FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Water Resource Management

SOUTHWEST • GROUP 5 BASIN • 2006

# Water Quality Status Report

# Springs Coast

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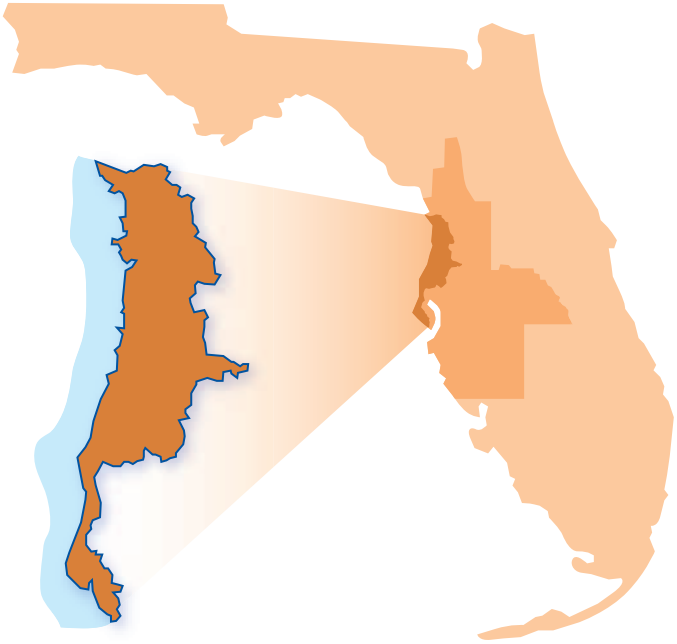

# Acknowledgments

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## Web Sites

**Florida Department of Environmental Protection, Bureau of Watershed Management**

**TMDL Program**
http://www.dep.state.fl.us/water/tmdl/index.htm

**Identification of Impaired Surface Waters Rule**
http://www.dep.state.fl.us/water/tmdl/docs/AmendedIWR.pdf

**STORET Program**
http://www.dep.state.fl.us/water/storet/index.htm

**2004 305(b) Report**
http://www.dep.state.fl.us/water/docs/2004_Integrated_Report.pdf

**Criteria for Surface Water Quality Classifications**
http://www.dep.state.fl.us/legal/rules/shared/62-302.pdf

**U.S. Environmental Protection Agency**

**Region 4: Total Maximum Daily Loads in Florida**
http://www.epa.gov/region4/water/tmdl/florida

**National STORET Program**
http://www.eps.gov/storet/

# Preface

## Content Features

- **Executive Summary:** Appears at the beginning of every report and provides an overview of the watershed management, its implementation, and how this approach will be used to identify impaired waters.
- **Sidebar:** Appears throughout the report and provides additional information pertinent to the text on that page.
- **Noteworthy:** Appears on pages near text that needs additional information but is too lengthy to fit in a sidebar.
- **Definitions:** Appear where scientific terms occur that may not be familiar to all readers. The word being defined is bold-faced in the text.
- **References:** Appear immediately before the Appendices and provide a complete listing of all sources used in the text.
- **Appendices:** Appear at the end of the report and provide additional information on a range of subjects such as bioassessment methodology, rainfall and stream flow, types of natural communities, STORET stations, water quality statistics, land use, and permitted facilities.

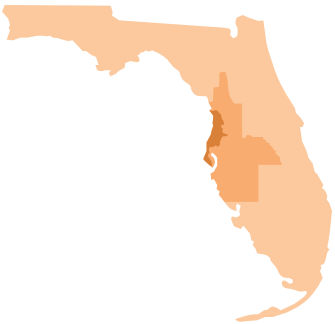
# Executive Summary

## Springs Coast

The Water Quality Status Report for the Springs Coast Basin is developed in the first phase of the Florida Department of Environmental Protection's (Department's) watershed management approach for restoring and protecting water resources and addressing Total Maximum Daily Load (TMDL) Program requirements. A TMDL represents the maximum amount of a given pollutant that a waterbody can assimilate and meet the waterbody's designated uses. A waterbody that does not meet its designated uses is defined as impaired. The watershed approach, which is implemented using a cyclical management process, provides a framework for implementing the requirements of the federal Clean Water Act and the 1999 Florida Watershed Restoration Act (FWRA) (Chapter 99-223, Laws of Florida).

This Status Report provides a preliminary identification of impaired waters in the Springs Coast Basin that may require the development and implementation of TMDLs, unless the impairment is documented to be a naturally occurring condition that cannot be abated by a TMDL, or unless a management plan that is already in place is expected to correct the problem. This preliminary assessment, based on readily available data, will be revised as additional data are evaluated. The report broadly characterizes the basin's setting and its surface water and ground water resources, permitted discharges, land uses, and ecological status. It also identifies potential surface water quality concerns and water quality monitoring needs, and summarizes plans and projects that are under way or projected to improve water quality. Tables in Chapters 3 and 5 include the current *Planning List* of potentially impaired waterbodies, as well as other summary information. The report also provides the results of a preliminary assessment of ground water quality and ground water-to-surface water interactions in the basin. It also discusses priorities for further evaluation, resource priorities, and proposed actions. See **Noteworthy** in Chapter 1 for a description of the contents of this report, by chapter.

In the Springs Coast Basin, state, federal, regional, and local agencies and organizations are making progress towards identifying problems and improving water quality. Through its watershed management activities, the Department works with these entities to support programs that are improving water quality and restoring and protecting ecological resources. The Department's TMDL Program objectives will be carried out in the basin through close coordination with the efforts of key stakeholders and initiatives such as the Southwest Florida Water Management District (SWFWMD); SWFWMD's Crystal River/Kings Bay Surface Water Improvement and Management Program; Pasco, Hernando, Citrus, and Pinellas Counties; and the municipalities of Port Richey, New Port Richey, Weeki Wachee, Brooksville, Crystal River, Tarpon Springs, Palm Harbor, Dunedin, Clearwater, Largo, and Gulfport.



Not only do stakeholders in the basin share responsibilities in achieving water quality improvement objectives, they also play a crucial role in providing the Department with important monitoring data and information on management activities. Significant data providers in the basin include Pinellas County, the SWFWMD, the U.S. Geological Survey, and the Department.

During the next few years, further data collection and analysis will be done to establish TMDLs for impaired waters in the Springs Coast Basin, establish the initial allocations of pollutant load reductions needed to meet those TMDLs, and produce a Basin Management Action Plan to reduce the amount of pollutants that cause impairments. These activities depend on the participation of the water management district, local governments, businesses, and other stakeholders. The Department will work with these groups and individuals to undertake or continue reductions in the discharge of pollutants and achieve the established TMDLs for impaired waterbodies.

The information in this report is being used to identify waterbodies and parameters for which additional data are needed to verify water quality impairments. Data gathering and monitoring will then focus on these potentially impaired waters. When these data were reevaluated and reassessed, in summer 2004 the Department presented a list of waters for which impairments were verified and for which TMDLs were developed. The *Verified List* of impaired waters will be adopted by Secretarial Order in accordance with the FWRA. Once adopted, the list will be submitted to the U.S. Environmental Protection Agency for approval as the state's Section 303(d) list of impaired waters for the basin.

## Summary of Surface Water Findings

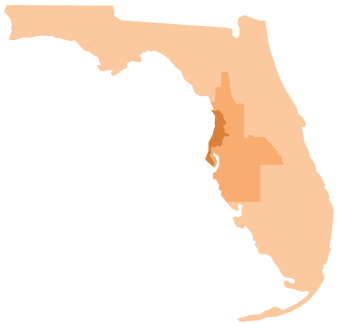
The following summarizes, by planning unit, potential impairments by waterbody types and the primary pollutants. Planning units are smaller areas in the basin that provide a more detailed geographic basis for identifying and assessing water quality improvement activities. **Figures 3.3 through 3.6** (in Chapter 3) depict the results of this evaluation.

### *Crystal River/Kings Bay Planning Unit*

Of the 12 waterbody segments in the Crystal River/Kings Bay Planning Unit, 7 segments have sufficient data for assessment. Of these, 4 are potentially impaired for at least 1 parameter assessed, and 3 meet standards.

The four potentially impaired segments in the planning unit, and the parameters of impairment, are as follows:

| | |
|---|---|
| Hunters Bay Spring | Dissolved oxygen (DO) |
| Tarpon Springs | DO, conductance |
| Crystal River Gulf 1 | Mercury in fish |
| Fort Island Gulf Beach | Mercury in fish |



### *Homosassa River Planning Unit*

Of the eight waterbody segments in the Homosassa River Planning Unit, four segments have sufficient data for assessment. Of these, three are potentially impaired for at least one parameter assessed, and one meet standards.

The three potentially impaired segments in the planning unit, and the parameters of impairment, are as follows:

| | |
|---|---|
| Homosassa River | Conductance, iron, chlorophyll *a* |
| Homosassa Springs | Biology, conductance, DO |
| Crystal River Gulf 2 | Mercury in fish |

### *Chassahowitzka River Planning Unit*

Of the eight waterbody segments in the Chassahowitzka River Planning Unit, seven segments have sufficient data for assessment. Of these, six are potentially impaired for at least one parameter assessed, and one meets standards.

The six potentially impaired segments in the planning unit, and the parameters of impairment, are as follows:

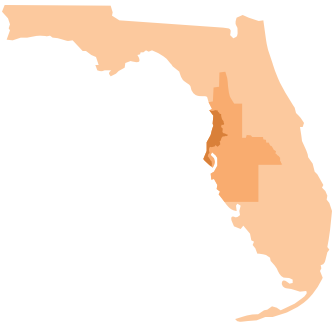
| | |
|---|---|
| Chassahowitzka River | Conductance, DO |
| Baird Creek | Conductance |
| Chassahowitzka Springs | Conductance, DO |
| Weeki Wachee River | DO |
| Skinner Lake | Iron, pH |
| Crystal River Gulf 3 | Mercury in fish |

### *Middle Coastal Planning Unit*

Of the 53 waterbody segments in the Middle Coastal Planning Unit, 20 segments have sufficient data for assessment. Of these, 16 are potentially impaired for at least 1 parameter assessed, and 4 meet standards.

The 16 potentially impaired segments in the planning unit, and the parameters of impairment, are as follows:

| | |
|---|---|
| Weeki Wachee River | Alkalinity, iron, DO |
| Weeki Wachee Springs | DO |
| Tooke Lake | Alkalinity |
| Highland Lake | Iron |
| Bonnett Pond | Iron |
| Jenkin's Spring | Conductance, DO |
| Hunter Lake | Iron, mercury in fish |
| Lake Hancock | Iron, pH |
| Pithlachascotee River | Biology, conductance, bacteria, DO |
| Crystal River Gulf 4 | Mercury in fish |
| Pine Island Beach | Mercury in fish |
| Crystal River Gulf 5 | Mercury in fish |
| Crystal River Gulf 6 | Mercury in fish |
| Robert J. Strickland Beach | Bacteria, mercury in fish |
| Brasher Park Beach | Bacteria, mercury in fish |
| Energy and Marine Center | Bacteria, mercury in fish |



### *Anclote River/Coastal Pinellas County Planning Unit*

Of the 69 waterbody segments in the Anclote River/Coastal Pinellas County Planning Unit, 49 segments have sufficient data for assessment. Of these, 41 are potentially impaired for at least 1 parameter assessed, and 8 meet standards.

