

WATER QUALITY IMPACT EVALUATION CHECKLIST
AND
EPA SOLE SOURCE AQUIFER CHECKLIST

Florida Department of Transportation

District 6

SR 994/SW 200th Street/Quail Roost Drive PD&E Study
From West of SW 137th Avenue to East of SW 127th Avenue
Miami-Dade County, Florida

Financial Management Number: 445804-1-22-01

ETDM Number: 14429

August 11, 2023

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 May 26, 2022, and executed by FHWA and FDOT.



**WATER QUALITY IMPACT EVALUATION
CHECKLIST
AND
EPA SOLE SOURCE AQUIFER
CHECKLIST**

**SR 994 / SW 200th St / Quail Roost Drive
Project Development & Environment Study
From West of SW 137th Avenue to East of SW 127th Avenue
Miami-Dade County, Florida**

Financial Management Number: 445804-1-22-01
FAP Project Number: Not Assigned
Efficient Transportation Decision-Making Number: 14429

Prepared for:
*Florida Department of Transportation
District 6
1000 NW 111th Avenue
Miami, Florida 33172*

August 11, 2023



Florida Department of Transportation

RON DESANTIS
GOVERNOR

1000 NW 111th Avenue
Miami, FL 33172-5800

JARED W. PERDUE, P.E.
SECRETARY

August 11, 2023

Via Electronic Mail

Mr. Khurram Rafi
U.S Environmental Protection Agency, Region 4
Water Protection Division
Ground Water & UIC Section
Sam Nunn Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960

rafi.khurram@epa.gov

SUBJECT: Request for Sole Source Aquifer Review/Concurrence
SR 994/SW 200th Street/Quail Roost Drive PD&E Study
Financial Management Number: 445804-1-22-01
ETDM Number: 14429
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 994/SW 200th St/Quail Roost Drive from west of SW 137th Avenue to east of SW 127th Avenue in Miami-Dade County, Florida (see **Figure 1-1**).

This roadway project involves the potential widening of SR 994 up to four lanes from west of SW 137th Avenue to east of SW 127th Avenue. The purpose of this project is to address traffic operations and capacity constraints on SR 994 in order to accommodate future travel demand projected as a result of population and employment growth along the corridor.

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).

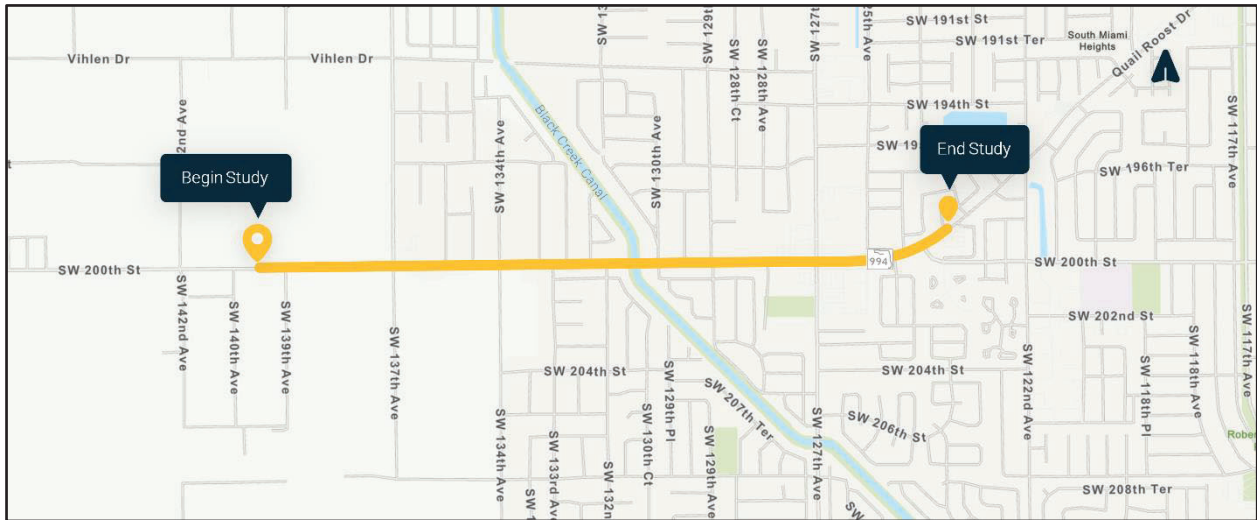


Figure 1-1 Project Study Area

The Efficient Transportation Decision Making (ETDM) Programming Screening Summary Report was published on July 8, 2021 (ETDM#14429). 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 July 19, 2020, by Ms. Amanetta Somerville). The comments from the EPA included the following:

