

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 544 PD&E Study
County:	Polk
FM Number:	440273-1-22-01
Federal Aid Project No:	D119-048-B
Brief Project Description:	This Project Development and Environment (PD&E) Study is for the widening of SR 544 from Martin Luther King Blvd to SR 17. The Study evaluated widening SR 544 from two lanes to four lanes, including intersection alternatives, and provided stormwater management recommendations including new treatment/attenuation ponds and floodplain compensation sites.

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: Polk County and Co Permittees PH I and PH I C

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: Lake Conine, Lake Smart, Lake Fannie, Lake Hamilton, Lake Henry Canal, Little Lake Hamilton, Lake Hamilton Creek, Haines City Drainage Canal, Lake Butler

Water Management District: Southwest Florida

Environmental Look Around meeting date: 11/30/2021

Attach meeting minutes/notes to the checklist.

Water Control District Name(s) (list all that apply): Lake Region Lakes Management District

Groundwater

Sole Source Aquifer (SSA)? Yes No

Name _____

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 Floridian

Springs vents? Yes No
Name _____

Well head protection area? Yes No
Name Fairview Village Well #1 and #2

Groundwater recharge? Yes No
Name Infiltration

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: N/A

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
Nutrient Loading Analysis performed to show reduction in nutrient loading consistent with goals of Lake Hamilton Chain of Lakes Pollutant Reduction Plan

TMDL program contacted? Yes No

RAP Stakeholders contacted? Yes No

Regional water quality projects identified in the ELA? Yes No

If yes, describe:
Lake Conine Stormwater Park (no credits)

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

If yes, describe:

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

SWFWMD water quality for wet detention applies (1" over Directly Connected Impervious Areas (DCIA)). SWFWMD water quality for dry retention applies (0.5" over DCIA). Nutrient loading analysis is required for all basins because the eventual outfall is Lake Hamilton which is subject to the Lake Hamilton Chain of Lakes Pollutant Reduction Plan


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): Renato Chuw, P.E.

Title: Senior Drainage Engineer

Signature: 

Date: 10/23/23

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
Lake Hamilton Drain	3	1504B	III		Stream	No	No		
Lake Conine	3	1488U	III		Lake	No	No		
Lake Smart	3	1488A	III		Lake	Yes	No	TN	
Lake Fannie	3	14882	III		Lake	No	No		
Lake Hamilton Outlet	3	1504	III		Stream	No	No		
Lake Hamilton	3	15041	III		Lake	Yes	No	TN	Lake Hamilton Chain of Lakes Pollutant Reduction Plan
Lake Hamilton Canal	3	1500A	III		Stream	No	No		
Middle Lake Hamilton	3	15002	III		Lake	No	No		
Lake Butler	3	15102	III		Lake	No	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
Lake Conine, Lake Smart, Lake Hamilton, Lake Hamilton Canal, Middle Lake Hamilton, Lake Butler	Dave Kramer, ERP Bureau Chief, SWFWMD	9/1/2021	No	Pre-app meeting
Lake Conine, Lake Smart, Lake Fannie	Roger Griffiths, LRLMD	11/30/23	No	ELA Meeting

DATE: September 1, 2021

TO: **All Attendees / Project File**

FROM: Renato Chuw, PE

RE: SR 544 PD&E Study FPID 440273-1; SWFWMD Pre Application Meeting

CC: David Turley, Richard Oujevolk, Jonathon Bennett

A Pre-Application meeting was held for the SR 544 PD&E Study with Southwest Florida Water Management District (SWFWMD) on September 1st, 2021, at 2:00 PM. The meeting was held via a Teams meeting. In attendance were:

Dave Kramer (SWFWMD)	David Dangel (Inwood)
Al Gagne (SWFWMD)	Renato Chuw (Inwood)
Brent Setchell (FDOT)	Dayna Duffy (Inwood)
Sergio Figueroa (FDOT)	Jada Barhorst (Inwood)
Nicole Monies (FDOT)	
Ben Shepherd (FDOT GEC)	

The following is a summary of the items discussed in this meeting:

Project overview and description

- Renato shared his screen with Google Earth along with a KMZ of the project limits, drainage basins and preliminary pond site locations. An overview of the project was provided. The project begins at MLK Jr. Blvd/Avenue T in Winter Haven and extends to SR 17 in Haines City. The scope of the project is to evaluate widening SR 544 from two to four lanes. There are a total of 17 cross drains within the project, including 3 major (bridge culvert or bridge) crossings. These are located at the canal between Lake Conine and Lake Smart, at Lake Henry Canal, and at Lake Hamilton Creek.
- The project is within the Peace River Basin and has been divided into 10 drainage basins based on existing outfall locations and drainage patterns.
- Basin 7, located west of US 27, is a closed basin. Within this basin, there is an existing FDOT pond that will soon be relocated as part of a new development. Renato also pointed out that there is a potential quadrant roadway concept at this intersection and a separate pond site was located for this alternative.
- Renato mentioned that Inwood met with SWFWMD two years ago for a pre-application meeting while pursuing this project. At that time, SWFWMD stated that it would be acceptable to provide treatment only for net-new impervious if it could be physically separated from the existing runoff. However, at the time it was expected that the original lanes would remain throughout most of the project and two new lanes would be constructed. It is now anticipated that full reconstruction will be necessary due to right-of-way constraints.
 - Dave Kramer stated that while net new impervious is the minimum acceptable treatment, it would be preferable to SWFWMD to see treatment provided for all contributing DCIA in each basin.
 - Brent Setchell added that since right-of-way acquisition is needed anyway, FDOT would also prefer the most conservative approach of treating the total area of the reconstructed pavement.

- In Basins 1 and 2, one idea presented was to provide a larger pond in Basin 1 that would overtreat that basin and provide compensation for Basin 2 since at the time, it was thought that these two basins discharge to a common location (Lake Conine and Lake Smart which are connected by a canal crossing SR 544). Basin 2 would then discharge untreated.
 - FDOT had previously concurred with this idea and pointed out that the pond site for Basin 1 has a large offsite area of pasture that could be treated in the pond to balance the additional treatment for Basin 2 and show net benefit (nutrient reduction) to the basin.
 - SWFWMD indicated that although Basins 1 and 2 discharge to different lakes that are connected by a free-flowing canal, they are separate WBIDs and would recommend keeping them as separate basins and have one pond in each basin. Inwood had previously sited an alternative pond for Basin 2 so this will now be shown as the pond site for Basin 2.
- In Basins 8 and 9, a similar plan to use compensating treatment was proposed by Inwood. Both basins drain to Lake Hamilton Creek. Inwood mentioned that based on previous discussion with FDOT, they planned to show separate ponds for both basins moving forward.
 - SWFWMD mentioned that since these basins do drain to the same WBID, compensation might be more acceptable here.
 - Inwood will still locate a separate Basin 8 pond at the request of FDOT.
- Renato mentioned that the Lake Region Lakes Management District (LRLMD) is also a stakeholder on the project and will be contacted soon. Inwood met with them previously and obtained some information about local stormwater projects.
 - The Lake Conine Stormwater Park is located adjacent to the project but cannot be used for treatment of the roadway improvement since it was a cooperative project between LRLMD and SWFWMD with grant funding dedicated only for the scope of that project.
 - Inwood and SWFWMD are also aware of another LRLMD project, believed to be located near Lake Eloise. SWFWMD believed this project was too far from the SR 544 project to provide any potential credits.
- Renato mentioned that the first half of this project (from Avenue T until the Walmart Distribution Center) is funded for design in 2025 with the remainder of the project is unfunded. However, it is expected to be added to the 5-year work program soon.
- Renato also briefly discussed the floodplains on the project. There are multiple encroachments associated with various lakes and canals in the area. The floodplains are well defined and have established Zone AE 100-year elevations.
 - Inwood utilized a standard cup for cup compensation approach when sizing and siting the floodplain compensation sites.
 - Inwood is also aware of the Peace Creek Watershed study and will verify that the floodplains are consistent with those shown in FEMA maps.
- Jada provided an overview of the ecological and environmental permitting concerns on the project. Inwood's ecology team has completed several species surveys along the corridor. They are also investigating credits available in wetland mitigation banks to offset potential wetland impacts.
 - Albert Gagne mentioned that there could be Sovereign Submerged Lands (SSL) along the corridor and that this should be investigated if purchasing right-of-way adjacent to lakes.
 - Nicole Monies mentioned that she is aware the Peace River mitigation bank will not have forested credits available for several years.

Action Items

- Inwood to revise all ponds to include treatment for all lanes of the corridor.
- Inwood to show separate ponds for each basin including Basins 2 and 8 which previously used a compensating approach.
- Inwood to arrange a meeting with LRLMD to discuss ELA opportunities.

