PART 2, CHAPTER 20

WATER QUALITY IMPACT EVALUATION

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WATER QUALITY IMPACT EVALUATION

20.1 OVERVIEW

20.1.1 Purpose and Use

Roadway stormwater runoff may result in impacts to surface water and groundwater, if not adequately treated. All Florida Department of Transportation (FDOT) projects are designed to avoid or minimize stormwater impacts and include stormwater management systems that are designed to meet the requirements of appropriate regulatory agencies.

The purpose of this chapter is to provide guidance for assessing and documenting potential water quality impacts to water resources from transportation projects, and to ensure compliance with the federal ***Clean Water Act (CWA)*** as well as state regulatory requirements. This chapter provides guidance on documenting water resource information, coordinating with water resource agencies and other stakeholders, and developing related commitments in the Environmental Document through completion of a ***Water Quality Impact Evaluation (WQIE)***. The level of documentation for the ***WQIE*** depends upon the extent of potential impacts of a proposed project on surface and/or groundwater resources. Specifically, the impacts are related to direct and indirect stormwater discharges from transportation projects into surface water (other than wetlands) and/or groundwater. The chapter does not cover impacts to wetlands and other surface water impacts not related to stormwater. See ***Part 2, Chapter 18, Wetlands and Other Surface Waters***, for wetland evaluation procedures.

This chapter also describes the Environmental Look Around (ELA), a process of proactively looking for opportunities for joint stormwater treatment projects with agencies or stakeholders and obtaining the most current water resource information required to complete the ***WQIE Checklist***. This chapter focuses on both surface water and ground water resources. The term “water resources” is used throughout this chapter and includes both surface and ground water.

20.1.2 Definitions

Aquatic Preserve – established under the ***Aquatic Preserve Act***, means an exceptional area of submerged lands and its associated waters set aside for being maintained essentially in its natural or existing condition.

Basin Management Action Plan (BMAP) – is a comprehensive plan, coordinated by the Florida Department of Environmental Protection, of regulatory and non-regulatory actions to meet the Total Maximum Daily Load (TMDL) for a given watershed. BMAPs

are designed to implement restoration strategies reducing pollutant concentrations to meet a TMDL.

Designated Uses – the present and future most beneficial use of a body of water as designated by the Environmental Regulation Commission by means of the Waterbody Classification.

Environmental Look Around – a process of proactively looking for opportunities for joint stormwater treatment projects with agencies or stakeholders and obtaining the most current water resource information. .**DEP Group Number** – The number and name assigned by DEP, based on watershed basins that have been developed for the state and that form the basis for Basin Rotation.

Impaired Waters– surface waters that do not meet the standards set for them are determined to be "impaired" and in need of restoration. Using data from assessments, the Florida Department of Environmental Protection has verified many waterbodies as impaired. The impairments are separated into the following assessment categories:

1 Attains all designated uses

2 Attains some designated uses and insufficient or no information or data are present to determine if remaining uses are attained

3a No data and information are present to determine if any designated use is attained

3b Some data and information are present but not enough to determine if any designated use is attained

3c Enough data and information are present to determine that one or more designated uses may not be attained according to the Planning List methodology

4a Impaired for one or more designated uses but does not require TMDL development because a TMDL has already been completed

4b Impaired for one or more designated uses but does not required TMDL development because the water will attain water quality standards due to existing or proposed measures

4c Impaired for one or more criteria or designated uses but does not require TMDL development because impairment is not caused by a pollutant

4d The waterbody does not meet applicable criteria, but no pollutant can be identified; therefore, a TMDL will not be developed at this time.

4e Impaired, but recently completed or on-going restorative activities are underway to restore the designated uses of the waterbody

5 Water quality standards are not attained and a TMDL is required

Municipal Separate Storm Sewer System (MS4) - is a publically-owned conveyance or system of conveyances, such as roads with stormwater systems, municipal streets, catch basins, that is designed or used for collecting or conveying stormwater that discharges to surface waters of the state.

Numeric Nutrient Criteria (NNC) – are statewide numeric nutrient standards for Florida's waters established under ***Rules 62-302.531, F.A.C. (Lakes, Streams and Spring Vents) and 62-302.532, F.A.C. (Estuaries and Costal Segments)***.

Outstanding Florida Water (OFW) – established under ***Rule 62-302.700, F.A.C.***, is a water designated by the Environmental Regulation Commission as worthy of special protection because of its natural attributes.

Outstanding National Resource Water (ONRW) – established under ***Rule 62-302.700(10), F.A.C.***, is a water that is of such exceptional recreational or ecological significance that the water quality should be maintained under all circumstances other than allowed by Section 316 of the ***Clean Water Act***.

Reasonable Assurance Plan (RAP or 4b plans) - waterbody restoration plans for waterbodies that are impaired, but with control programs already being implemented to reduce pollutant loadings.

Site Specific Alternative Criteria (SSAC) – is an alternative surface water quality standard and can replace the criteria applicable statewide in cases where site specific information supports different numeric criteria. The SSAC must fully support and protect the designated uses of the waterbody.

Sole Source Aquifer (SSA) – The Environmental Protection Agency (EPA) defines a sole or principal source aquifer as an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. These areas may have no alternative drinking water source(s) that could physically, legally and economically supply all those who depend on the aquifer for drinking water. For convenience, all designated sole or principal source aquifers are referred to as "sole source aquifers" (SSAs). For Florida, the EPA has identified two SSAs: the Volusian-Floridan, and the Biscayne Aquifers. [***1424(e) of the Safe Drinking Water Act of 1974 (Public Law 93-523, 42 U.S.C. § 300 et seq.***]

Special Waters – established under ***Rule 62-302.700, F.A.C.***, is a water that is of exceptional recreational or ecological significance.

