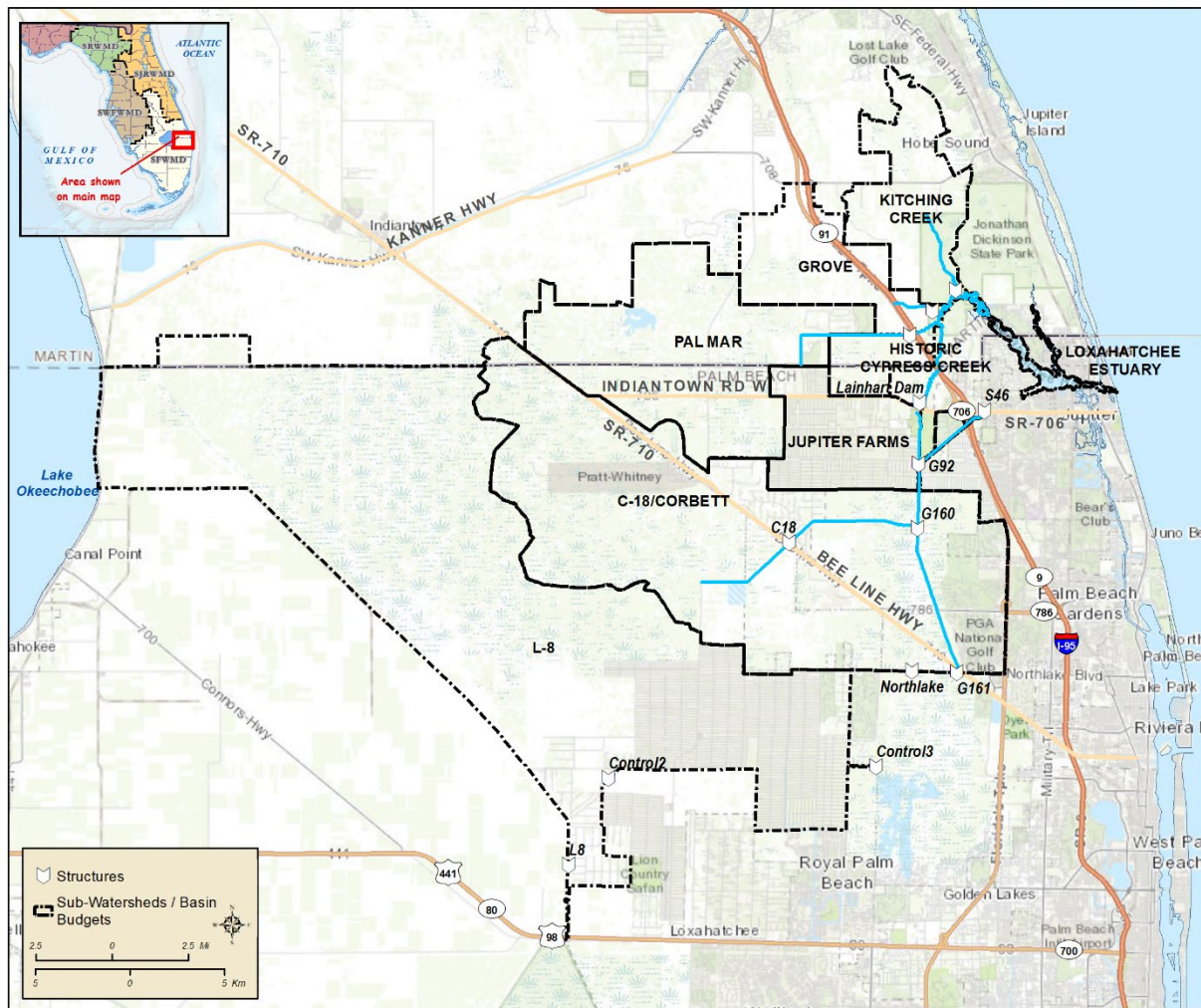


Figure D-3. Sub-watersheds, canals, features within the study area.

D.3 PROJECT DESCRIPTION

The project area is a subset of the study area. It is located primarily in the central and north central portions of the study area. The components of the Recommended Plan, Alternative (Alt) 5R, are organized into three geographic areas or flow-ways: Flow-way 1, Flow-way 2, and Flow-way 3. There is some overlap between Flow-ways 1 and 2. The Recommended Plan, Alt 5R, includes spillways, multi-purpose features such as conveyance channels and culvert barrels, swales, pump stations, a reservoir, culvert structures, Aquifer Storage and Recovery (ASR) wells, canals, drainage fills and backfills, berm improvements, a levee, and weirs.

Table D-2 highlights the key features proposed in the Recommended Plan. The subsequent sections define each proposed feature of the recommended plan for each flow-way. The Project Delivery Team (PDT) agreed that the preliminary design of features may be optimized during the preconstruction engineering and design phase (PED) at the discretion of the team.

Table D-2. Design features proposed for the Recommended Plan.

Project Feature	Feature Type	Purpose
Flow-way 1 - G-160	Structure	Water control/hydroperiod improvement, quantity and timing of flows to the river
Flow-way 1 - G-161	Structure	Water control/hydroperiod improvement, quantity and timing of flows to the river
Flow-way 1 - Grassy Waters Preserve Triangle	Earthwork	Conveyance, storage, hydroperiod improvement
Flow-way 1 - M-1 Lower Pump Station	Pump Station	Conveyance
Flow-way 2 - C-18W Reservoir	Impoundment	Storage, quantity and timing of flows to the river
Flow-way 2 - Aquifer Storage & Recovery (ASR)	Wells	Conveyance to storage
Flow-way 2 - M-O Canal Connector	Pump, Canal	Conveyance to storage
Flow-way 3 - Pal-Mar East	Earthwork	Hydrologic restoration and natural storage
Flow-way 3 - Thomas Pepper Farm	Drainage modifications	Maintain existing drainage
Flow-way 3 - Pal-Mar East (Nine-Gems) northern canal	Drainage modifications, berm improvements	Accommodate additional drainage from pepper farm, prevent wetland overflow
Flow-way 3 - Cypress Creek Canal	Structure, canal improvements	Water control, conveyance, discharge attenuation
Flow-way 3 - Gulfstream West Flow through Marsh	Impoundment	Discharge attenuation
Flow-way 3 - Gulfstream East, Moonshine Creek	Earthwork, weir	Hydrologic restoration, natural storage
Flow-way 3 - Kitching Creek	Earthwork, weir	Hydrologic restoration
Flow-way 3 - Mack Dairy Spreader Swale	Earthwork, pump	Hydrologic restoration, natural storage, timing and distribution to Cypress Creek

D.3.1 Flow-Way 1

Flow-way 1 is located in the southeast and southernmost portion of the project area, bounded by M Canal in the south and the G-92 spillway in the north. This flow-way uses the M-1 Basin canals, M Canal and C-18 Canal to route water from upstream project area basins to the Loxahatchee River. Flow-way 1 features include the M-1 pump station, M Canal, GWP, G-161 water control structure, GWP Triangle, the C-18

Canal, and G-160 spillway, as shown in **Figure D-4**. Only the M-1 pump station, GWP Triangle, G-161, and G-160 required a design analysis for the Recommended Plan.



Figure D-4. Location Map of Major Features in Flow-way 1

D.3.1.1 M-1 Lower Pump Station

A pump station will deliver up to 75 cfs to the M Canal from Indian Trails Improvement District (ITID) lower M-1 Basin when canal stage conditions allow. Operations of the M-1 Basin allow for water to be pumped to the M Canal when stages are above 17.0 ft. NGVD29 (15.5 NAVD88) in the dry season and 15.0 ft. NGVD29 (13.5 NAVD88) in the wet season. The inflow pumping location within the M Canal will be either at or downstream of the area within the M Canal that has been widened.

D.3.1.2 M-Canal

The M Canal is an existing feature that provides a hydraulic connection between the L-8 Canal, via the L-8 Tieback Canal to the City of West Palm Beach. The M Canal flows through the GWP east to Lake Mangonia and Clear Lake. The West Palm Beach (WPB) water treatment plant is located on the northeast shore of Clear Lake where it takes its water.

D.3.1.3 GWP Triangle

The GWP Triangle is located northwest of the intersection of Beeline highway (SR-710) and Northlake Boulevard. Since the construction of Northlake Boulevard, this portion of GWP has experienced hydrologic separation from the rest of the GWP area. Hydrologic restoration of this area will be accomplished through earth work and strategic construction of a natural conveyance feature (shallow, with gentle slopes) that runs in an east to west direction. The conveyance will allow a hydrologic connection between the eastern and western portions of the triangle. When water levels are high in the western triangle (or vice versa) this will facilitate connectivity and equalization of the triangle hydrology, enabling storage and hydroperiod improvement.

D.3.1.4 G-161

The G-161 structure will act as the gateway through which water will be transported from GWP through the system to the Northwest Fork of the Loxahatchee River. The G-161 structure is a multi-purpose feature that will facilitate hydroperiod restoration of GWP, maintain existing flood protection, and provide improved conveyance for the regional water system. The water transfer from the G-161 structure will occur just west of the intersection of the Beeline Highway and Northlake Boulevard. Water will flow from GWP into the northern GWP Triangle area, north of Northlake Boulevard. A circuitous conveyance channel will carry the flow through the GWP Triangle between the G-161 structure and an existing culvert beneath the Beeline highway that connects GWP to the C-18 Canal. The conveyance channel also transverses under an existing railroad bridge. Flow will then pass through G-160 to the G-92 structure and on to the Northwest Fork. The design allows for variable flow rates between 0 and 150 cfs, adjustable as needed for conservation or flood risk management purposes. The structure will consist of two 60-in diameter culvert barrels with a total length of 240 ft. The barrels will be controlled by slide gates and have a flow line elevation of 11.1 ft. NGVD29 (9.6 ft. NAVD88).

D.3.1.5 C-18 Canal

The C-18 Canal was constructed in the 1950s by the USACE, as part of the C&SF, for the purpose of removing runoff from the adjacent lands, northward through the S-46 structure, to the Southwest Fork of the Loxahatchee River. Surface water within the canal flows from the south to north /northeast direction. The S-46 structure was constructed for flood control purposes, causing diversion of freshwater that flowed naturally to the Northwest Fork, away to the Southwest Fork. The G-92 structure, which was constructed in 1975 by the SFWMD, is located upstream of S-46 and diverts water from the C-18 Canal northward to the NWFLR. The east branch, containing the S-46 Structure, plus the main canal extends from the southwest fork of the Loxahatchee River, west of the low flat divide and west of the Atlantic Intracoastal Waterway (AIWW) (Mile 288.3), and then south, for approximately 10 miles to its intersection with Beeline Highway. The C-18 Canal also has a west leg, approximately 7.9 miles long with headwaters consisting of the C-18/J.W. Corbett WMA. Water surface elevations in the portion of the C-18W Canal that is west of Beeline Highway are controlled by the C-18 Weir, which maintains water surface elevations at

17.6 ft., National Geodetic Vertical Datum (NGVD). Water elevations in the C-18 West leg east of Beeline Highway are controlled by the elevation at S-46.

D.3.1.6 G-160

The proposed G-160 structure is a reinforced concrete spillway designed to enhance delivery of the restoration flows to the Northwest Fork of the Loxahatchee River while maintaining water elevations within the Loxahatchee Slough and conserving optimum upstream water control stages in Canal 18 (C-18). Construction of the G-160 structure should achieve the following: (1) preserve sensitive wetlands in the Loxahatchee slough, (2) maintain the existing flooding level of service, and (3) provide water to the Northwest Fork of the Loxahatchee River. G-160 will increase stages in the Loxahatchee Slough, improving hydroperiods that have been adversely impacted by the construction and historic operations of the C&SF Project, specifically the C-18 Canal and Structure 46 (S-46). With increased stages in the slough, and deliveries through G-161, G-160 can deliver additional flow to the Loxahatchee River as needed. Discharges from G-160 are controlled by two stem-operated vertical lift gates. The design discharge rate, to maintain flood control capability, will be approximately 2000 cfs via two spillway bays, each 25 ft. in length. The structure is operable to allow for the dual purposes of flood risk management and environmental restoration. The operable gates allow for management of upstream stages to mimic natural slough recession and ascension in water depth between the wet and dry seasons.

D.3.2 Flow-Way 2

Flow-way 2 is in the central portion of the project area. Its primary canal conveyances are the M-O Canal and C-18W Canal. The areas that will contribute to these canals include the ITID basin via the M-O Canal, J.W. Corbett WMA, Hungryland Slough, “Mecca” property (area of the proposed C-18W Reservoir), and the Loxahatchee Slough Natural Area east of the North Palm Beach County Airport via the C-18W Canal. The Sweetbay Natural Area, which includes approximately 1,000 acres, lies west of the airport. Note existing structures of regional importance: G-92, S-46, Lainhart Dam, and Masten Dam. **Figure D-5.** shows the proposed features of the Recommended Plan in Flow-way 2 and contributing areas.



Figure D-5. Location of Project Features for Flow-way 2.

D.3.2.1 C-18W Reservoir

The only reservoir proposed in the Recommended Plan is the C-18W Reservoir. The proposed reservoir is a 9,500 ac-ft above-ground volume that will provide pumped diversion and storage of excess flows from the adjacent C-18W Canal, J.W. Corbett WMA, and from ITID upper basin via the M-O Canal. The reservoir will release water back to the C-18W Canal as needed and available during low-flow periods, for delivery to Lainhart Dam and the Loxahatchee River downstream. The purposes of the reservoir are (1) capture excess flows from J.W. Corbett WMA, ITID and the C-18W basin and, 2) deliver water to meet the target restoration flows for the National Wild and Scenic Northwest Fork of the Loxahatchee River (NWFLR), and 3) change the timing of flow distribution and reduce waste to tide. The C-18W Reservoir site is approximately 1,920 acres of former citrus grove, located on the east side of Seminole-Pratt Whitney Road approximately 0.5 mile north of Northlake Boulevard in northern Palm Beach County, Florida.