These are the author's understanding of the discussions and decisions reached at this meeting. If there are comments or questions, please contact Renato Chuw at rchuw@inwoodinc.com or 407-971-8850.

DATE: November 30, 2021

TO: All Attendees / Project File

FROM: Renato Chuw, PE

RE: SR 544 PD&E Study FPID 440273-1; Lake Region Lakes Management District (LRLMD) Environmental Look Arounds (ELA) Meeting

CC: Sergio Figueroa, Richard Oujevolk, Jonathon Bennett

An Environmental Look Arounds (ELA) meeting was held for the SR 544 PD&E Study with the Lake Region Lakes Management District (LRLMD) on November 30th, 2021, at 2:00 PM. The meeting was held via a Teams meeting. In attendance were:

Roger Griffiths (LRLMD)

Brent Setchell (FDOT)

David Turley (FDOT)

David Dangel (Inwood)

Renato Chuw (Inwood)

Dayna Duffy (Inwood)

Jada Barhorst (Inwood)

The purpose of this meeting was to discuss potential regional stormwater opportunities (“Environmental Look Arounds-ELA”) with the Lake Region Lakes Management District (LRLMD). The following is a summary of the items discussed in this meeting:

- Renato shared his screen with Google Earth along with a KMZ of the project limits, drainage basins and preliminary pond site locations. Proposed stormwater treatment ponds and floodplain compensation ponds for each basin were shown. An overview of the project was provided. The project begins at MLK Jr. Blvd/Avenue T in Winter Haven and extends to SR 17 in Haines City. The scope of the project is to evaluate widening SR 544 from two to four lanes.
- Inwood had previously met with the LRLMD two years ago while pursuing this project and the objective of today’s meeting was to revisit any potential opportunities for regional stormwater / ELA.
- It was confirmed in the meeting that using credits in the Lake Conine Wetland restoration project is not available for the purpose of the road improvement because of the funding mechanism specifically for the wetland restoration project. This was also stated by SWFWMD in the pre-application meeting held in September 2021.
- Previous discussion with LRLMD indicated the willingness to place pond sites on their parcels if they could include aesthetics and park-like features, specifically, the boat ramp parcel to Lake Fannie. However, the decision was to avoid placing pond sites in these Section 4(f) resources.
- LRLMD mentioned a new house built along Lake Smart, just north of the Winter Ridge Condos. Access to the house was discussed. Inwood indicated that this will be evaluated as the proposed roadway concepts are refined with the widening options.

- LRLMD expressed concern about access into and out of the boat ramp entrance to Lake Conine (west of SR 544) with acceleration and deceleration lanes on SR 544, which in the existing condition, is not provided. Inwood indicated that the four-lane improvement of SR 544 will accommodate this.
- LRLMD expressed their desire to realign the existing box culvert connecting Lake Conine and Lake Smart if improvements are proposed to this culvert resulting from the four-lane widening. Realigning the culvert will provide for better visibility to boaters. In addition, providing more vertical clearance inside the culvert would be desirable. LRLMD indicated that they are willing to realign portions of the canal as needed to accommodate the improvements.
- The segment of SR 544 from MLK Boulevard to the Walmart Distribution Center is funded for design in 2025. The segment from the Walmart Distribution Center to SR 17 is currently not funded but FDOT anticipates that it will be included in their 5-year work program.
- Inwood inquire if the LRLMD was aware of any potential regional stormwater opportunities in the area. LRLMD indicated that there is a property next to the Lake Fannie boat ramp that is vacant that may be suitable for a pond site. However, after looking at maps, this area appears to contain wetlands and is within the existing floodplain associated with Lake Fannie and more likely will present challenges to show avoidance and minimization of wetland impacts.
- A previous item discussed in 2019 was regarding the Lake Eloise treatment project. LRLMD indicated that this project would not work for any credits apply toward the SR 544 project.
- Nutrient loading analysis for the project will be evaluated as part of the SR 544 study with the proposed stormwater ponds. An option was discussed regarding possible conversion of some of the existing communities that are on septic to sewer, but this would involve cooperative efforts with the City.
- Inwood mentioned that a public meeting will be held in February 2022 to present initial roadway and typical section concepts. LRLMD expressed their desired to stay involved and informed on the study progression.

These are the author's understanding of the discussions and decisions reached at this meeting. If there are comments or questions, please contact Renato Chuw at rchuw@inwoodinc.com or 407-971-8850.