Surface Water Improvement and Management Program (SWIM) Area – established in 1987 as one mechanism to address nonpoint source pollution. SWIM was the first major state program to address a waterbody's needs as a system of connected resources rather than isolated wetlands or waterbodies. The water management districts are directly responsible for the SWIM program.

Total Maximum Daily Load (TMDL) – a scientific determination of the maximum amount of a given pollutant that a water body can absorb and still meet the water quality standards that protect human health and aquatic life. The DEP is responsible for the TMDL program.

Water Quality Criteria – elements of the State Water Quality standards, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports the present and future most beneficial use, found in ***Chapter 62-302, F.A.C.*** for surface waters.

Waterbody Classification – for surface water the classifications are established by ***Rule 62-302.400, F.A.C.***, and are as follows:

Class I	Potable Water Supplies
Class II	Shellfish Harvesting or Propagation
Class III	Fish Consumption; Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife
Class III	Limited Fish Consumption; Recreation or Limited Recreation; and/or Propagation and Maintenance of a Limited Population of Fish and Wildlife
Class IV	Agricultural Water Supplies
Class V	Navigation, Utility and Industrial Use

Waterbody Identification Number (WBID Number) - There are six Florida Department of Environmental Protection Districts in Florida that have been divided into five Groups based on regional basins. Each regional basin is divided into smaller basins, each identified by a water body identification number (WBID). Most projects will be located in more than one WBID.

Wild and Scenic River – a designation under the National Wild and Scenic Rivers System created by Congress in 1968, to preserve rivers with outstanding natural, cultural, and recreational values in a free-flowing condition.

20.1.3 Federal and State Regulations

All FDOT projects must adhere to federal and state regulations. It is the project manager's responsibility to become familiar with the rules and regulations that may affect the project. This section summarizes some of those rules as well as programs designed to aid in increasing water quality.

20.1.3.1 Clean Water Act

Water quality regulations began in earnest with the adoption of the ***CWA*** in 1972. ***Section 402*** of the ***CWA*** established the National Pollutant Discharge Elimination System (NPDES) permit program by regulating sources of pollution that discharge into waters of the U.S. This section also directed the Administrator of the U.S. Environmental Protection Agency (EPA) to approve state NPDES programs that comply with the ***CWA***. The 1987 amendments to the ***CWA*** established the NPDES stormwater permitting program. The NPDES stormwater program regulates point source discharges of stormwater into surface waters of the state from certain municipal, industrial, and construction activities.

In October 2000, the EPA authorized the Florida Department of Environmental Protection (DEP) to implement the NPDES stormwater permitting program in the State of Florida (in all areas except sovereign tribal lands). DEP's authority to administer the NPDES program is set forth in ***Section 403.0885, Florida Statutes.***

In addition to the ***CWA***, at the state level, Florida enacted the ***Water Resources Act of 1972*** which defines the policies for the conservation, allocation and enhancement of state water resources. This act also lead to the development of water quality standards by DEP in ***Chapter 62-302, F.A.C.***, regulations for determining whether a water body is impaired, as required by the section 303(d) of the ***CWA***, ***Chapter 62-303, F.A.C.***, and establishment of total maximum daily loads, ***Chapter 62-304, F.A.C.***, as discussed below.

20.1.3.2 Total Maximum Daily Loads

Total Maximum Daily Loads (TMDLs) are established under the ***Florida Watershed Restoration Act*** in accordance with ***Section 403.067, Florida Statutes.*** TMDLs are adopted for waters identified as impaired by DEP in accordance with ***Chapter 62-303, F.A.C.***, also known as the Impaired Waters Rule (IWR).

In accordance with EPA requirements under the ***CWA***, Florida prioritizes waters verified as impaired and establishes a TMDL for each one. Under the authority of ***Section 303(d) of the CWA***, EPA requires that TMDLs be developed where technology-based effluent limitations or other legally required pollution control mechanisms are not stringent enough to protect water quality. Florida has hundreds of impaired water bodies or water body segments being addressed through the development and implementation of TMDLs. TMDLs are adopted by law in ***Chapter 62-304, F.A.C.*** TMDLs may be implemented through Basin Management Action Plans (BMAPs), NPDES permits, or through other mechanisms. The list of adopted TMDLs can be found on DEP website which is updated regularly and should be checked periodically throughout the life of the project by the project manager.

20.1.3.3 Basin Management Action Plan

A ***Basin Management Action Plan (BMAP)*** is the implementation of a TMDL for restoring impaired waters by reducing pollutant loadings to meet the allowable loadings

for the basin established in a TMDL. BMAPs represent a comprehensive set of strategies—permit limits on wastewater facilities, urban and agricultural best management practices, stormwater best management practices, conservation programs, financial assistance and revenue generating activities designed to implement the pollutant reductions established by the TMDL. These broad-based plans are developed under ***Section 403.067, F.S.***, with local stakeholders, including FDOT, and they rely on local input and local commitments. The list of adopted BMAPs can be found on the DEP website which is updated regularly.

20.1.3.4 Reasonable Assurance Plans

Reasonable Assurance Plans (RAPs) are waterbody restoration plans for waterbodies that are impaired, but with control programs already being implemented to reduce pollutant loadings. Like the BMAP process, the RAP process is largely a stakeholder driven process designed to restore water bodies to meet their designated uses, and may involve participation by FDOT. Statewide the DEP is working with local stakeholders to develop plans at the earliest practical time to restore waters not meeting state water quality standards. The ***Florida Watershed Restoration Act, Section 403.067(4), F.S.***, explicitly allows DEP to not list impaired waters if they already have control programs (RAPs) in place that will assure that water quality standards will be restored, thus alleviating the need to establish a TMDL. The list of adopted RAPs can be found on the DEP website which updated regularly.

