November 2020

Sole Source Aquifer Review/ Water Quality Impact Evaluation

SR 826/Palmetto Expressway
From South of NW 36th Street (MP 8.355) to North of NW 154th Street (MP 17.950)
Project Development & Environment Study
Miami-Dade County, Florida

Financial Management Numbers: 447165-1-22-01, 441830-1-22-01, 441831-1-22-01
Federal Aid Project Number: N/A
ETDM Number: 14455

Florida Department of Transportation

RON DESANTIS
GOVERNOR

1000 NW 111th Ave
Miami, FL 33172

KEVIN J. THIBAULT, P.E.
SECRETARY

November 20, 2020

Via Electronic Mail

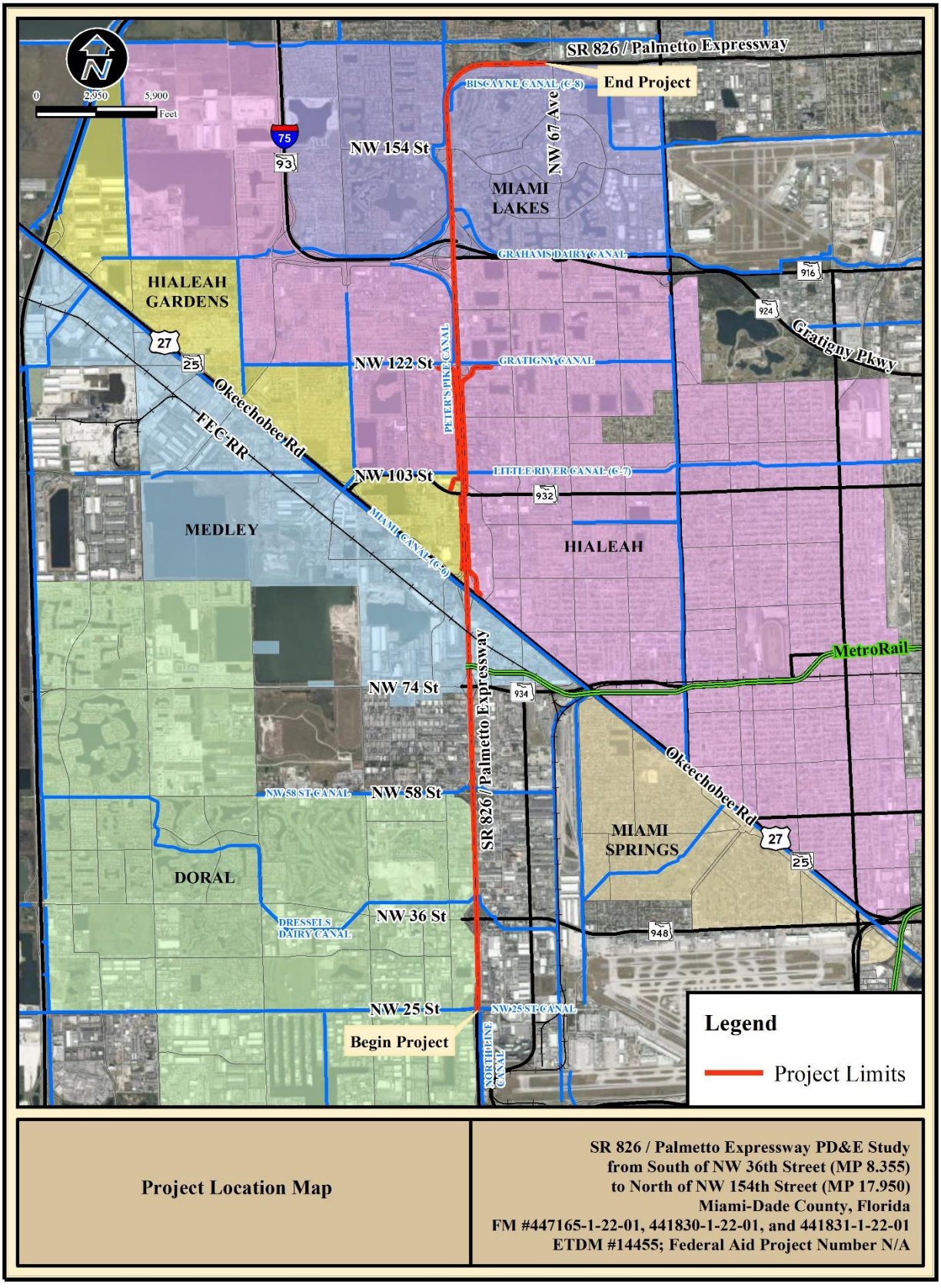
Khurram Rafi Rafi.Khurram@epa.gov
United States Environmental Protection Agency
Water Division
Groundwater, UIC and GIS Section
61 Forsyth Street, S.W.
Atlanta, GA 30303-8960