There will be two main outflow structures at the reservoir: 1) a gated culvert discharge structure for normal operations; and 2) an emergency overflow spillway. The gated culvert structure will be located along the northern embankment of the reservoir, closely situated to the inflow pump station. The design is for a dual box culverts that can discharge 300+ cfs, depending on the stages within the reservoir. The proposed overflow spillway design is an 80 ft wide concrete spillway crest at an elevation lower than the embankment design elevation. It will be located adjacent to the culvert discharge structure and discharge into the C-18W Canal. The overflow spillway is designed to convey excess flood water to the C-18W Canal and away from the residential areas on the south side of the impoundment. The proposed overflow spillway crest elevation is set to provide 1 foot of freeboard above the normal pool elevation (27.5 feet NAVD88). The reservoir is surrounded by a seepage collection canal, C-101E and C-101W, which can discharge into the C-101N through two culverts, S-103W and S-103E.

D.3.2.2 Four-Well Aquifer Storage and Recovery System

A four-well ASR system will be co-located with the C-18W Reservoir to augment surface storage capacity and provide greater flexibility in reservoir operations. The source of surface water for aquifer recharge directly from the C-18W Reservoir. Each well will pump surface water into the Floridan Aquifer System at 5 million gallons per day (MGD). Water will be recovered at a rate of 5 MGD and discharged into the C-18 Reservoir, for subsequent distribution into the C-18W Canal. Benefits calculations are based on the assumption that only 70 % of the stored water volume can be recovered.

D.3.2.3 M-O Canal Connector

This canal will be between the existing M-O Canal and the area upstream of the planned Seminole-Pratt Whitney Road Culverts and C-18W Reservoir. The purpose of the M-O Canal Connector is to transfer excess water from the ITID upper basin to C-18W Reservoir.

D.3.2.4 M-O Canal Connector Pump Station

This pump station will be located at the eastern terminus of the M-O Canal. As a result of the topography of the connector canal area, a pump station is required to pump water from the M-O Canal to the connector canal for delivery to the C-18W Reservoir

D.3.3 Flow-Way 3

Flow-way 3 is located within southern Martin County and a portion northern Palm Beach County north of Indiantown Road. This area contributes to the northwest fork of the Loxahatchee River via the Cypress Creek Canal and Cypress Creek, Moonshine Creek, Hobe Grove Ditch, and Kitching Creek tributaries. The project features for Pal-Mar East, Ranch Colony Canal, Gulfstream West, Gulfstream East, Moonshine Creek, and Kitching Creek are described below. An additional spreader swale feature, the Mack Dairy Spreader, was incorporated into the Recommended Plan due to public input and a cost/benefit analysis. **Figure D-6.** and **Figure D-7,** below, illustrate the western and eastern project areas and features of Flow-way 3, respectively.

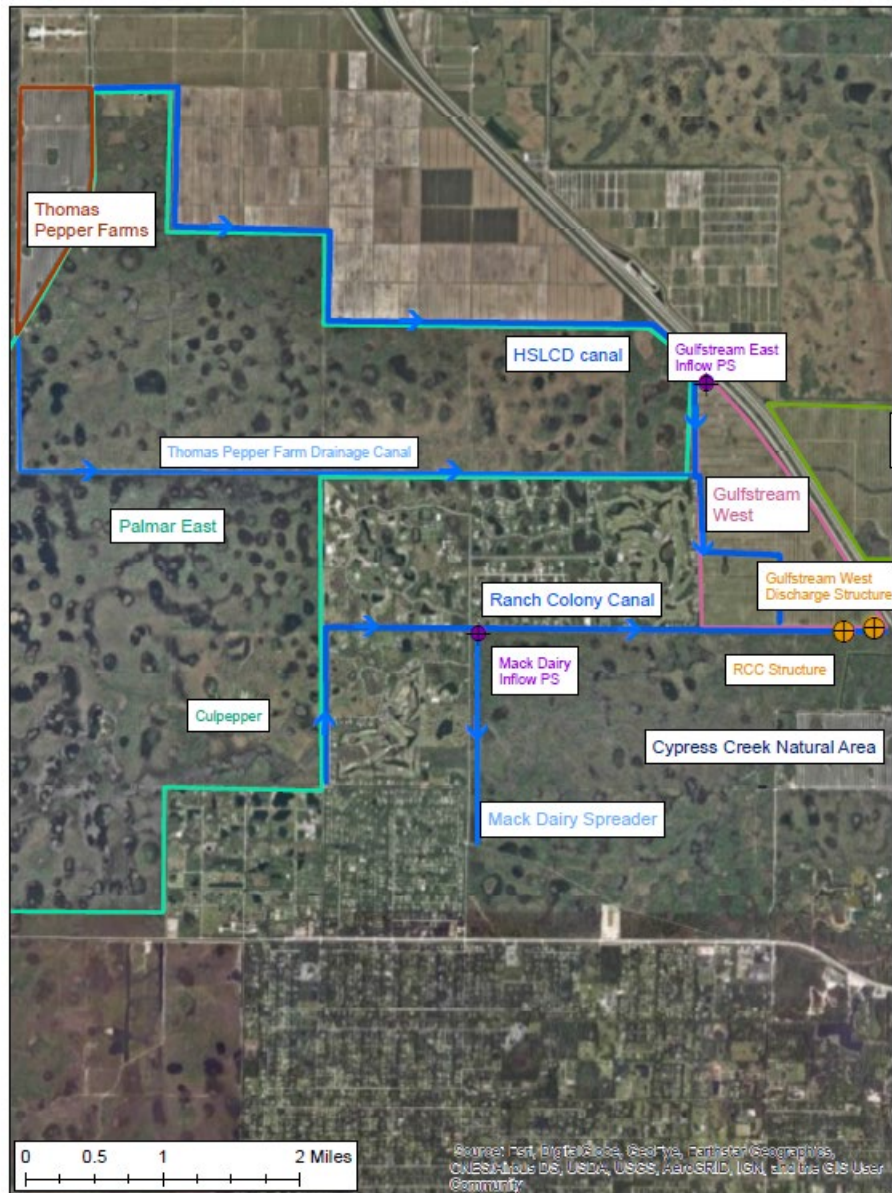


Figure D-6. Location of western Project features of Flow-way 3.



Figure D-7. Location of eastern Project features of Flow-way 3

D.3.3.1 Pal-Mar East (Nine Gems)

Multiple features within the Pal-Mar East property are proposed to improve hydroperiods and ecology within the area. The first component is to fill the internal drainage canals within Pal-Mar East to help reduce run-off from the site. Additionally, the small drainage pipes and culverts that are located along the northern boundary will be removed and backfilled to further reduce the drainage from the site. Minor improvements along the adjacent berm will be necessary at irregular intervals along the Pal-Mar East northern and eastern border to ensure water is held on site during larger storm events.

D.3.3.2 Thomas Pepper Farms

The Thomas Pepper Farms is located to the west of the Pal-Mar East Property and Pratt Whitney Road (SR-711). Currently, the farm drains to the south through a culvert under the road, and then through a canal that bisects the Pal-Mar East property. This canal is owned and operated by the Hobe St. Lucie Conservancy District (HSLCD). It continues east and south to eventually discharge into the Cypress Creek Canal and ultimately to the NWFLR via Cypress Creek. The canal through which the Thomas Pepper Farms currently drains causes a disruption in sheet flow from the southern portion of Pal-Mar East flowing in a northerly direction. Due to the topography, the northwest corner of southern portion of Pal-Mar East (south of this canal and to the east of Pratt Whitney Road (SR 711) may have periods of over-inundation due to the small berm that separates the natural area of Pal-Mar East from the Thomas Pepper drainage canal. The proposed design is to backfill the existing HSLCD canal that provides drainage to Thomas Pepper Farms and then smooth the existing berms to promote sheet flow from southern Pal-Mar East to the north/eastern portions of the property. The new drainage pattern would divert water from the Thomas Pepper Farms to another existing HSLCD canal located along the northern border of Pal-Mar East, between Pal-Mar East and the HSLCD agricultural land. This will require modification of a drainage ditch that currently exists along the northern boundary of Pal-Mar. The existing ditch shall be widened and deepened to handle the additional outflow from Thomas Pepper Farms. Additionally, a new culvert and pump will be required to re-route the Farm's drainage under Pratt Whitney road and into the newly constructed drainage canal.

D.3.3.3 Cypress Creek Canal

The south eastern portion of Pal-Mar East (also known as "Culpepper") currently drains through four water control structures into the Ranch Colony Canal. The Ranch Colony Canal begins at the south-eastern corner of Pal-Mar East, extending north and east between residential communities (The Links and Ranch Colony). Additionally, as noted above, the HSLCD drainage canal discharges into the downstream portion of the Cypress Creek Canal. The combined flow discharges uncontrolled under I-95 and the Florida Turnpike into Cypress Creek eventually reaching the NWFLR, downstream of Lainhart Dam. The system experiences periods of high discharge during wet periods or large rain events, causing scour and erosion both within the canal and downstream. Additionally, during drier periods, the canal continues to intercept adjacent groundwater seepage due to the canal's low bottom elevation. Modifications to the Culpepper control structures and to the Ranch Colony Canal are proposed for reducing the flashy nature of the system. Higher inlet control elevations as well as modifications to make the structures operable are proposed to help maintain more water on the Pal-Mar East property. This modification will help achieve a more desirable hydroperiod within the Culpepper property, while simultaneously reducing discharges into the Ranch Colony Canal.

The purpose of the proposed new control structure within the Cypress Creek Canal is to improve management of water elevations within the canal during the wet and dry season. The proposed structure is a two-bay concrete ogee spillway with telemetry operated vertical lift gates. Each bay will be 16 ft wide with a crest elevation at approximately 6.5 ft NAVD88. This design will allow for flexibility during the wet and dry season. During the dry season, the gates can help hold additional water in the canal, assisting in the improvement of groundwater levels by reducing groundwater draw down. The structure will be designed and operated to control discharge velocities associated with wet season releases that may cause downstream erosion. The design will maintain or improve the current flood protection for the surrounding developments. The structure location, downstream of the Cypress Creek discharge location into Cypress

Creek Canal, will provide additional hydrologic improvements to the currently over-drained Cypress Creek Natural Area.

Additional modifications to ensure flood protection is maintained include the proposed berm improvements along the Cypress Creek Canal and along the eastern border of Pal-Mar East (western boarder of the Ranch Colony Community). Existing berm elevations vary and contain low spots that may be susceptible to flooding during extreme events. The berm improvements along the Cypress Creek Canal will provide a uniform berm protection elevation for the neighborhoods and account for the proposed modification to the inlet control elevations of the four water control structures, which will cause higher stages within the Culpepper property. .

D.3.3.4 Gulfstream West

The Gulfstream West parcel is bordered by the Florida Turnpike to the east, Cypress Creek Canal to the south, and Pal-Mar East/Old Trail neighborhood to the west. The land was historically a citrus grove but is currently being used for cattle grazing. The HSLCD drainage canal extends along the western perimeter of the Gulfstream West property before turning east, cutting through a portion of the property and then south again to connect with and discharge to the Cypress Creel Canal. The Gulfstream West area has been excessively drained due to the drainage canals and ditches from agricultural use as well as the low stages within the Ranch Colony Canal, to which the HSLCD canal drains.

The main feature proposed for the Gulfstream West property is to construct a flow-through marsh. This feature will provide multiple benefits:

1. The flow-through marsh will source water from the HSLCD drainage canal, thereby helping control discharge rates and attenuate flow. This canal provides drainage for HSLCD Unit 2, an agricultural area located to the immediate north, as well as excess water from Pal-Mar East.
2. A flow through marsh will provide ecosystem benefits and water quality improvements.
3. Potential reduction in stages within the HSLCD drainage canal and Ranch Colony Canal as the flow through marsh provides additional storage and can re-route water from the HSLCD canal to downstream of the newly proposed structure within Cypress Creek Canal.

The flow-through marsh feature will pump water from the existing HSLCD drainage canal into a series of collection ditches and spreader berms that will promote sheet flow and re-hydration of the site. The design will require extensive earthwork, including the construction of a levee to ensure water is maintained and held on-site. The site will be graded and existing drainage ditches will be removed to provide a more uniform topography and slight gradient to promote flow in a southerly direction. Approximately three to four collection ditches with spreader berms will be installed perpendicular to flow. This will help reduce preferential flow path development, while controlling discharge velocities for ecological benefits. The runoff from Thomas Pepper Farms, HSLCD Unit 2 and Pal-Mar East is discharged into the flow through marsh at the northern end of the property via a 150 cfs pump station. If runoff exceeds 150 cfs the by-pass canal (existing HSLCD canal) is used to route the excess runoff directly to the Cypress Creek Canal. The “dog-leg” at the southern end of the existing HSLCD canal is removed and the newly constructed portion of canal will continue north-south, along the west side of the property, with an open connection at the Cypress Creek Canal. Inflow pumping will stop when water elevations within the flow through marsh exceed 17.75 ft-NGVD29 (16.25 NAVD88) (avg. depth of 3'). The outflow structure will be a notched weir and is designed to discharge a variable rate depending on the marsh depth, with

discharges reaching over 250 cfs when water depth within the marsh exceeds 4 feet. At 2.75 feet of depth the discharge will be approximately 30 cfs as baseflow to the Loxahatchee River. All discharge from the flow-through marsh is downstream of the new Cypress Creek Canal structure.