20.1.3.5 Sole Source Aquifers and the Safe Drinking Water Act

Sole Source Aquifers (SSA) are regulated pursuant to ***Section 1424(e) of the Safe Drinking Water Act (SDWA) (Pub. Law 93-523)***, whereby the EPA has designated the Volusia, Floridan and Biscayne Aquifers, including their respective recharge and streamflow source zones, as SSA or principal sources of drinking water for public supply systems and individual wells in designated areas of Florida. Once an area is designated, no subsequent commitments of federal financial assistance may be made to projects that the EPA Administrator determines may contaminate the aquifer so as to create a significant hazard to public health. Any level of contaminant which causes or may cause the aquifer to exceed any maximum contaminant level set forth in any promulgated National Primary Drinking Water Standard at any point where the water may be used for drinking purposes or which may otherwise adversely affect the health of persons, or which may require a public water system to install additional treatment to prevent such adverse effect may be determined by EPA to create a significant hazard to public health.

A ***Memorandum of Understanding (MOU)*** was executed on January 25, 1999, among EPA, FDOT and Federal Highway Administration (FHWA). The ***MOU*** outlines the procedures to be followed by EPA, FHWA and FDOT in evaluating and commenting on proposed activities. The ***MOU*** contains maps showing boundaries of SSA designated areas, and a complete listing of the types of projects which will be subject to review and comment by EPA. The ***MOU***, excluding SSA boundary maps and accompanying narrative boundary descriptions, is available for download from the EPA's website. This only

applies to federally funded projects. The ***MOU*** can be seen at: http://www.dot.state.fl.us/emo/publications.shtm.

20.1.4 Environmental Look Around

The Environmental Look Around (ELA provides a process for assessing and utilizing options for FDOT to partner in regional stormwater facilities. In 2012, the benefits of regional stormwater facilities were recognized by the Florida legislature through ***House Bill 599***, which authorized revisions to ***Section 373.413, F.S.***, encouraging, among other things, the creation of offsite regional stormwater management facilities. This authorization encourages partnerships, and could specifically be used for cooperative regional projects. After stormwater management requirements have been determined for a project, the project manager should schedule a coordination meeting with stakeholders to explore watershed wide stormwater needs. This should be completed before any right of way acquisitions are identified.

Section 5.3 of the ***FDOT Drainage Manual, Topic No. 625-040-002*** describes the ELA process in more detail and identifies participants of the coordination meeting.

20.2 PROCEDURE

Project impacts to water resources must be evaluated regardless of whether the project is required to meet federal [i.e., ***National Environmental Policy Act (NEPA)***], or state requirements. The water quality evaluation should provide the information necessary to produce designs that are in compliance with the goals and requirements of the ***CWA***, as amended, ***Pub. Law 92-500***, ***Chapter 373, F. S.***, and ***Chapter 403, F.S.***

20.2.1 Agency and Stakeholder Coordination

The management of water quality impacts associated with transportation projects can be enhanced through engaging various state and federal agencies, and other local and regional stakeholders in the ELA process detailed in Section 5.3 of the ***FDOT Drainage Manual, Topic No. 625-040-002***. When project managers routinely adhere to the three elements of successful collaboration—early, continual, and strategic coordination—there will be a greater probability of identifying regulatory and regional issues and opportunities for cooperative solutions concerning stormwater quality. Joint/regional projects can not only provide long term, cost-effective solutions for stormwater treatment and storage, they can also provide FDOT the opportunity to be good stewards of water resources.

> **Early coordination:** Engagement with regulatory agencies and stakeholders should occur as early in the project as appropriate and practicable. For projects screened through the Efficient Transportation Decision Making (ETDM) process, official agency engagement may occur during the Planning Screen, or more commonly during the Programming Screen (see Chapter 4 of the ***ETDM Manual, Topic No. 650-000-002***). The overall goal of early coordination is to proactively

identify potential water quality and quantity requirements and concerns on the project's alternative alignments, and then actively coordinate with stakeholders and agencies to explore opportunities for joint projects that can address those issues. Early coordination provides an important opportunity for stakeholders and agencies to review any data and analyses that have been developed previously, and to discuss the steps for advancing water resources coordination for the Project Development and Environment (PD&E) Study.

Strategic coordination: Each project possesses unique circumstances and need for coordination with local stakeholders and regulatory agencies; therefore, strategic coordination involves thoughtful consideration of an overall plan for addressing water resource issues throughout Planning, PD&E, Design, Construction, and Operation.

The advantages of developing a strategic approach include:

1. Recognizing early potential water resource issues.
2. Allowing sufficient time to evaluate potential partnering opportunities, to include preliminary details regarding funding, schedules and joint participation agreements.
3. Avoiding or /minimizing potential impacts.
4. Aiding in the development of alternatives.
5. Decreasing timeframes for regulatory agency approvals.
6. Initiating short or long term research studies which may be required.
7. Completing documentation for the project record.
8. Seamless transferring of information and commitments into the Design and Construction phases.

Continual coordination: Continual engagement with stakeholders and agencies involves communication as needed to determine the level of assessment and documentation required; confirm which water resources are likely to be affected by the project; and decide whether cooperative or regional water resource projects are a viable option for the project. Continual coordination promotes an ongoing dialogue between FDOT, local stakeholders and the regulatory agencies, minimizing the chances of overlooking opportunities for regional water resource projects.

20.2.2 Determine Level of Effort

The level of assessment and documentation during the PD&E phase depends on the complexity of the water resources characteristics and criteria in the project area. The ***WQIE*** is a method to identify potential water quality impacts and track water quality

coordination throughout the project. The ***WQIE*** should be updated and modified throughout the PD&E, Design and Construction phases of a project.

Detailed evaluations are generally not warranted for transportation projects not qualifying for screening in the Environmental Screening Tool (EST) [typically Type 1 Categorical Exclusions (CEs) and Non-Major State Actions (NMSA)]. These projects have no significant effects, and therefore may require minimal water quality evaluation. See ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination*** for clarification of projects that qualify for screening.