SUBJECT: Request for Sole Source Aquifer Review/Concurrence
SR 826/Palmetto Expressway
From South of NW 36th Street to North of NW 154th Street
Project Development & Environment Study
Financial Management Number: FM No(s). 447165-1-22-01, 441830-1-22-01, and 441831-1-22-01
ETDM Number: 14455
County: Miami-Dade

Dear Mr. Rafi:

On behalf of the Florida Department of Transportation (FDOT), District VI, a Sole Source Aquifer Review/Concurrence Letter is respectfully requested for a Project Development and Environment (PD&E) study along SR 826/Palmetto Expressway from south of NW 36th Street to north of NW 154th Street in Miami-Dade County, Florida (see **Figure 1**). This roadway project involves the potential addition of general use lanes, conversion of express (managed) lanes to general use lanes, as well as traffic operational and geometrical design improvements on SR 826/Palmetto Expressway. The purpose of this project is to address various roadway deficiencies causing congestion and large speed differentials between general purpose (GP) lanes and express lanes (EL) along the SR 826/Palmetto Expressway corridor. Proposed improvements are anticipated to increase roadway safety, facilitate the movement of people and goods, and increase the capacity in the GP lanes. Another goal of the project is to improve access to the EL system by relocating an ingress point in northern Miami-Dade County. Additionally, the purpose of the project is to improve the geometry of the expressway frontage road system.

All necessary precautions and Best Management Practices (BMPs) pertaining to construction will be followed to prevent adverse impacts to the underlying sole source aquifer (Biscayne Aquifer).



Project Location Map	SR 826 / Palmetto Expressway PD&E Study from South of NW 36th Street (MP 8.355) to North of NW 154th Street (MP 17.950) Miami-Dade County, Florida FM #447165-1-22-01, 441830-1-22-01, and 441831-1-22-01 ETDM #14455; Federal Aid Project Number N/A

Figure 1: Project Study Area

Alternatives evaluated during the PD&E Study include the No-Build Alternative and the Build Alternative as described below. Alternatives were developed and evaluated based on the ability to meet the project purpose and needs.

No-Build Alternative

The No-Build Alternative assumes that no improvements would be implemented within the project corridor. It serves as a baseline for comparison against the Build Alternative. It will, however, include on-going construction projects and all funded or programmed improvements scheduled to be opened to traffic in the analysis years being considered. These improvements must be part of the FDOT's adopted Five-Year Work Program, Miami-Dade County Metropolitan Planning Organization (MPO), Long Range Transportation Plan (LRTP), transportation elements of Local Government Comprehensive Plans (LGCP), or developer-funded transportation improvements specified in approved development orders. This alternative is considered to be a viable alternative to serve as a comparison to the study's proposed Build Alternative.

The advantage of the No-Build Alternative is that it requires no expenditure of public funds for design, right-of-way acquisition, construction or utility relocation. In addition, there would be no disruptions due to construction from the project and no direct or indirect impacts to the environment and/or the socio-economic characteristics of the project area. However, the No-Build Alternative does not address the purpose and need of the project and operational and safety conditions within the project area will become progressively worse as traffic volumes continue to increase.

Build Alternative

SR 826/Palmetto Expressway

Within the project limits, northbound SR 826/Palmetto Expressway improvements are limited to within the NW 103rd Street interchange. The proposed northbound improvements include widening of the mainline at the NW 103rd Street interchange to correct the existing substandard inside and outside shoulder widths; widening along the northbound NW 103rd Street off-ramp; widening of the northbound bridge over NW 103rd Street; and milling and resurfacing of the area.

There are no changes to the typical section along SR 826/Palmetto Expressway northbound other than the provision of wider shoulders within the NW 103rd Street interchange. Similarly, the existing northbound EL system will not be modified by this project.