D.3.3.5 Gulfstream East and Moonshine Creek

The Gulfstream East property is approximately 450 acres of fallow citrus grove located to the east of the Florida Turnpike. Historically, the run-off of this property would flow east to the Moonshine Creek and ultimately to the Northwest Fork of the Loxahatchee River. Restoration of the Gulfstream East and Moonshine Creek is proposed. The existing drainage ditches will be filled and the site will be re-graded to the historical topography. To the east of the Gulfstream East property is the HSLCD Unit 3 control structure, which discharges into the Hobe Grove Ditch. The Hobe Grove Ditch, also a HSLCD facility, ultimately discharges into the NWFLR downstream of the historical Moonshine Creek channel. Approximately 250 ft downstream of the HSLCD Unit 3 structure the Hobe Grove Ditch and Moonshine Creek are partially separated due to heavy vegetation and sediment. The proposed feature will remove much of this sediment and vegetation to connect the Hobe Grove Ditch and Moonshine Creek. Additionally, a new weir will be installed at the eastern extent of the Hobe Grove Ditch to help hold additional water within the ditch, improving the groundwater levels while helping to promote additional flow down the historic Moonshine Creek. The proposed weir elevation is at 7.5 ft NGVD29 (6 ft NAVD88).

D.3.3.6 Kitching Creek

Kitching Creek discharges from the north into the north-west fork of the Loxahatchee River. Currently, Jenkins Ditch discharges flow from the northern portion of Kitching Creek via the Kitching Creek Preserve. The ditch also helps convey local runoff from surrounding residential properties. The natural area of Kitching Creek, just south of the residential areas, receives discharge from the ditch. The ditch has caused higher flow rates and a less natural run-off pattern to occur than historically observed. The proposed spreader swale is to be constructed to the east and west from Jenkins Ditch at the north end of the Jonathan Dickinson State Park. This swale will help distribute flows to historic Kitching Creek channels instead of directly down the ditch. This distribution is meant to mimic historical conditions by reducing peak discharge rates and creating a more natural flow pattern, aiding in the overall rehydration of the area. A gated culvert is proposed to be constructed in the ditch upstream of the main Kitching Creek channel at elevation 12.0 ft NGVD to aid in the dispersion of water into the spreader system.

D.3.3.7 Mack Dairy Spreader Swale

The proposed Mack Dairy Spreader Swale will be located south of the Cypress Creek Canal, parallel to Mack Dairy Road. The purpose of the spreader swale is to help rehydrate the Cypress Creek Natural Area by pumping excess water from the Cypress Creek Canal to the spreader swale, located along the westernmost extent of the Cypress Creek Natural Area. This spreader swale will assist in distributing water in a southerly direction while the natural topography will cause the water to flow east. This design for the distribution of water was to mimic historical flow patterns from the west (Culpepper area) that have been interrupted due to urban development. The natural discharge location of Cypress Creek is located just upstream of the proposed Cypress Creek Canal control structure. This control structure will also help stages, and associated ecological benefits, within the natural Cypress Creek Natural Area.

The spreader swale pump station capacity is designed to send up to 20 cfs from the Cypress Creek Canal into the spreader swale. The swale will extend for approximately 4,900 feet, with an average depth of 2 feet, bottom width of 5 feet, and 4H:1V side slopes. The spoil material will be placed along the western

edge of the swale as a small berm. This will assist in promoting an easterly flow direction while helping provide additional flood protection to Mack Dairy Road. To further improve the hydroperiod and flow conditions in the Cypress Creek Natural Area, re-grading of the easterly forks of Cypress Creek are proposed. This is to help maintain lower flow velocities, reduce scour, and promote natural vegetative growth and improved ecological conditions in the area.

D.4 REAL ESTATE REQUIREMENTS

The following real estate interests identified below for each project feature are required for the construction and operations, maintenance, repair, replacement, and rehabilitation (OMRR&R) of LRWRP. These are further delineated in Table D-3.

D.4.1 Flow-Way 1

M-1 Lower Pump Station

Fee is required for this feature; construction of this feature is within the M-Canal. The M Canal is owned in fee by the Indian Trail Improvement District and the City of West Palm Beach. SFWMD will be required to provide fee either through acquisition from Indian Trail Improvement District and the City of West Palm Beach or by Supplemental Agreement between the SFWMD and Indian Trail Improvement District and the City of West Palm Beach. The parties can execute a Supplemental Agreement as set forth in D.6.4. below.

D.4.1.1 M Canal

A perpetual channel easement is required for this existing canal. The M Canal is owned in fee by the Indian Trail Improvement District and West Palm Beach. In the event that neither cannot convey fee title to the SFWMD, then they can execute a Supplemental Agreement to provide the required lands pursuant to the terms and conditions of the CERP Master Agreement ARTICLE III as set forth in D.6.4. below.

D.4.1.2 Grassy Waters Preserve Triangle

Fee is required for earthwork and strategic construction of a swale. The Grassy Waters Preserve Area is owned in fee by the City of West Palm Beach. In the event that the City of West Palm Beach cannot convey fee title to the SFWMD, then they can execute a Supplemental Agreement to provide the required lands pursuant to the terms and conditions of the CERP Master Agreement ARTICLE III as set forth in D.6.4. below.

D.4.1.3 G-161

Fee is required for the G-161 feature. Any potential work required to allow for proper flow through the conveyance channel to include flows under both the Bee Line Highway and Northlake Blvd that connect the GWP to the C-18 Canal and under an existing railroad bridge, temporary construction easements and perpetual channel easements are required. The SFWMD owns fee to this area.

D.4.1.4 G-160

Fee is required for the G-160 feature. Construction of this feature will be within the C-18 Canal. C-18 Canal is a Central and South Florida Flood Control Project feature, and SFWMD holds a permanent easement for canal operations. Underlying fee ownership is public, owned by Palm Beach County. Palm Beach County owns fee title to this area and the SFWMD owns a Conservation Easement. The Conservation Easement does not give the SFWMD the right to flow water across the property nor the right to retain water on the properties. In the event that the Palm Beach cannot convey fee title to the SFWMD, then they can execute a Supplemental Agreement to provide the required lands pursuant to the terms and conditions of the CERP Master Agreement ARTICLE III as set forth in D.6.4. below.

D.4.1.5 Loxahatchee Slough

Palm Beach County owns fee title to this area and the SFWMD owns a Conservation Easement. The Conservation Easement does not give the SFWMD the right to flow water across the property nor the right to retain water on the properties. In the event that the Palm Beach County cannot convey fee title to the SFWMD, then they can execute a Supplemental Agreement to provide the required lands pursuant to the terms and conditions of the CERP Master Agreement ARTICLE III as set forth in D.6.4. below.

D.4.2 Flow-Way 2**D.4.2.1 C-18W Reservoir**

C-18W Reservoir: above ground reservoir, Estate Required Fee, 1 Parcel, SFWMD, owns fee to the approximately 1,650 acres needed for the reservoir.

D.4.2.2 Four Well Aquifer Storage and Recovery System

The real estate requirement for this feature is within the lands required for the C-18W Reservoir. Fee is required. SFWMD, owns fee to these lands.

D.4.2.3 M-O Canal Connector

A perpetual channel easement is required for the M-O Canal Connector. SFWMD has acquired easements along the north side of the M-O Canal, as well as along the west side of the proposed C-18W Reservoir. During PED, the project will determine if these easements are adequate for the project or if additional area is required. If the easements owned by SFWMD are not adequate, SFWMD will be required to acquire the necessary perpetual channel easements.

D.4.2.4 M-O Canal Connector Pump Station

Fee title is required for this feature. This land is owned in fee by the Florida Fish and Wildlife Commission. In the event that the Florida Fish and Wildlife Commission cannot convey the fee title to the SFWMD, than they can execute a Supplemental Agreement to provide the required lands pursuant to the terms and conditions of the CERP Master Agreement ARTICLE III as set forth in D.6.4. below.

M-O Canal: existing feature already constructed, though some improvement may be necessary to ensure appropriate conveyance capacity. The underlying fee ownership is by private individual owners, subject to an Easement to the Indian Trail Improvement District for road and drainage purposes. Perpetual Channel Easement for Public Right-of-way is required. During PED, the project will determine if these easements are adequate for the project or if additional area is required. In the event that the Indian Trail Improvement District cannot convey the existing easements to the SFWMD, than they can execute a Supplemental Agreement to provide the required lands pursuant to the terms and conditions of the CERP Master Agreement ARTICLE III as set forth in D.6.4. below.

D.4.3 Flow-Way 3**D.4.3.1 Pal-Mar East (Nine Gems)**

Pal-Mar East (Nine Gems): filling or plugging of existing north to south drainage canals, internal grading, small drainage pipes and culverts will be removed and backfilled, minor berm improvements. The SFWMD

has acquired the Pal-Mar East properties, except for: four (4) drainage ditches under easement by the Hobe St. Lucie Conservancy District (HSLCD); approximately 235 acres on the western boundary between the property and Pratt Whitney Road (SR 711) and 60 acres on the north east corner of the property. The four drainage easements owned by HSLDC will be treated as a facility/utility relocation and the appropriate real estate interests will be acquired via the relocation agreement. The relocation agreement will be done in accordance with the required Attorney's Opinion of Compensability. The planning model showed the 235 acre and 60 acre components to be un-impacted by the restoration project, however, this will need to be confirmed with detail, event-based modeling during PED. If the 235 acre and 60 acre components are impacted by the project, they will need to be acquired in fee or protected with a seepage barrier or other physical structure. A temporary work area easement will be required to complete the minor berm work and removal of small drainage pipe along the northern boundary of the property.

Thomas Pepper Farm

The project feature is the backfill of the existing Thomas Pepper farms drainage canal, rehabilitate the existing berms, construction of a new culvert and pump. The existing drainage on the farm will be rerouted and connected to the Hobe St. Lucie Conservancy District (HSLCD) canal on the north side of the Pal-Mar East (Nine-Gems) property. The estate required for the Thomas Pepper Farm is fee. An agreement will be coordinated with HSLDC to allow for permanent drainage into the existing HSLDC canal, estate to be determined in conjunction with the agreement.

D.4.3.2 Cypress Creek Canal:

Temporary easements are required for the construction of the two-bay concrete ogee spillway, and berm improvements. The portion of the canal where the structure will be constructed is owned by the SFWMD, shared title with Martin County. The portion of the canal adjacent to the residential communities is privately owned. During PED, it will be determined if Temporary Easements are required from the private landowners. Martin County has an easement to operate and maintain the canal, so the SFWMD will be required to obtain Temporary rights from Martin County as deemed necessary during PED.

D.4.3.3 Gulfstream West

Fee is required for the flow-through marsh, extensive earthwork, the levee and the collection ditches with spreader berms. The SFWMD has acquired the property necessary to complete the construction of the flow through marsh, with the exception of the canal that transects the property. SFWMD will be required to acquire fee to the canal.

D.4.3.4 Gulfstream East and Moonshine Creek

Fee is required for the weir and for the restoration work that may affect the Hobe Grove drainage ditch, which are owned by HSLCD. The SFWMD has acquired the parcels necessary to complete the hydro-period restoration work.

D.4.3.5 Kitching Creek

Fee is required for the proposed project features of a spreader swale and sheet pile weir. The proposed improvements are within Jonathan Dickenson State Park (JDSP). The State of Florida, Trustees of the Internal Improvement Trust Fund owns fee title to these lands and cannot convey fee title. A Supplemental Agreement will be needed to provide the required lands pursuant to the terms and conditions of the CERP Master Agreement ARTICLE III as set forth in D.6.4. below.

D.4.3.6 Mack Dairy Spreader Swale

Fee is required to construct the swale on the southern portion of the area, these properties are owned in fee by Palm Beach County and Martin County. The SFWMD has a conservation easement over most of the property needed to increase water levels and complete the hydro-period restoration. The Conservation Easement does not give the SFWMD the right to flow water across the property nor the right to retain water on the properties. In the event that the Palm Beach County cannot convey fee title to the SFWMD, then they can execute a Supplemental Agreement to provide the required lands pursuant to the terms and conditions of the CERP Master Agreement ARTICLE III as set forth in D.6.4. below. For the portion of the lands in Martin County, these properties are owned in fee by Martin County. The SFWMD has a conservation easement over most of the property needed to increase water levels and complete the hydro-period restoration. The Conservation Easement does not give the SFWMD the right to flow water across the property nor the right to retain water on the properties. In the event that the Martin County cannot convey fee title to the SFWMD, then they can execute a Supplemental Agreement to provide the required lands pursuant to the terms and conditions of the CERP Master Agreement ARTICLE III as set forth in D.6.4. below.

D.4.4 Staging and Access

Staging areas will be within the project footprint and identified during preconstruction, engineering and design (PED) of this project. Access areas will be by public roads and non-federal sponsor owned lands situated within the project area other access areas will be identified during PED for this project. A temporary work area easement will be required for areas identified for access outside the project area.

D.5 NON-FEDERALLY OWNED LANDS

The non-federal sponsor owns much of the lands required for the project in fee. Property was acquired using either SFWMD or State of Florida funds, no Federal funds. The total real estate required for the project includes 27,999 acres for hydroperiod improvement and approximately 1,650 acres for construction of a reservoir (C-18W Reservoir), associated infrastructure, and other miscellaneous pump stations and structures. The non-federal sponsor has acquired the majority of the lands required for the project, either in fee, or with conservation easements as shown in Table D-3.

Table D-3. Real Estate Requirements for Project Feature.