The 41 potentially impaired segments in the planning unit, and the parameters of impairment, are shown in **Table 3.9**.

## Summary of Ground Water and Springs Assessment Findings

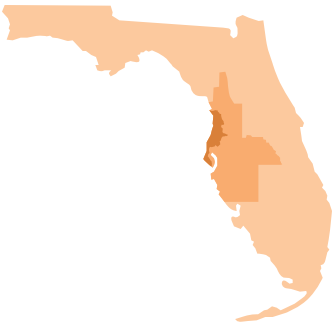
This section summarizes the results of a preliminary assessment of the availability and quality of potable ground water supplies, the impact of ground water on surface water resources, and resource priorities in the Springs Coast Basin. Due to the significant interaction between ground water and surface water via springs in the basin, ground water is likely to influence surface water quality. The assessment uses planning units consistent with the surface water assessment and water quality data from a combination of databases maintained by the Department and the SWFWMD springs monitoring program.

### *Basinwide Observations of Elevated Parameter Concentrations*

Parameters with basinwide medians exceeding thresholds included nitrate, phosphorus, aluminum, cadmium, copper, iron, and lead. In some cases higher levels are related to local ambient conditions, but in others basinwide medians may reflect contamination.

Elevated nitrate levels in the basin are well documented by SWFWMD work. These studies have shown that, overall, elevated nitrate levels are present in springs and that these are attributed to pollutant sources in their springsheds. However, phosphorus levels have not previously been documented as such, likely because phosphorus poses no threat to potable supply and has no ground water or surface water standard. Observed phosphorus levels in the surficial and Floridan aquifer wells of the basin may, in some cases, be associated with pollutant sources but are probably mainly associated with naturally phosphatic material in the aquifers. Because it is the limiting nutrient in many of these systems, however, phosphorus remains a parameter of interest.

Basinwide medians for lead, copper, and iron in both the surficial and Floridan aquifers are at levels that could cause adverse impacts to surface water, as is the median for cadmium in Floridan aquifer wells. Medians for lead, aluminum, and iron in the surficial aquifer and the median for iron in the Floridan aquifer, also exceed human health effects thresholds based on ground water maximum contaminant levels. It is most likely that aluminum and iron levels are due to natural conditions. Cadmium, lead, and copper may occur at low concentrations naturally, depending on the geochemical makeup of the aquifer.



### *Crystal River/Kings Bay Planning Unit*

Arsenic, lead, and several volatile organic compounds may be a concern for the quality of the potable ground water resource according to ambient ground water monitoring data and private wells sampled by the Florida Department of Health (DOH). Ambient monitoring data indicate that nutrient concentrations (nitrate and phosphorus) in ground water and spring samples in the planning unit are higher than their respective ground water–surface water relational assessment (SRA) thresholds that were developed based on surface water criteria and guidance levels. Two surface waters, both of them springs, are potentially impaired for DO. The low DO in springs may also be related to naturally low DO in ground water.

### *Homosassa River Planning Unit*

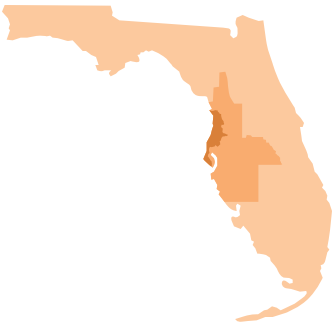
Lead and several volatile organic compounds may be a concern for the quality of the potable ground water resource according to data from Department ambient ground water monitoring wells and private wells sampled by DOH. Based on ambient ground water and springs monitoring data, nitrate as wells as phosphorus and iron concentrations in ground water samples in the planning unit are higher than their SRA thresholds. Two surface waters in the planning unit are potentially impaired, the first (a spring) for nutrients/DO and the other for iron. Low DO in the spring may be from ground water.

### *Chassahowitzka River Planning Unit*

Lead, nitrate, and several volatile organic compounds may be a concern for the quality of the potable ground water resource in the planning unit according to data from Department ambient ground water monitoring wells and private wells sampled by DOH. There are also several known areas of ground water contamination. Based on ambient ground water and springs monitoring data, nutrient concentrations (nitrate and phosphorus) in ground water and springs, and iron concentrations in ground water, are higher than the SRA thresholds that were developed based on surface water criteria and guidance levels. Three surface waters are potentially impaired for nutrients/DO and one for iron. One of the surface waters that is potentially impaired for DO is a spring and is likely attributable to ground water.

### *Middle Coastal Planning Unit*

Arsenic, lead, thallium, nitrate, coliform bacteria, and several volatile organic compounds may be a concern for the quality of the potable ground water resource according to data from Department ambient ground water monitoring wells and private wells sampled by DOH. There are also several known areas of ground water contamination. Ambient ground water and springs monitoring data indicate that nitrate and phosphorus concentrations in ground water and springs, and iron concentrations in ground water, are higher than the SRA thresholds. Four surface waters are potentially impaired for nutrients/DO and five for iron. One of the surface waters that is potentially impaired for DO is a spring and may be related to the low DO of ground water.



### *Anclote River/Coastal Pinellas County Planning Unit*

Arsenic, lead, thallium, nitrate, coliform bacteria, and several volatile organic compounds may be a concern for the quality of the potable ground water resource according to data from Department ambient ground water monitoring wells and private wells sampled by DOH. Based on ambient ground water and springs monitoring data, nutrient concentrations (nitrate and phosphorus) in ground water and springs, and iron concentrations in ground water, are higher than the SRA thresholds that were developed based on surface water criteria and guidance levels. Four surface waters are potentially impaired for nutrients/DO. Two of the surface waters that are potentially impaired by DO are springs; this may be related to the natural occurrence of low DO in ground waters. One spring is also potentially impaired by bacteria.

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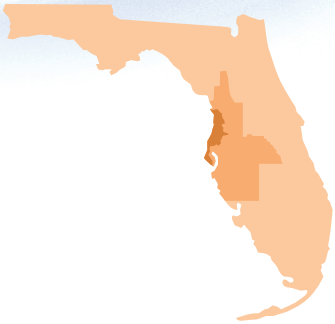
# Chapter 1: Introduction

## Purposes and Content of the Status Report

The Florida Department of Environmental Protection (Department) is implementing a statewide watershed management approach for restoring and protecting water quality and addressing **Total Maximum Daily Load** (TMDL) Program requirements. Under Section 303(d) of the federal Clean Water Act and the Florida Watershed Restoration Act (FWRA) (Chapter 99-223, Laws of Florida), TMDLs must be developed for all waters that do not meet their designated uses (such as drinking water, recreation, and shellfish harvesting) and are thus defined as impaired.



TMDLs will be developed, and the corresponding reductions in pollutant loads allocated, as part of the watershed management approach, which rotates through the state's 52 river basins over a 5-year cycle. Extensive public participation from diverse stakeholders in each of these basins is crucial in all phases of the cycle.

***Total Maximum Daily Load***

*The maximum amount of a given pollutant that a waterbody can assimilate and remain healthy, such that all of its designated uses are met.*

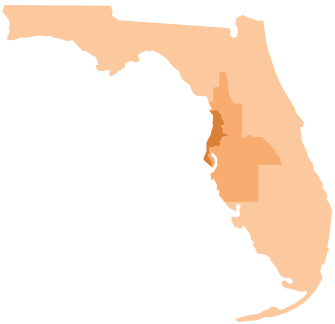
This report presents a *Planning List* of potentially impaired waterbodies in the Springs Coast Basin, identifies general surface water quality monitoring needs, and provides an overview of surface water quality restoration plans and projects. It also describes the results of a preliminary ground water quality assessment and discusses priorities for further evaluation, as well as resource priorities and proposed actions (see **Noteworthy** for a description of the contents of the Status Report, by chapter). The report is intended for distribution to a broad range of potential stakeholders, including decision makers in federal, state, regional, tribal, and local governments; public and private interests; and citizens.

A description of the legislative and regulatory background for TMDL development and implementation through the watershed management approach, and a brief explanation of the TMDL Program, are available in **Appendix A**. Background information on the Department's TMDL Program, the process of TMDL development and implementation, lists of impaired and potentially impaired waters, and assessments for other parts of the state are available at http://www.dep.state.fl.us/water/tmdl/index.htm.

### *Explanation of the Planning List*

The Planning List is the preliminary list of potentially impaired surface waterbodies or waterbody segments in the Springs Coast Basin. Under the FWRA, the Planning List is submitted to the U.S. Environmental Protection Agency (EPA) for informational purposes only and is not used to administer or implement any regulatory program.

To be placed on the Planning List, waters must meet specific data sufficiency and data quality requirements in the state's Identification of



Impaired Surface Waters Rule (IWR) (Rule 62-303, Florida Administrative Code [F.A.C.]). Developed in cooperation with a Technical Advisory Committee, the rule provides a science-based methodology for identifying impaired waters **(Appendix B)**. It addresses chemical parameters, the interpretation of narrative nutrient criteria, biological impairment, fish consumption advisories, and ecological impairment. The complete text of the IWR is available at http://www.dep.state.fl.us/water/tmdl/index.htm.

### *Explanation of the Verified List*

The publication of the Status Report is followed by a period of monitoring and data gathering and, at the end of Phase 2 of the watershed management cycle, by an Assessment Report containing a *Verified List* of impaired waterbodies or segments for which TMDLs will be calculated, as provided in Subsection 403.067(2), Florida Statutes (F.S.). This Assessment Report also contains additional data gathered by the Department, other agencies, and groups doing monitoring in the basin; a more complete evaluation of water quality and biological resources; and a designated use attainment assessment for basin waters.

The Assessment Report follows the EPA's guidance for meshing Clean Water Act requirements for Section 305(b) water quality reports and Section 303(d) lists of impaired waters. This integrated assessment is used to identify the status of data sufficiency, the potential for impairment, and the need for TMDL development for each waterbody or waterbody segment in the basin.

The Verified List is required by Subsection 403.067(4), F.S., and Section 303(d) of the federal Clean Water Act. It is adopted by the Department in accordance with the FWRA and the IWR (Rule 62-303, F.A.C.). Once adopted, the list is submitted to the EPA under Section 303(d)1.c of the Clean Water Act and becomes the 303(d) list of impaired waters for the basin.

The first 303(d) list, which was required by the EPA in 1998, is to be amended annually to include basin updates. Florida's 1998 303(d) list included a number of waterbodies in the Springs Coast Basin. **Tables 3.5 through 3.9** in Chapter 3 list these waters, by planning unit.

## Stakeholder Involvement

The FWRA requires the Department to work closely with stakeholders to develop and implement TMDLs. In addition, the Department's Allocation Technical Advisory Committee (ATAC) report, submitted to the legislature, recommends relying on stakeholder involvement. Stakeholder involvement in the TMDL process will vary with each phase of implementation to achieve different purposes **(Table 1.1)**. A copy of the ATAC report is available at http://www.dep.state.fl.us/water/tmdl/docs/Allocation.pdf.