A higher potential for water resources impacts typically exists with transportation projects qualifying for screening. Most PD&E projects receive prior consideration of water resources issues during the ETDM process. The results of the Programming Screen are documented in a ***Programming Screen Summary Report***. The water resources evaluation in the PD&E Study focuses on important issues identified during the Programming Screen.

The level of project assessment for water resources during the PD&E phase depends on water resource involvement, potential impacts, the potential for implementing non-traditional water quality improvements, or impacts to SSAs.

20.2.2.1 Projects Not Qualifying for Screening

Water quality issues may be identified for projects that do not require EST screening and advance straight to the Design phase. For transportation projects not qualifying for EST screening, the ***WQIE*** should have sufficient detail to reflect consideration of water quality issues, including the ELA, see ***Section 20.1.4***. If coordination with regulatory agencies or other stakeholders is needed, additional documentation in the form of a technical memo will suffice. ***WQIE*** results should be documented in the project file, and appropriately addressed in the final design plans. Documentation should be provided as follows:

1. **Type 1 Categorical Exclusions** –Documentation must demonstrate the proposed project has no significant effect on water quality. For these projects, check “No” next to the question on water quality on the ***Type 1 Categorical Exclusion Checklist, Form No. 650-050-12*** (***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***) .

2. **Non-Major State Actions** - For a NMSA mark “No” next to the question on water quality on the ***Non-Major State Action Checklist*** to document when there are no water quality resources affected by the project (***Part 1, Chapter 10, State, Local, or Privately Funded Project Delivery***).

3. **Type 2 Categorical Exclusions** – Some Type 2 CEs may not require screening through the EST. For these projects, water quality resource impacts are documented on the ***Type 2 Categorical Exclusion Determination Form, Form***

No. 650-050-11, and in the project file. See ***Section 20.2.3.5.1*** for guidance on documenting Type 2 CEs.

20.2.2.2 Projects Qualifying for Screening

Transportation projects qualifying for EST screening generally are more complex. In accordance with ***Part 1, Chapter 2, Federal Highway Administration Class of Action Determination***, qualifying projects must complete the ETDM Programming Screen and may also have completed the Planning Screen. The following items should be addressed in each phase as the projects advances and more information is discovered:

1. **Planning Screen Evaluation** –In the Preliminary Environmental Discussion (PED), the District lead will provide a discussion about known potential project involvement with surface water bodies and groundwater and their designations in accordance with ***Part 1, Chapter 3 Preliminary Environmental Discussion and Advance Notification***. Specific information identified during the screening may include:

    a. Surface Water

        1. Identification of surface water body to which the stormwater ultimately discharges.
        2. Any special designations of receiving water bodies (Outstanding Florida Water (OFW), Aquatic Preserve, etc.).
        3. Whether the project is within a permitted MS4.
        4. Waterbody Identification Number(s) (WBIDs) in which the project is located, and associated DEP Group Number and Name.
        5. Water Management District (WMD) in which the project is located.
        6. Water Control District.
        7. Waterbody Class (ex: Class I, II, III, etc.).
        8. Listing status - whether the WBID is identified as impaired, has a TMDL and/or is in a BMAP or RAP.
        9. The appropriate numeric nutrient criteria waterbody classification and related numeric nutrient limits (TMDL, Lakes, Spring Vents, Streams, Estuaries, etc.) if applicable.
        10. If project discharges to a waterbody identified as impaired, identify the pollutant(s) of concern, numeric criteria or TMDL (whichever applies).

b. Groundwater

1. Groundwater recharge mechanism.
2. Identification of the aquifer where the project is located.
3. Identification of sole source aquifers.
4. Potentially affected springsheds.
5. Whether the potentially affected spring has a BMAP or RAP plan.

2. **Programming Screen Evaluation** – Include discussion about potential project involvement with surface and ground water resources (based on the District familiarity with the project area) in the PED of the Advance Notification (AN). List all surface and groundwater resources located within the project area using online resources maintained by the DEP and WMDs, as well as other data sources. Identify if the project is located within a SSA, and provide the name of the aquifer. Based on the potential effect of the project on water resources, state in the PED whether a detailed ***WQIE*** is required.

   Coordinate as needed with the ETAT and other stakeholders throughout the ETDM screening process. Coordination may also include FDOT staff such as District Drainage Engineer, Permit Coordinator, and others who will be involved with the project in subsequent phases.

   After screening, review the ***Programming Screen Summary Report***, which includes ETAT comments related to water resource issues. While reviewing the report, pay close attention to any list of potential water resource focus areas that warrant further review. Review comments about potential effects and use this information to determine the level of potential water resources impacts and how they may be evaluated in the next phase of the project. Begin to prepare existing conditions for use in the Environmental Document.

3. **PD&E Evaluation** – Review the ***Programming Screen Summary Report*** for ETAT comments for the Water Quality issues as well as ETAT comments on other issues such as “Coastal and Marine,” “Wetlands and other Surface Waters,” and “Floodplains.” Determine the project’s involvement with project specific or regional water resource issues from resource agency comments. Use information from the EST screening to determine water resources assessment and ***WQIE*** activities that can be included in the scope of services.

   Perform a ***WQIE*** for each alternative and prepare a ***WQIE Checklist*** (see ***Section 20.2.3.3***). Complete the appropriate drainage evaluation, based on the level of Engineering design detail in the PD&E Study (***Part 1, Chapter 4, Project Development Process***) to determine the anticipated quantity of stormwater requiring treatment and storage.

Determine appropriate stakeholders to be engaged in the ELA coordination meetings to explore watershed wide stormwater needs and alternative permitting approaches. Convene ELA meetings only when stormwater management requirements for the project are determined and before stormwater management decisions are made. The ELA should address project water resources issues, stakeholders' issues and project permitting issues.

Complete the appropriate level of documentation based on the project and associated impacts and outcome of ELA meetings. Commitments should be documented in the Environmental Document and the ***Project Commitment Record (PCR), Form No. 700-011-35***.