Feature	Feature Type	Required Estate	Estimated Acreage	Current Sponsor Estate
Flow-way 1 - G-160	Structure	Fee	2.5	Canal Easement
Flow-way 1 - G-161	Structure	Fee	3.0	Fee
Flow-way 1 - Grassy Waters Preserve Triangle	Earthwork	Fee	397	Unacquired
Flow-way 1 - M-1 Lower Pump Station	Pump Station	Fee	2.0	Unacquired

Feature	Feature Type	Required Estate	Estimated Acreage	Current Sponsor Estate
Flow-way 1 - Loxahatchee Slough	Operational changes, hydroperiod improvement	Fee or Conservation Easement	7,425	Acquired Palm Beach County, Fee, SFWMD Conservation Easement on ~ 12,000 acres which provides a buffer of ~ 2,500 yards east and west of the central restoration area
Flow-way 2 - C-18W Reservoir	Impoundment	Fee	~1,850	Fee
Aquifer Storage & Recovery (ASR)	Wells	Fee	Within C-18W footprint	Fee
Flow-way 2 - M-O Canal Connector	Pump, Canal	Fee	~100	Perpetual Easements
Flow-way 2 - J. W. Corbett Wildlife	Operational modification	Fee	1,642	Unacquired
Flow-way 3 - Pal-Mar East	Earthwork, wetland restoration	Fee	12,119	Various, mostly acquired, some existing easements to be acquired, some private parcels to be determined during PED
Flow-way 3 - Thomas Pepper Farm	Drainage modifications	Fee	TBD	Unacquired
Flow-way 3 - Pal-Mar East (Nine-Gems) northern canal	Drainage modifications, berm improvements	Fee	~60	Unacquired
Flow-way 3 - Cypress Creek Canal	Structure, canal improvements	Fee for structure, Temporary easement for	TBD	Fee acquired
Flow-way 3 - Cypress Creek Restoration	Mack Dairy Spreader, hydroperiod improvement	Fee, Perpetual Conservation Easement	3,693	Fee and conservation easement acquired
Flow-way 3 - Gulfstream West Flow through Marsh	Impoundment	Fee	750	Fee acquired, existing easement encumbrance to transfer
Flow-way 3 - Gulfstream East, Moonshine Creek	Earthwork, weir	Fee, easement for weir	650	Fee Acquired, easement needed
Flow-way 3 - Kitching Creek	Earthwork, weir	Fee	1243	TIITF (JDSP)

Feature	Feature Type	Required Estate	Estimated Acreage	Current Sponsor Estate
Flow-way 3 - River Floodplain	Increased flows to provide floodplain hydration and increase riverine connectivity	Perpetual Easement	~460	Fee

D.6 STANDARD ESTATES

The following estates are required:

D.6.1 Fee

The fee simple title to (the land described in _____ Schedule A) (Tracts Nos. _____, _____ and _____), Subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

D.6.2 Temporary Work Area Easement

A temporary easement and right of way in, on, over and across (the land described in Schedule A) (Tracts Nos. _____, _____ and _____), for a period not to exceed _____, beginning with date possession of the land is granted to the United States, for use by the United States, its representatives, agents, and contractors as a (borrow area) (work area), including the right to (borrow and/or deposit fill, spoil and waste material thereon) (move, store and remove equipment and supplies, and erect and remove temporary structures on the land and to perform any other work necessary and incident to the construction of the _____ Project, together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and any other vegetation, structures, or obstacles within the limits of the right of way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

D.6.3 Flowage Easement

The perpetual right, power, privilege and easement in, upon, over and across (the land described in Schedule "A") (Tracts Nos. _____, _____ and _____ for the purposes set forth below:

- a. Permanently to overflow, flood and submerge the land lying below elevation _____ (and to maintain mosquito control,) in connection with the operation and maintenance of the project for the purposes as authorized by the Act of Congress approved _____, together with all right, title and interest in and to the timber and the continuing right to clear and remove any brush, debris and natural obstructions which, in the opinion of the representative of the United States in charge of the project may be detrimental to the project.
- b. b. Occasionally to overflow, flood and submerge the land lying above elevation _____ (and to maintain mosquito control,) in connection with the operation and maintenance of said project.

Together with all right, title and interest in and to the structures and improvements now situate on the land, except fencing above elevation _____ (and also excepting _____, (here identify those structures not designed for human habitation which the District Engineer determines may remain on the land)) provided that no structures for human habitation shall be constructed or maintained on the land, that no other structures shall be constructed or maintained on the land except as may be approved in writing by the representative of the United States in charge of the project, and that no excavation shall be conducted and no landfill placed on the land without such approval as to the location and method of excavation and/or placement of landfill; the above estate is taken subject to existing easements for public roads and highways, public utilities, railroads and pipelines; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used and enjoyed without interfering with the use of the project for the purposes authorized by Congress or abridging the rights and easement hereby acquired; provided further that any use of the land shall be subject to Federal and State laws with respect to pollution.

D.6.4 Channel Improvement Easement

A perpetual and assignable right and easement to construct, operate, and maintain channel improvement works on, over and across (the land described in Schedule A) (Tracts Nos. _____, _____ and _____) for the purposes as authorized by the Act of Congress approved _____, including the right to clear, cut, fell, remove and dispose of any and all timber, trees, underbrush, buildings, improvements and/or other obstructions therefrom; to excavate: dredge, cut away, and remove any or all of said land and to place thereon dredge or spoil material; and for such other purposes as may be required in connection with said work of improvement; reserving, however, to the owners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

D.6.5 These Estates can be provided by Supplemental Agreement

The Comprehensive Everglades Restoration Plan as approved by Congress in WRDA 2000, consists of 68 components with the South Florida Water Management District (SFWMD) as the non-Federal Sponsor of a vast majority of the proposed components. The SFWMD in 2007 requested one master document that would address most if not all of the terms and conditions that were in standard Project Partnership Agreements at the time. The Department of the Army and the South Florida Water Management District negotiated a Master Agreement for the cooperation in constructing and operating, maintaining, repairing, replacing, and rehabilitating Projects Authorized to be undertaken pursuant to the Comprehensive Everglades Restoration Plan. The Master Agreement was executed on August 13, 2009 by and between the Department of the Army represented by the Deputy Assistant Secretary of the Army (Civil Works) and the South Florida Water Management District represented by the Chair of its Governing Board. As part of the Master Agreement, the parties recognized that some of the proposed projects would potentially be located on lands owned by other governmental entities (the State of Florida, local counties, local Cities, or other governmental entities). It was also recognized by the parties that the lands owned by these governmental entities were acquired using funds that prohibited the conveyance of the lands or interest in lands. The other governmental entities supported the CERP and desired that their lands be included in proposed projects. As part of the Master Agreement, the parties included Article III, subparagraph E.

In accordance with the terms of ARTICLE III - LANDS, EASEMENTS, RIGHTS-OF-WAY, RELOCATIONS AND COMPLIANCE WITH PUBLIC LAW 91-646, AS AMENDED of the Master Agreement subparagraph E.

Agreement provides: “The Government recognizes that the Non-Federal Sponsor in limited circumstances will be entering into supplemental agreements with the State of Florida or another Florida governmental entity whereby (1) the State of Florida or another Florida governmental entity, rather than the Non-Federal Sponsor, has acquired or will acquire required lands, easements, and rights-of-way, and (2) the State of Florida or another Florida governmental entity will dedicate the land interests it owns to the *authorized CERP Project* and ensure that such lands, easements, and rights-of-way are retained in public ownership for uses compatible with the purposes of the *authorized CERP Project* and shall not be conveyed, transferred, altered, or otherwise encumbered without the advance written consent of the Non-Federal Sponsor and the Government. These supplemental agreements shall be limited in effect to the signatory parties and shall not reduce or alter in any way the requirements of this Master Agreement and any *PPA* that makes the Non-Federal Sponsor solely responsible for providing lands, easements, and rights-of-way that are required for the construction, operation, maintenance, repair, replacement, and rehabilitation of the *authorized CERP Project*.”

Use of Supplemental Agreements between the SFWMD as non-Federal Sponsor and the State of Florida or another Florida governmental entity whereby the State of Florida or another Florida governmental entity, rather than the Non-Federal Sponsor have been approved in the following CERP Projects: Biscayne Bay Coastal Wetland, C-111 West Spreader Canal, and Broward County Water Preserve Areas.

D.7 EXISTING FEDERAL PROJECTS

The Central and Southern Florida Flood Control Canal 18 will be partially impacted. The Canal 18 (C-18) was constructed as part of the Central and South Florida Flood Control Project. The South Florida Water Management District is the owner of the lands that were certified. Lands are sufficient and available for the LRWRP. The non-federal sponsor will not receive credit for the value of LER, including incidental costs for lands acquired as part of the CS&F, C-18 project.

D.8 FEDERALLY OWNED LANDS

There are no known federally owned lands within the project area.

D.9 NAVIGATION SERVITUDE

The navigation servitude is not applicable to this project.

D.10 REAL ESTATE MAPS

The real estate planning map depicts the project area. See Exhibit A.

D.11 INDUCED FLOODING

Preliminary analysis indicate there will be no flooding outside the lands identified as required for the Project, induced by the construction or the operation and maintenance of the project. However, a Taking/Savings Analysis has not been completed to determine if the current level of service will be maintained. During PED, additional modeling will be completed to determine if there is a violation of the Savings Clause related to the maintenance of the level of service of flood protection. If it is determined that induced flooding is anticipated a Takings Analysis/Savings Clause will be prepared to determine if the expected induced flooding would rise to the level that would require additional real estate for the project.

If it is determined that additional real estate is required; the additional lands impacted by induced flooding will be authorized to be acquired as part of this real estate plan for the LRWRP.

D.12 MITIGATION

Preliminary cultural resources surveys have identified impacts to cultural resources on lands within the project area. Additional cultural resource surveys will be necessary to identify, evaluate, and avoid impacting historic properties within the project area. Measures to mitigate, avoid, or minimize these impacts will be determined during PED of this project.

D.13 RELOCATION ASSISTANCE (PUBLIC LAW 91-646)

It is anticipated that relocation assistance benefits will not be required for this project.

D.14 MINERALS

Preliminary assessment indicates no known present or anticipated mineral or sub-surface mineral extraction activities within the vicinity of the proposed area which may affect construction, operation, or maintenance of the project.

D.15 NON-FEDERAL SPONSOR'S AUTHORITY TO PARTICIPATE IN PROJECT

The South Florida Water Management District (SFWMD) is the non-federal sponsor for this project. The SFWMD is empowered and authorized to acquire the LER for the construction, operation, and maintenance of the project. The capability assessment of SFWMD's real estate acquisition capability is attached as Exhibit "B" of this real estate plan. The SFWMD is familiar with P.L. 91-646 requirements and the requirements for documenting expenses for credit purposes.

D.16 ZONING ORDINANCES

Preliminary investigations indicates that no enactments of zoning ordinances are proposed in lieu of, or to facilitate, acquisition in connection with the project.

D.17 REAL ESTATE ACQUISITION SCHEDULE

No real estate acquisition schedule has been developed; coordination with the SFWMD will take place to develop a schedule of all land acquisition milestones, including LER certification. Also, the SFWMD will be advised by letter of the risks associated with land acquisition prior to the execution of the Project Partnership Agreement (PPA) or prior to the Government's formal notice to proceed with the acquisition. A draft copy of the Risk Letter is attached as Exhibit "C" of this real estate plan.

D.18 RELOCATIONS, ALTERATIONS, VACATIONS, AND ABANDONMENTS (UTILITIES, STRUCTURES AND FACILITIES, CEMETERIES, AND TOWNS).

Only two relocations are expected for this project.

The Thomas Pepper farm is located to the west of the Pal-Mar East Property and Pratt Whitney Road (SR-711). Currently, the farm drains to the south through a culvert under the road, and then through a canal that bisects the Pal-Mar East property. This canal is owned and operated by the Hobe St. Lucie

Conservancy District (HSLCD). It continues east and south to eventually discharge into the Cypress Creek Canal and ultimately to the NWFLR via Cypress Creek. The canal through which the Thomas Pepper farms currently drains causes a disruption in sheet flow from the southern portion of Pal-Mar East flowing in a northerly direction. Due to the topography, the northwest corner of southern portion of Pal-Mar East (south of this canal and to the east of Pratt Whitney Road (SR 711) may have periods of over-inundation due to the small berm that separates the natural area of Pal-Mar East from the Thomas Pepper drainage canal. The proposed design is to backfill that portion of the existing HSLCD canal that provides drainage to Thomas Pepper farms and then smooth the existing berms to promote sheet flow from southern Pal-Mar East to the north/eastern portions of the property. The new drainage pattern would divert water from the Thomas Pepper Farm to another existing HSLCD canal located along the northern border of Pal-Mar East, between Pal-Mar East and the HSLCD agricultural land. This will require modification of a drainage ditch that currently exists along the northern boundary of Pal-Mar. The existing ditch shall be widened and deepened to handle the additional outflow from Thomas Pepper Farms. Additionally, a new culvert and pump will be required to re-route the Farm's drainage under Pratt Whitney road and into the newly constructed drainage canal. Because the Hobe-St. Lucie Conservancy District is a water control district codified by House Bill No. 1433 of Ch. 2005-339, in accordance with section 298.001, Florida Statutes acquisition of the drainage ditches owned by the HSLCD and improvement of the other drainage ditches owned by the HSLCD will be a utility/facility relocation. A Preliminary Attorney's Opinion of Compensability is not required under Chapter 12 of ER 404-1-12 or Real Estate Policy Letter 31, dated January 11, 2019.

Palm Beach County Pump Station Replacement-There is an existing pump station owned by Palm Beach County, which serves the Palm Beach County Water Treatment Plant located adjacent to the southeastern corner of what will be the C-18W reservoir. There is an existing pump station located within what will be the C-18W reservoir. The pump station conveys flows from the water treatment plant via a County owned ditch into an existing wetland which will be within the C-18W reservoir. This pump station will be demolished and replaced. The new pump station will be located outside the northeastern corner of the C-18W reservoir, and will discharge via the existing County owned ditch into an existing wetland to the northeast of the C-18W Reservoir on lands owned in fee by SFWMD. This pump station will be relocated as a replacement and need not conform to USACE design standards. The location of the C-18W reservoir embankment will not impact the Palm Beach County utility corridor or the existing County owned ditch.

Further assessments will be conducted during PED phase of the project to determine if any of the utilities listed below will have to be relocated.

The following utility lines have been identified as potentially being within the project footprint.

D.18.1 Loxahatchee Flow Way 1:

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 3008, page 81, public records of Martin County, Florida. (Section 28, Township 41 South, Range 42 East).

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Deed Book 1014, page 518, public records of Palm Beach County, Florida. (Section 32, Township 42 South, Range 42 East).

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 1446, page 252, public records Palm Beach County, Florida. (Section 36, Township 42 South, Range 39 East).

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 1601, page 296, public records of Palm Beach County, Florida. (Sections 3 and 4, Township 43 South, Range 40 East).