The Department will work cooperatively with a number of key stakeholders to develop, allocate, and implement TMDLs in the Springs Coast Basin. These include the Southwest Florida Water Management District (SWFWMD); SWFWMD's Crystal River/Kings Bay Surface Water

**Table 1.1: Stakeholder Involvement in the TMDL Program**

| Watershed Management Cycle | Nature of Stakeholder Involvement |
|---|---|
| **Phase 1:** Preliminary Evaluation | Close coordination with local stakeholders to conduct a preliminary basin water quality assessment, inventory existing and proposed management activities, identify management objectives and issues of concern, develop a Strategic Monitoring Plan, and produce a preliminary Status Report that includes a Planning List of potentially impaired waters |
| **Phase 2:** Strategic Monitoring and Assessment | Cooperative efforts between the Department and local stakeholders to collect additional data; enter data into STORET (the EPA's national water quality **STO**rage and **RET**rieval database); complete the water quality assessment; produce a final Assessment Report that includes a Verified List of impaired waters for Secretarial adoption; and provide an opportunity for stakeholders to document reasonable assurance (for Department review) that existing or proposed management plans and projects are adequate to restore water quality without the establishment of a TMDL |
| **Phase 3:** Development and Adoption of TMDLs | Coordination with stakeholders to discuss TMDL model framework, including model requirements, parameters to be modeled, model endpoints, design run scenarios, and preliminary allocations; communication of science used in the process; public workshops for rule adoption of TMDLs |
| **Phase 4:** Development of Basin Management Action Plan | Broad stakeholder participation in developing a Basin Management Action Plan (B-MAP) (including detailed allocations and implementation strategies), incorporating it into existing management plans where feasible; public meetings during the planning process |
| **Phase 5:** Implementation of Basin Management Action Plan | Emphasis on implementing the B-MAP, other voluntary stakeholder actions, and local watershed management structures; Department will continue to provide technical assistance, fulfill oversight responsibilities, and administer National Pollutant Discharge Elimination System point and nonpoint source permits |

Improvement and Management Program; Pasco, Hernando, Citrus, and Pinellas Counties; and the municipalities of Port Richey, New Port Richey, Weeki Wachee, Brooksville, Crystal River, Tarpon Springs, Palm Harbor, Dunedin, Clearwater, Largo, and Gulfport.

## The Watershed Management Cycle in the Florida Department of Environmental Protection's Southwest District

**Figure 1.1** shows the order in which the Department's Southwest District basin groups will be evaluated under the watershed management cycle. These groups are identified according to a U.S. Geological Survey classification system using hydrologic unit codes.

Tampa Bay, a Group 1 basin, was the first basin in the district to undergo a preliminary assessment in 2000. A preliminary assessment for the Group 2 basin, Tampa Bay Tributaries, was completed in 2001 and for the Group 3 basin, Sarasota Bay–Peace–Myakka, in 2002. The Group 4 preliminary assessment for the Withlacoochee Basin was carried out in 2003. The Group 5 basin, Springs Coast, is the subject of this Status Report. In 2005, the cycle resumed with the Group 1 basin, Tampa Bay.

*Figure 1.1: Schedule for Implementing the Watershed Management Cycle in the Department's Southwest District, Basin Groups 1 through 5*

# Noteworthy

## Contents of This Report

- **Chapter 1: Introduction** briefly characterizes the purpose and content of the Status Report, discusses stakeholder involvement, and describes how the watershed management cycle will be implemented in the Department's Southwest District.

- **Chapter 2: Basin Overview** characterizes the basin's general setting, surface water and ground water resources, major water quality trends, and watershed management activities and processes.

- **Chapter 3: Preliminary Surface Water Quality Assessment** discusses the scope of the assessment, summarizes data-gathering activities and sources of data, describes the EPA's terminology for designated use attainment and its integrated report categories, and provides, by basin planning unit, an evaluation of water quality, a discussion of permitted discharges and land uses, a summary of ecological priorities and problems, and an overview of water quality improvement plans and projects.

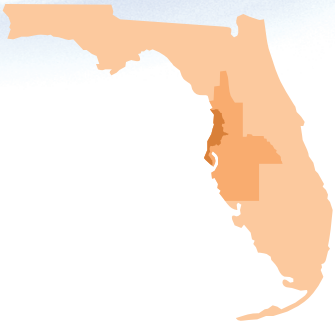
- **Chapter 4: Ground Water and Springs Water Quality Assessment** describes the Department's principal ground water monitoring networks, the basin assessment methodology, the results of the preliminary assessment of ground water quality and ground water-to-surface water interactions, as well as resource priorities and proposed actions.

- **Chapter 5: Planning List of Potentially Impaired Waters** contains the Planning List of potentially impaired waterbodies. The chapter also describes the relationship between the Planning and Verified Lists, and summarizes water quality findings for the basin.

- **Chapter 6: Strategic Monitoring and Data Evaluation** summarizes strategic monitoring and data evaluation priorities and objectives that are critical to the development of the Verified List of impaired waters during the next phase of the watershed management cycle. It includes a general inventory of monitoring and data-gathering activities by other groups and programs that could be incorporated into the assessment.

# Chapter 2: Basin Overview

## Basin Setting



The Springs Coast Basin encompasses parts of Pasco, Hernando, Citrus, and Pinellas Counties in west-central Florida. It is bounded on the west by the Gulf of Mexico and on the east by the Brooksville Ridge, a sandy remnant of previous higher sea levels, characterized by porous limestone (karst) geology, with wetlands in low-lying areas and scattered sinkhole lakes.

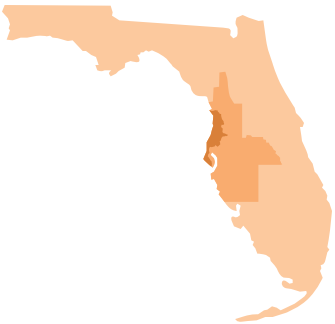
The basin covers about 1,052 square miles, or 673,000 acres, not including an estuarine ecosystem that extends in a nearly unbroken swath along the entire shoreline. The estuary's bays, rivers, salt marshes, seagrass meadows, oyster bars, and tidal flats cover approximately another 97,911 acres, or 15 percent of the total basin area. The 6 major rivers in the basin—Crystal, Homosassa, Chassahowitzka, Weeki Wachee, Anclote, and Pithlachascotee—their springs, and their associated coastal aquatic resources are dominant features. Tidal fluctuations affect all the springs, except for Weeki Wachee.

The coastline along the basin's western edge is heavily vegetated, shifting from saltmarsh-dominated communities in the northern part of the basin to mangrove-dominated communities in the southern portion. The low elevation creates flooding even during moderate storms. The coast contains numerous tidal creeks and salt marshes, as well as isolated islands fringed with mangroves. There are very few natural sandy beaches.

Barrier islands parallel the Gulf coast from southern Pasco County southward to Tampa Bay. A number of passes, or inlets, connect the Gulf of Mexico with the estuarine waters between the barrier islands and the mainland.

The presettlement vegetation in inland areas of the Springs Coast Basin was dominated by open, fire-maintained pine forests on sandy uplands and coastal terraces. Longleaf pine was the dominant tree, replaced by slash pine in wetter sites and near the coast, and by pond pine in the wettest inland sites. Wiregrass was the dominant ground cover, particularly in the longleaf pine forests. Other community types, such as sand pine, oak scrub, and mesic hammocks, were embedded in the pine forest. In lower areas, hydric hammocks, swamps, marshes, and other wetland communities predominated.

Despite a great deal of growth in the last 30 years, Citrus, Hernando, and Pasco Counties—which are covered by coastal swamps, dense woodlands, lakes, and pastures—have retained a rural character. However, these three counties are rapidly changing. Residential and commercial development has rapidly expanded along the narrow U.S. Highway 19 corridor



that runs between the coastal swamps and the upland forest of the Brooksville Ridge, extending from Crystal River/Homosassa Springs southward to New Port Richey. Pinellas County is mostly developed. Much of the region's urbanization is relatively recent. Municipalities in the basin include Port Richey, New Port Richey, Weeki Wachee, Brooksville, Crystal River, Tarpon Springs, Palm Harbor, Dunedin, Clearwater, Largo, and Gulfport.

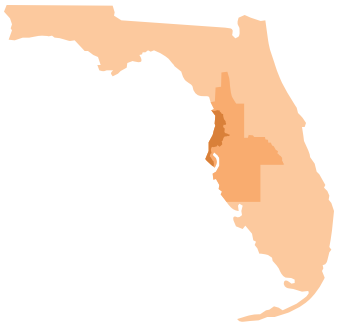
The northern portion of the basin, in western Citrus County, contains a number of rapidly growing retirement communities. Dense networks of streets and platted lots are present in the north-central portion of the county. Although relatively few houses have been built, the potential density of these developments at build-out is extremely high. Rapid development is occurring in the U.S. Highway 19 corridor between Crystal River and Homosassa. The extreme western portion of this area is characterized by sparsely populated coastal swamps and wetlands (mostly state or federally owned), and the area between Weeki Wachee and Chassahowitzka remains relatively undeveloped.

Much of the upland forest covering the Brooksville Ridge consists of the Withlacoochee State Forest, which is regularly logged and virtually uninhabited. The forest encompasses approximately 148,000 acres in Citrus, Hernando, Pasco, and Sumter Counties. The largest tract, comprising approximately 43,000 acres, is in central Citrus County; the majority of this tract (approximately 30,000 acres) lies inside the Springs Coast Basin. Northeast of the forest, the city of Inverness, while not in the basin, supports a large residential community, commercial development, and recreational land uses.

The central portion of the basin, in western Hernando County, also contains a number of rapidly growing communities, characterized by moderately dense residential and commercial development. In the vicinity of Spring Hill and Weeki Wachee, residential development occupies a large portion of the area between U.S. Highway 19 and the Brooksville Ridge, particularly between State Road (S.R.) 50 and County Line Road. Spring Hill, with about 60,000 residents, is the largest of the area's subdivisions. Pasture and forests are prevalent over the central and eastern portions of the central basin. The city of Brooksville, in the east-central portion of the basin, is characterized by residential and commercial land uses. Limestone mining is a major land use northwest of Brooksville.

The south-central portion of the basin, in western Pasco County, contains a widespread mixture of residential and commercial development, pasture, forest, and wetlands. The extreme western portion of the basin in Pasco County is characterized by coastal hardwood forests and swamps. The U.S. Highway 19 area, along the Gulf coast, contains densely developed residential and commercial areas. The central and eastern portions of the basin in Pasco County contain pasture, forest, open land, numerous lakes and wetlands, and some scattered row and tree crops.

