Florida Department of Transportation

RON DESANTIS
GOVERNOR

1000 NW 111th Ave
Miami, FL 33172

KEVIN J. THIBAULT, P.E.
SECRETARY

April 1, 2021

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
Ludlam Trail Corridor
Project Development & Environment Study
Financial Management Number: FM No. 444236-1-22-01
ETDM Number: 14369
County: Miami-Dade

Dear Mr. Rafi:

On behalf of the Florida Department of Transportation (FDOT), District VI and Miami-Dade County Parks, Recreation, and Open Spaces (MDPROS), a Sole Source Aquifer Review/Concurrence Letter is respectfully requested for the Project Development and Environment (PD&E) study along the Ludlam Trail Corridor in Miami-Dade County, Florida (see **Figure 1**). This FDOT study focuses on the Ludlam Trail Corridor for providing a safe, dedicated, and direct means of non-motorized transportation to and from areas of residences, work, schools, parks, and shopping centers. This publicly accessible trail will serve bicyclists, pedestrians, and users of other types of non-motorized vehicles.

The proposed project limits extend along a segment of the former rail corridor from SW 80th Street to 400 feet north of NW 7th Street, between 69th and 70th Avenue (**Figure 1**). The project primarily occurs within the Ludlam Trail right-of-way (ROW) with the exception of proposed improvements at road and street crossings. The ROW for the proposed Ludlam Trail Corridor is approximately 100 feet wide for most of its length, although it narrows to between 75 and 80 feet in some areas and down to 18 feet in sections designated for mixed-use development. The project study area traverses sections of the City of Miami and unincorporated Miami-Dade County, and is proximate to the City of South Miami and the City of West Miami. The Ludlam Trail Corridor project location is shown in **Figure 1**.

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).

