

U.S. Army Corps of Engineers (USACE)
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

33 CFR 325. The proponent agency is CECW-CO-R.

Form Approved -
OMB No. 0710-0003
Expires: 02-28-2022

The public reporting burden for this collection of information, OMB Control Number 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR APPLICATION TO THE ABOVE EMAIL.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: <http://dpcid.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx>

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
--------------------	----------------------	------------------	------------------------------

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME First - Gary Middle - Last - McAlpin Company - Coastal Zone Management, Collier County Government E-mail Address - Gary.McAlpin@colliercountyfl.gov		8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - John Middle - Last - Loper Company - Taylor Engineering, Inc. E-mail Address - JLoper@taylorengeering.com	
6. APPLICANT'S ADDRESS: Address- 2685 South Horseshoe Drive, Unit 103 City - Naples State - FL Zip - 34104 Country -USA		9. AGENT'S ADDRESS: Address- 14499 Dale Mabry Hwy, Suite 290 City - Tampa State - FL Zip - 33618 Country -USA	
7. APPLICANT'S PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax (239) 252-5342		10. AGENTS PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax (813) 963-6469	

STATEMENT OF AUTHORIZATION

11. I hereby authorize, John Loper, P.E. to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.



 SIGNATURE OF APPLICANT DATE 3/26/20

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions) Collier County Comprehensive Watershed Improvement Plan			
13. NAME OF WATERBODY, IF KNOWN (if applicable) See Extra Sheets Block 13		14. PROJECT STREET ADDRESS (if applicable) Address See Extra Sheets Block 14	
15. LOCATION OF PROJECT Latitude: °N Extra Sheets Block 15 Longitude: °W		City - State- Zip-	
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) State Tax Parcel ID See Extra Sheets Block 16 Municipality Section - Township - Range -			

17. DIRECTIONS TO THE SITE

The project area of analysis is fairly large (~25,000 acres); only some of the construction locations can be directly accessed.

To get to the general project location: Heading east on FL-884/Colonial Blvd, use the right lane to merge onto I-75 S. Continue for approximately 34 miles, then take Exit 101 in Collier County for Collier Blvd/CR 951/FL-84. Turn left to access the North Belle Meade Flowway and right to access the rest of the project area.

Directions to each of the project construction footprints has been included as Extra Sheets Block 17.

18. Nature of Activity (Description of project, include all features)

The proposed project will divert water from Golden Gate Canal (GGC), east of Collier Blvd., in Naples, FL, to rehydrate over 9,000 acres of forested wetland in the Picayune Strand State Forest south of Alligator Alley, located within the Rookery Bay watershed. After infiltration and evapotranspiration losses, a fraction of this diverted water will be discharged into the mangrove wetlands of Rookery Bay. The water will be diverted from GGC into the I-75 north canal via a proposed flowway. The water will continue to flow south, into I-75 south canal, through a proposed treatment flowway, and into a proposed spreader swale. The spreader swale will release water into the forest to mimic historic overland sheet flow. Through the forest, the flow of water will be driven by topography that slopes gradually from northeast to southwest. After rehydrating the forest, the water remaining after evapotranspiration and infiltration will be safely routed around residential developments through proposed flowways at the southwest end of the forest and will be discharged into the U.S. 41 drainage canal. The water will flow through existing culverts under U.S. 41 and south into the Rookery Bay through an existing drainage system. See the Permit Drawings and Supplemental Information Attachment 1: Project Overview for more details.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The project will restore the hydrology of at least 9,000 acres of the wetland forest that was historically part of a much larger Rookery Bay Watershed draining from the north and will reduce freshwater flows to Naples Bay. Urban development and construction of I-75 cut off the northern third of the watershed, resulting in reduced freshwater flows to Rookery Bay and increased freshwater flows to Naples Bay (via the GGC). This project aims to restore some of the historic hydrology of the area without negatively affecting: on- and off-site flood levels, landowners/private landowners within the project area, water users of the GGC, listed species and their habitat, water quality within the state forest and other natural resources. See the Permit Drawings and Supplemental Information Attachment 1: Project Overview for more details.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