The proposed southbound SR 826/Palmetto Expressway improvements include widening the SR 826/Palmetto Expressway mainline from NW 74th Street to south of the US 27/SR 25/Okeechobee

Road (US 27) interchange and from north of US 27 to north of NW 103rd Street (south of NW 74th Street and north of NW 103rd Street, the improvements are limited to Intelligent Transportation System (ITS), striping, lighting, and signage). The EL system will be modified to relocate the EL ingress point from north of the I-75 interchange to NW 103rd Street, completely eliminating the SR 826/Palmetto Expressway EL north of NW 103rd Street (converting it to a GP lane) and providing enhanced access to the EL system to the local community. At the NW 103rd Street interchange, the pier of the NW 103rd Street westbound flyover on-ramp to SR 826/Palmetto Expressway southbound will be modified to accommodate SR 826/Palmetto Expressway southbound mainline widening. In addition, the NW 103rd Street on/off ramps will be widened, pushing out the mechanically stabilized earth (MSE) walls. Four (4) SR 826/Palmetto Expressway mainline bridges are required to be widened over NW 74th Street, Metrorail, FEC Railroad, and NW 103rd Street. The improvements also include performing a comprehensive milling and resurfacing plan throughout the project limits.

The proposed SR 826/Palmetto Expressway southbound typical section will consist of four (4) GP lanes from the end project (north of NW 154th Street) to the I-75 interchange; a single I-75 EL and five (5) GP lanes from the I-75 Interchange to NW 103rd Street interchange; and two (2) EL and four (4) GP lanes from the NW 103rd Street interchange to the begin project (south of NW 36th Street).

Frontage Roads

The proposed project will improve the frontage road system on both sides of SR 826/Palmetto Expressway between US 27 and NW 122nd Street to correct deficient pavement conditions; upgrade sub-standard ground-mounted signs and pavement markings; comply with the American with Disabilities Act (ADA); replace existing guardrail; upgrade bridge railings; and construct new paved shoulders to meet criteria and improve overall safety of the corridor. Additionally, the proposed frontage road improvements include signalization, lighting, and landscaping upgrades.

The proposed SR 826/Palmetto Expressway southbound mainline widening and the modification of the pier of the NW 103rd Street westbound flyover on-ramp to SR 826/Palmetto Expressway southbound will require the realignment of the West Frontage Road/NW 77th Avenue. The realignment of this two-way frontage road begins south of the NW 98th Street intersection and ends south of the NW 103rd Street intersection.

The frontage road improvements include milling and resurfacing the existing pavement; adjusting existing storm drain manhole tops, utility manhole tops, and utility valves within the limits of the resurfacing; upgrading sub-standard pedestrian curb ramps and detectable warning surfaces along East Frontage Road/W 20th Avenue to meet ADA criteria; constructing new sidewalk along East Frontage Road/W 20th Avenue to connect the gaps between existing sidewalk segments and to

reconstruct damaged or uneven sidewalks; upgrading the guardrail, guardrail terminals, guardrail transition connections to the bridge traffic railings, and guardrail-to-rigid barrier transition connections; constructing 5-foot-wide paved shoulders in segments without existing roadside landscaping or utility impacts; adjusting existing ditch-bottom inlets impacted by the proposed shoulder widening; and constructing additional ditch-bottom inlets where required along the shoulder widening areas.

Stormwater Management

This project is located in Miami-Dade County, within the City of Hialeah, the City of Hialeah Gardens, the City of Doral, the City of Miami Lakes, and the Town of Medley, and is within the jurisdictional boundary of the South Florida Water Management District (SFWMD), US Army Corps of Engineers (USACE), and Miami-Dade County Department of Regulatory and Economic Resources (DRER). The proposed roadway improvements along SR 826/Palmetto Expressway are within the SFWMD Miami Canal (C-6), Little River Canal (C-7), Peter's Pike Canal, and NW 122nd Street Canal Basins.

The SFWMD, DRER, and the FDOT have established several criteria for water quality, depending on the proposed type of stormwater treatment facility. The existing conditions throughout the project limits generally consist of open and closed drainage systems with swales, ditch bottom inlets along both sides of the roadway, French drains, and infield retention ponds. Existing facilities are currently providing water quality treatment and attenuation of roadway runoff.

The proposed SR 826/Palmetto Expressway drainage improvements will maintain the existing drainage basins and their corresponding outfalls. The general limits of the existing basins will remain the same in the post-development conditions. Additional French drains are being included where widening is proposed in the project in order to compensate for the additional 2.50 acres (SR 826/Palmetto Expressway mainline – 0.91 acre, frontage roads – 1.59 acres) of new impervious surface along SR 826/Palmetto Expressway. The existing weirs in some of the basins will be modified in order to ensure that post-development discharge requirements are met for all receiving surface water bodies. Water quantity and quality criteria will be met with construction of the new stormwater management system for the project. The improvements will have no negative drainage impacts to the surrounding areas and the proposed stormwater management facilities will have the capacity to adequately treat and attenuate roadway runoff within the project limits.