4. **Final Design** – incorporate any commitments made in the PD&E phase. Update the ***PCR*** with status of existing and listing new commitment and verify all commitments are included in final documents. If there are any changes or updates made from the PD&E proposal, document in the Reevaluation to maintain compliance. Ensure the project meets federal and state regulations. During permitting, re-initiate coordination as necessary.

5. **Construction** – verify completion of any water resource commitments and update the ***PCR***. Verify that all water resource permit conditions are met and compliance with federal and state regulations. See ***Part 1 Chapter 12, Environmental Permits***.

20.2.3 Water Quality Impact Evaluation

The purpose of the ***WQIE*** is to identify and characterize existing water resources in a project area, assess project's potential impacts to water resources, determine and evaluate mitigation measures, if necessary, and to document coordination throughout the project. Project scope, regulatory requirements, and context of the project may affect the scale of ***WQIE***. Since water quality requirements and basin parameters affect pond size requirements and drainage criteria, the ***WQIE*** should be completed prior to finalizing pond siting efforts. See ***Part 2, Chapter 24, Drainage and Floodplains*** for guidance on pond siting analysis.

The following sections outline the ***WQIE*** approach. A ***WQIE*** is needed for all Type 2 CE, EA, EIS, or State Environmental Impact Report (SEIR) projects. Those projects having no involvement with water resources are documented as such on the ***WQIE Checklist*** and saved in the project file.

20.2.3.1 Existing Conditions

At the beginning of the PD&E Study, coordinate with the ETAT to discuss their comments provided in the ***Programming Screen Summary Report***. This helps to verify that potential water resources issues and environmental concerns they identified have not

changed since the screening. Using the results of the Programing Screen, the District can begin to document the existing water resources that may be affected by the proposed project. This documentation can start before PD&E is initiated.

20.2.3.1.1 Identify Water Resources

Delineate water resource basins or watershed boundaries where the project may have a direct impact on water quality. Identify water resource characteristics within the basin boundaries. Existence of a cooperative project or coordination may necessitate expansion of project impacts beyond the project's immediate hydrologic basin boundaries. Coordination with the ETAT is needed to identify these potentially expanded areas of the project's influence.

20.2.3.1.2 Collect Data and Estimate Impacts

Collect data from various sources to determine the potential water resource issues within the project area. Sources may include the DEP and WMD websites, GIS water resource data, county and city water atlases, regional stormwater master plans, and flood studies.

Use the ***Memorandum of Understanding (MOU)***, executed among EPA, FDOT and FHWA to identify SSA information within the project area.

Complete a drainage inventory for each alternative including drainage areas and flow patterns, floodplains and any existing stormwater management or conveyance systems. Determine the anticipated quantity of stormwater requiring treatment and storage, based on level of engineering detail in the PD&E Study. Coordinate with the Drainage Office at this time to determine any additional areas associated with pond siting, water storage, hydrologic restoration, recharge or treatment.

20.2.3.2 Coordinate with Agencies and Stakeholders

Engage stakeholders early in the project development process and continue to coordinate with them throughout the process. Such coordination can help to proactively identify potential water quality and quantity issues and formulate strategies and responses that address those issues. Coordination with agencies that regulate water resources, such as EPA, DEP, and WMDs, is important to understand permit requirements and any unique characteristics of the water resources. Therefore, continuous coordination should occur with the ETAT members and other appropriate regulatory staff as well as appropriate FDOT staff including NPDES MS4 Environmental Administrator, Permit Coordinator, Drainage Engineer). The District NPDES MS4 Coordinators will identify areas where pollutant load reduction efforts are needed. Consider comments from agencies and stakeholders and consult with them when necessary when preparing the ***WQIE Checklist***.

Coordination with any BMAP and RAP stakeholders in the project vicinity is also important in understanding DEP and local concerns and in identifying the level of evaluation that

may be needed, the agencies and stakeholders with whom FDOT should collaborate, and whether any potential regional water resource improvement opportunities in the project area exist.

It is important at this stage to collaborate with appropriate agencies and stakeholders to identify possible joint or regional stormwater management project opportunities through ELA coordination meetings.

20.2.3.3 Water Quality Impact Evaluation Documentation

The water quality evaluation is accomplished through the completion of the ***WQIE Checklist (Figure 20-1)***. The ***WQIE Checklist*** is a template to document water resources in the vicinity of the project, water quality criteria that must be addressed in the project design, coordination that has occurred, and potential regional water resource projects that may provide solutions for regional water resource issues. Surface water characteristics and impacts are documented on the ***WQIE Checklist***. The ***WQIE Checklist*** should document coordination efforts, regional water resource improvement opportunities, and an analysis of water resource impacts for each project alternative analyzed in detail in PD&E, as appropriate. The detailed results of data collection efforts and continued coordination with agencies and stakeholders are documented in the ***WQIE Checklist*** and summarized in the Environmental Document. If more than one alternative is proposed, a ***WQIE Checklist*** is performed for each alternative, the results of each alternative are then compared and documented in the Environmental Document. In cases where the project's alternatives are located in the same drainage basin(s), one WQIE may be used. The PM should coordinate with the District's NPDES Coordinator and the District Drainage Engineer for the agency/stakeholder coordination and information required to fill out this checklist.

The ***WQIE Checklist (Figure 20-1)*** includes the following information:

General Information:

This section includes general project identification:

1. Project Name

2. County

3. FM Number

4. Federal-Aid Project Number

5. Brief project description including the location and identification of water resources within the project area that are potentially affected. The description of the proposed project should include all activities related to construction and emphasize both long-term and short-term anticipated impacts on identified water

resources. Project and design alternatives (including construction methods) should also be addressed.