One of the main purposes of the project is to improve wetland hydrology in at least 9,000-acres within the Picayune State Forest and some adjacent wetlands. To do this about 35 acres of wetlands will be unavoidably impacted to construct the infrastructure necessary to move water from the Golden Gate Canal into the forest and to protect development adjacent to the general project area and the property of those land owners within the project effects area who did not wish to transfer their development rights or otherwise cede control of their property to Collier County. Other infrastructure such as weirs and culverts are necessary to ensure appropriate management of water elevations on and off-site. The canals, pump stations, and other necessary structures are sized appropriately to provide the necessary functions identified in this permit application. See the Permit Drawings, Supplemental Information Attachment 1: Project Overview, and Supplemental Information Attachment 5: Hydrologic and Hydraulic Modeling Narrative for more details.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
Native Excavated Sediments: 35,781 c.y.	Concrete (Pumps & Weirs): 907 c.y.	See Also Extra Sheets Block 21

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres 34.992 (See Extra Sheets Block 22 and Supplemental Information Attachment 8: UMAM Summaries for more details)
or
Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

About 35 acres of wetlands will be impacted to construct infrastructure necessary to move water and to protect private property. Hydrologic effects have been assessed to demonstrate that the proposed flows will improve hydrologic conditions and avoid negative impacts on vegetation communities and wildlife in the 22,000-acre project effects assessment area (Supp Info Att 6) and in those areas of particular value for listed species (Supp Info Att 7). Within the main flowway extent, a 116-acre area has been set aside for wetland mitigation (Supp Info Att 8) and is awaiting approval by the SFWMD. The county has and continues to coordinate and consult with state and federal wildlife agencies regarding impacts to listed species and will mitigate as necessary. See Extra Sheets Block 23 and the Supplemental Information for details.

24. Is Any Portion of the Work Already Complete? Yes No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- See Extra Sheets Block 25 and Supplemental Info. Attachment 4: Private Landowner Coordination, Appendix 1: Mailing List

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-



City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
FDEP	ERP - Conceptual	Pending		Awaiting Approval	
FDOT	Use Agreement	(Supp. Info. Att. 5)		2020-01-31	
FFS	Use Agreement	Pending		Awaiting Approval	

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.


 PE
 SIGNATURE OF APPLICANT 3/26/20 DATE

 SIGNATURE OF AGENT 3/26/20 DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

BLOCK 13

Activities will occur in the Picayune Strand State Forest. The water from the Golden Gate Canal will be discharged for rehydration purposes into the wetlands of the Picayune Strand State Forest. After passing through the forest and under US-41, the water will flow into the mangrove wetlands of upper Rookery Bay.

BLOCK 14

Project Address:							
Address	Picayune Strand State Forest and adjacent lands, immediately east of Naples, FL.						
City	Not Applicable	County	Collier	State	Florida	Zip	34117 & 34114

BLOCK 15

Project Coordinates:		
Project Area	Latitude (DMS)	Longitude (DMS)
North Belle Meade Flowway	26° 9' 51.401" N	81° 39' 49.768" W
South Belle Meade Flowway	26° 8' 43.323" N	81° 37' 19.026" W
Sanders Boulevard Property	26° 8' 43.323" N	81° 37' 19.026" W
Pedestrian Path	26° 4' 20.786" N	81° 41' 00.356" W
Southern Flowways	26° 2' 57.622" N	81° 40' 15.859" W

BLOCK 16

Tax Parcel ID:	
Project Area	Parcel ID
North Belle Meade Flowway	00298480005, 00298560006, 00298560200, 00289720004
South Belle Meade Flowway	00448840000, 00448880002, 00448920001, 00448960003, 00449000001, 00449080005, 00449120004, 00449040003, 00449160006, 00450360002, 00448720007
Sanders Boulevard Property	00459400002, 00459440004, 00459480006, 00459960005, 00460040008, 00460120009, 00460200000, 00460240002, 00460280004, 00460440404
Pedestrian Path	79904160132, 82679000048, 82679000064
Southern Flowways	00736440002, 69060105067, 63045030302, 63045030328, 63045030386, 63045030409, 63045030425, 82679009049, 82679009243, 63045030645, 63045030661, 63045030687, 27746000088, 63045010047, 00448200006, 00467400007