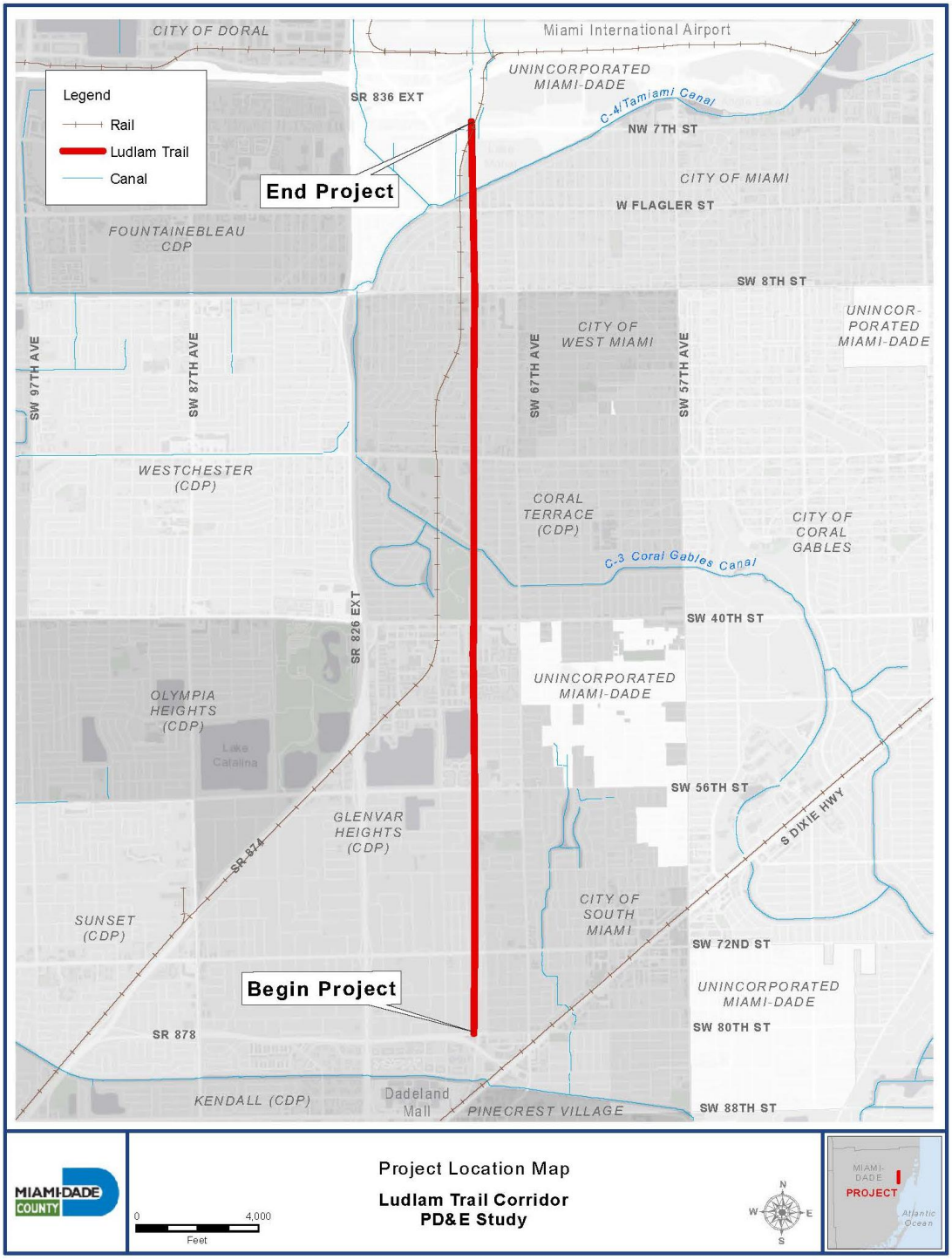

Figure 1: Project Study Area

The Efficient Transportation Decision Making (ETDM) Programming Screening Summary Report was published on July 02, 2019 (ETDM#14369). For the issue of Water Quality and Quantity, the U.S. Environmental Protection Agency's (EPA) degree of effect was determined to be Moderate (reviewed by EPA on December 11, 2018 by Ms. Kim Gates). The comments from the EPA included the following:

> *"Stormwater from impervious surfaces in urban environments conveys contaminants to surface water bodies, wetlands, and groundwater. Runoff may contain dissolved or suspended anthropogenic contaminants, of which metals, nutrients, volatile organics, petroleum hydrocarbons, bacteria, pesticides/herbicides, and suspended solids are the most common.*
>
> *The principal law governing pollution of the nation's surface waters is the Clean Water Act (CWA), previously known as the Water Pollution Control Act. Amendments in 1972 established the National Pollutant Discharge Elimination System (NPDES) permitting program for wastes discharged from discrete sources, such as pipes from manufacturing facilities and wastewater treatment plants (i.e., point sources). Recognizing the need to address stormwater pollution (i.e., nonpoint sources), the U.S. Congress amended the CWA's NPDES provisions in 1987. The USEPA promulgated regulations for medium to large Municipal Separate Storm Sewer Systems (MS4s) in 1990 and small MS4s in 1999. In October 2000, the USEPA delegated authority to the Florida Department of Environmental Protection (FDEP) to implement the MS4 programs. FDEP's regulatory requirements for MS4 permits are set forth in Chapter 62-624, F.A.C. The State also administers its own Environmental Resource Permitting (ERP) program for activities involving the alteration of surface water flows. The ERP program, which is implemented by the FDEP and the five Water Management Districts, is wholly separate from the federal MS4 permit program and has no underpinning federal requirements.*
>
> *"The greatest concern regarding maintaining the quality of the County's surface waters continues to be pollutant discharges in the watershed and nonpoint source discharges of stormwater runoff in the canal systems"*
>
> *As stated in the Preliminary Environmental Discussion Comments Report, the project will increase impervious land cover. The additional stormwater runoff will impact the Biscayne aquifer, which is close to the surface and extremely porous, and nearby canals. According to FDEP's Map Direct: Verified List WBIDs and TMDLs Map, the Ludlam Trail Corridor is located in the drainage basins of three verified impaired waterbodies:*
>
> - *C-4/Tamiami Canal (WBID 3286) - verified impaired for DO and mercury in fish tissue,*
> - *C-3/Coral Gables Canal (WBID 3292) - verified impaired for DO and fecal coliform, and*
> - *C-2/Snapper Creek (WBID 3293) - verified impaired for DO and fecal coliform.*

Of particular concern in the project corridor will be the potential impact of the increased fecal coliform load from pet feces.