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 1601, page 298, public records of Palm Beach County, Florida. **(Sections 3 and 4, Township 43 South, Range 40 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 1619, page 586, public records of Palm Beach County, Florida. **(Sections 3 and 4, Township 43 South, Range 40 East).**

Seacoast Utility Authority's interest as shown by virtue of that certain Notice of Lien Rights as recorded in Official Records Book 22953, page 1631 and that certain Notice of Interest as recorded in Official Records Book 26779, page 403, public records of Palm Beach County, Florida. **(Various Sections in Townships 41 and 42, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 3008, page 81, public records of Palm Beach County, Florida. **(Section 28, Township 41 South, Range 42 East).**

Easement in favor of Seacoast Utility Authority by virtue of that certain Utility Easement as recorded in Official Records Book 10264, page 1783, public records of Palm Beach County, Florida. **(Section 28, Township 41 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Order of Taking as recorded in Official Records Book 6873, page 1317, as modified by that certain Partial Release of Easement as recorded in Official Records Book 12426, page 484, public records of Palm Beach County, Florida. **(Sections 28, 29 and 32, Township 41 South, Range 42 East and Section 5, Township 42 South, Range 42 East).**

Utility Easement as shown on the Plat of Mirasol Plat Five as recorded in Plat Book 98, page 73, public record of Palm Beach County, Florida. **(Section 32, Township 41 South, Range 42 East and Section 5, Township 42 South, Range 42 East).**

Memorandum of Right of Way Consent Agreement between TWC/Golf Digest and Florida Power & Light Company as recorded in Official Records Book 11988, page 1069, public records of Palm Beach County, Florida. **(Section 32, Township 41 South, Range 42 East and Section 5, Township 42 South, Range 42 East).**

Easement in favor of the Seacoast Utility Authority by virtue of that certain Non-Exclusive Utility Easement as recorded in Official Records Book 13195, page 1896, public records of Palm Beach County, Florida. **(Section 5, Township 42 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 13632, page 1462, public records of Palm Beach County, Florida. (Section 5, Township 42 South, Range 42 East).

Easement in favor of Seacoast Utility Authority by virtue of that certain Utility Easement as recorded in Official Records Book 6476, page 1920, public records of Palm Beach County, Florida. **(Section 6, Township 42 South, Range 42 East).**

Memorandum of Nonexclusive Permanent Underground Occupancy Agreement between CSX Transportation, Inc. and Florida Power & Light Company as recorded in Official Records Book 25775, page 1185, public records of Palm Beach County, Florida. **(Sections 7, 8, 16, 17 and 21, Township 42 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 23334, page 1158, public records of Palm Beach County, Florida. **(Section 7, Township 42 South, Range 42 East).**

Right of Way Occupancy Agreement between CSX Transportation, Inc. and MCI Telecommunications Corporation as recorded in Official Records Book 5769, page 517, public records of Palm Beach County, Florida. **(Sections 7, 8, 16, 17 and 21, Township 42 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 9491, page 509, public records of Palm Beach County, Florida. **(Section 17, Township 42 South, Range 42 East).**

Easement in favor of Seacoast Utility Authority by virtue of that certain Easement Deed as recorded in Official Records Book 17267, page 174, public records of Palm Beach County, Florida. **(Section 18, Township 42 South, Range 42 East).**

Easement in favor of Seacoast Utility Authority by virtue of that certain Memorandum of Developer Agreement as recorded in Official Records Book 18411, page 1962, public records of Palm Beach County, Florida. **(Section 18, Township 42 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 9204, page 821, public records of Palm Beach County, Florida. **(Section 20, Township 42 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Order of Taking as recorded in Official Records Book 7393, page 1811, public records of Palm Beach County, Florida. **(Section 19, Township 43 South, Range 40 East).**

Easement in favor of Florida Power & Light Company and Southern Bell Telephone and Telegraph Company by virtue of that certain Easement as recorded in Official Records Book 1137, page 344, public records of Palm Beach County, Florida. **(Sections 5 and 6, Township 42 South, Range 42 East).**

D.18.2 Loxahatchee Flow Way 2:

Memorandum of Nonexclusive Permanent Underground Occupancy Agreement between CSX Transportation, Inc. and Florida Power & Light Company as recorded in Official Records Book 25775, page 1185, public records of Palm Beach County, Florida. **(Sections 28, 34 and 35, Township 41 South, Range 41 East).**

Right of Way Occupancy Agreement between CSX Transportation, Inc. and MCI Telecommunications Corporation as recorded in Official Records Book 5769, page 517, public records of Palm Beach County, Florida. **(Sections 28, 34 and 35, Township 41 South, Range 41 East).**

Easement in favor of Florida Power & Light Company as reserved in that certain Special Warranty Deed as recorded in Official Records Book 10328, page 1142, public records of Palm Beach County, Florida. **(Section 34, Township 41 South, Range 41 East).**

Permit Agreement between Palm Beach County and Florida Power & Light Company as recorded in Official Records Book 9690, page 1475, public records of Palm Beach County, Florida. **(Sections 34 and 35, Township 41 South, Range 41 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 6688, page 387, public records of Palm Beach County, Florida. **(Section 34, Township 41 South, Range 41 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 6682, page 1577, public records of Palm Beach County, Florida. **(Section 28, Township 41 South, Range 41 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 6633, page 1635, public records of Palm Beach County, Florida. **(Section 28, Township 41 South, Range 41 East).**

Declaration of Easement in favor of Palm Beach County as recorded in Official Records Book 21666, page 904, public records of Palm Beach County, Florida. **(Sections 5 and 8, Township 42 South, Range 41 East).**

Declaration of Easement in favor of Palm Beach County as recorded in Official Records Book 26494, page 1068, public records of Palm Beach County, Florida. **(Section 8, Township 42 South, Range 41 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 11426, page 87, public records of Palm Beach County, Florida. **(Section 7, Township 41 South, Range 41 East).**

Utility Easements shown on the Plat of Palm Beach County Biotechnology Research Park as recorded in Plat Book 103, page 108, public records of Palm Beach County, Florida. **(Sections 5, 6, 7 and 8, Township 42 South, Range 41 East).**

Utility Easement as shown in those certain Easement, Assignment and Assumption of Easement and Amendment Number 1 to FWC Easement Number 13510 as recorded in Official Records Book 19023, page 1733, Official Records Book 26517, page 907 and Official Records Book 27184, page 1749, public records of Palm Beach County, Florida. **(Sections 12 and 13, Township 42 South, Range 40 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 23200, page 1491, public records of Palm Beach County, Florida. **(Section 1, Township 42 South, Range 40 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 1231, page 475, public records of Palm Beach County, Florida. **(Sections 28, 32 and 33, Township 41 South, Range 41 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Right of Way Agreement as recorded in Official Records Book 749, page 698, public records of Palm Beach County, Florida. **(Sections 1, 2, 11 and 12, Township 42 South, Range 40 East and Section 35, Township 41 South, Range 40 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 1658, page 1602, public records of Palm Beach County, Florida. **(Section 36, Township 41 South, Range 40 East and Section 1, Township 42 South, Range 40 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 765, page 68, public records of Palm Beach County, Florida. **(Sections 1, 2 and 12, Township 42 South, Range 40 East and Section 35, Township 41 South, Range 40 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 1802, page 1226, public records of Palm Beach County, Florida. **(Section 1, Township 42 South, Range 40 East).**

D.18.3 Loxahatchee Flow Way 3:

Easement in favor of Florida Gas Transmission Company by virtue of that certain Sovereign Submerged Lands Easement as recorded in Official Records Book 1105, page 2493, public records of Martin County, Florida. **(Section 13, Township 40 South, Range 41 East and Sections 18, 19, 29 and 30, Township 40 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 17435, page 243, public records of Palm Beach County, Florida. **(Sections 31 and 32, Township 40 South, Range 41 East).**

Easement in favor of Florida Gas Transmission Company by virtue of that certain Natural Gas Pipeline Easement Agreement as recorded in Official Records Book 2768, page 1471 (Martin County) and Official Records Book 27363, page 1648 (Palm Beach County) and that certain First Amendment to Natural Gas Pipeline Easement Agreement as recorded in Official Records Book 2768, page 2439 (Martin County) and Official Records Book 27368, page 1832 (Palm Beach County), public records of Martin and Palm Beach Counties, Florida. **(Section 13, Township 40 South, Range 41 East, Sections**

13, 18, 19, 29 and 30, Township 40 South, Range 42 East, Martin County and Section 32, Township 40 South, Range 42 East, Palm Beach County).

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 179, page 283, public records of Martin County, Florida. **(Section 32, Township 39 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 186, page 133, public records of Martin County, Florida. **(Sections 32 and 33, Township 39 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 188, page 396, public records of Martin County, Florida. **(Section 32, Township 39 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 188, page 405, public records of Martin County, Florida. **(Section 32, Township 39 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 313, page 94, public records of Martin County, Florida. **(Section 32, Township 39 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Right of Way Agreement as recorded in Deed Book 9, page 571, public records of Martin County, Florida. **(Section 32, Township 39 South, Range 42 East).**

Right of Way Agreement between Florida State Turnpike Authority and the American Telephone and Telegraph Company as recorded in Official Records Book 160, page 283, public records of Martin County, Florida. **(Section 13, Township 40 South, Range 41 East and Sections 18, 19, 29 and 30, Township 40 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 128, page 29, public records of Martin County, Florida. **(Section 19, Township 40 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 136, page 392, public records of Martin County, Florida. **(Section 19, Township 40 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Deed Book 92, page 574, public records of Martin County, Florida. **(Section 32, Township 39 South, Range 42 East).**

Easement and Right of Way Agreement between Florida State Turnpike Authority and Florida Gas Transmission Company as recorded in Official Records Book 215, page 538, public records of Martin

County, Florida. **(Section 13, Township 40 South, Range 41 East and Sections 18, 19, 29 and 30, Township 40 South, Range 42 East).**

Easement in favor of Florida Power & Light Company by virtue of that certain Easement as recorded in Official Records Book 508, page 1676, public records of Martin County, Florida. **(Section 26, Township 40 South, Range 41 East).**

Preliminary Attorney's Opinions of Compensability were not prepared, the Government will make a final determination if survey during PED identifies relocations, alterations, vacations, and/or abandonments are required, a Final Attorney's Opinion of Compensability will be prepared in writing for each proposed relocation, alteration, vacation, and/or abandonment.

"ANY CONCLUSION OR CATEGORIZATION CONTAINED IN THIS REPORT THAT AN ITEM IS A UTILITY OR FACILITY RELOCATION TO BE PERFORMED BY THE NON-FEDERAL SPONSOR AS PART OF ITS LERRD RESPONSIBILITIES IS PRELIMINARY ONLY. THE GOVERNMENT WILL MAKE A FINAL DETERMINATION OF THE RELOCATIONS NECESSARY FOR THE CONSTRUCTION, OPERATION, OR MAINTENANCE OF THE PROJECT AFTER FURTHER ANALYSIS AND COMPLETION AND APPROVAL OF FINAL ATTORNEY'S OPINIONS OF COMPENSABILITY FOR EACH OF THE IMPACTED UTILITIES AND FACILITIES." (ER 405-1-12, paragraph 12-17.c.(6))

D.19 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW)

Currently there are no impacts to the real estate acquisition process and LER value estimate due to HTRW contaminants within the project area. The environmental site assessment process will identify and provide for resolution of any HTRW sites prior to certification of LER for project construction. Should remediation of HTRW contamination be required; it will be the responsibility of the SFWMD, the non-federal sponsor at their sole expense. In the event that HTRW contaminants are identified and are under the Comprehensive Environmental Response, Compensation and Liability Act, as amended, (CERCLA); for crediting purposes shall follow policy per ER 405-1-12, "12-37. Special Considerations, c.(3)g.

D.20 ATTITUDE OF LANDOWNERS

No opposition anticipated by landowners in the project area.

D.21 REAL ESTATE ACQUISITION/INCIDENTAL COSTS

The real estate cost estimate for the lands and damages is approximately \$241,053,134.00. A 25% contingency is added in the amount of \$60,263,283.00 to the overall real estate estimate for the project. The real estate cost estimate of lands required for the construction, operation, and maintenance to include the contingency is approximately \$301,316,417.00.

The estimate of the Federal real estate incidental acquisition cost including a contingency is \$1,012,500.00. This cost includes project real estate planning, mapping, review, oversight, monitoring, administrative and legal costs, crediting review costs, certification of lands required for project purposes, real estate analysis or other requirements that may be necessary during Planning, Engineering and Design (PED). The estimate of the non-federal sponsor incidental costs associated with the acquisition including a contingency is \$1,518,750.00.

The total real estate cost estimate including contingencies to implement this project is approximately \$303,847,667.00. The non-Federal sponsor will receive credit towards its share of real estate project costs incurred for certification of lands to include incidental costs.

D.22 SUMMARY OF PROJECT REAL ESTATE COSTS

The following cost figures (**Table D-4. 4**) are subject to change prior to construction.

Table D-4. Baseline cost estimate for real estate.

Real Estate Cost Category	Cost Estimate (current dollar)
Lands & Damages	\$241,053,134
Lands & Damages – Contingency (25%)	\$60,263,283
Subtotal for Lands & Damages	\$301,316,417
Federal Review of Non-Federal Sponsor	\$810,000
Federal Review of Non-Federal Sponsor– Contingency (25%)	\$202,500
Subtotal for Federal Review of Non-Federal Sponsor	\$1,012,500
Non-Federal Sponsor Administrative Costs	\$1,215,000
Non-Federal Sponsor Administrative Costs – Contingency (25%)	\$303,750
Subtotal for Non-Federal Sponsor Administrative Costs	\$1,518,750
TOTAL Real Estate Cost Estimate	\$303,847,667

D.23 REAL ESTATE CHART OF ACCOUNTS

Table D-5. summarizes the chart of accounts for the project.

Table D-5. Chart of accounts for the Recommended Plan.