Section/Township/Range Information:

Project Area	Section	Township	Range
North Belle Meade Flowway	25, 26, 36	49 S	26 E
South Belle Meade Flowway	4, 5	50 S	27 E
Sanders Boulevard Property	20	50 S	27 E
Pedestrian Path	35	50 S	26 E
Southern Flowways	1, 2, 11, 31, 35, 36	50 S, 51S	26 E, 27 E

BLOCK 17

To get to the North Belle Meade Flowway:

Drive north on Collier Boulevard. Turn right onto City Gate Drive, just before the bridge over the Golden Gate Canal (GGC) and travel east about 1,000 ft. Turn left at the first opportunity onto a dirt road. Follow that road north to the canal and east along the canal for about 4,500 ft. The northern pump station for withdrawal of project water from GGC will be located at about this point. From the pump station, the proposed canal will be accessible either by a proposed road (by other developers) on the western side or by means of a continuous berm on the east side of the canal. To access the southern terminus of the North Belle Meade Flowway, head back down the dirt road to City Gate Drive, turn right, then take an immediate left onto White Lake Boulevard and continue for approximately 2 miles. The terminus of the flowway will be on the left.

To get to the South Belle Meade Flowway:

Drive south on Collier Boulevard past the I-75 interchange, turning right on Beck Boulevard. Travel east to the end of Beck Boulevard along a rough direct track along the south side of the I-75 stormwater ditch to reach the southern pump station. The South Belle Meade Flowway will be accessible by means of proposed berms constructed on either side of the flowway.

To get to the Sanders Boulevard Property:

Travel south on Collier Boulevard across the I-75 interchange about 4.5 miles to Sabal Palm Road. Turn right on Sabal Palm Road, continue for 3.7 miles, then turn left onto Sanders Boulevard. Continue for approximately 0.5 mile to reach the southeast corner of the protection features.

To get to the Pedestrian Path:

Drive south on Collier Boulevard past the I-75 interchange and turn left onto Winding Cypress Boulevard. Continue approximately 0.6 miles and the southern end of the improved pedestrian path will be on the left side of the road.

To get to the Southern Flowways:

The Flowways around the Naples Reserve can be accessed via Naples Reserve Boulevard, off of U.S. 41. The proposed flowways and proposed structures will be constructed within existing or proposed easements or right-of-way reservations, with sufficient travel ways available on one side for maintenance access.

The southernmost point of the flowways, at intersection with US-41, can be accessed by traveling south of Collier Boulevard about 7 miles past the I-75 interchange to US-41. Turn left on US-41 and travel about 1.2 miles to reach the western edge of the southernmost project area.

To get to the Flowway Extent:

Travel south on Collier Boulevard across the I-75 interchange about 4.5 miles to Sabal Palm Road. Turn right on Sabal Palm Road. The general project rehydration area's western edge begins at least 1.5 miles east of the Collier Boulevard – Sabal Palm Road intersection.

BLOCK 17 (Cont.)

To get to the Receiving Waters:

The receiving waters area may be reached by traveling South on Collier Boulevard about 3 miles past the intersection with US-41. Turn right on Fiddler's Creek Parkway or continue south on Collier Boulevard from that point to view the western side of the receiving waters area. The area may also be viewed from the Marco Island Executive airport development or by travelling about 5 miles southeast on US-41 from Collier Boulevard to Auto Ranch Road and following that road to its terminus.

BLOCK 21

See below for tabular accounting of fill volumes by project location and fill type:

Project Area	Excavated Native Sediments	Concrete
North Belle Meade Flowway	11,426.8	0.0
South Belle Meade Flowway	16,198.5	852.0
Sanders Boulevard Property	2,403.7	55.0
Pedestrian Path	0.0	0.0
Southern Flowways	5,751.9	0.0

Note: Native sediments will be excavated from the flowways and will supply the material for construction of berms, structure pads, roads, etc. Extra material (excavated but not used for other construction), will be disposed at offsite upland locations owned by Collier County. The concrete volumes represent the volume of fill in wetlands that result from the construction of the 3 pump stations (one each at the North Belle Meade Flowway, South Belle Meade Flowway, and the Sanders Boulevard Property), as well as the concrete weir structures that are part of the spreader swale at the southern end of the South Belle Meade Flowway.