Even though TMDLs are not yet in place to address fecal coliform and DO impairments in the canals, action should be taken to avoid, minimize, and/or mitigate further impacts. Consistent with MS4 permit requirements, appropriate stormwater treatment systems and best management practices must be employed during construction (i.e., temporary BMPs) and post-construction (i.e., permanent BMPs during the operational life of the facility). As described in FDOT's Project Development and Environment (PD&E) Manual (i.e., its process for complying with the National Environmental Policy Act), the USEPA recommends completing a Water Quality Impact Evaluation (WQIE) Checklist. The following information is needed to demonstrate compliance with federal and state MS4 requirements:

- *whether the project discharges to surface waters and verified impaired waterbodies;*
- *the project's location in a permitted MS4;*
- *pollutants of concern in the verified impaired waterbodies;*
- *applicable TMDLs;*
- *applicable water quality requirements, including Waste Load Allocations (WLAs) in the TMDLs and MS4 permit conditions; and*
- *direct effects associated with project construction and operation.*

Moreover, to reduce the quantity and improve the quality of stormwater generated in the project corridor, the USEPA encourages the evaluation of Low Impact Development (LID) practices during PD&E. Various resources on LID practices are available, including:

- *NCHRP Report 565: Evaluation of Best Management Practices for Highway Runoff Control (2006), which includes three additional documents: User's Guide for BMP/LID Selection (Guidelines Manual), Appendices to the User's Guide for BMP/LID Selection, and Low-Impact Development Design Manual for Highway Runoff Control (LID Design Manual);*

- *EPA's Stormwater Discharges from Transportation Sources Innovative Materials website."*

Alternatives evaluated during the PD&E Study include the Preferred Alternative as described below. Alternatives were developed and evaluated based on the ability to meet the project purpose and needs.

Preferred Alternative

Based on preliminary engineering designs, the Ludlam Trail will consist of a 12-foot-wide bike path and an 8-foot-wide pedestrian path with an adjacent 2-foot soft natural surface, separated in

areas by a 14-foot grassed buffer. Generally, the paths will run along the center of the trail ROW. The Ludlam Trail will provide access to activity centers (i.e., schools, parks, and transit centers) via a multi-use path that can accommodate bicyclists and pedestrians. Connections to neighborhoods and parking facilities will be also be provided via a multi-use path. Additionally, way-finding signage that indicates points of interest, interpretive information, or other signage, as appropriate, may be installed along the trail corridor.

There will be two potential configurations for the Ludlam Trail:

- **Scenario 1 / Buffered Separation:** The trail consists of a 12-foot wide bike trail and an 8-foot wide pedestrian trail separated by a landscape buffer that varies in width from 4 to 14 feet, with a 2-foot soft natural surface adjacent to the pedestrian trail.

- **Scenario 2 / No Separation:** The trail consists of a 12-foot-wide bike trail and an 8-foot-wide pedestrian trail with an adjacent 2-foot soft natural surface. The bike and pedestrian trails are separated by an 18-inch pavement stripe.

Roadway Crossings: The Ludlam Trail will cross several major roadways, closely aligned to the center point of the Trail ROW. All crossings will be compliant with the Americans with Disabilities Act (ADA). Additionally, information signs that indicate points of interest may be installed as appropriate. There will be two (2) options for roadway crossings along the Ludlam Trail:

- **At-Grade Crossings:** At these crossings, the trail will be divided by a raised median into bicycle and pedestrian paths. The crossing will include ADA tactile warning strips and curb cuts, a lean bar, and an area to turn around between the curbed median and the roadway. Each crossing will have signage for both the trail users and street traffic, a mid-crossing refuge island, High Emphasis Crosswalk for pedestrians and Green Bicycle Crossing, cut-off pedestrian safety lighting at all crossings, potentially a High-Intensity Activated CrossWalK also known as a HAWK signal or a Pedestrian Hybrid Beacon also known as Rectangular Rapid Flashing Beacon (RRFB), and a push button actuator for the crossing.

- **Above-Grade Crossings:** These crossings will include an elevated (above-grade or grade separated) crossing that will carry the Ludlam Trail across the existing roadway. This type of above-grade crossing is proposed at four (4) locations: SW 40th Street/Bird Road, SW 24th Street/Coral Way, SW 8th Street/Tamiami Trail/Calle Ocho, and West Flagler Street. The above-grade crossing at West Flagler Street will also have elevators and stairs.