In the preliminary environmental discussion (PED), FDOT acknowledges that the proposed project area is within the Biscayne Bay Sole Source Aquifer. The proposed project also crosses the Southwest Florida Water Management District’s (SFWMD) Black Creek Canal/C-1W. Within the 500-foot project buffer, there are 3 U.S. EPA National Pollutant Discharge Elimination Systems (NPDES) Stormwater Permits. Additionally, FDOT acknowledges that a Storm Water Pollution Prevention Plan (SWPPP) will be implemented to control the effects of stormwater runoff during construction. The EPA assigns a Moderate degree of effect for contamination due to the potential impact on the Biscayne SSA.

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’s purpose and need.

Preferred Alternative

The Preferred Alternative proposes one additional travel lane in each direction, for a total of two 11-ft lanes on each bound, and a 16.5-ft raised median with exclusive left turn lanes along SR 994. Curb and Gutter Type F is proposed on the outside of the travel lanes while Type E curb is the typical condition along the median. This alternative also proposes 10-ft Shared Use Paths (SUP) along both sides of the corridor, that are intended to be utilized by pedestrians as well as bicyclists. A minimum 4.5-ft buffer is proposed from the back of curb to the front of the SUP. A 2-ft buffer is proposed behind the SUPs to accommodate signing and lighting features. The signalized

intersections at SW 137th Avenue and SW 127th Avenue will be widened to accommodate auxiliary turn lanes to meet future travel demand. A new traffic signal is proposed at the intersection of SR 994 and SW 134th Avenue.

The Preferred Alternative includes the removal and replacement of the bridge structure (Bridge #870633) over the Black Creek Canal (C-1W) as well as new/enhanced pedestrian and bicycle infrastructure, including paved shoulders/designated bicycle lanes, sidewalks, and/or a shared-use path connection to the existing Black Creek Trail.

Trail Improvements

Black Creek Trail- Segment of Route 7 is owned by the Miami-Dade County, Parks, Recreation and Open Spaces (MDPROS) and is located along the Black Creek Canal (C-1W). Black Creek Trail- Segment of Route 7 is an 8.7-mile-long greenway corridor that begins at Black Point Park and Marina and ends near Larry and Penny Thompson Park. The preferred alternative includes relocating the trail under the proposed new bridge over Black Creek Canal (C-1W). The advantages of this option include improved safety and traffic operations due to the elimination of conflicts between motor vehicles and bicyclists/pedestrians. In addition, this option provides improved overall bridge vertical clearance.

Stormwater Management

The project is located in unincorporated Miami-Dade. The project is also within the jurisdictional boundary of the South Florida Water Management District (SFWMD) and the Miami-Dade County Department of Regulatory and Economic Resources (DRER).

SFWMD and DRER have established several criteria for water quality, depending on the proposed type of stormwater treatment facility. The existing drainage infrastructure within the project limits is self-contained and consists mainly of roadside swales with inlets connected to isolated short segments of French drains providing runoff disposal. The existing swale and French drain system will be replaced by a French drain trunkline. The project includes a bridge crossing over the Black Creek Canal (C-1W) approximately at the mid-section of the project. The C-1W Canal is a primary canal owned, operated, and maintained by the SFWMD. However, the project does not have any existing outfall connections into this canal. The existing drainage system east of SW 127th Avenue consists of a positive gravity storm sewer system which has an outfall connection into the SW 122nd Avenue Canal. The SW 122nd Avenue Canal is a secondary canal owned, operated, and maintained by DRER; this canal is located outside the project limits.