BLOCK 22

The work in, on, or over wetlands associated with the project total is 34.992 acres (1,524,233 sq. ft.). See below for a tabular breakdown of wetland impacts by project location. However, the project also anticipates the rehydration of approximately 9,000 acres of forested wetlands within the Picayune Strand State Forest that will mitigate the impacts.

Project Area	Acreage	Square Feet
North Belle Meade Flowway	5.748	250,388
South Belle Meade Flowway	16.477	717,749
Sanders Boulevard Property	2.541	110,674
Pedestrian Path	0.000	0
Southern Flowways	10.226	445,421
TOTAL	34.992	1,524,233

Note: All work will occur within the construction footprints. No direct impacts are expected outside of the construction footprints.

BLOCK 23

This project will enhance the hydrology of at least 9,000 acres of wetland forest that was historically part of a much larger Rookery Bay Watershed. Urban development and construction of I-75 cut off the northern third of the watershed, resulting in reduced freshwater flows to Rookery Bay and increased freshwater flows to Naples Bay (via the Golden Gate Canal (GGC)). This project aims to restore some of the historic hydrology of the area without negatively affecting off-site flood levels, adjacent landowners/private landowners within the project area who wish to maintain control over their property, water users of the GGC, listed species and their habitats, water quality within the state forest, and other natural resources. The project will improve the quality of the wetlands of the Picayune Strand State Forest and adjacent areas and reduce the risk of damaging wildfires by slightly increasing wetland hydroperiods and dry season groundwater elevations. The county will avoid impacts to all non-public lands either by transfer of rights to the county, purchase, or protection. The necessary negotiations to ensure the welfare and property of others is underway and will be complete prior to construction. See the Permit Drawings, Supplemental Information Attachment 1: Project Overview, and Supplemental Information Attachment 4: Private Landowner Coordination for more details.

Project construction impacts a very small portion of the total project area of effect. Most species will avoid the construction area. Post-construction, the infrastructure will receive periodic, minimal maintenance. Habitat improvements to the total project effects area are expected to mitigate project impacts. Effects on uplands are minimal; most of the uplands in the general project evaluation area (22,000 acres) are outside the 9,000-acre main flowway extent, within which there are only small hydrologic changes. See Supplemental Information Attachment 5 and Supplemental Information Attachment 6 for discussion of proposed hydrologic changes. As noted in the table below, several listed species may occur in the project area. See Supplemental Information Attachment 7: Natural Resources Assessment for details regarding project effects (or lack thereof) on these species.

Table 1: Listed Species that May Occur within the Study Area

Class	Common Name	Scientific Name	Federal Status ¹	State Status ²
Mammals	Florida Panther	<i>Puma concolor cougar</i>	Endangered	Endangered
	Mangrove Fox Squirrel	<i>Sicurus niger avicennia</i>	NL	Threatened
	Florida Bonneted Bat	<i>Eumops floridanus</i>	Endangered	Endangered
	West Indian Manatee	<i>Trichechus manatus</i>	Threatened	Threatened
Birds	Red-cockaded woodpecker	<i>Picoides borealis</i>	Endangered	Endangered
	Wood Stork	<i>Mycteria americana</i>	Threatened	Threatened
Reptiles	Eastern indigo snake	<i>Drymarchon corais couperi</i>	Threatened	Threatened
	Gopher tortoise	<i>Gopherus polyphemus</i>	Candidate	Threatened

¹ Official Species List; USFWS IPaC website (accessed January 2020)

² FNAI Report for Matrix Unit 43874-43880, 43130-43136, 43502-43508, 42385-42391, 42757-42763, 41641-41648, 42012-42020, 41270-41273, 41649 (accessed January 2020)

NL – Not Listed

BLOCK 23 (Cont.)