During the Ludlam Trail PD&E Study, site specific conditions, such as volume of vehicle traffic, signal proximity, and driveway access points were considered to determine the specific type of roadway crossing most appropriate for each roadway crossing location. During the final design phase, intersection sight distance will be determined for selecting the appropriate control at a mid-block path-roadway intersection and approvals for sign placement will be obtained as necessary prior to construction.

Bridges: The proposed project corridor crosses two (2) canals – the Coral Gables/C-3 Canal and the Tamiami/C-4 Canal. Each of these canals are managed by the South Florida Water Management District (SFWMD). The existing bridge across the C-3 Canal is located approximately 0.5 mile north of SW 40th Street, in the northeast corner of A.D. "Doug" Barnes Park. The existing bridge across the C-4 Canal is located approximately 0.1 mile north of West Flagler Street adjacent to Robert King High Park. The existing bridges spanning each canal were originally part of the FEC rail line. As part of the proposed Ludlam Trail project, the structurally deficient bridges will be removed and replaced. The existing bridges currently consist of in-water pilings that will be removed as part of this project. It is anticipated that the new replacement bridges will each be single span without any structural elements (e.g., pilings, columns, foundations, etc.) placed in the canal. Details regarding the removal and replacement of each of the bridges will be determined in the final design phase of this project.

Development Nodes: The Ludlam Trail corridor also includes nodes of private development at three (3) major roadway crossings: SW 40th Street/Bird Road, SW 24th Street/Coral Way, and from SW 8th Street/Tamiami Trail/Calle Ocho to SW 12th Street. The development nodes will be sensitive to and compatible with the adjacent areas (e.g., a neighborhood mixed-use development fronting the trail corridor, which will serve the specific needs of trail users, such as bike/skate shops, outdoor cafes, flexible office space, and multi-family residential areas). The development node areas will include an 18 ft wide perpetual easement for the trail to ensure connectivity of the trail through the length of the project corridor.

Trail Improvements: Tree plantings and other forms of landscaping will surround the proposed Ludlam Trail, providing users with shade, improving aesthetics, and providing a buffer to adjacent single-family residences. It is anticipated that pedestrian rest areas will be located throughout the trail corridor and may offer trail amenities (e.g., wayfinding signs, information signs, shaded benches or outdoor seating areas, trash receptacles, drinking fountains or spigots, bike racks and bike repair stations, security lighting). Proposed trailheads may also contain aesthetic features (e.g., decorative display fountains, opportunities for public artwork displays). Details regarding these trail improvements will be developed during the final design phase of this project.

Stormwater Management

The project is in Miami-Dade County, Florida, contained within unincorporated Miami-Dade, and is within the jurisdictional boundary of the South Florida Water Management District (SFWMD), and Miami-Dade Regulatory and Economic Resources (DRER), specifically within the C-2, C-3, and C-4 drainage basins.

SFWMD and DRER have established several criteria for water quality, depending on the proposed type of stormwater treatment facility. The existing corridor is a former railway which does not contain a stormwater management system. Currently, the runoff is treated via overland flow and natural percolation. Existing soil infiltration rates range from good to excellent. Stormwater runoff will be treated through a system of stormwater conveyance/collection swales, thereby maintaining overall water quality and providing adequate flood protection within the existing right-of-way and all adjacent properties.

Based on the conceptual drainage design evaluation for the proposed improvements, the stormwater management facilities 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.

The proposed drainage systems will be designed to be able to meet SFWMD and DRER water quality criteria, as well as SFWMD and FDOT Pre-Post attenuation discharge criteria. The SFWMD and the FDOT require that the pre-development offsite discharge rates not be exceeded by the proposed design for the SFWMD's 25 year – 72 hour storm, as well as the greater of the 100 year – one (1) hour, 100 year – eight (8) hour, or the 100 year – 24 hour events. The Miami-Dade County requirements meet or exceed the SFWMD water quality and water quantity requirements. 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 MDPROS on behalf of FDOT is requesting the EPA's 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 305-470-5221 if you have any questions.