The southern part of the basin encompasses western Pinellas County, from the Anclote River southward to Gulfport and Long Key, and eastward to S.R. 19. (The eastern side of the peninsula lies within the Tampa Bay Basin (a Group 1 basin) and was addressed earlier in the watershed



management cycle.) Pinellas County, which is already 95 percent built out, has the highest population density in the state and the Southwest Florida Water Management District (SWFWMD). Many of the barrier islands bordering the Gulf of Mexico are also very densely developed; residential communities in these areas include Indian Shores, Redington Beach, Madeira Beach, Treasure Island, and St. Pete Beach.

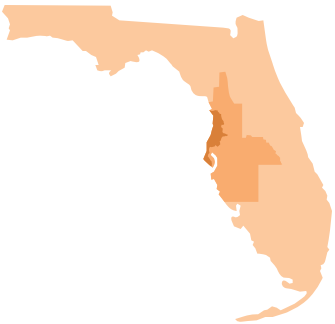
On the mainland, the largest cities in western Pinellas County are Tarpon Springs, Palm Harbor, Dunedin, Clearwater, Largo, and Gulfport. Major waterbodies include the Anclote River, Anclote Anchorage, Intracoastal Waterway, Lake Seminole, Bear Creek, Joe's Creek, and Long Bayou. The Intracoastal Waterway has different names along its length, including St. Joseph Sound, Clearwater Harbor, the Narrows, and Boca Ciega Bay. The Cross Bayou Canal traverses the peninsula in a southwesterly direction from Old Tampa Bay to Cross Bayou, which then flows into Boca Ciega Bay.

Beginning in the 1920s, numerous waterfront areas in Pinellas County, including Clearwater Harbor and Boca Ciega Bay, were filled for residential and commercial development and contain extensive seawalls. From 1950 to 1965, about 20 percent of the surface area of Boca Ciega Bay was filled. Most aquatic systems in these areas have deep channels, which restrict seagrass growth, and water quality is typically poor.

The adjoining areas are also highly urbanized with Pinellas County having the largest population per acre in the state (SWFWMD, 2001a). Many of the historic freshwater springs have dried up or have been contaminated by saltwater intrusion. Most of the wetlands in the basin are concentrated along the coast and occur in large, contiguous blocks. Of the 194,500 acres in the basin dedicated to conservation, approximately 141,350 acres, or 73 percent, are sandwiched between the Gulf of Mexico and U.S. Highway 19. Three of the 4 large conservation tracts located inland of the coast (Citrus, Serenova, and Starkey) lie on the basin boundary, with large portions extending into adjoining basins. Conservation lands in the basin include 130,250 acres of state-owned lands, 18,500 acres of SWFWMD-owned lands, 3,500 acres of county-owned lands, and nearly 1,000 acres of privately owned lands.

The Chassahowitzka National Wildlife Refuge, established in 1931, comprises 31,000 acres of shallow saltwater bays, estuaries, brackish marshes, and tidal streams, with a fringe of hardwood swamps. Accessible only by boat, the refuge provides habitat for approximately 250 species of birds, over 50 species of reptiles and amphibians, and at least 25 different species of mammals. Endangered and threatened species found in the refuge include manatees, sea turtles, and bald eagles.

The Crystal River National Wildlife Refuge, established in 1983 and located in Citrus County, comprises 20 islands and several small parcels of land, surrounded by the crystal-clear, spring-fed waters of Kings Bay. Six hundred million gallons of fresh water flow daily from more than 30 natural springs in the refuge. The water flowing from the springs remains at a constant 72° F. The springs are Florida's most significant natural warm-water refuge for the endangered West Indian manatee, and provide critical habitat for the Crystal River herd, which makes up about 25 percent of the



country's manatee population. They also provide habitat and protection for numerous other wildlife species.

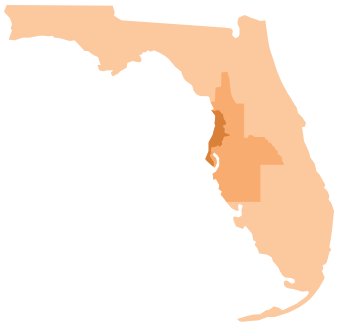
Anclote Key, the northernmost barrier island in the basin, comprises the Anclote Key Preserve State Park. The island is still expanding and has increased in size by about 30 percent since 1957. Just to the east of Anclote Key lies Anclote Anchorage, a shallow area containing seagrass beds that provides breeding habitat for numerous marine species, including threatened and endangered animals such as sea turtles and the West Indian manatee. The Anclote National Wildlife Refuge encompasses the waters between Anclote Key and the mainland. South of Anclote Anchorage is the Pinellas County Aquatic Preserve. The waters near the preserve attract numerous sponge divers.

Honeymoon Island State Park, Honeymoon Island State Recreation Area, and Caladesi Island State Park, which are undeveloped, are located along the Gulf coast in northern Pinellas/southern Pasco Counties. A 1921 hurricane split Honeymoon Island in two, creating Hurricane Pass and Caladesi Island to the south. Honeymoon Island contains one of the few remaining south Florida stands of virgin slash pine, which provides osprey nesting sites. Both Honeymoon Island and Caladesi Island contain a number of important coastal plant communities such as mangrove swamps, seagrass beds, salt marshes, tidal flats, and sand dunes. Honeymoon Island has more than 208 plant species and a variety of shorebirds, including several threatened and endangered species. To the east of Honeymoon and Caladesi Islands lies St. Joseph Sound. It contains about 14,700 acres of seagrass, which is about 60 percent of the total seagrass acreage found in Tampa Bay.

Other major, publicly owned conservation areas in the basin include the following:

- The Chassahowitzka River and Coastal Swamps Area, comprising 5,676 acres in western Citrus and Hernando Counties, includes the headwaters of the Chassahowitzka River and several tributaries and springs;
- Starkey Wilderness Park, a 8,069-acre tract, encompasses a portion of the headwaters of the Anclote River and a stretch of the Pithlachascotee River; and
- Weeki Wachee Preserve, a 9,000-acre area, is located on the Gulf coast in Hernando County. It contains the southernmost coastal hardwood hammock in western Florida. Limerock was mined in the southwest corner of the preserve from the 1940s through 1995.

The Crystal, Homosassa, Chassahowitzka, Weeki Wachee, Anclote, and Pithlachascotee Rivers and their associated coastal aquatic resources are popular for recreational activities such as swimming, scuba diving, snorkeling, fishing, and boating. The U.S. Fish and Wildlife Service estimates that there were 91,515 visitors to the Crystal River National Wildlife Refuge and 33,340 visitors to the Chassahowitzka National Wildlife Refuge during 1996. Estimated visitors in 1997 at other nearby



sites include 250,000 at Homosassa Springs State Wildlife Park, 17,800 at the Chassahowitzka River Campground and Park, and 70,000 at the park at Pine Island.

In 1979, recreational fishing trips and total number of fish landed on Florida's west coast, including the Springs Coast Basin, exceeded that of Florida's east coast and all other shorelines in the southeastern United States. The counties of the Springs Coast Basin, collectively, generated 18,370 fishing trips and landed over 4.5 million pounds of seafood in 1995. By 1999, the number of fishing trips had grown to 19,753, with approximately 5.1 million pounds of seafood landed.

Agriculture was the historical economic base in Citrus, Hernando, and Pasco Counties. Several factors, however, including residential growth, decreasing profitability of farming, and freezes affecting the citrus industry, have had a dramatic effect. Today, these counties' economies predominantly comprise retail trade, services, government, and construction. A significant portion of Hernando County's economy is still based on industry (including mining), cattle, and agriculture. Significant limerock mining activities are carried out northwest of Brooksville. Western Pinellas County is largely urban, with some industrial development.

**Table 2.1** lists the acreage and percent of total acreage for land uses and land cover in the Springs Coast Basin. The table shows that over one-third of the basin (34 percent) is urban and built-up, followed by upland forests (26 percent) and wetlands (22.1 percent).

**Table 2.1: 1995 Land Use and Land Cover in the Springs Coast Basin**

| Land Use/Land Cover | Acres | Percent of Total Acres |
|---|---|---|
| Urban and Built-up | 243,303 | 34.0 |
| Agriculture | 93,963 | 13.1 |
| Rangeland | 9,949 | 1.4 |
| Upland Forests | 186,573 | 26.0 |
| Water | 10,306 | 1.4 |
| Wetlands | 158,358 | 22.1 |
| Barren Land | 2,985 | 0.4 |
| Transportation, Communication, and Utilities | 11,055 | 1.5 |
| Total | 716,492 | 100 |

*Source:* SWFWMD, April 2001.

**Table 2.2** lists historical and projected population figures for the basin. In 1980, the population of the four counties (Citrus, Hernando, Pasco, and Pinellas) was almost 1,021,364. By 1998, it had risen to more than 1.45 million people, and by 2010 is projected to grow to more than 1.64 million. There is also a large influx of seasonal residents into the basin during the winter months.

U.S. Highway 19 and U.S. Highway 41 are the major north-south corridors through Citrus, Hernando, Pasco, and Pinellas Counties. Continued population growth in the basin was fueled by the construction

**Table 2.2: Citrus, Hernando, Pasco, and Pinellas County Population, 1980–2010**

| County/City | 1980 | 1990 | 1998 | 2010 | 2020 |
|---|---|---|---|---|---|
| **Total Citrus County** | 54,703 | 93,515 | 112,424 | 141,600 | 166,600 |
| Crystal River | 2,778 | 4,050 | 4,375 | N/A | N/A |
| **Total Hernando County** | 44,469 | 101,115 | 125,008 | 163,800 | 197,200 |
| Brooksville | 5,582 | 7,589 | 7,863 | 8,921 | N/A |
| Weeki Wachee | 8 | 11 | 15 | N/A | N/A |
| **Total Pasco County** | 193,661 | 281,131 | 321,074 | 381,000 | 431,300 |
| New Port Richey | 11,196 | 14,044 | 14,693 | N/A | N/A |
| Port Richey | 1,742 | 2,521 | 2,667 | N/A | N/A |
| **Total Pinellas County** | 728,531 | 851,659 | 892,178 | 955,200 | 1,008,800 |
| Clearwater | N/A | 98,784 | 108,787 | N/A | N/A |
| Tarpon Springs | N/A | N/A | 20,000 | N/A | N/A |
| Pinellas Park | N/A | N/A | 45,658 | N/A | N/A |

*Source:* Bureau of Economic and Business Research, February 1998.
N/A = Data not available

### *Sources of Information*

*Much of the information about the Springs Coast Basin in Chapters 2 and 3 was excerpted or adapted from the Springs Coast Comprehensive Watershed Management Plan (April 2001), Tampa Bay/Anclote River Comprehensive Watershed Management Plan (October 16, 2001), An Ecological Characterization of the Florida Springs Coast: Pithlachascotee to Waccasassa Rivers (December 1990), and An Ecological Characterization of the Tampa Bay Watershed (December 1990). The References section at the end of this report contains a complete listing of sources.*

of the Suncoast Parkway (S.R. 589) during the 1990s. The 42-mile parkway, which extends from the Veterans Expressway in Tampa to U.S. Highway 98 near the Hernando–Citrus County line, connects Hillsborough County with Pasco and Hernando Counties and provides an alternate north-south route through Florida's west coast. In Pinellas County, S.R. 699 runs north-south through the barrier islands from Largo to St. Pete Beach.