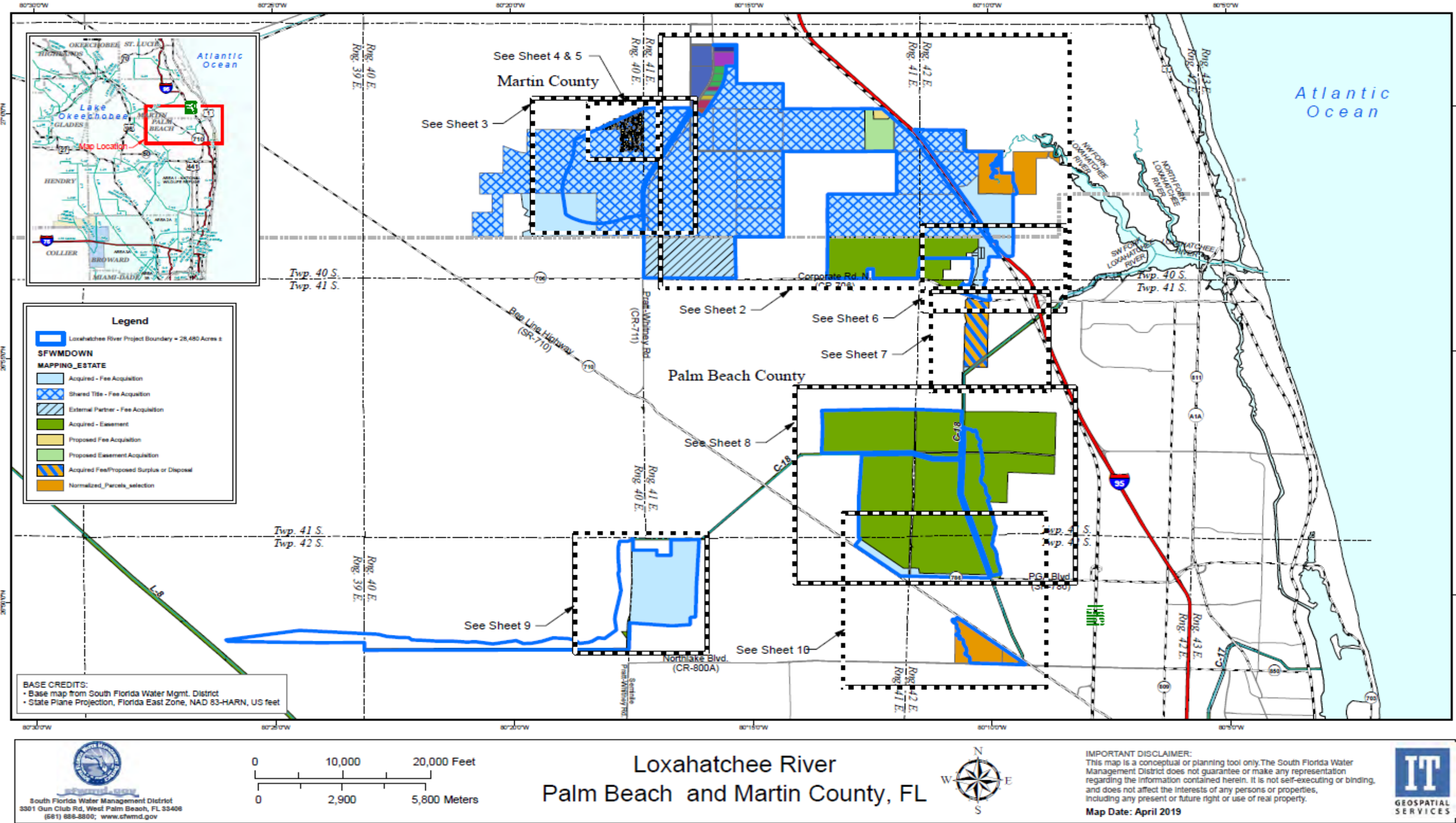
Code - Description	Federal Cost Estimate	Non-Federal Cost Estimate	Totals
01B20 - Acquisition by Sponsor	\$0	\$1,215,000	\$1,215,000
01B40 - Review of Project Sponsor	\$810,000	\$0	\$810,000
01C20 - Condemnations by Project Sponsor	\$0	\$0	\$0
01C40 - Review of Project Sponsor	\$0	\$0	\$0
01F20 - PL 91-646 Relocation Assistance by Project Sponsor	\$0	\$0	\$0
01F40 - Review of Project Sponsor	\$0	\$0	\$0
01R1 - Land Payments	\$0	\$241,053,134	\$241,053,134
Total Real Estate Cost Estimates Excluding Contingency	\$810,000	\$242,268,134	\$243,078,134
Total Real Estate Contingency Estimates	\$202,500	\$60,567,033	\$60,769,533
Total Project Real Estate Cost Estimates	\$1,012,500	\$302,835,167	\$303,847,667

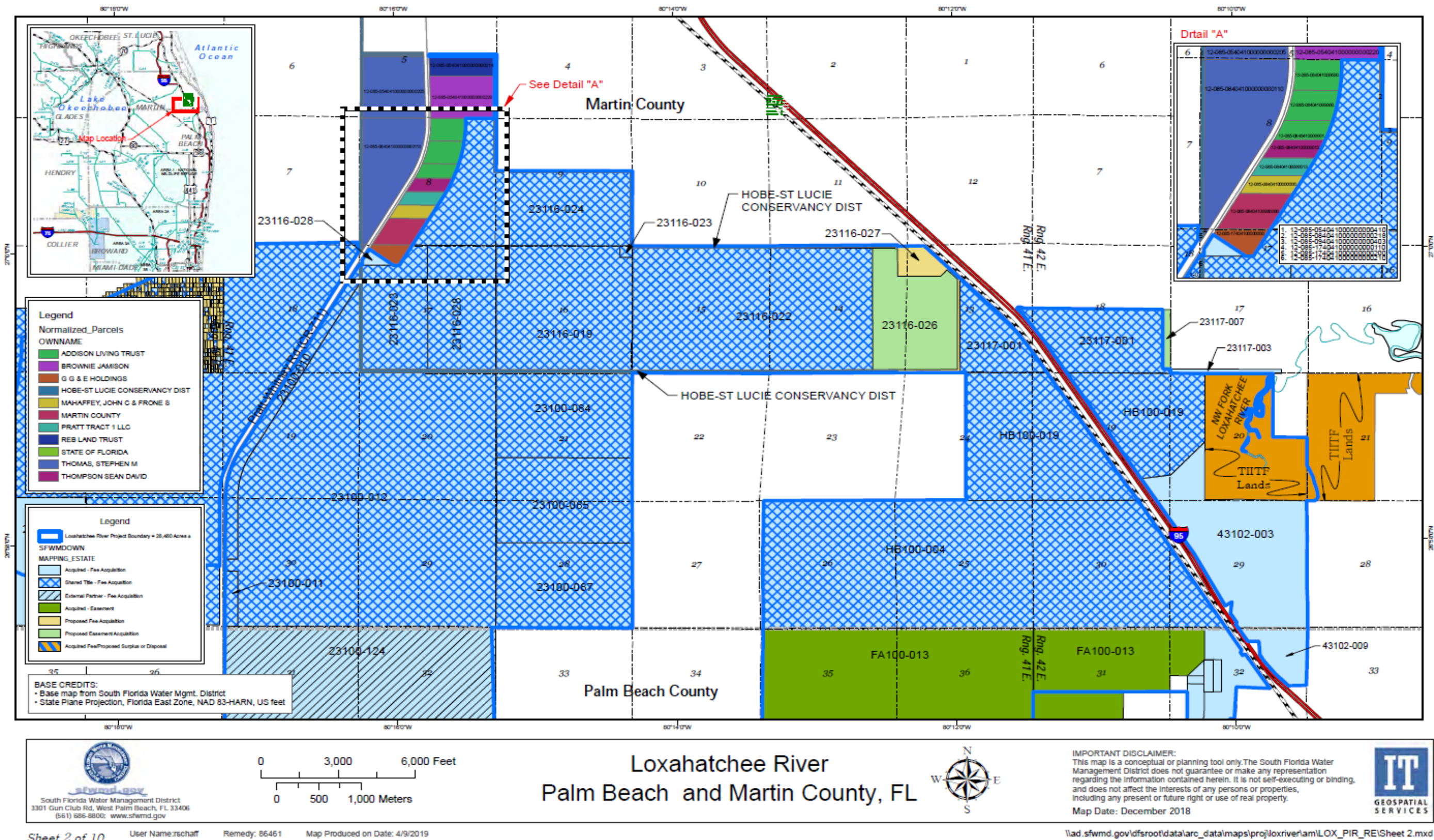
Note: The contingency is based on real estate incremental costs.

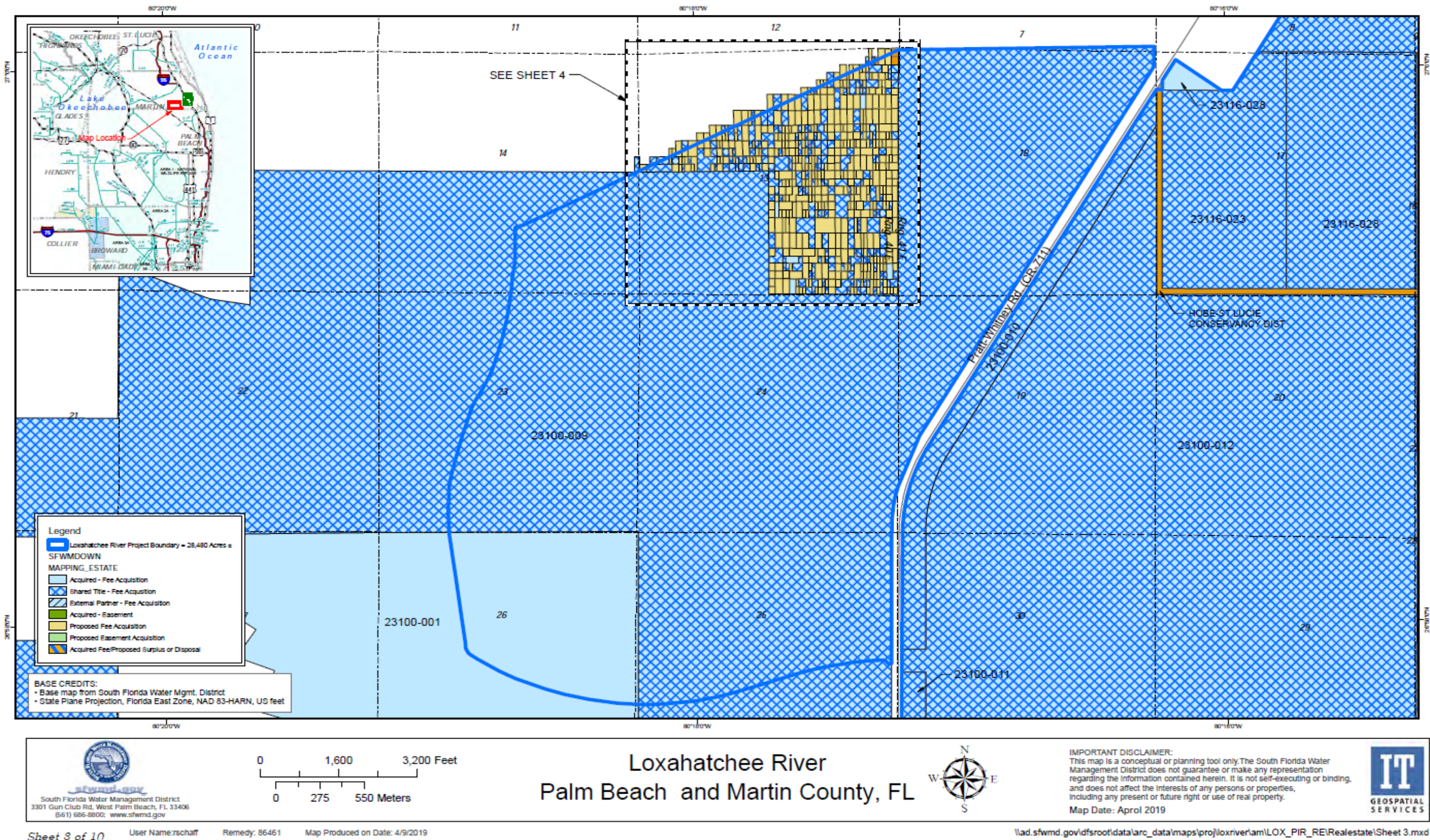
Exhibit “A”