Sincerely,

Steven Craig James, RLA
District Environmental Manager
Planning and Environmental Management Office

cc: Alissa Turtletab, MDPROS
Laura Cherney, AECOM
Martin Peate, AECOM

Attachment A
Water Quality Impact Evaluation Checklist

WATER QUALITY IMPACT EVALUATION CHECKLIST

PART 1: PROJECT INFORMATION

Project Name:	Ludlam Trail Corridor Project Development & Environment (PD&E) Study
County:	Miami-Dade
FM Number:	444236-1-22-01
Federal Aid Project No:	N/A
Brief Project Description:	This study evaluates the development of a 5.6-mile multi-use trail within a former rail corridor (i.e., the Ludlam Trail Corridor, or proposed project). As a Priority paved land trail from the Florida Greenways and Trails System (FGTS) Priority Network and Shared-Use Nonmotorized (SUN) Trail Network, the proposed publicly accessible trail will serve bicyclists, pedestrians, and users of other types of non-motorized vehicles. In addition, the proposed project is expected to provide a safe, dedicated, and direct means of non-motorized transportation to and from areas of residences, work, schools, parks, and shopping centers.

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: _____

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-2 (Snapper Creek Canal), C-3 (Coral Gables Canal), and C-4 (Tamiami Canal)

Water Management District: South Florida Water Management District

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 Alexander Orr 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:
Wellfield Protection Areas: Miami-Dade County Alexander Orr Wellfield

Potential direct effects associated with project construction and/or operation identified? ☒ Yes ☐ No

If yes, describe:

In accordance with Volume 2, Chapter 20 of the FDOT PD&E Manual, potential contamination impacts in the area surrounding the project corridor were assessed for the Preferred Alternative.

After a review of all available data, such as agency file reviews at Florida Department of Environmental Protection (FDEP); Miami-Dade County Department of Regulatory and Economic Resources, Environmental Resource Management (DERM); the Enviromental Data Resources (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. The proposed Ludlam Trail corridor contains several known contaminated areas. A total of 15 sites of potential environmental concern were identified within the applicable buffers of project corridor; of these, two (2) sites, including the proposed corridor, are rated as High risk, five (5) sites are rated as Medium risk, and eight (8) sites are rated as Low risk. The status of the sites will be updated accordingly at each future design phase.

The Level II Contamination Assessment investigation will be conducted during the design phase and prior to any right-of-way acquisition, 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 by a contamination assessment and remediation contractor specified by the FDOT.

It must be recognized that the possibility exists that some hazardous substances, petroleum products, or environmental contamination not identified during this assessment may exist within the limits 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 (USTs) and aboveground storage tanks (ASTs) 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, dewatering permits may need to be obtained prior to conducting any dewatering operations. The permits required include but not limited to a Water Use Permit from the South Florida Water Management District (SFWMD) and a Class V Dewatering Permit from the Miami-Dade County DERM. The contractor will be held responsible for ensuring compliance with any necessary dewatering permit(s). The dewatering plan will need to 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 FDOT 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.

The project is in Miami-Dade County, Florida, contained within unincorporated Miami-Dade, and is within the jurisdictional boundary of the South Florida Water Management District (SFWMD), and Miami-Dade County DERM, specifically within the C-2, C-3, and C-4 drainage basins.

SFWMD and Miami-Dade County DERM have established several criteria for water quality, depending on the proposed type of stormwater treatment facility.

The existing corridor is a former railway which does not contain a stormwater management system. Currently, the runoff is treated via overland flow and natural percolation. Existing soil infiltration rates range from good to excellent. Proposed improvements within the Ludlam Trail corridor will address water quality, water quantity and pre-treatment of runoff. Stormwater runoff will be treated through a system of stormwater conveyance/collection swales, thereby maintaining overall water quality and providing adequate flood protection within the existing right-of-way and all adjacent properties.

Based on the conceptual drainage design evaluation for the proposed improvements, the stormwater management facilities will meet FDOT drainage criteria as well as SFWMD and Miami-Dade County DERM 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.

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): Martin Peate, AICP	
Title:Project Manager	
Signature:	Date:Click here to enter a date.