Major east-west highways in the basin include S.R. 44, which connects the coastal areas around Crystal River with Inverness; S.R. 50, which originates in western Hernando County near Weeki Wachee and passes through Brooksville; and S.R. 52, which originates in western Pasco County.

Numerous other roads and highways crisscross the western Pinellas peninsula. Regional airports include the Crystal River and Hernando County Airports.

**Figure 2.1** shows the principal geopolitical features in the Springs Coast Basin. **Appendix C** contains supplementary information on the basin's ecology.

## Surface Water Resources

The Springs Coast Basin contains numerous surface waterbodies. Surface waters, including lakes, streams, wetlands, and springs, occupy 168,664 acres, or about 30.4 percent of the total basin area. This section delineates the basin's hydrology, describes the movement and management of water in the basin, briefly describes the major characteristics of surface waters that influence water quality in the basin, and describes surface water classifications and special designations.

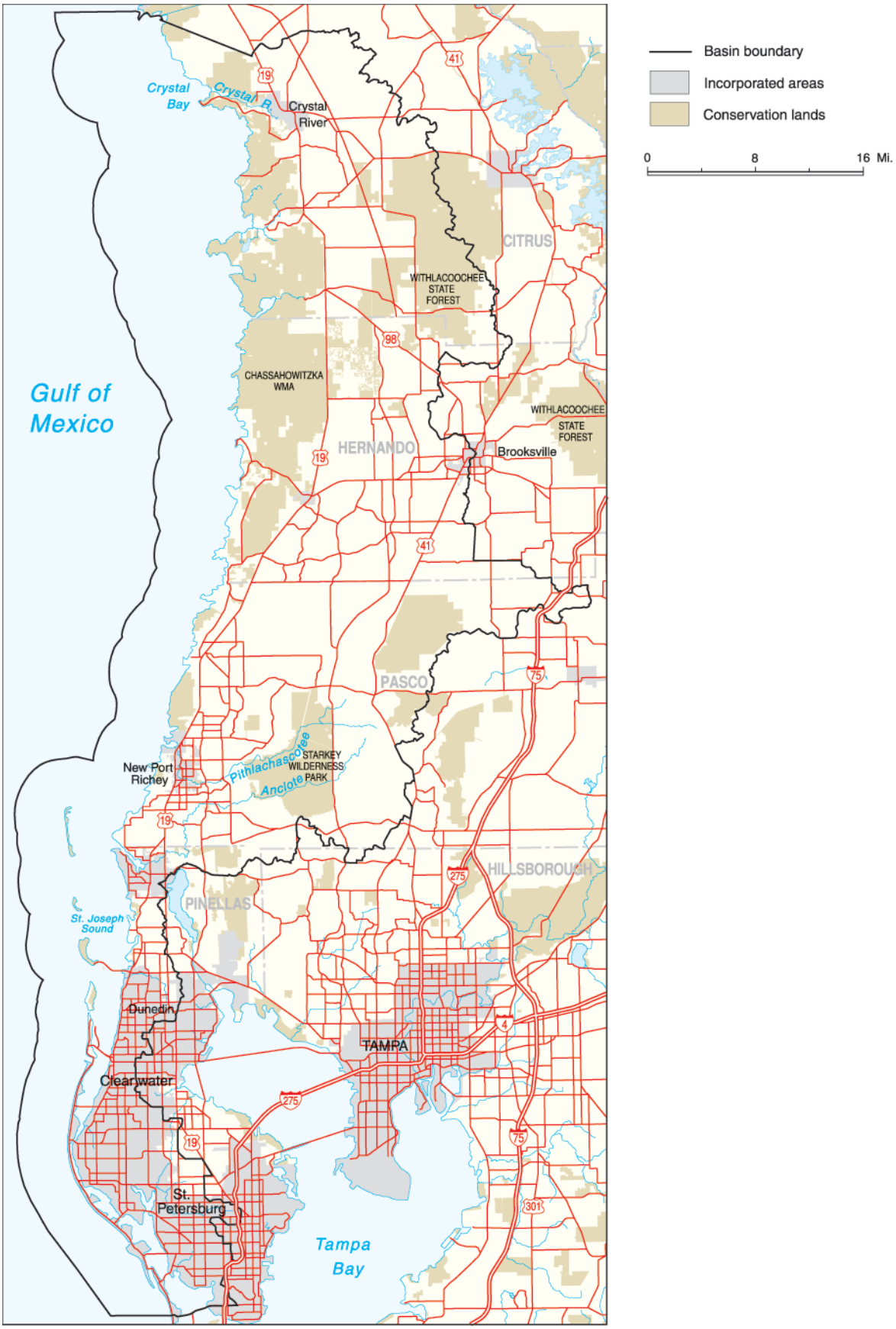



*Figure 2.1: Geopolitical Map of the Springs Coast Basin*

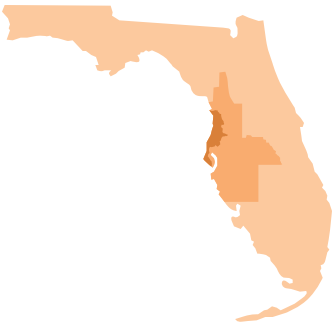


**Figure 2.2** shows the locations of the largest waterbodies. A more detailed discussion in Chapter 3 provides information on each planning unit.

### *Physiography and Hydrology*

There are three physiographic regions in the Springs Coast Basin, based on topographic relief and underlying sediments: Coastal Swamp, Gulf Coastal Lowlands, and Brooksville Ridge. While it does not lie within the Springs Coast Basin, a fourth physiographic region, the Tsala Apopka Plain, also plays an important role in the basin's water resources.

The Coastal Swamp region parallels the coast, extending 2 to 5 miles inland. It is characterized by tidal marshes and coastal swamps. Elevations are less than 10 feet, and poorly drained, organic soils directly overlie the limestones of the Floridan aquifer system in much of the area.

The Brooksville Ridge, in the central portion of the basin, trends northwest-southeast through central Citrus County and eastern Hernando and Pasco Counties. The ridge measures approximately 17 miles wide in central Hernando County and reaches its southern terminus in northeastern Pasco County. Elevations range from 70 to about 275 feet. The ridge has an irregular surface due to karst activity, and elevations may vary more than 100 feet over short distances. The margins of the ridge are characterized by deep, sandy soils, while the interior contains a mixture of poorly to well-drained sandy-clayey soils. The entire Brooksville Ridge region is underlain by a clayey unit that varies between 10 and 30 feet in thickness, but allows good hydraulic connection to the underlying Floridan aquifer system through karst features and fractures. The ridge supports upland communities such as longleaf pine sandhills, sand pine, and oak scrub, as well as numerous threatened and endangered species.

The Gulf Coastal Lowlands consists of a poorly drained, triangular area in the southern portion of the basin that lies between the Coastal Swamp region and the cliffs of the Pamlico Scarp on the west, and the Brooksville Ridge on the east. It varies from 2 to 8 miles wide, and elevations range from sea level to about 100 feet. The topography consists of relatively flat coastal swamps, river valley lowlands, and rolling hills made up of eolian, or wind-sculpted, sand dunes. Soils comprise sands or clayey sands.

The Tsala Apopka Plain lies between the Brooksville Ridge and the Withlacoochee River within the recharge area of the coastal springs. It contains a large number of interconnected lakes that are divided by peninsulas and islands; these lakes are remnants of a much larger lake that once covered the entire Tsala Apopka Plain. Siliciclastic deposits cover the limestone surface, and elevations range from 35 to 75 feet. The soils are generally sandy and weakly cemented with organic matter.

### *Streams*

In the northern part of the basin, the principal waterbodies are the coastal, spring-fed Crystal, Homosassa, Chassahowitzka, and Weeki Wachee Rivers. All 4 rivers originate from first-magnitude springs near the coast, meaning that each spring discharges an average of 100 cubic feet

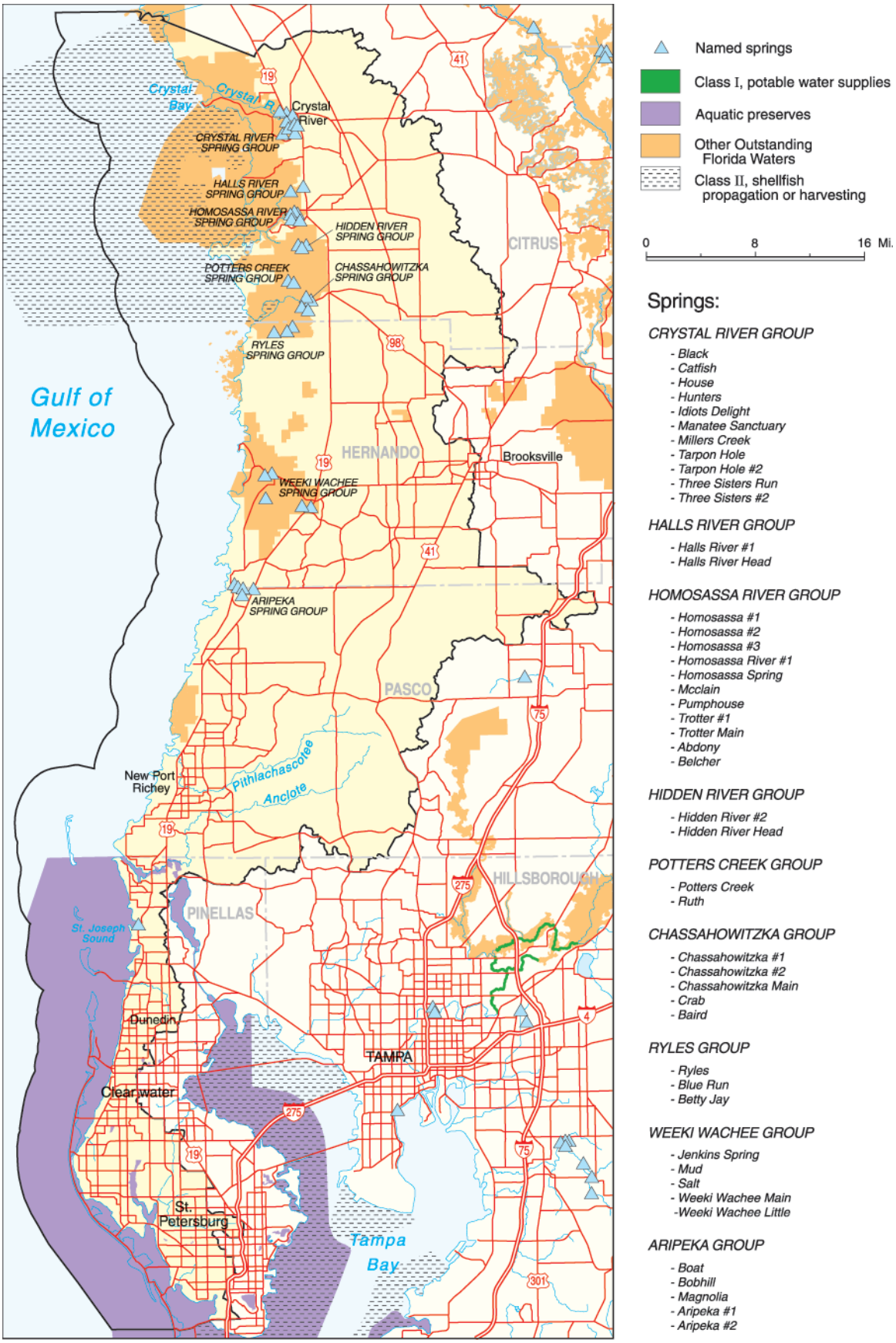
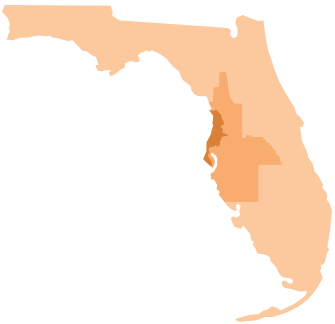



*Figure 2.2: Surface Water Resources of the Springs Coast Basin*



per second (cfs) or more. These rivers are typically less than 10 miles in length. As a result, only a limited amount of runoff is channeled from the upper basin to the rivers. Hammock Creek, at Aripeka, is a coastal system formed by several lesser-magnitude springs and swamp discharge.