Part 1 - Determination of WQIE Scope:

Determine if the project:

1. Discharges to surface or ground water,

2. Alters the drainage system, or

3. Is located within a permitted MS4.

    a. If yes, name the Phase I or Phase II MS4. Lists of permitted Phase I and Phase II MS4 facilities can be found on DEP's website, see link in ***Section 20.3***. (***Figure 20-1, Part 1***)

Part 2 - Project Basin and Receiving Water Characteristics

Provide the following information:

1. Name(s) of receiving waterbody(ies) names (or closed basin)

2. Water Management District(s) in which the basin is located

3. Water Control Districts with jurisdiction in area in which the basin is located

4. Coordination Meetings – Attach meeting minutes to Checklist

5. Is the project within a springshed or recharge area

6. Identification of any sole source aquifer in proximity to the project

7. Identification of any other aquifers

8. Identification of any spring vents

9. Identification of any well head protection area

10. Identification of groundwater recharge

11. Date of notification of any Basin Characteristics to the District Drainage Engineer

Part 3- Water Quality Criteria

1. Determine if the receiving water body has a special designation including identification and evaluation of the water resources, water resource characteristics, and regulatory agencies involved. Provide this information in Table 1 as described below:

    a. Receiving waterbody (water segment) name (or closed basin)
    b. DEP Group Number
    c. DEP Basin (Group Name)
    d. Waterbody Identification (WBID) number(s)
    e. Water body classification(s)
    f. Special Basin Designations (***Part 2, Chapter 19, Aquatic Preserves and Outstanding Florida Waters***; and ***Part 2, Chapter 23, Wild and Scenic Rivers***).
    g. Appropriate numeric nutrient limits (i.e., Lakes, Spring vents, Streams, Estuaries)
    h. Impairment status - whether the WBID(s) identified is impaired, or has a TMDL
    i. Pollutant(s) of concern and numeric criteria or TMDL criteria
    j. Whether project is in a basin that has a BMAP, SSAC or RAP plan

2. Mark boxes accordingly and include information on Table 2.

    Table 2 summarizes the of coordination efforts with federal, state and local agencies, local stakeholders, and BMAP or RAP stakeholders. Documentation should indicate if additional coordination is recommended after the PD&E phase.

3. Attach documentation of regional project opportunities identified in the Environmental Look Around.

4. Describe any direct effects associated with project construction and operation. Direct effects are those that occur in direct association with the construction or operation of the project, such as:

    a. turbidity
    b. sedimentation
    c. runoff
    d. reduction in water quality
    e. improvement of water quality based on enhanced conditions

f. More stringent water quality criteria such as for OFWs or aquatic preserves should be documented for the purposes of sediment and erosion control planning for construction.

g. See Chapter 5 of the ***FDOT Drainage Manual, Topic No. 625-040-002*** for determining the water quantity/quality impacts and mitigation requirements.

5. Discuss any other relevant water quality information

Part 4: WQIE Documentation

Mark boxes as appropriate, and attached supporting documentation.

It is important to update the ***WQIE Checklist*** throughout the life of the project, because the status of water resources impairments is updated frequently. The DEP TMDL website is updated with new information and should be checked periodically. See ***Section 20.3*** for a link to DEP's website.

20.2.3.4 Environmental Document

Regardless of the Environmental Document to be produced, water resource involvement or impacts must be addressed in the appropriate water quality section. For the purposes of this chapter, the term "water quality section" means the location where water resource involvement or impacts are discussed in the Environmental Document. The ***WQIE Checklist*** is maintained in the project file.

20.2.3.4.1 Federal Projects

The ***WQIE*** developed during the PD&E Study provides technical information on the water quality impact evaluation that supports the ***NEPA*** decision making process. Major elements of the ***WQIE*** are summarized in the ***NEPA*** document. The results of any meetings should be documented in the Comments and Coordination Section of an EA or DEIS and, when applicable, the Commitments Section of an EA with Finding of No Significant Impact (FONSI) or Environmental Impact Statement (EIS).

Use the procedures outlined in the ***MOU*** between EPA, FDOT, and FHWA to document compliance with ***Section 1424(e)*** of the ***SDWA***. Comments by EPA may contain issues which should be addressed during project development. The EPA will provide copies to the FHWA, Florida Division, Tallahassee Office, of all correspondence sent to the FDOT regarding the SSA review. All issues raised by EPA should be addressed in the Impacts Section (Type 2 CE or EA), or Environmental Consequences Section of an EIS. If coordination or a meeting is required with EPA, the FDOT should initiate all activities and arrange all meetings through the FHWA. The results of any meetings should be documented in the Comments and Coordination Section of an EA or DEIS and, when applicable, the Commitments Section of an EA with FONSI or Final Environmental Impact Statement (FEIS). Routinely, a DEIS is circulated to EPA (***Part 1, Chapter 6, Environmental Assessment***). For Type 2 CEs and EAs, a copy is sent to EPA by the FDOT when warranted by coordination and/or requested by the FHWA. The EPA, upon

review of a Type 2 CE, EA, or DEIS, should provide concurrence with the FDOT's measures to protect the aquifer. All coordination and review of the documents with EPA should be conducted as early as possible to facilitate concurrence prior to the FHWA approval of the document. The concurrence from EPA should also state that the FDOT has met its obligation under ***Section 1424(e) of the SDWA***. This is referenced in the text and included in the Appendix of the EA or EIS, and is included in the project file for Type 2 CEs.

20.2.3.4.2 State Funded Projects

For SEIRs, include the ***WQIE*** results in Section B.1, Environmental Analysis, of the ***SEIR*** by placing an "X" in the appropriate column indicating the level of impact. If a water quality is not in any way involved with the project, mark the column indicating “NOINV.” If an issue exists but the project will improve water quality, mark the column indicating “ENHANCE.” If an issue exists but there is little or no impact, mark the column indicating “NO.” If there is a potential impact, mark the column “YES”. Provide justification of decision in the Basis for Decision column and supplement with attachments as necessary to support the impact determination. All commitments made through coordination efforts should be documented in the Commitments section of the ***SEIR***. Include a technical memo, if it was prepared, and the ***WQIE Checklist***.