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
Snapper Creek Canal (C-2)	4	3293	III			Yes	No	Dissolved Oxygen, Fecal Coliform	
Coral Gables Canal (C-3)	4	3292	III			Yes	No	Dissolved Oxygen, Fecal Coliform	
Tamiami Canal (C-4)	4	3286	III			Yes	No	Dissolved Oxygen, Mercury in Fish Tissue	

*** 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: Ludlam Trail Corridor Project Development & Environment (PD&E) Study

NAME OF SOLE SOURCE AQUIFER: Biscayne Aquifer

1. **Location of project:**

   Miami-Dade Parks, Recreation, and Open Spaces (MDPROS) in coordination with the Florida Department of Transportation, District 6 (FDOT) is conducting a Project Development and Environment (PD&E) Study for the Ludlam Trail Corridor in Miami-Dade County. The proposed project limits extend along a segment of a former rail corridor from SW 80th Street to 400 feet north of NW 7th Street, between NW 69th and NW 70th Avenue. The proposed project study area extends through sections of the City of Miami and unincorporated Miami-Dade County. The project is adjacent to the City of South Miami and proximate to the City of West Miami.

2. **Project description.**

   This study focuses on the Ludlam Trail Corridor for providing a safe, dedicated, and direct means of non-motorized transportation to and from areas of residences, work, schools, parks, and shopping centers. This publicly accessible trail will serve bicyclists, pedestrians, and users of other types of non-motorized vehicles.

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

   Yes, the project includes the creation of new impervious surface area (paved trail). Currently, no impervious surfaces exist along the former railroad corridor; however, this project will create 13.5 acres of new impervious surface area.

4. **Describe how stormwater is currently treated on the site.**

   The existing corridor is a former railway which does not contain a stormwater management system. Currently, the runoff is treated via overland flow and natural percolation.

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

   During construction, stormwater runoff will be treated using best management practices (BMPs) per FDOT's Standard Specification for Road and Bridge Construction (refer to question 12 below). In addition, as a precaution, the project will implement silt fences, floating turbidity barriers, and inlet protection systems in order to prevent sediments and silts from entering downstream waters.

After construction is completed, stormwater runoff will be treated through a system of stormwater conveyance/collection swales. An NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities will be applied for before construction. This permit requires preparation of project specific Stormwater Pollution Prevention Plan and Erosion Control Plans and outlines Best Management Practices to be implemented.

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

   There are no stormwater underground storage tanks present and no tanks are planned to be installed.

   There are two (2) sites in the vicinity, but outside the limits of the project. These sites (gas station and a service station) contain underground storage tanks. However, no impacts to these existing facilities are anticipated 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?**

   The proposed stormwater swales will be excavated to a depth of at or above the seasonal high groundwater table [ranges between EL. 4.66 ft and 7.96 ft (NAVD88) in the project per USGS groundwater data].

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?**

   There are three (3) Water Supply Restoration Wells (WSRW) (Well IDs: 130086301, 130033401 and 130023401) within 1,000 feet of the project corridor that might provide direct routes for contaminants to access the aquifer. However, due to the distance of these wells from the corridor, no impacts are anticipated to occur. Hence, no impacts are anticipated.

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.

Based on a review of all available data, such as agency file reviews at Miami-Dade County, the Florida Department of Environmental Protection; and available local/regional database reports; historic data reviews including aerial photography; and the site reconnaissance; a total of 15 sites were identified to pose potential contamination concerns to the proposed project corridor. Of these, 2 sites are rated as High risk, 5 sites are rated as Medium risk, 8 sites are rated as Low 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 MDPROS prior to project construction. There is potential groundwater contamination present within and directly adjacent to the corridor. To address the documented groundwater contamination which may potentially impact the proposed project, MDPROS will prepare an Engineering Control Plan (ECP) and a Soil Management Plan. If any soil or groundwater remediation is determined to be necessary, the MDPROS will perform the required treatment prior to construction.

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

No deep pilings are proposed as part of this trail project.

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 stormwater 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 management facilities (SMFs) will remain as a permanent 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 pre-treatment 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 POL-LUTION – 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 South Florida Water Management District (SFWMD), FDOT, and Miami-Dade County require that the post-development discharge rates not exceed the pre-development discharge rates. The proposed stormwater management design will be analyzed with the SFWMD 25 year - 72 hour storm event. The SFWMD, FDOT, and Miami-Dade County criteria will be met with the new stormwater management system. In addition, SFWMD, FDOT, and Miami-Dade County stormwater 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.