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

All necessary measures will be taken to avoid and/or minimize impacts to surface water features during project design. While mitigation is not required, best management practices will be utilized during construction. In addition, all applicable permits will be obtained or modified in accordance with federal, state, and local laws and regulations. Further, the proposed stormwater management system does not include discharges into the Black Creek Canal (C-1W) and the design will make every effort to maximize the treatment of stormwater runoff from the proposed project.

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 a review by the EPA of this information for concurrence that no adverse impacts to the Biscayne Aquifer are anticipated as a result of the proposed project. Enclosed are both the Water Quality Impact Evaluation Checklist (**Attachment A**) and the EPA Sole Source Aquifer Checklist (**Attachment B**) to assist with your review per the requirements of our PD&E process. Please call me at 305-470-5105 if you have any questions.

Sincerely,

Elsa N Riverol

2023.08.16 10:51:51 -04'00'

Elsa N. Riverol, P.E.
Project Manager
Consultant Management
Florida Department of Transportation - District 6

Cc: Steven Craig James, FDOT
Robert McMullen, FDOT
Alina Fernandez, Gannett Fleming
Amanda De Cun, Gannett Fleming

**Water Quality Impact Evaluation Checklist
(Attachment A)**

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
WATER QUALITY IMPACT EVALUATION CHECKLIST

650-050-37
 ENVIRONMENTAL
 MANAGEMENT
 08/22

PART 1: PROJECT INFORMATION

Project Name:	SR 994/SW 200 th Street/Quail Roost Drive PD&E Study
County:	Miami-Dade
FM Number:	445804-1-22-01
Federal Aid Project No:	N/A
Brief Project Description:	The project is located in southwest Miami-Dade County at SR 994/SW 200 th Street/Quail Roost Drive, from west of SW 137 th Avenue to east of SW 127 th Avenue. The project corridor is approximately 1.67 miles in length. This roadway project involves the potential widening of Quail Roost Drive up to four lanes from SW 137 th Avenue to SW 127 th Avenue.

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 names: C-1W (Black Creek 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(s) (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 South Miami Heights

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:

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

If yes, describe:

The Preferred Alternative will result in impacts to the existing surface water feature, due to the proposed bridge replacement over the Black Creek Canal (C-1W). The approach will include maintaining existing corridor drainage flow patterns which does not include existing outfall connections to the C-1W Canal. The proposed system

does not include any new outfall connections and the impacts to the surface water is the same regardless of the selected alternative

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

N/A

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 the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

Evaluator Name (print): Carlos F. Ribbeck, P.E.

Title: Senior Drainage Engineer

Signature: **Carlos F
Ribbeck**

Digitally signed by
Carlos F Ribbeck
Date: 2023.08.16
14:36:48 -04'00'

Date: **8/16/2023**
[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,III-L,IV,V)	Special Designations*	NNC limits**	Verified Impaired (Y/N)	TMDL (Y/N)	Pollutants of concern	BMAP, RA Plan or SSAC
Black Creek Canal (C-1W)	4/ Southeast Coast-Biscayne Bay	3297	III	3F	Stream	No	No	N/A	No