The proposed frontage road roadway improvements are within the SFWMD's Little River Canal (C-7) basin. The existing conditions throughout the project limits generally consist of an open drainage system with swale and ditch bottom inlets along both sides of each frontage road (West Frontage Road/NW 77th Avenue and East Frontage Road/W 20th Avenue). West Frontage Road/NW 77th Avenue has a trench drain along the west side of the roadway from north of NW

98th Street to NW 103rd Street. Existing facilities for both frontage roads are not providing adequate water quality treatment or attenuation of roadway runoff. The proposed drainage design consists of adjusting the existing ditch-bottom inlets and French drains impacted by the proposed shoulder widening and re-grading the sod at locations with existing ponding to improve the drainage pattern. All proposed stormwater management facilities will provide the necessary water quality treatment volume and limit the post-development peak discharge rate into the Little River Canal (C-7) to the pre-development peak discharge rate. Water quality treatment and discharge attenuation will be provided via the existing trench drain and proposed French drains.

Based on the drainage design evaluation for the proposed improvements, the stormwater management facilities (including swales, retention areas, and ponds) will meet FDOT drainage criteria as well as SFWMD and DRER permit criteria. The improvements will have no negative drainage impacts to the surrounding areas and the proposed stormwater management facilities will have the capacity to adequately treat and attenuate roadway runoff within the project limits. Therefore, water quality impacts to downstream receiving waters are not anticipated to occur.

The project limits lie within the boundaries of the Biscayne Sole Source Aquifer. In accordance with the Sole Source Aquifer Program, authorized by Section 1424(e) of the Safe Drinking Water Act of 1974, the FDOT is requesting the US Environmental Protection Agency's (EPA) concurrence that no adverse impacts to the Biscayne Aquifer are anticipated as a result of the proposed project. Enclosed is the completed Water Quality Impact Evaluation Checklist and the EPA Sole Source Aquifer Checklist to assist with your review per the requirements of our PD&E process. Please call me at 305-470-5271 if you have any questions.

Sincerely,

DocuSigned by:
741016C4490540E...

Raul Quintela, P.E.
Project Manager
FDOT – District 6

cc: Steven Craig James, R.L.A., FDOT
Shannon Kelley, FDOT
Jenn King, P.E. AECOM
Keith Stannard, AECOM

Attachment A

Water Quality Impact Evaluation Checklist

WATER QUALITY IMPACT EVALUATION CHECKLIST

PART 1: PROJECT INFORMATION

Project Name:	SR 826/Palmetto Expressway from South of NW 36th Street to North of NW 154th Street Project Development & Environment (PD&E) Study
County:	Miami-Dade
FM Number:	447165-1-22-01, 441830-1-22-01, 441831-1-22-01
Federal Aid Project No:	N/A
Brief Project Description:	The Florida Department of Transportation (FDOT) District Six is conducting a PD&E Study for SR 826/Palmetto Expressway from south of NW 36th Street to north of NW 154th Street. The PD&E Study involves the addition of general use lanes, conversion of express (managed) lanes to general use lanes, as well as traffic operational and geometrical design improvements on SR 826/Palmetto Expressway.

PART 2: DETERMINATION OF WQIE SCOPE

Does project discharge to surface or ground water? ☒ Yes ☐ No

Does project alter the drainage system? ☒ Yes ☐ No

Is the project located within a permitted MS4? ☒ Yes ☐ No
Name: South Florida Water Management District (SFWMD) and Miami-Dade County

If the answers to the questions above are no, complete the applicable sections of Part 3 and 4, and then check Box A in Part 5.

PART 3: PROJECT BASIN AND RECEIVING WATER CHARACTERISTICS

Surface Water

Receiving water(s) names: C-6 (Miami River), C-8 (Biscayne Canal), Dressels Dairy Canal, NW 58th Street Canal, C-7 (Little River Canal), Gratigny Canal, Grahams Dairy Canal, and Peter's Pike Canal.

Water Management District: SFWMD

Environmental Look Around meeting date: Click here to enter a date.
Attach meeting minutes/notes to the checklist.