In the southern portion of the basin, surface water drains either directly to the Gulf of Mexico or to the Pithlachascotee (Cotee) or Anclote Rivers.

The lack of rivers and streams in the interior of the Springs Coast Basin results from a well-developed underground drainage system in the underlying limestone. Most of the area has a well-developed karst topography, with hundreds of shallow depressions, sinkholes, circular lakes and ponds, and active springs. Precipitation falling on the Brooksville Ridge rapidly moves underground through numerous sinkholes and fissures, and begins moving towards the Gulf of Mexico through an extensive system of conduits.

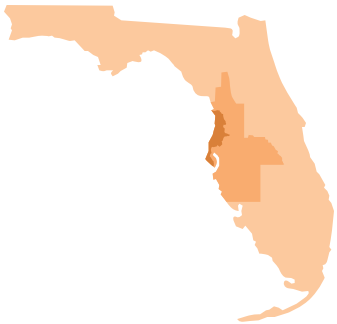
Crystal River and Kings Bay are located in Citrus County approximately 60 miles north of Tampa. The tidally influenced Kings Bay is the headwater of the Crystal River, which forms at the northwest corner of the bay. Six miles west of Kings Bay, the river ends at the Gulf of Mexico. The Crystal River/Kings Bay system, the fourth largest of the 33 first-magnitude springs in Florida, contains a cluster of at least 30 springs. While other spring systems in the state are also tidally influenced, the presence of the 600-acre Kings Bay embayment makes this hydrologic system unique.

Like Crystal River, the Homosassa River is a coastal, spring-fed river and estuarine system located in west Citrus County. The river extends approximately six miles from its headwaters at Homosassa Springs to the Gulf of Mexico. The Homosassa's major tributary is Halls River.

The Chassahowitzka River is located in southwestern Citrus County approximately six and one half miles south of Homosassa and just north of the Citrus/Hernando County line. The river is fed by numerous springs and fluctuates seasonally with ground water levels. Crab Creek, Cabbage Creek, Baird Creek, Salt Creek, Potter Creek, Crawford Creek, Blue Run, Ryle Creek, and May Creek all flow directly to the Chassahowitzka River, while Chub Creek and Blind Creek flow to the Gulf of Mexico.

The Weeki Wachee River is located in southwest Hernando County, approximately 12 miles southwest of the city of Brooksville. Weeki Wachee Springs is the headwaters of the river and the largest of 9 springs associated with the Weeki Wachee system. The springs were developed as a commercial attraction featuring "live mermaids." The Weeki Wachee River extends westward through approximately 7.5 miles of predominantly lowlands (coastal swamps and marshes) to the Gulf of Mexico. Its 2 principal tributaries are the Mud River and Jenkins Creek.

The Hammock Creek system includes several small springs clustered in a one-square-mile area in southwestern Hernando County, near Aripeka. Hammock Creek, approximately one mile in length, is joined by several lesser tidal creeks before reaching the Gulf of Mexico at the town of Aripeka. The springs either discharge directly into Hammock Creek or



discharge into the lesser creeks flowing into Hammock Creek. The creek's water is brackish nearly to the headsprings.

The Pithlachascotee River (Cotee River) starts in Hernando County as channeled flow through the Masaryktown Canal. It then flows southwest to its headwaters, Crews Lake, through an area of interconnected lakes and sinkholes in south-central Hernando County, near Brooksville. From there, it flows about 25 miles through a poorly defined channel to the Gulf of Mexico at Port Richey. The river includes both estuarine and freshwater reaches. As it flows, substantial amounts of water drain underground to the Floridan aquifer. The river has very low base flow. During low-flow conditions, most of its water comes from ground water seepage. During high-flow conditions, surface water runoff constitutes most of the flow.

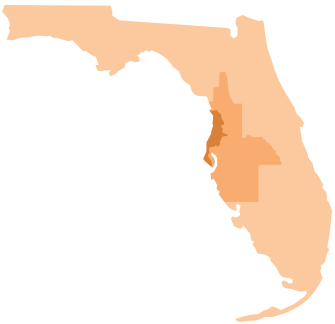
The Pithlachascotee watershed contains numerous water table marshes and lakes, including Crews Lake. These fluctuate with ground water levels and may disappear completely during dry spells or with heavy ground water pumping.

The Anclote River originates in swampy lowlands in south-central Pasco County, east of New Port Richey, and from there meanders in a southwesterly direction, entering the Gulf of Mexico just north of Tarpon Springs. The lower reach of the Anclote River is a tidal estuary that flows into Anclote Anchorage, a shallow area of seagrass beds to the east of Anclote Key. Tidal influences extend as much as 14 miles up the river. The mean depth of the lower river is just over 3 feet, except for a dredged shipping channel about 15 feet deep that extends from Tarpon Springs to the river mouth. Salinity at the river mouth ranges from 0.8 to 32.7 parts per thousand, depending on rainfall and tidal flows.

### *Springs*

The Springs Coast Basin contains 4 major spring complexes, which occur because of the region's karst geology. A spring complex is a group of springs, often spread out over several square miles, that are discharge points for ground water in a discrete ground water basin. Combined, these 4 complexes discharge approximately 900 million gallons per day (mgd) from the Floridan aquifer system. Rainfall, the primary recharge mechanism for the aquifer, averages 56 inches per year.

Spring flow is a major discharge mechanism for the aquifer, accounting for 64 to 84 percent of the total recharge input. The Crystal River/Kings Bay Springs Complex, the largest such complex in the basin, discharges approximately 630 mgd. The three other major springs—Weeki Wachee, Chassahowitzka, and Homosassa—discharge 113, 90, and 68 mgd, respectively. Other large springs in the basin include Ruth Spring, Salt Spring, Little Springs, Bobhill Springs, Magnolia Springs, Horseshoe Spring, and Salt Springs, Wall Springs, Crystal Beach Springs (which is located about 1,000 feet offshore), and Tarpon Springs (which is tidally influenced and can reverse flow).



### *Lakes*

Including Crews Lake, which covers approximately 693 acres, there are approximately 137 lakes in the Springs Coast Basin, with a surface area totaling approximately 1,503 acres. Of this acreage, 555 acres is made up of lakes smaller than 10 acres. In addition to Crews Lake, other large lakes in the basin include Hunters Lake, Weeki Wachee Prairie Lake, Hog Pond, Grear Hope Pond, Tooke Lake, and Lake Seminole.

Most of the basin's lakes, springs, and ponds occur in shallow depressions on the land surface. Their surface area varies considerably with seasonal changes in rainfall: they cover large areas during the wet season and, in some cases, dry up completely during the dry season or in times of drought. Many of these wetland areas are marshes rather than lakes. The marshes are hydraulically connected to the water table aquifer, and the fluctuations in surface water elevation are directly related to changes in the water table.

Several lakes in the basin are directly connected to the underlying Floridan aquifer by sinkholes in the lake bottoms. Crews Lake, the largest of these waterbodies, has a sinkhole located in the north part of the lake. The lake level has varied seasonally at least since the mid-1800s. During very dry years, the lake has been completely drained through the sinkhole.

Lake Seminole, which covers 980 acres and averages about 5 feet in depth, was formerly the upper reach of Long Bayou. In 1950, a dam was built across the bayou severing the hydraulic connection and eliminating tidal flushing.

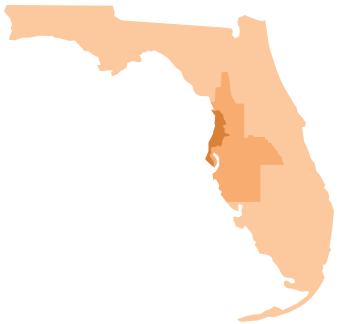
Until 1967, Lake Tarpon, the largest lake in the county at 2,534 acres, was connected hydrologically to Spring Bayou, which flowed into the Anclote River. However, the U.S. Army Corps of Engineers dammed the lake to control saltwater intrusion. The lake now discharges through an artificial control structure into Tampa Bay near the city of Safety Harbor.

### *Nearshore Estuary*

The northern portion of the Springs Coast Basin has no classic estuaries, where brackish waters are separated from the ocean by physical barriers such as islands. In many ways, however, this coastal area functions like an estuary, with its shallow waters, abundant freshwater flows, and low-energy shoreline. Seagrass beds cover almost the entire nearshore area along the northern portion of the basin, and extensive oyster reefs are also present.

From the Anclote River southward to the mouth of Tampa Bay, a 45-mile-long chain of barrier islands parallels the coast, creating sheltered, open saltwater areas and associated shallow-water features such as salt marshes, beaches, seagrass meadows, and tidal flats. Historically, drainage to these estuarine areas came mainly from sheet flow across the land surface, bayous, and small tidal creeks. This stretch of coastline, however, is now intensively developed and receives large amounts of drainage from urban stormwater systems.

In the Springs Coast Basin, the nearshore estuarine area covers about 996 acres. Although this region is a defining surface water feature in the basin, its significance far exceeds its areal extent. It provides essential habitat for many fish and wildlife species, including nursery and juvenile



habitat for many recreational and commercial fish species. The economic value of commercial seafood harvests on Florida's west coast consists of at least 95 percent estuary-dependent species.

The estuary's wetland vegetation helps to maintain or improve water quality by filtering and assimilating many waterborne pollutants and stabilizing bottom sediments. It also provides a buffer between developed shorelines and the open waters of the Gulf of Mexico that can absorb some of the destructive impact of storm-generated winds and tidal surges. Much of the shoreline of Hernando and Citrus Counties is provided additional protection by a long band of hydric hammock forest occurring just inland of the estuary.