* 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
Not Applicable				

**EPA Sole Source Aquifer Checklist
(Attachment B)**

PROJECT NAME: SR 994/SW 200th Street/Quail Roost Drive 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 994/SW 200th Street/Quail Roost Drive from SW 137th Avenue to SW 127th Ave, a distance of approximately 1.67 miles. The project is located in Miami-Dade County, Florida and is contained within unincorporated Miami-Dade.
- 2. Project description.** This PD&E Study involves the potential widening of Quail Roost Drive up to four lanes from west of SW 137th Avenue to east of SW 127th Avenue. In addition to the potential widening, the proposed roadway improvements may include operational enhancements at the existing intersections, widening/reconstruction of the bridge structure over Black Creek Canal, access management measures, and stormwater management systems.
- 3. Is there any increase of impervious surface? If so, what is the area?** The project total drainage area is 29.22-ac. The pre-development impervious area is 14.55-ac, and the post-development impervious area is 24.28-ac. Therefore, there is a 9.73-ac. increase in impervious area as a result of the roadway improvements.
- 4. Describe how storm water is currently treated on the site?** The project existing drainage infrastructure is self-contained and consists mainly of roadside swales with inlets connected to isolated short segments for French drains providing runoff disposal.
- 5. How will storm water be treated on this site during construction and after the project is complete?** Stormwater will be treated and attenuated in existing and modified roadside swales, as well as existing and proposed exfiltration trenches (French Drains).
- 6. Are there any underground storage tanks present or to be installed? Include details of such tanks.** There is one (1) site within the 500-foot buffer of the project area which contains an underground storage tank listed on the Florida Department of Environmental Protection Registered Tanks from Storage Tank Contamination Monitoring map. 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 and 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?** Dredging for the proposed shoreline stabilization will not exceed -10 feet NAVD 1988.
- 9. Are there any wells in the area that may provide direct routes for contaminants 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. A small portion of the SW 127th Avenue intersection southwest quadrant is located in and adjacent to the South Miami Heights wellfield facility 210-day wellfield protection area. The majority of project area is located to the west and outside of the wellfield protected area. The proposed drainage improvements are minimal and should not cause any adverse effects to the South Miami Heights wellfield protection area.

- 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.** A Contamination Screening Evaluation of the project corridor was conducted as part of the environmental evaluation to determine the potential risks associated with existing and potential soil and groundwater contamination within the proposed project limits. As a result of a review of all available data, such as agency file reviews at Miami-Dade County Department of Regulatory and Economic Resources, Environmental Resource Management (DERM), and Florida Department of Environmental Protection (FDEP), historic data reviews including aerial photography, and the site reconnaissance, the following five (5) sites were identified to pose potential contamination concerns to the proposed project. The identified sites, with risk rating (low risk, medium risk, and high risk) associated with the project development, are described below.

Site ID	Property Description	Address	Facility ID	Environmental Compliance Agency	Regulated Storage Tanks	Distance from Project	Contamination Concern / Regulatory Status	Alternative Risk Rating			
								A1	A2	A3	TSM&O
H1	Coin Laundry	12390 Quail Roost Drive	ERIC_4511	FDEP	Yes	Directly adjacent	DEP Dry cleaning Solvent Program; status unknown	High	High	High	High
M1	Richard Lyons Nursery	20200 SW 134 th Ave	ERIC_15241	FDEP	No	0.07 miles south	Heptachlor and Dieldrin (pesticides) as well as Arsenic in private well water	Medium	Medium	Medium	Medium
L1	Kendall Nursery and Landscaping IV	13650 SW 200 th Street	N/A	N/A	No	Directly adjacent	Potential contamination from pesticides/etc.	Low	Low	Low	Low
L2	Benmarq Nursery and Landscaping	13400 SW 200 th Street	N/A	N/A	No	Directly adjacent	Potential contamination from pesticides/etc.	Low	Low	Low	Low
L3	7/11 Gas Station	12720 SW 200 th Street	N/A	N/A	Yes	Directly adjacent	None	Low	Low	Low	Low

- 11. Are there any deep pilings that may provide access to the aquifer?** The piling to be installed as part of bridge foundations may breach the upper boundary of the Biscayne aquifer. The required depth for the pilings will be determined during the final design phase of the 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:

- i. 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://www.fdot.gov/roadway/fdm/2022-FDM>
- ii. FDOT Standard Specification for Road and Bridge Construction, SECTION 6 CONTROL OF MATERIALS– 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/fy-2023-24/fy2023-24ebook.pdf?sfvrsn=6b69416d_6
- iii. 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/fy-2023-24/fy2023-24ebook.pdf?sfvrsn=6b69416d_6
- iv. 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/fy-2023-24/fy2023-24ebook.pdf?sfvrsn=6b69416d_6

- 13. Is there any other information that could be helpful in determining if this project may have an effect on the aquifer?** No additional information is available 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?** 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.