Water Control District Name (list all that apply): N/A

Groundwater

Sole Source Aquifer (SSA)? ☒ Yes ☐ No
Name Biscayne Aquifer

If yes, complete Part 5, D and complete SSA Checklist shown in Part 2, Chapter 11 of the PD&E Manual

Other Aquifer? ☐ Yes ☒ No
Name _____

Springs vents? ☐ Yes ☒ No
Name _____

Well head protection area? ☒ Yes ☐ No
Name Miami Springs Upper Wellfield
Groundwater recharge? ☐ Yes ☒ No
Name _____

Notify District Drainage Engineer if karst conditions are expected or if a higher level of treatment may be needed due to a project being located within a WBID verified as Impaired in accordance with Chapter 62-303, F.A.C.

Date of notification: Click here to enter a date.

PART 4: WATER QUALITY CRITERIA

List all WBIDs and all parameters for which a WBID has been verified impaired, or has a TMDL in **Table 1**. This information should be updated during each re-evaluation as required.

Note: If BMAP or RAP has been identified in **Table 1**, **Table 2** must also be completed.
*Attach notes or minutes from all coordination meetings identified in **Table 2**.*

EST recommendations confirmed with agencies? ☐ Yes ☒ No

BMAP Stakeholders contacted: ☐ Yes ☒ No

TMDL program contacted: _____ ☐ Yes ☒ No

RAP Stakeholders contacted: ☐ Yes ☒ No

Regional water quality projects identified in the ELA ☒ Yes ☐ No

If yes, describe:
There are no opportunities for joint use ponds adjacent to the project. However, the Miami Springs Upper Wellfield was identified in the project area.

Potential direct effects associated with project construction and/or operation identified? ☒ Yes ☐ No
If yes, describe:

In accordance with Part 2, Chapter 20 of the FDOT PD&E Manual, potential contamination impacts in the area surrounding the project corridor were assessed for the viable Build Alternative as well as the No-Build Alternative.

After a review of all available data, such as agency file reviews at Florida Department of Environmental Protection (FDEP), the Environmental Data Resources, Inc. (EDR) database report, aerial photography, and confirmed by site reconnaissance, contamination of soil and groundwater has been documented in the vicinity of the project corridor. A total of 31 sites of potential environmental concern were identified for the project corridor; of these, five (5) sites are rated as High risk, two (2) sites are rated as Medium risk, 19 sites are rated as Low risk, and five (5) sites are rated as No risk. Remaining sites identified in the above-referenced sources are not considered to pose potential contamination concerns because of the current regulatory status of the site and/or the distance from the project corridor.

The Level II Contamination Assessment investigation may be conducted prior to any right-of-way acquisition and/or prior to the design phase, should any become necessary. Based on the findings of updated future review and Level II investigation, the design engineers may be instructed to avoid the areas of concern or to include special provisions with the plans to require that the construction activities performed in the areas of concern be performed or supervised by a contamination assessment and remediation contractor specified by the FDOT.

It must be recognized that the possibility exists that some contaminated substances, petroleum products, or environmental contamination not identified during this assessment may exist on or in the immediate vicinity of the project. This is because regulatory agency records are not always complete; not all leaks, spills, and discharges are reported; not all underground storage tanks (UST) and above-ground storage tanks (AST) are registered. It is unknown if any registered substances were illegally dumped or were deposited during past construction activities.

If construction dewatering will be necessary during construction, a Water Use Permit from SFWMD may be required. The contractor will be held responsible for ensuring compliance with any necessary dewatering permit(s). The dewatering plan will consider the radius of influence of any dewatering activity on nearby contamination plumes to avoid potential contamination plume exacerbation. All permits will be obtained in accordance with Federal, State, and local laws and regulations and in coordination with the District Contamination Impact Coordinator (DCIC).

In addition, water quality impacts resulting from erosion and sedimentation during construction activities will be controlled in accordance with the latest edition of FDOT's Standard Specifications for Road and Bridge Construction and through the use of Best Management Practices (BMPs), including temporary erosion control measures. Temporary erosion control measures will consist of at a minimum silt fence, inlet protection, and turbidity curtains. Permanent erosion control measures consist of new landscaping.

Discuss any other relevant information related to water quality including Regulatory Agency Water Quality Requirements.