## *Surface Water Quality Classifications*

Florida's water quality standards, the foundation of the state's program of water quality management, designate the "present and future most beneficial uses" of the waters of the state (Subsection 403.061[10], Florida Statutes [F.S.]). Water quality criteria for surface water and ground water, expressed as numeric or narrative limits for specific parameters, describe the water quality necessary to maintain these uses. Florida's surface water is classified using the following five designated use categories:

| | |
|---|---|
| Class I | Potable water supplies |
| Class II | Shellfish propagation or harvesting |
| Class III | Recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife |
| Class IV | Agricultural water supplies |
| Class V | Navigation, utility, and industrial use (there are no state waters currently in this class) |

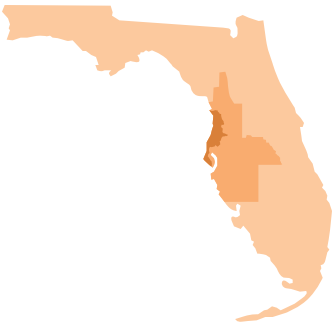
All of the waters in the Springs Coast Basin are Class III, marine or fresh waters, except for a portion of Crystal River (waterbody identification number 1341), which is a Class II water.

## *Special Designations*

### Outstanding Florida Waters

The following waterbodies in the basin have been given additional protection through designation as Outstanding Florida Waters (OFWs): Crystal River and Kings Bay, Chassahowitzka River, Crab Creek, Cabbage Creek, Baird Creek, Salt Creek, Potter Creek, Crawford Creek, Blue Run, Ryle Creek, May Creek, Chub Creek, Blind Creek, and Weeki Wachee River. In addition, all of the lakes and streams in Pinellas County are OFWs.

OFWs are designated for "special protection due to their natural attributes" (Section 403.061, F.S.). These waters are listed in Section 62-302.700, Florida Administrative Code (F.A.C.). The intent of an OFW designation is to maintain ambient water quality, even if these designations are more protective than those required under the waterbody's surface water classification. Most OFWs are associated with managed areas in the state or federal park system, such as aquatic preserves, national seashores, or



wildlife refuges. Other OFWs may also be designated as "Special Waters" based on a finding that the waters are of exceptional recreational or ecological significance, and are identified as such in Rule 62-302, F.A.C.

### Surface Water Improvement and Management Priority Waters

Crystal River/Kings Bay has been designated as a Surface Water Improvement and Management (SWIM) priority waterbody for restoration. The original SWIM plan for the river and bay was prepared and approved in 1989, and the plan was updated in 2000.

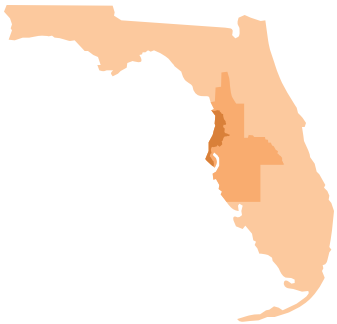
In 1987, the Florida legislature created the SWIM Program to restore waterbodies. The initial legislation identified 6 priority waterbodies—Lake Apopka, Tampa Bay, Indian River Lagoon, Biscayne Bay, Lower St. Johns River, and Lake Okeechobee. Today, SWIM plans have been developed for 30 waterbodies statewide. The SWIM Program addresses a waterbody's needs as a system of connected resources, rather than isolated wetlands or waterbodies. The state's 5 water management districts work with federal, state, and local governments and the private sector to develop and implement SWIM plans to restore damaged ecosystems, prevent pollution from runoff and other sources, and educate the public.

### Minimum Flows and Levels

**Table 2.3** lists the 1999 priority schedule for minimum flows and levels (MFLs) in the Springs Coast Basin. Of particular concern is the impact of ground water development on coastal spring discharges and freshwater flows to the coastal estuaries. The Springs Coast Basin is internally drained, and the upper Floridan aquifer is the primary source of water

**Table 2.3: 1999 Priority List and Schedule for MFLs in the Springs Coast Basin**

| |
|---|
| **2000** |
| Pasco County lake (Big Fish) |
| **2001** |
| Pasco County lakes (Bird, Moon, Linda, and Pasadena) |
| Hernando County lakes (Hunters, Lindsey, Mountain, Neff, Spring, and Weeki Wachee Prairies) |
| **2002–2005** |
| Weeki Wachee River system |
| Pasco County lakes (Padgett, Parker aka Ann, Green, Bell, Clear, and Hancock) |
| **2006–2010** |
| Anclote River system |
| Pithlachascotee River system |
| **2011–2015** |
| Crystal River system |
| Homosassa River system |
| Chassahowitzka River system |



to its numerous coastal springs, which in turn are the principal source of surface flow in the coastal rivers area. Approximately 1.3 billion gallons of water are discharged from the coastal springs daily.

Minimum levels may also be established for some lakes and wetlands to prevent them from being lowered in response to ground water withdrawals.

Under the Florida Watershed Restoration Act (FWRA) (Chapter 373, F.S.), an MFL is the limit at which further water withdrawals will cause significant harm to the water resources of the area and related natural systems. Consumptive use and alterations to their watersheds have reduced or have the potential to reduce the amount and timing of surface water being delivered. Projected increases in withdrawals also could reduce future flows and levels.

To help determine the amount of water that is available for environmental and human uses, the SWFWMD must determine MFLs. Lakes and aquifers have minimum levels. Minimum flows are set for rivers and streams.

## Ground Water Resources

### *Aquifers*

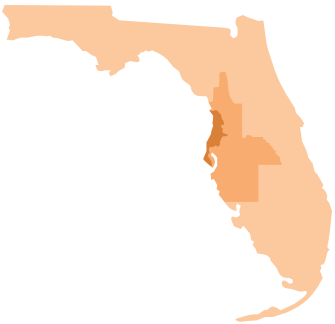
#### Geology

The geology of the Springs Coast Basin is relatively simple, with thick sequences of limestone exposed at or very near (10 to 20 feet) the land surface in the eastern and western portions of the basin. Where the limestone is near the land surface, the thin veneer of sediment covering the limestone consists of unconsolidated deposits of primarily quartz sand. These sands are marine terrace deposits and coastal dune trains. Dunes are prevalent in the Coastal Lowlands and along the flanks of the Brooksville Ridge.

The limestone units include the Suwannee Limestone of Oligocene age and the Ocala Limestone of Eocene age. Underlying these exposed limestone units is the Avon Park Formation of Eocene age. The Avon Park Formation is the deepest formation containing potable water. The Suwannee and Ocala Limestones and the Avon Park Formation comprise the Floridan aquifer system in the basin.

In the Brooksville Ridge area, the Floridan aquifer system is overlain by undifferentiated quartz sand and sediments of the Hawthorn Group. The Hawthorn Group sediments were deposited in a variety of environments and consist of sand, silty sand, and waxy green clay. Phosphorite pebbles and fossil oyster bars are common. Between Brooksville and the Hernando/Citrus County line to the north, the Hawthorn sediments have largely been eroded off the Brooksville Ridge, and the limestone is exposed or near the land surface in many of the high areas.

Karst processes play a dominant role in moving ground water through the Floridan aquifer system in the basin. The four physiographic regions (the Coastal Swamp, Gulf Coastal Lowlands, Brooksville Ridge, and Tsala Apopka Plain) in or adjoining the spring recharge zone are areas of intensive karst development characterized by numerous sinkholes, a lack of surface drainage, and undulating topography. In karst areas, the dissolution of



limestone creates and enlarges cavities along fractures in the limestone that eventually collapse and form sinkholes. Sinkholes capture surface water drainage and funnel it underground, which promotes further dissolution of the limestone. This leads to the progressive integration of voids beneath the surface and allows larger and larger amounts of water to be funneled into the underground drainage system.

Dissolution is most active at the water table or in the zone of water table fluctuation, where carbonic acid contained in atmospheric precipitation and generated by reaction with carbon dioxide in the soil reacts with limestone and dolostone. Because the elevation of the water table shifted in response to changes in sea level, many vertical and lateral paths have developed in the underlying carbonate strata in the basin. Many of these paths or conduits lie below the present water table and greatly facilitate ground water flow.

### Surficial Aquifer System

The surficial aquifer system in the basin consists of quartz sand, silty sand, and clay. The surficial aquifer is most likely to occur as a distinct hydrostratigraphic unit along the Brooksville Ridge, where the low-permeability clays of the Hawthorn Group retard the downward movement of water into the Floridan aquifer system. The collapse of the underlying limestone, however, has produced numerous breaches in the clays that act as vertical conduits for the movement of water from the surficial to the Floridan aquifer system. The Hawthorn sediments are also not widespread between Brooksville and the Hernando–Citrus County line.

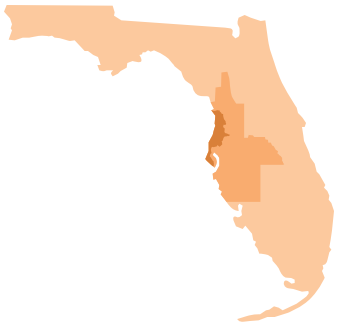
In areas where saturated sand lies directly above the limestone, water in the sand is hydraulically connected to the Floridan aquifer. Since the majority of the basin has no extensive confining layer, most of the region does not have a surficial aquifer, although surficial sands are present.

### Floridan Aquifer System

The Floridan aquifer system is divided into two major hydrostratigraphic horizons: the upper Floridan, which contains potable water, and the lower Floridan, which is saline. This discussion focuses on the Upper Floridan aquifer, which is the principal source of water for the springs in the basin, as well as domestic, agricultural, and industrial supplies.

The thickness of the potable water zone in the Floridan aquifer in the basin ranges from more than 900 feet in south-central Pasco County, to less than 200 feet along the Withlacoochee River in southeastern Citrus County, to less than 100 feet along the coast. A general uniform thinning of the Upper Floridan's potable zone occurs from south to north across the basin. The vertical extent of potable ground water inland is controlled by the occurrence of gypsum-bearing carbonates of the middle confining unit, and the presence of sulfate-rich waters derived from the dissolution of sulfate minerals at the top of the unit. The average thickness of the potable zone in the Floridan aquifer is 400 to 600 feet in Hernando County and 200 to 300 feet in Citrus County.

The Springs Coast Basin is mostly contained within the Northern West-Central Florida Groundwater Basin. The southwestern portion of the



basin is situated in the Central West-Central Florida Groundwater Basin. Ground water in both basins derives from rainfall. Approximately 1,700 mgd of ground water discharge from 27 coastal springs.

The recharge potential for the Floridan aquifer in the basin is primarily controlled by the thickness and composition of the surficial sediments overlying the aquifer and the presence of karst topography. Other factors affecting recharge rates include the development of surface drainage; variations in head gradients between surface water, the surficial aquifer system, and the Floridan aquifer system; and aquifer permeability.