20.2.3.4.3 Commitments

Water resource commitments may be permit conditions, BMAP/RAP commitments, ELA commitments, or actions/activities required to advance the project and/or require action from the Contractor to implement. Commitments may include the retrofitting of structures to increase water quality treatment; the building of or contributing to water quality improvement, hydrologic enhancement, recharge or reuse projects; or continued coordination with water resource agencies or other stakeholders. Commitments must be coordinated with other FDOT offices to ensure they are feasible.

Commitments related to water resource issues made by the FDOT throughout project development should be documented on the ***Project Commitment Record, Form No. 700-011-35*** and transmitted to the Design and Construction Offices to be included in contract documents or be addressed through the permitting process. These commitments should also be included in the Commitments section of the Environmental Document. As required by the level of environmental documentation, ensure clear and concise transmittal of the commitments to the subsequent project phases Final Design and Construction.

20.2.4 Reevaluation

Any change to the project which may affect water quality impacts after approval of the Environmental Document must be documented in a Reevaluation consistent with ***Part 1, Chapter 13, Reevaluations***. Commitments and coordination as well as the status of any

water quality permits should be contained in the Water Quality and Mitigation Status and Commitment Compliance section of the ***Reevaluation Form***.

20.2.5 Commitment Compliance

The FDOT Project Manager of each subsequent phase should verify commitments, recommendations and regulatory compliance as the project advances. It should be noted that additional water resource improvement actions can be implemented during the Design phase. Water resource review during Design and compliance during Construction consists of the following:

1. Commitments– Review those specific to water resources. Coordinate with appropriate environmental, drainage and permitting staff to ensure water resource commitments are addressed.
2. Regulatory Review – Conduct review(s) of the impairment/TMDL status of the receiving waters through DEP's Watershed Assessment section, and the associated assessment lists. Confirm the current listing status of the waterbody. Verify that design criteria has not changed due to changes in listing status.
3. Stakeholder Coordination – Review previous coordination efforts and recommendations for joint or regional projects that could be implemented during design.
4. Regulatory Agency Coordination and Permitting –Coordinate with regulatory agencies throughout the permitting process to identify and update regulatory requirements from both the permitting and NPDES perspective.
5. Impact Review – Review plans and provide comments on water resources that were identified and resolutions that should be coordinated with appropriate regulatory agencies or incorporated into the contract design plans.
6. Bid Document Review - Subsequently verify that completed final design plans and specifications incorporate required water resource resolutions and permit conditions into the bid documents.
7. Construction Plans – Review for completeness; identify/confirm project limits.
8. Compliance During Construction – Ensure that the Construction Office verifies compliance with water resource commitments and permit conditions as well as federal and state regulations incorporated into the final design and bid documents
9. Construction Final Acceptance – Ensure that the water resource commitments were addressed as specified in the contract plans, including modifications approved during construction, bid documents or as otherwise handed off to the Construction staff. This is done by the Construction Office, but may require the Environmental Office involvement on occasion (***Construction Project Administration Manual, Topic No. 700-000-000***, Chapter 12, Section 12.1). Transfer of permits to the operation and maintenance phase is completed through

a separate process with the regulatory agency. See ***Part 1, Chapter 12, Environmental Permits*** for more information regarding this procedure.

20.2.6 Permits

It is important to understand FDOT's responsibility to comply with federal and state requirements regulating surface and ground water quality and quantity early in the project development phase. Refer to ***Part 1, Chapter 12, Environmental Permits*** for more information regarding FDOT procedures for obtaining environmental permits. The following are the major water quality permits required in the State of Florida.

20.2.6.1 NPDES MS4 Permit

A MS4 is a publicly-owned conveyance or system of conveyances (i.e., ditches, curbs, catch basins, underground pipes) that is designed or used for collecting or conveying stormwater and that discharges to surface waters of the State. An MS4 can be operated by municipalities, counties, drainage districts, colleges, military bases, or prisons, to name a few examples. The FDOT is a regulated MS4 operator under federal and state rules.

As implemented by ***Chapter 62-624, F.A.C.***, Phase I of the MS4 program addresses discharges of stormwater runoff from "medium" and "large" MS4s (i.e., those MS4s located in areas with populations of 100,000 or greater). Under Phase II, the MS4 program regulates discharges from certain MS4s not regulated under Phase I, that meet designation criteria set forth in ***Chapter 62-624, F.A.C.*** Regulated MS4 operators must obtain an NPDES stormwater permit and implement a comprehensive stormwater management program (SWMP) to reduce the contamination of stormwater runoff and prohibit illicit discharges to the MS4.

Generally, Phase I MS4s are covered by individual permits, and Phase II MS4s are covered by a general permit. There are individual MS4 permits issued to several counties in Florida, and FDOT is a co-permittee in each of those permits. There are also numerous general permits issued to FDOT for various Phase II designated areas. Each regulated MS4 is required to develop and implement a SWMP to reduce the contamination of stormwater runoff and prohibit illicit discharges.

FDOT has an approved Statewide Stormwater Management Plan (SSWMP) that describes the activities to be conducted, methods to be used, and procedures to be followed by FDOT to reduce the discharge of pollutants from its MS4s to the Maximum Extent Practicable (MEP). NPDES MS4 permits address the quality of stormwater discharged to surface waters of the state and Waters of the United States. See the current ***SSWMP*** for additional information.

20.2.6.2 Environmental Resource Permits

Environmental Resource Permits (ERPs) benefit Florida by preventing pollution in stormwater from entering Florida's rivers, lakes and streams, and helping to provide flood

protection. The ERP program regulates the management and storage of surface waters, and provides protection for the vital functions of wetlands and other surface waters. ERPs are required for many types of work within those waters, such as dredging or filling, providing stormwater containment and treatment, site grading, construction of dams, impoundments, docks or other structures, as well as the construction of stormwater management systems that discharge to those waters.