This project is located in Miami-Dade County, within the City of Hialeah, the City of Hialeah Gardens, the City of Doral, the City of Miami Lakes, and the Town of Medley, and is within the jurisdictional boundary of the SFWMD, US Army Corps of Engineers (USACE), and Miami-Dade County Department of Regulatory and Economic Resources (DRER). The proposed roadway improvements along SR 826/Palmetto Expressway are within the SFWMD Miami Canal (C-6), Little River Canal (C-7), Peter's Pike Canal, and NW 122nd Street Canal Basins.

The SFWMD and the FDOT have established several criteria for water quality, depending on the proposed type of stormwater treatment facility. The existing conditions throughout the project limits generally consist of open and closed drainage systems with swales, ditch bottom inlets along both sides of the roadway, French drains, and infield retention ponds. Existing facilities are currently providing water quality treatment and attenuation of roadway runoff.

The proposed SR 826/Palmetto Expressway drainage improvements will maintain the existing drainage basins and their corresponding outfalls. The general limits of the existing basins will remain the same in the post-development conditions. Additional French drains are being included where widening is proposed in the project in order to compensate for the additional 2.50 acres (SR 826/Palmetto Expressway mainline – 0.91 acre, frontage roads – 1.59 acres) of new impervious surface along SR 826/Palmetto Expressway. The existing weirs in some of the basins will be modified in order to ensure that post-development discharge requirements are met for all receiving surface water bodies. Water quantity and quality criteria will be met with construction of the new stormwater management system for the project. The improvements will have no negative drainage impacts to the surrounding areas and the proposed stormwater management facilities will have the capacity to adequately treat and attenuate roadway runoff within the project limits.

The proposed frontage road roadway improvements are within the SFWMD's Little River Canal (C-7) basin. The existing conditions throughout the project limits generally consist of an open drainage system with swale and ditch bottom inlets along both sides of each frontage road (West Frontage Road/NW 77th Avenue and East Frontage Road/W 20th Avenue). West Frontage Road/NW 77th Avenue has a trench drain along the west side of the roadway from north of NW 98th Street to NW 103rd Street. Existing facilities for both frontage roads are not providing adequate water quality treatment or attenuation of roadway runoff. The proposed drainage design consists of adjusting the existing ditch-bottom inlets and French drains impacted by the proposed shoulder widening and re-grading the sod at locations with existing ponding to improve the drainage pattern. All proposed stormwater management facilities will provide the necessary water quality treatment volume and limit the post-development peak discharge rate into the Little River Canal (C-7) to the pre-development peak discharge rate. Water quality treatment and discharge attenuation will be provided via the existing trench drain and proposed French drains.

Based on the conceptual drainage design evaluation for the proposed improvements, the stormwater management facilities (including swales, retention areas, and ponds) will meet FDOT drainage criteria as well as SFWMD permit criteria. The improvements will have no negative drainage impacts to the surrounding areas and the proposed stormwater management facilities will have the capacity to adequately treat and attenuate roadway runoff within the project limits. Therefore, water quality impacts to downstream receiving waters are not anticipated to occur.

PART 5: WQIE DOCUMENTATION

☐ A. No involvement with water quality
☐ B. No water quality regulatory requirements apply.
☒ C. Water quality regulatory requirements apply to this project (provide Evaluator's information below). Water quality and stormwater issues will be mitigated through compliance with the design requirements of authorized regulatory agencies.
☒ D. EPA Ground/Drinking Water Branch review required. ☒ Yes ☐ No
Concurrence received? ☐ Yes ☒ No
If Yes, Date of EPA Concurrence: Click here to enter a date..
Attach the concurrence letter

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated December 14, 2016 and executed by FHWA and FDOT.

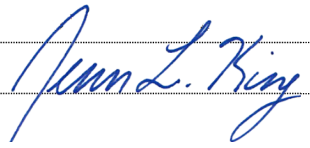
Evaluator Name (print): Jenn L. King, P.E.	
Title:Project Manager	
Signature: 	Date:11/19/2020

Table 1: Water Quality Criteria

Receiving Waterbody Name (list all that apply)	FDEP Group Number / Name	WBID(s) Numbers	Classification (I,II,III,IIIL,IV,V)	Special Designations*	NNC limits**	Verified Impaired (Y/N)	TMDL (Y/N)	Pollutants of concern	BMAP, RA Plan or SSAC
Miami Canal (C-6)	4	3290	III	3F	Stream	Yes	Yes	Fecal Coliform	N/A
Biscayne Canal (C-8)	4	3285	III	3F	Stream	Yes	Yes	Fecal Coliform	N/A
Little River Canal (C-7)	4	3287	III	3F	Stream	Yes	Yes	Fecal Coliform	N/A

*** ONRW, OFW, Aquatic Preserve, Wild and Scenic River, Special Water, SWIM Area, Local Comp Plan, MS4 Area, Other**
**** Lakes, Spring vents, Streams, Estuaries**
Note: If BMAP or RAP has been identified in Table 1, Table 2 must also be completed.