The project will improve the general habitat for fish and wildlife species by shifting wetland hydrology toward (but not to) the pre-development conditions. Supplemental Information Attachment 6 details the general hydrologic effects on the vegetation communities found in the project area. Collier County has discussed concerns regarding the Red Cockaded Woodpecker (RCW) habitat in the project area with the Florida Fish and Conservation Commission and the US Fish and Wildlife Service. The county has developed an assessment of project effects on RCW habitat hydrology-based on the guidance received from those agencies (Supplemental Information Attachment 7, Appendix 4). This assessment analyzes the potential effects of the project on the Red Cockaded Woodpecker (RCW) concluding that the project will not significantly impact RCW habitat hydrology. The increase in hydroperiods and groundwater elevations should also reduce the impact of wildfires that have severely damaged some of the RCW colonies in the general project area. Supplemental Information Attachment 7 also provides an assessment of Florida Panther habitat impacts of the project (Appendix 3). These impacts were calculated using the 2012 Florida Panther Habitat Assessment Methodology. The result of those calculations indicates the project will require ~419 Panther Habitat Unit (PHU) credits to offset the proposed impacts. At this time, Collier County is working with state and federal agency stakeholders to identify and obtain the necessary PHU credits. Little is known of the bonneted bat populations that occur in southwest Florida. Collier County has consulted with Kim Dryden, USFWS, and identified an initial survey plan for baseline data in the project area, now being implemented. After the collected data are summarized and any potential impacts identified, Collier County will consult with USFWS regarding the need for additional survey, mitigation, or other actions necessary to receive project authorization. Surveys for other listed species will be conducted as appropriate for construction permit applications and / or prior to project construction, with specific survey data and / or plans for preconstruction surveys provided in the construction permit applications.

The project will improve current wetland functions and values by restoring the hydrologic conditions over more than 9,000 acres in the Picayune Strand State Forest and adjacent natural lands. The hydrologic restoration will result in minor changes in the average hydrologic conditions but will move hydrologic indicators toward more desirable average hydrology, as described in Supplemental Information Attachment 6. See Supplemental Information Attachment 10: Operations and Management for details regarding the monitoring system put into place to ensure habitats within the project area are not negatively influenced as a result of the project. For this project flows are controlled by pump and are able to be altered to ensure avoidance of impacts related to increased water levels or high flows. The relative value of functions of wetlands in construction areas will be reduced; see Supplemental Information Attachment 8: Uniform Mitigation Assessment Method (UMAM) Summaries for details. The reduced functions and values will be offset by the on-site benefits of the hydrologic restoration. Additionally, for the project an on-site mitigation area has been proposed to ensure the project is self-mitigating. See Figure 9 and its accompanying summary table provided in Supplemental Information Attachment 8: UMAM Summaries for details. The mitigation area is located within the flowway extent (outside the core rehydration area). The mitigation site is located near three monitoring wells, is in area that has not undergone recent fires, avoids privately-owned outparcels, avoids project impact areas, avoids existing mitigation parcels, and contains an extensive amount of forested wetlands. Additionally, a forest road makes one corner of the site accessible.

The project is not associated with navigable waters. The flows through existing channels (the I-75 and US-41 stormwater canals and cross drains) will not exceed the capacity of the channel and associated culverts in conjunction with design flows from I-75 and US-41 runoff. Collier County has received a concurrence letter to this effect from FDOT (See Supplemental Information Attachment 7). The flow rates in the proposed channels that will be constructed to move water

BLOCK 23 (Cont.)

from the Golden Gate Canal to the PSSF, as well as the proposed channels that will move water around the development at the southern end of the flowway extent, will be low and controlled by pumps and weirs to avoid potential bank erosion. The new channels will be grassed to the expected water line. Overflow points along the spreader swale in the forest will be armored so that erosion will not occur at those locations. The project will partially rehydrate forested wetlands in the Picayune Strand State forest and adjacent wetlands. Average hydroperiod and wet season water depths will increase only minimally. See Supplemental Information Attachment 5 for analysis of project hydrologic effects on wetland communities. The access trails in the project area are wet part of the year in the existing condition. The proposed rehydration will change those conditions only minimally. After leaving the state forest, the water will flow into the mangrove wetlands of Rookery Bay, which has been found to have need of additional wet season flows (Interflow & Taylor Engineering, 2014). The flows will improve conditions in those wetlands. Further, by reducing the freshwater flows from Golden Gate Canal into Naples Bay, the project will improve estuarine water quality within the bay, and which may lead to improved fishing and related recreation in Naples Bay.