20.2.6.3 NPDES Generic Permit for Stormwater Discharge

Stormwater runoff from construction activities can have a significant impact on water quality by contributing sediment and other pollutants to waterbodies. The NPDES stormwater program requires construction site operators engaged in clearing, grading, and excavating activities that disturb one or more acres of land to obtain coverage under the Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP) for their stormwater discharges. Operators are also required to implement appropriate pollution prevention techniques to minimize erosion and sedimentation and properly manage stormwater. Coverage is obtained by submitting a Notice of Intent (NOI) to use the Generic Permit prior to construction commencement. The Notice of Intent can be obtained from DEP's website. FDOT requires its contractors to obtain CGPs.

The following construction activities are subject to NPDES stormwater permitting, as set forth in ***Section 403.0885, Florida Statutes.***

1. Contribution of stormwater discharges to surface waters of the state or into a municipal separate storm sewer system (MS4); and

2. Disturbance of one or more acres of land. Less than one acre also is included if the activity is part of a larger common plan of development or sale that will exceed the one-acre threshold. Disturbance includes clearing, grading and excavating.

The CGP permit was recently revised to cover the discharge of produced groundwater (i.e., dewatering system) from any non-contaminated site activity that discharges by a point source to surface waters of the state. This replaces the need to obtain separate coverage under ***Rule 62-621.300(2), F.A.C.*** for dewatering activities from non-contaminated sites.

Coverage for generic permits is valid for no more than five years from the date of coverage or a Notice of Termination is submitted. If construction activities extend beyond five years, the applicant must re-apply and pay additional permit fees for continued coverage.

20.3 REFERENCES

Chapter 62-302, FAC. https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-302. Florida Administrative Code

Chapter 62-303, FAC. https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-303. Florida Administrative Code

Chapter 62-304, FAC. https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-304. Florida Administrative Code

Chapter 62-621, FAC. https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-621. Florida Administrative Code

Chapter 62-624, FAC. https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-624. Florida Administrative Code

Chapter 373, F.S. http://www.leg.state.fl.us/Statutes/

Chapter 403, F.S. http://www.leg.state.fl.us/Statutes/

Clean Water Act of 1972, as amended. http://www.fws.gov/laws/lawsdigest/fwatrpo.html

Environmental Protection Agency (EPA), Safe Drinking Water Act, Section 1424(e), 1976. https://ceq.doe.gov/nepa/regs/sdwa.html

Florida Department of Environmental Protection (DEP), Guidance on Developing Restoration Plans and Alternatives to TMDLs – Assessment Category 4b and 4e Plans, June 2015. https://www.dep.state.fl.us/water/watersheds/assessment/docs/4b4ePlansGuidance.pdf

Florida Department of Environmental Protection (DEP), Wastewater Facility Information, http://dep.state.fl.us/water/wastewater/facinfo.htm

Florida Department of Transportation (FDOT), Drainage Manual, Topic No. 625-040-002. http://www.dot.state.fl.us/rddesign/Drainage/files/DrainageManual.pdf on 12/14/2015

FDOT, Efficient Transportation Decision Making Manual, 2015. http://www.dot.state.fl.us/emo/pubs/etdm/etdmmanual.shtm

FDOT, Statewide Stormwater Management Plan, 2012. http://www.dot.state.fl.us/statemaintenanceoffice/FDOTStormWaterMgmtPlan2012.pdf

Memorandum of Understanding, EPA, FDOT and FHWA, executed on January 25, 1999

20.4 HISTORY

2/25/2004

WQIE CHECKLIST

Project Name:	
County:	
FM Number:	
Federal Aid Project No:	
Brief Project Description:	

PART 1: 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 2 and 3, and then complete the WQIE by checking Box A in Part 4.

PART 2: PROJECT BASIN AND RECEIVING WATER CHARACTERISTICS

Surface Water
Receiving water(s) names:

Water Management District:

Coordination meeting date:
Attach meeting minutes to the checklist.

Water Control District Name (list all that apply):

Is the project located within a springshed or recharge area? □ Yes □ No

Ground Water
Sole Source Aquifer (SSA)? □ Yes □ No Name_____
If yes, complete Part 4, D.

Aquifer? □ Yes □ No Name_____

Springs vents? □ Yes □ No Name_____

Well head protection area? □ Yes □ No Name_____

Figure 20-1 Water Quality Impact Evaluation Checklist

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, FAC.

Date of notification:

PART 3: 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 is dynamic, and must be updated regularly, at a minimum during each Reevaluation.

Note: If BMAP or RAP has been identified in **Table 1**, **Table 2** must also be completed.

EST recommendations confirmed with agencies? □ Yes □ No

BMAP Stakeholders contacted: □ Yes □ No

TMDL program contacted: □ Yes □ No

RAP Stakeholders contacted: □ Yes □ No

Were regional water quality projects identified in the Environmental Look Around?
□ Yes □ No

If yes, describe:

Were any direct effects associated with project construction and/or operation identified?
□ Yes □ No

If yes, describe:

Discuss any other relevant information related to water quality.

Figure 20-1 Water Quality Impact Evaluation Checklist (Page 2 of 5)

PART 4: 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 quantity 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

Evaluator Name (print):	
Title:	
Signature:	Date:

Figure 20-1 Water Quality Impact Evaluation Checklist (Page 3 of 5)

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)	Parameter(s) of concern	BMAP, RA Plan or SSAC

*** 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.

Figure 20-1 Water Quality Impact Evaluation Checklist (Page 4 of 5)

TABLE 2: AGENCIES/STAKEHOLDERS CONTACTED

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

Figure 20-1 Water Quality Impact Evaluation Checklist (Page 5 of 5)