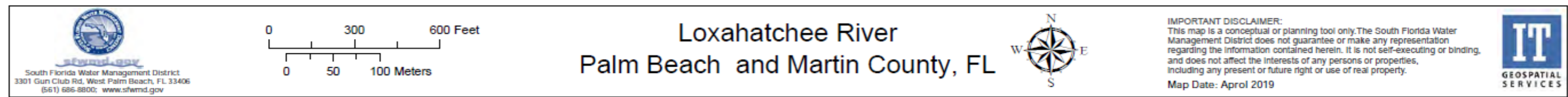
Real Estate Maps

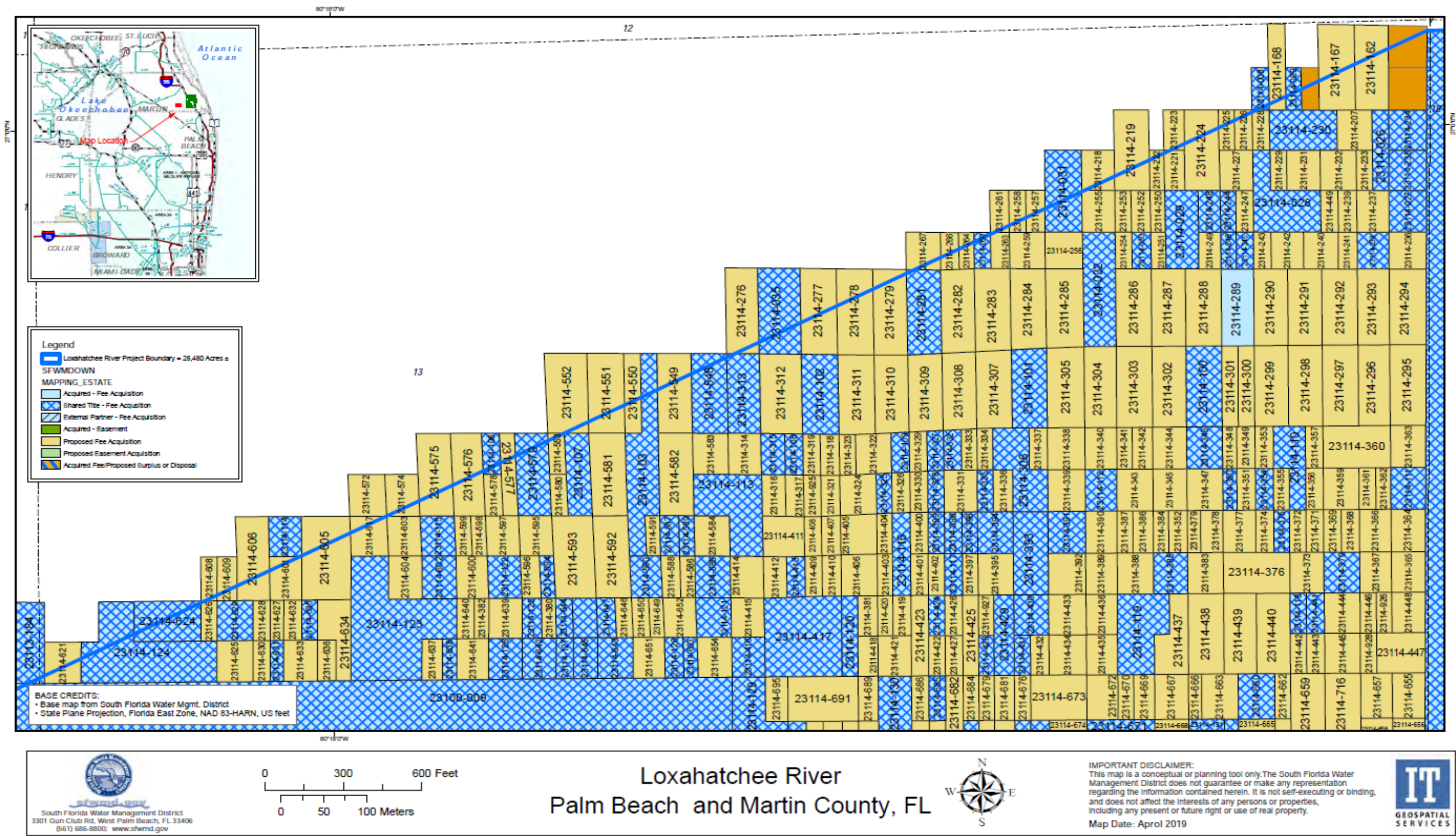
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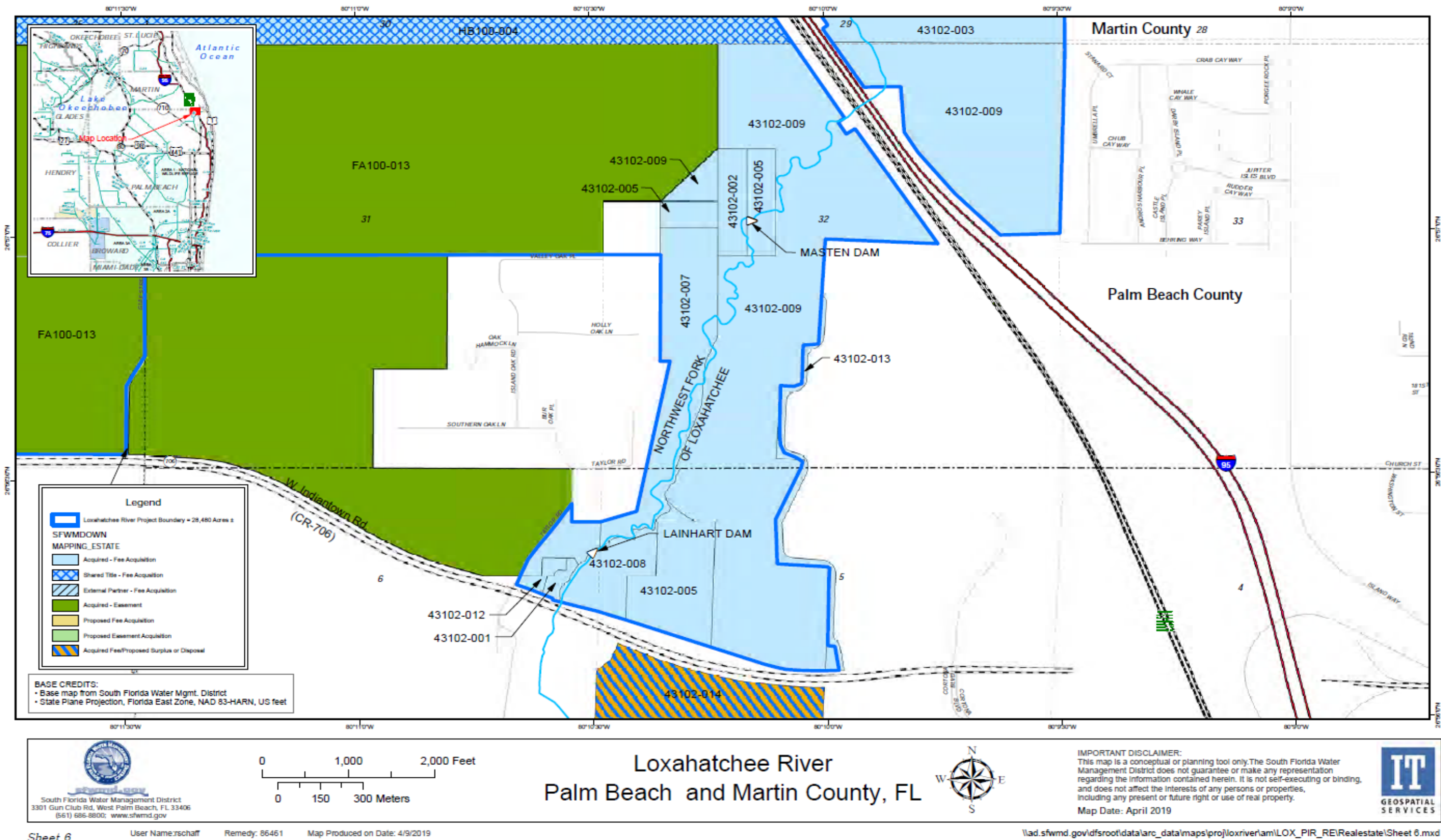