Table 2: REGULATORY Agencies/Stakeholders Contacted

Receiving Water Name (list all that apply)	Contact and Title	Date Contacted	Follow-up Required (Y/N)	Comments

Attachment B

EPA Sole Source Aquifer Checklist

PROJECT NAME: SR 826 / Palmetto Expressway from South of NW 36th Street to North of NW 154th Street Project Development & Environment (PD&E) Study

NAME OF SOLE SOURCE AQUIFER: Biscayne Aquifer

1. Location of project:

The Florida Department of Transportation (FDOT) District Six is conducting a Project Development and Environment (PD&E) Study for SR 826/Palmetto Expressway from south of NW 36th Street [(Milepost (MP) 8.355] to north of NW 154th Street (MP 17.950) within Miami-Dade County.

2. Project description.

The PD&E Study involves the potential addition of general use lanes, conversion of express (managed) lanes to general use lanes, as well as traffic operational and geometrical design improvements on SR 826/Palmetto Expressway. The improvements are proposed to address existing congestion and higher than expected speed differentials between the general purpose (GP) lanes and the express lanes (EL) along the project corridor, as well as provide additional access to the EL system. The project also includes improvements to the frontage road system running parallel to and on both sides of SR 826/Palmetto Expressway from US 27/SR 25/Okeechobee Road to NW 122nd Street.

3. Is there any increase of impervious surface? Is so, what is the area?

Yes, the project increases the impervious surface area by approximately 2.5 acres (SR 826/Palmetto Expressway mainline – 0.91 acre, frontage roads – 1.59 acres).

4. Describe how storm water is currently treated on the site.

Stormwater is currently treated and attenuated in an open and closed drainage systems with swales, ditch bottom inlets, French drains, and infield retention ponds.

5. How will storm water be treated on this site during construction and after the project is complete?

SR 826/Palmetto Expressway: The proposed drainage improvements will maintain the existing drainage basins and their corresponding outfalls. The general limits of the existing basins will remain the same in the post-development conditions. Additional French drains are being included where widening is proposed in the project in order to compensate for the additional 2.50 acres (SR 826/Palmetto Expressway mainline – 0.91 acre, frontage roads – 1.59 acres) of new impervious surface along SR 826/Palmetto Expressway. The existing weirs in some of the basins will be modified in order to ensure that post-development discharge requirements are met for all

receiving surface water bodies. Water quantity and quality criteria will be met with construction of the new stormwater management system for the project. The improvements will have no negative drainage impacts to the surrounding areas and the proposed stormwater management facilities will have the capacity to adequately treat and attenuate roadway runoff within the project limits.

Frontage Road Systems: The proposed frontage road roadway improvements are within the South Florida Water Management District's (SFWMD) Little River Canal (C-7) basin. The existing conditions throughout the project limits generally consist of an open drainage system with swale and ditch bottom inlets along both sides of each frontage road (West Frontage Road/NW 77th Avenue and East Frontage Road/W 20th Avenue). West Frontage Road/NW 77th Avenue has a trench drain along the west side of the roadway from north of NW 98th Street to NW 103rd Street. Existing facilities for both frontage roads are not providing adequate water quality treatment or attenuation of roadway runoff. The proposed drainage design consists of adjusting the existing ditch-bottom inlets and French drains impacted by the proposed shoulder widening and re-grading the sod at locations with existing ponding to improve the drainage pattern. All proposed stormwater management facilities will provide the necessary water quality treatment volume and limit the post-development peak discharge rate into the Little River Canal (C-7) to the pre-development peak discharge rate. Water quality treatment and discharge attenuation will be provided via the existing trench drain and proposed French drains.

6. Are there any underground storage tanks present or to be installed? Include details of such tanks.

There are five nearby sites outside the limits of the FDOT project which contain underground storage tanks (gas stations, hospital, and freight service). However, no impacts to these existing facilities will occur and no new storage tanks are being proposed as part of this project.