The waters diverted from the Golden Gate Canal have relatively low nutrient concentrations. The flow from the North Belle Meade Flowway will unavoidably mix with runoff from the adjacent 1 mile of I-75 that drains into the stormwater canal the project will use to move water from GGC into the state forest. The concentrations of nutrients in the water that move through the pump station on the south side of I-75 are expected to be higher than estimated background concentrations, identified from published data on Big Cypress Basin interior water quality. Estimates of influent water quality concentrations are provided in Supplemental Information Attachment 11, Section 1. Therefore, the north-south canal bringing water south from the I-75 stormwater canal to the state forest design includes inline water quality treatment to reduce nutrient concentrations. Details of expected water quality and treatment benefits are provided in Supplemental Information Attachment 11, Section 2. When entering the state forest, the water is expected to contain slightly elevated phosphorus concentrations (about 20 – 24 ppb vs an estimated 13 ppb background concentration). The additional phosphorus is expected to be assimilated during sheet flow of the water through the northern portion of the Core Rehydration Area. Supplemental Information Attachment 11, Section 3 provides a wetland phosphorus removal analysis. Water quality will be monitored at 20 locations across the 22,000-acre site to ensure that water quality meets target conditions in the large majority of the project assessment area. See Supplemental Information Attachment 10: Operations and Management for details regarding the monitoring system.

A Florida Master Site File (FMSF) search was conducted November 12, 2019 for the construction footprints associated with the North Belle Meade Flow way, South Belle Meade Flow way, and Sanders Boulevard Property Protection Feature, and on December 18, 2019 for the construction footprints associated with the pedestrian path and southern flowways (See Supplemental Information Attachment 9). Per the FMSF search results, two linear resources, US-41 and the Tamiami Canal, occur within the vicinity of the construction footprint associated with the southern flow ways. However, no new structures will be constructed within the canal or under the highway, rather the terminus of the southern flow ways will utilize existing infrastructure to route the water under the highway and into existing flow ways that will route the water through the Fiddler's Creek Development and into the mangrove wetlands of Rookery Bay. As the project will only utilize existing infrastructure within the two linear resources identified in the FMSF search, no impacts to these resources is anticipated. Additionally, the FMSF search identified no historic or archaeological resources within the vicinity of the remaining construction footprints.

BLOCK 23 (Cont.)

REFERENCE: Interflow Engineering, LLC and Taylor Engineering, Inc. 2014. Henderson Creek Watershed Engineering Research Project. Task 4.2.3 Final Technical Memorandum. Model Simulation of Belle Meade Agricultural Area Conversion. Prepared for Rookery Bay National Estuarine Research Reserve. Prepared by: Prepared by Interflow Engineering LLC, 14499 N. Dale Mabry Highway, Suite 290 Tampa, FL 33618 in association with Taylor Engineering, Inc. 10151 Deerwood Park Boulevard Building 300, Suite 300. Jacksonville, FL 32256. June 2, 2015.

BLOCK 25

An initial public notice was sent out to private property owners within 1000-ft of the construction footprints and secondary flowway and a meeting was conducted May 21, 2019 to discuss the project. See Supplemental Information Attachment 4: Private Landowner Coordination for details regarding the TDR process, the public meeting, a list of those property owners within the primary and secondary flowways, and a mailing list containing names and addresses of the property owners who received the public notice.

For this permit application an additional public notice will be necessary per a pre-application meeting held 11-07-2019 at the USACE Ft. Myers Regulatory Office with Mr. Robert Tewis, Project Manager. Per Robert Tewis, publication in a local newspaper for three consecutive weeks should allow USACE to waive the mailing requirement for the very large abutting community, as is the case for this project. The newspaper ad will be on run on Sundays for maximum circulation. Public Comment period is nominally 21 days; 3 Sundays in a row would cover it unless USACE decides that a 30-day comment period is necessary, in which case 4 Sundays will be necessary.