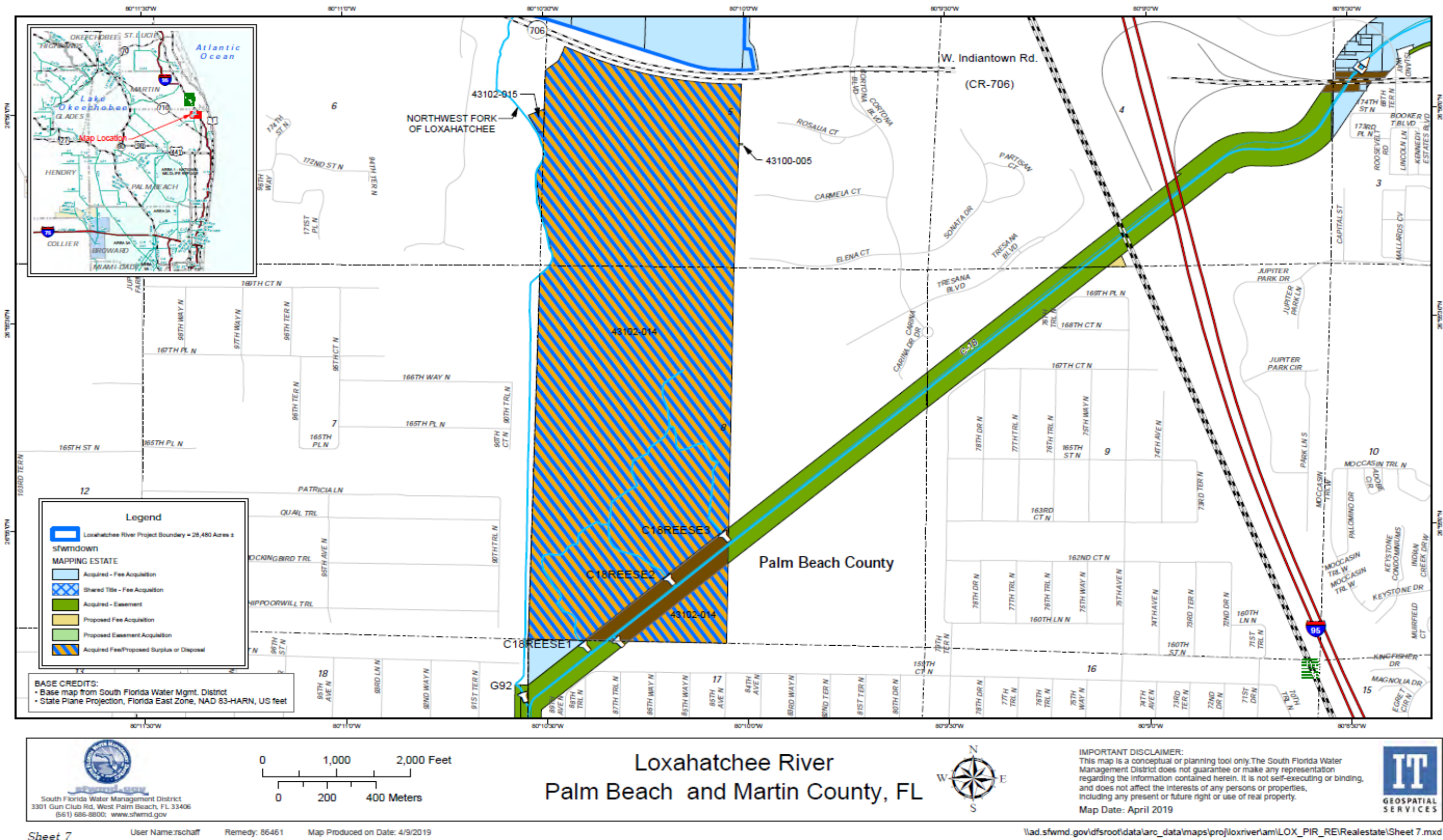


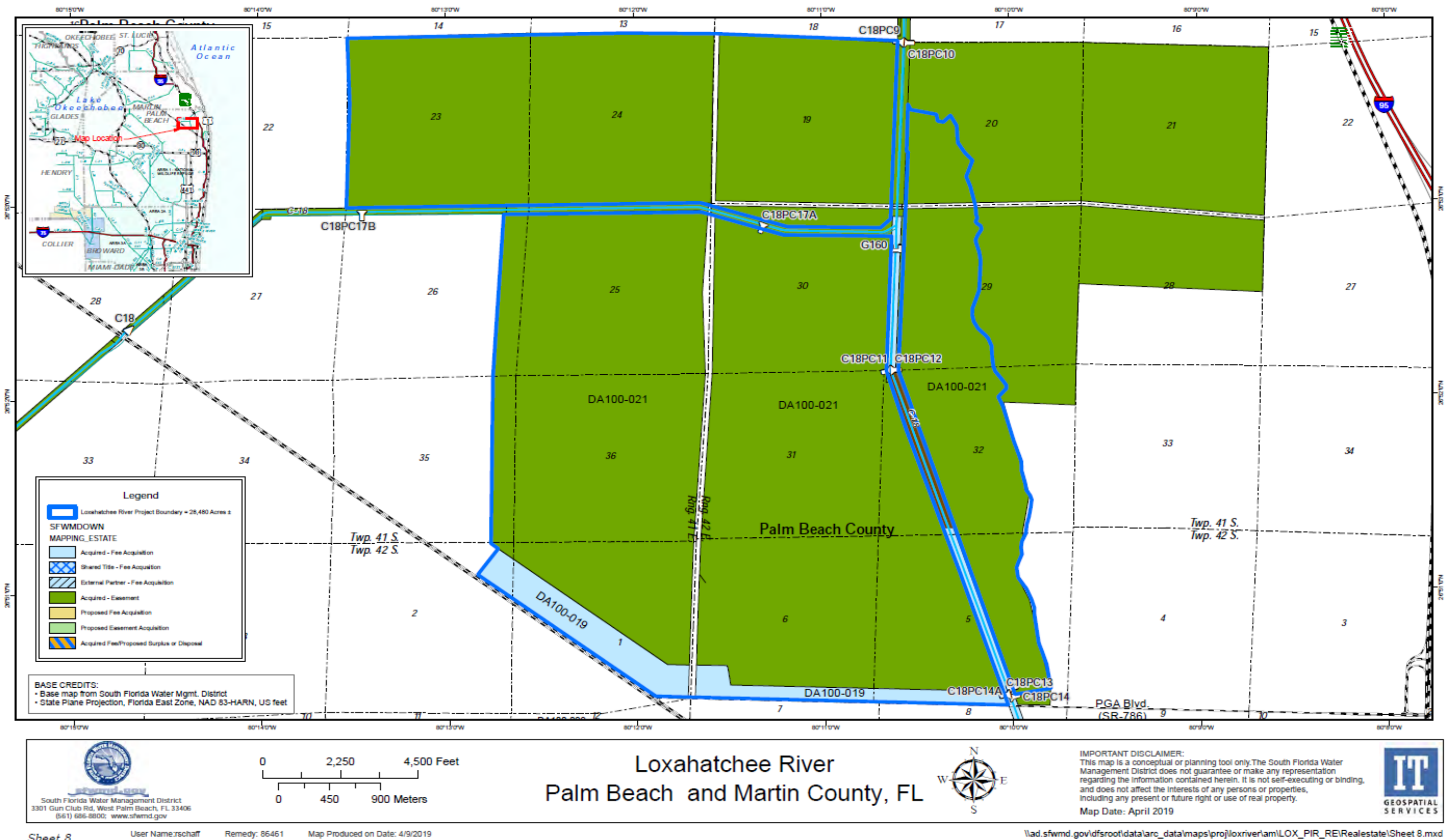


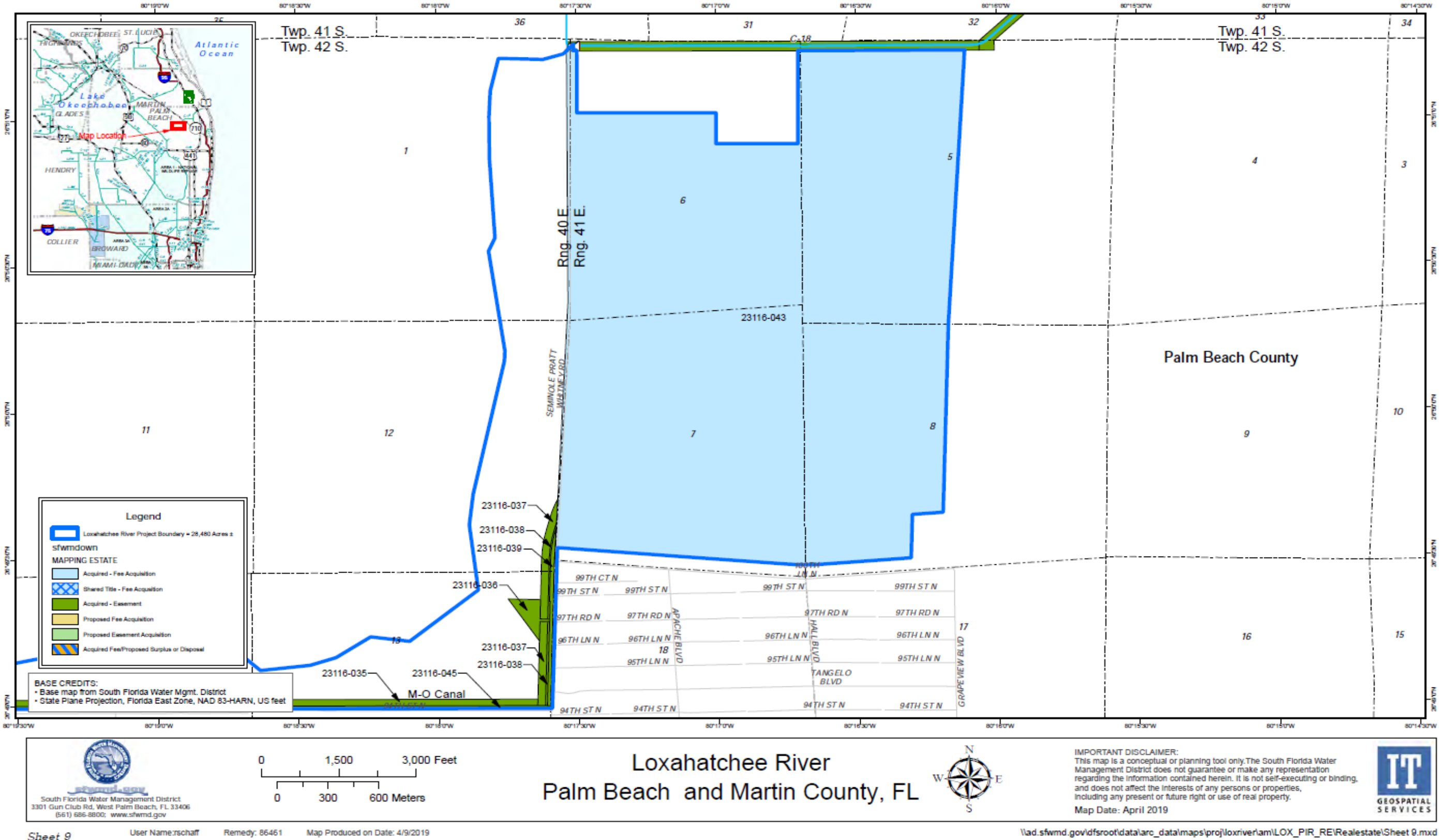












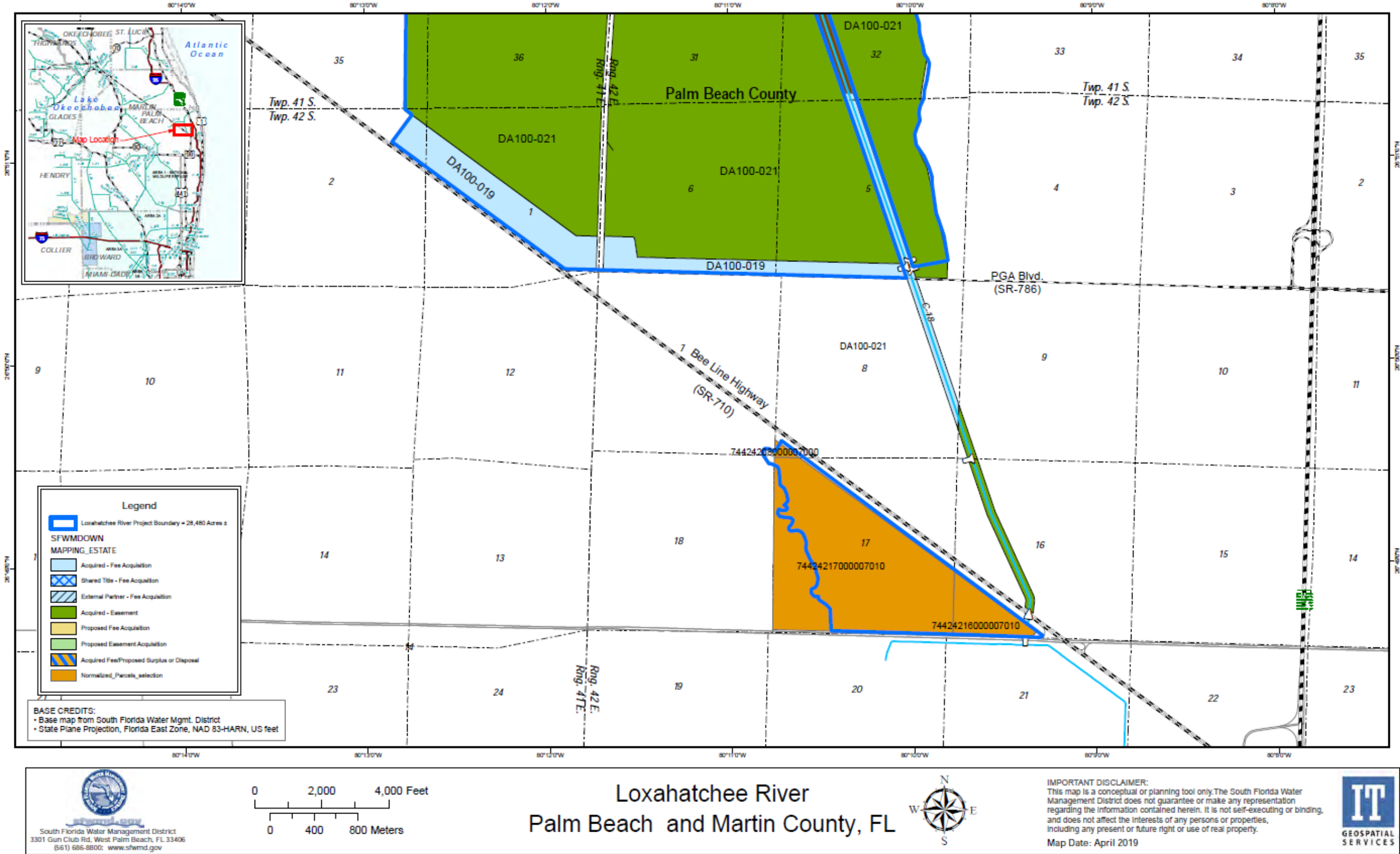


Exhibit “B”

Assessment of Non-Federal Sponsor’s

Real Estate Acquisition Capability

ASSESSMENT OF NON-FEDERAL SPONSOR'S
REAL ESTATE ACQUISITION CAPABILITY

I. Legal Authority:

- a. Does the sponsor have legal authority to acquire and hold title to real property for project purposes? (yes/no)

Yes, per Section 373.139(2), Florida Statutes

"The governing board of the district is empowered and authorized to acquire in fee or less than fee title to real property, easements and other interests or rights therein, by purchase, gift, devise, lease, eminent domain, or otherwise for flood control, water storage, water management, conservation and protection of water resources, aquifer recharge, water resource and water supply development, and preservation of wetlands, streams, and lakes. Eminent domain powers may be used only for acquiring real property for flood control and water storage or for curing title defects or encumbrances to real property owned by the district or to be acquired by the district from a willing seller."

- b. Does the sponsor have the power of eminent domain for this project? (yes/no)

Yes, per Section 373.139(2), Florida Statutes, as stated above. Section 373.1501, Florida Statutes, South Florida Water Management District as local sponsor gives authority to act as local sponsor on Federal projects.

- c. Does the sponsor have "quick-take" authority for this project? (yes/no)

Yes, if a "quick take" as opposed to a "slow take" is the method by which the District pursues the condemnation, it takes approximately six months to a year depending on the county.

- d. Are any of the lands/interests in land required for the project located outside the sponsor's political boundary? (yes/no)

No.

- e. Are any of the lands/interests in land required for the project owned by an entity whose property the sponsor cannot condemn? (yes/no)

No.

II. Human Resource Requirements:

- a. Will the sponsor's in-house staff require training to become familiar with the real estate requirements of Federal projects including P.L. 91-646, as amended? (yes/no)

No.

- b. If the answer to II.a. is "yes," has a reasonable plan been developed to provide such training? (yes/no)

- c. Does the sponsor's in-house staff have sufficient real estate acquisition experience to meet its responsibilities for the project?

(yes/no)

Yes. SFWMD Real Estate staff have successfully acquired many acres of land for Federal CERP projects and pre-CERP projects.

- d. Is the sponsor's projected in-house staffing level sufficient considering its other work load, if any, and the project schedule? (yes/no)

Yes. However, the current workload is high and SFWMD needs to review the project acquisition schedule once it is developed.

- e. Can the sponsor obtain contractor support, if required in a timely fashion? (yes/no)

Yes, if a contractor is needed we can hire.

- f. Will the sponsor likely request USACE assistance in acquiring real estate? (yes/no) (If "yes," provide description)

No but coordination with USACE during the process will be key.

III. Other Project Variables:

- a. Will the sponsor's staff be located within reasonable proximity to the project site? (yes/no)

Yes.

- b. Has the sponsor approved the project/real estate schedule/milestones? (yes/no)

No. SFWMD will review the schedule once it has been developed.

IV. Overall Assessment:

- a. Has the sponsor performed satisfactorily on other USACE projects? (yes/no/not applicable)

Yes. Examples include Kissimmee River Restoration, C-111, C-44, Broward County Water Preserve Areas.

- b. With regard to this project, the sponsor is anticipated to be: highly capable/fully capable/moderately capable/marginally capable/insufficiently capable. (If sponsor is believed to be "insufficiently capable," provide explanation)

Highly Capable.

V. Coordination:

- a. Has this assessment been coordinated with the sponsor? (yes/no)

Yes.

- b. Does the sponsor concur with this assessment? (yes/no) (If "no," provide explanation)

Yes.

Prepared by:

FREEMAN.EMMANUEL
JOSEPH.1068891813

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Date: 2018.06.14 11:12:49 -0400

Emmanuel Freeman
Realty Specialist

Reviewed by:

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Hansler A. Bealyer
Chief, Acquisition Branch

Reviewed and approved by:

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Date: 2018.06.14 13:06:26 -0400

Timothy H. McQuillen
Chief, Real Estate Division

Exhibit “C”

Draft Risk Letter



REPLY TO
ATTENTION OF

Real Estate Division

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
701 San Marco Boulevard
JACKSONVILLE, FLORIDA 32207-8175

Subject: NAME OF PROJECT

NAME
POSITION/TITLE
AGENCY
ADDRESS
CITY/STATE/ZIP

Dear LAST NAME:

The intent of this letter is to formally advise the NON-FEDERAL SPONSOR for the project, of the risks associated with land acquisition prior to the execution of the Project Partnership Agreement (PPA) or prior to the Government's formal notice to proceed with acquisition. If a non-Federal sponsor deems it necessary to commence acquisition prior to an executed PPA for whatever reason, the non-Federal sponsor assumes full and sole responsibility for any and all costs, responsibility, or liability arising out of the acquisition effort.

Generally, these risks include, but may not be limited to, the following:

- a. Congress may not appropriate funds to construct the proposed project;
- b. The proposed project may otherwise not be funded or approved for construction;
- c. A PPA mutually agreeable to the non-Federal sponsor and the Government may not be executed and implemented;
- d. The non-Federal sponsor may incur liability and expense by virtue of its ownership of contaminated lands, or interests therein, whether such liability should arise out of local, state, or Federal laws or regulations including liability arising out of CERCLA, as amended;
- e. The non-Federal sponsor may acquire interests or estates that are later determined by the Government to be inappropriate, insufficient, or otherwise not required for the project;
- f. The non-Federal sponsor may initially acquire insufficient or excessive real property acreage which may result in additional negotiations and/or benefit payments under P.L. 91-646 as well as the payment of additional fair market value to affected landowners which could have been avoided by delaying acquisition until after PPA

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execution and the Government's notice to commence acquisition and performance of LERRD; and

g. The non-Federal sponsor may incur costs or expenses in connection with its decision to acquire or perform LERRD in advance of the executed PPA and the Government's notice to proceed which may not be creditable under the provisions of Public Law 99-662 or the PPA.

We appreciate your participation in this project. Should you have questions or concerns pertaining to this letter please feel free to contact Emmanuel Freeman at (904) 232-1636.

Sincerely,

Timothy H. McQuillen
Chief, Real Estate Division

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