7. Will there be any liquid or solid waste generated? If so, how will it be disposed of?

Construction/demolition waste will likely be generated by the project and will be disposed of as required per Florida Statutes. No hazardous materials will be generated as part of this project.

8. What is the depth of excavation?

Existing dry interchange infield pond side slopes will be graded vertically by installing sheet piles. The excavation depth is anticipated 3-6 feet below existing grade. The sheet piles will be driven in via hammer/vibration and will not require excavation. The sheets will be removed following completion of the work activities.

9. Are there any wells in the area that may provide direct routes for contaminates to access the aquifer and how close are they to the project?

Per review of the project corridor, there are no Non-Federal Public Water Supply Wells or Upper Floridan Aquifer Wells present within 500 feet of the proposed project corridor. Hence, no effects are anticipated to the aquifer along the project corridor.

10. Are there any hazardous waste sites in the project area, especially if the waste site has an underground plume with monitoring wells that may be disturbed? Include details.

As a result of a review of all available data, such as agency file reviews at Miami-Dade County, the Florida Department of Environmental Protection (FDEP); and available local/regional database reports; historic data reviews including aerial photography; and the site reconnaissance; 31 sites were identified to pose potential contamination concerns to the proposed project. Of these, five (5) sites are rated as High risk, two (2) sites are rated as Medium risk, 19 sites are rated as Low risk, and five (5) sites are rated as No risk. Details for each of these sites can be found in the Contamination Screening Evaluation Report (CSER) prepared as part of the PD&E Study. The report is available at the FDOT, District VI, offices in Miami, FL. These potential risks will be addressed by the FDOT prior to project construction. No underground plumes or monitoring wells associated with these will be affected by the proposed project.

11. Are there any deep pilings that may provide access to the aquifer?

New foundations for bridge widening will likely be prestressed concrete piles or auger cast piles. These piles will be between 80-140 feet deep from the ground surface.

12. Are Best Management Practices planned to address any possible risks or concerns?

Yes, best management practices will be implemented during construction as described in the project's storm water pollution prevention plan, which will be part of the engineering design plans produced during the Final Design Phase of the project. Also, the constructed stormwater managements facilities (SMFs) will remain as a permanent Best Management Practices (BMP).

This list below represents the BMPs that FDOT applies to projects statewide, per the applicable FDOT manuals, specifications, and other guidelines, including permitting requirements by the SFWMD:

1. FDOT Design Manual Chapter 320 Stormwater Pollution Prevention Plan (SWPPP) – Construction phase stormwater management requirements for pretreatment to provide protection for any receiving water bodies or groundwater systems, such as the Biscayne Aquifer.

https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/roadway/fdm/2019/2019fdm320swppp.pdf?sfvrsn=ec2c3cb6_4

2. FDOT Standard Specification for Road and Bridge Construction,

   a. SECTION 6 CONTROL OF MATERIALS (See last page) - Restriction during construction of use of any materials that could be hazardous to any surface waters or ground water systems, including the Biscayne Aquifer. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/specbooks/january2019/files/006-119.pdf?sfvrsn=e9c59a77_2

   b. SECTION 104 PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION – Standard Specification language applied to all construction projects, providing safeguard controls to avoid water pollution. Refer to 104-3 in particular, specific to preventing water pollution during construction operations. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/specbooks/january2019/files/104-119.pdf?sfvrsn=22ba9f98_2

   c. SECTION 455 STRUCTURES FOUNDATIONS – Standard Specification language applied to all construction projects. Refer to pages 35, 43, and 58 related to construction of piles below water table (wet construction, wet excavation), to avoid impacts to groundwater. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/specbooks/january2019/files/455-119.pdf?sfvrsn=f27e4966_

13. Is there any other information that could be helpful in determining if this project may have an effect on the aquifer?

Not at this time.

14. **Does this Project include any improvements that may be beneficial to the aquifer, such as improvements to the wastewater treatment plan?**

The SFWMD and the FDOT require that the post-development discharge rates not exceed the pre-development discharge rates. The proposed storm water management design will be analyzed with the SFWMD 25 year - 72 hour storm event. The SFWMD and FDOT criteria will be met with the new stormwater management system. In addition, SFWMD and FDOT storm water quality criteria are anticipated to be met with construction of the new stormwater management system. Therefore, water quality impacts to downstream receiving waters are not anticipated to occur.

The EPA Sole Source Aquifer Program may request additional information if impacts to the aquifer are questionable after this information is submitted for review.