Water Quality Impact Evaluation

US Environmental Protection Agency Concurrence Letter

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW
ATLANTA, GEORGIA 30303-3104

Mr. Dat Huynh
District Planning and Environmental Administrator
Florida Department of Transportation, District 6
1000 North West 111th Avenue
Miami, Florida 33172

Subject: Sole Source Aquifer Review/Concurrence for Ludlam Trail Corridor, ETDM Number: 14369.

Dear Mr. Huynh:

The U.S. Environmental Protection Agency, Region 4 received the Florida Department of Transportation's (FDOT) request on May 21, 2021 to review the above referenced project pursuant to Section 1424(e) of the Safe Drinking Water Act (SDWA), 42 U.S.C. § 300h-3. The objective of the EPA's review is to determine if the project lies within the boundaries, including recharge and streamflow source zones, of an EPA designated Sole Source Aquifer (SSA), and to determine if the project poses potential adverse health or environmental impacts. A SSA is the sole or principal water source for a designated area.

Ludlam Trail Corridor project (Project) has been determined to lie inside the designated boundaries of the Biscayne Sole Source Aquifer and based on the information provided, may cause a significant impact to the aquifer system when the Project's bridge foundations are installed, construction dewatering is undertaken, and/or the documented groundwater contamination is disturbed. However, with proper implementation of best management practices (BMPs), these potential impacts can be adequately reduced or properly mitigated. To that effect, when installing bridge foundations, the FDOT must adhere to the list of BMPs provided as items 1 and 2 below. The dewatering operation BMPs are listed in item 3, and groundwater contamination BMPs are listed in item 4 below:

1. FDOT Design Manual Chapter 320 Stormwater Pollution Prevention Plan (SWPPP)
2. FDOT Standard Specification for Road and Bridge Construction,
   a. Section 6 – Control of Materials
   b. Section 104 – Prevention, Control, And Abatement of Erosion and Water Pollution
   c. Section 455 – Structures Foundations
3. U.S. Bureau of Reclamation Engineering Geology Field Manual – Chapter 20 Water Control. https://www.usbr.gov/tsc/techreferences/mands/geologyfieldmanual-vol2/Chapter20.pdf
4. Prepare and implement an Engineering Control Plan and a Soil Management Plan for the documented groundwater contamination plume in the project area and perform the required treatment prior to construction if necessary. Provide the EPA with Engineering Control Plan and a Soil Management Plan when developed as well as any treatment methods used to contain the contamination.

Furthermore, all debris from any demolition of the existing structures must be properly contained and removed from the site prior to construction of the new structure. If applicable, all county flood plain management plans and public notification processes must be followed. During construction, it is the EPA's understanding and expectation that those responsible for the project will strictly adhere to all Federal, State, and local government permits, ordinances, planning designs, construction codes, operation, maintenance, and engineering requirements, and any contaminant mitigation recommendations outlined by federal and state agency reviews. All best management practices for erosion and sedimentation control must also be followed and State and local environmental offices must be contacted to address proper drainage and storm water designs. Additionally, the project manager should contact State and local environmental officials to obtain a copy of any local Wellhead Protection Plans. The following website provides information regarding the Florida Department of Environmental Protection's Source Water Assessment and Protection Program.
http://www.dep.state.fl.us/swapp/Default.htm

The EPA finds that, if the conditions outlined above are adhered to, this Project should have no significant impact to the aquifer system. Please note that this "no significant impact" finding has been determined based on compliance with the requirements outlined above and, on the information provided. Further, this finding only relates to Section 1424(e) of the SDWA, 42 U.S.C. § 300h-3. If there are any significant changes to the project, the EPA Region 4 office should be notified for further review. Other regulatory groups within the EPA responsible for administering other programs may, at their own discretion and under separate cover, provide additional comments.

Thank you for your concern with the environmental impacts of this project. If you have any questions, please contact Mr. Khurram Rafi at 404-562-9283 or Rafi.Khurram@epa.gov or Mr. Larry Cole at 404-562-9474 or Cole.Larry@epa.gov.

Sincerely,

JOEL COFFMAN
Digitally signed by JOEL COFFMAN
Date: 2021.06.24 06:46:50 -04'00'

Joel Coffman, Acting Chief
Groundwater, UIC and GIS Section
Safe Drinking Water Branch
EPA, Region 4, Atlanta, GA