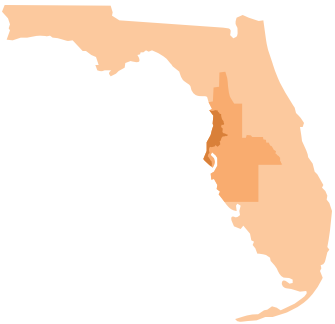
Generally, high recharge rates occur where limestone is near the land surface, or where overlying sediments are lacking in low-permeability confining materials. The presence of sinkholes, with their associated internal drainage of surface water, also induces higher recharge to the Floridan aquifer system. Lower recharge rates occur where confining materials overlying the aquifer retard the downward vertical movement of water, or where an upward gradient is present between the Floridan and surficial aquifer systems.

Recharge is variably low to nonexistent in the Coastal Swamp region, with estimated recharge values of -9 inches (discharge) to 11 inches per year. This is primarily an area of regional Floridan aquifer discharge, with only localized recharge over very short distances contributing to spring discharge. Recharge in the Tsala Apopka Plain is similarly low, due to a diminished downward vertical gradient between surface waters or the surficial aquifer and the Floridan aquifer. Ground water discharge also occurs along sections of the Withlacoochee River south and east of Tsala Apopka.

Accordingly, recharge estimates in the region range from less than 1 inch to 9 inches per year. Moderate to high recharge occurs in the Coastal Lowlands and Brooksville Ridge physiographic regions. Potential recharge of 3 to 16 inches occurs in the Coastal Lowlands, with 7 to 11 inches reported over land areas near the spring complexes.

Recharge estimates in the Brooksville Ridge region are very high, ranging from 9 to 22 inches per year, because this area contains karst terrain with internal drainage to the upper Floridan aquifer. Sinkholes are abundant, the land surface is generally very well drained, and the water table is relatively deep. Surface waters are not abundant, and there are no permanent streams or extensive wetlands. These factors maximize recharge, because infiltration is rapid and surface runoff is nonexistent.

The vulnerability of the Floridan aquifer system in the basin correlates with recharge estimates. Because of the porous karst terrain, the potential for ground water contamination in the Brooksville Ridge area is very high. The rest of the basin has a high ground water contamination potential. This does not indicate that ground water contamination will occur, only that it could occur if pollutant sources were present. Potential pollutant sources in the Springs Coast Basin include landfills, borrow pits, stormwater ponds, septic systems, wastewater treatment facilities, and urban and agricultural runoff. Ground water may also be contaminated through the inadvertent release or spilling of industrial or agricultural chemicals or waste products.



## Ground Water Usage

Water supply in the Springs Coast Basin is derived principally from the upper Floridan aquifer. In 1996, ground water use in the basin was estimated at 80 mgd, or 94 percent of total water use, compared with 5.5 mgd of surface water. Hernando County accounted for about 45 percent (38.3 mgd) of total water use, compared with 40 percent for Pasco County and 15 percent for Citrus County. The largest use of water was for potable supply (57.9 mgd, or 68 percent). About 30.8 mgd are withdrawn from within Pasco County for potable supply. The basin contains more than 500 public supply wells, according to the Department's Public Water System (PWS) database. The largest wellfields are operated by Hernando County West Utilities (33 wells), Pinellas County Utilities (31 wells), Hudson Waterworks (17 wells), and Tampa Bay Water (17 wells).

Public supply constitutes the greatest water use in the basin, with mining activities a distant second. In addition, 2 wellfields in Pasco County serve as a major source of public water supply for the Tampa Bay area (which lies outside the basin) through Tampa Bay Water: the Cross Bar Ranch and North Pasco wellfields. Rates of ground water withdrawals from these facilities in 1996 were 20.2 mgd and 1.6 mgd, respectively. Most of the area supplying Tampa Bay Water that falls within the Springs Coast Basin is considered unsuitable for future ground water development. In some areas, such as Pasco County, wetlands are drying up as a result of pumping. Large ground water withdrawals in coastal Pasco, Hernando, and Citrus Counties have also increased saltwater intrusion and the contamination of water supplies. **Figure 2.3** shows public supply wells in the PWS database.

In 1998, the SWFWMD conducted a water supply assessment for 4 regions within its boundaries. The majority of the Springs Coast Basin was contained in the northern water supply planning region, which includes Citrus, Hernando, and Sumter Counties and portions of Marion, Levy, and Lake Counties. Water supply demands for the northern region were projected to grow from 186.4 mgd in 1995 to 246.1 mgd in 2020, an increase of about 60 mgd (32 percent).

**Tables 2.4 through 2.7** list estimated past and projected water use for Citrus, Hernando, Pasco, and Pinellas Counties, respectively.

### *Water Use Caution Areas*

In 1989, the SWFWMD designated the Northern Tampa Bay Water Use Caution Area (WUCA), which includes the southernmost portion of the Springs Coast Basin (southern Pasco County and Pinellas County).

Under Section 373.036, F.S., and Subsection 62-40.520(1), F.A.C., each water management district in the state must identify WUCAs in which potential water shortages, considerable reductions in water levels, saltwater intrusion, or other degradations may occur within 20 years, and must develop management plans to address their water resource problems. In these areas, existing and anticipated sources of water and conservation efforts may not be adequate to supply water for all existing legal uses and reasonably anticipate future needs, and still sustain water resources and

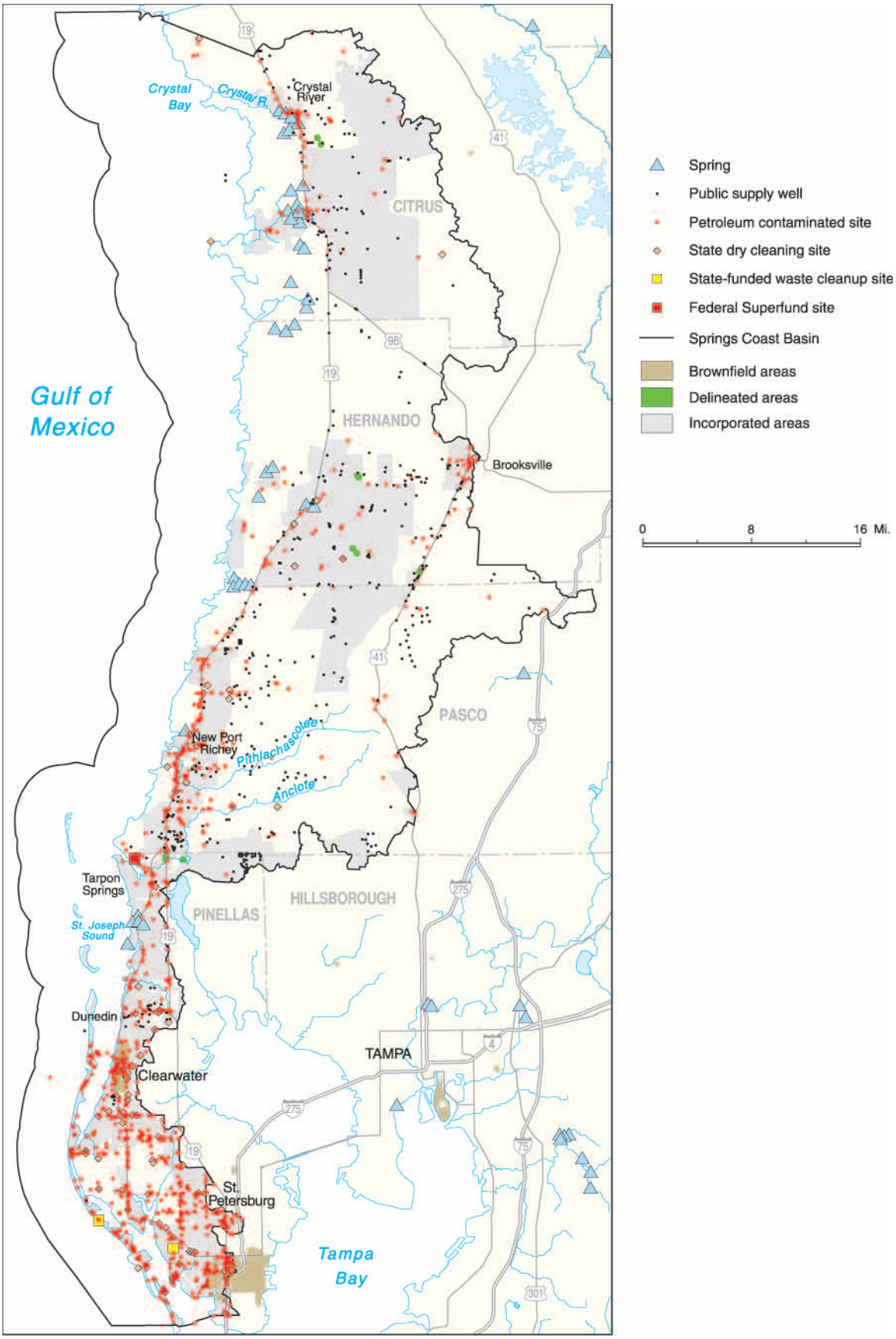



*Figure 2.3: Ground Water Usage and Known Contaminant Sources in the Springs Coast Basin*

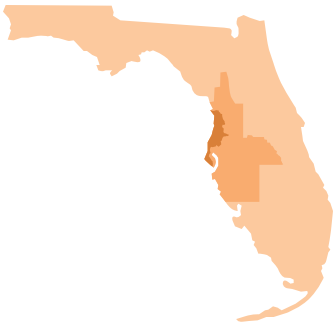


**Table 2.4: Citrus County Water Use (mgd)**

| Category | 1990 | 2000 | 2010 |
|---|---|---|---|
| Domestic Self-Supply | 5.9 | 6.2 | 7.9 |
| Public Supply | 8.5 | 16.9 | 20.2 |
| Agricultural | 2.6 | 3.0 | 3.4 |
| Industrial/Commercial | | | |
| Nonmining | 0.0 | 0.0 | 0.0 |
| Mining | 0.9 | 2.0 | 2.0 |
| Power Generation | 1.6 | 2.6 | 2.6 |
| Recreation | 3.0 | 4.3 | 5.3 |
| Total | **22.5** | **35.0** | **41.4** |

**Table 2.5: Hernando County Water Use (mgd)**

| Category | 1990 | 2000 | 2010 |
|---|---|---|---|
| Domestic Self-Supply | 1.3 | 1.7 | 2.2 |
| Public Supply | 15.1 | 23.4 | 28.5 |
| Agricultural | 4.1 | 5.3 | 7.7 |
| Industrial/Commercial | | | |
| Nonmining | 0.7 | 0.7 | 0.7 |
| Mining | 7.8 | 8.7 | 8.7 |
| Power Generation | 0.0 | 0.0 | 0.0 |
| Recreation | 3.0 | 4.1 | 5.1 |
| Total | **32.0** | **43.9** | **52.9** |

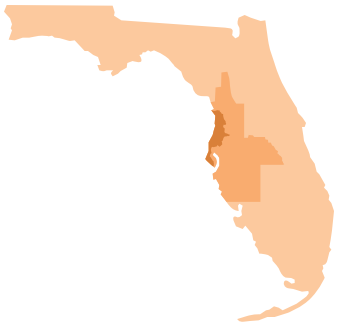
**Table 2.6: Pasco County Water Use (mgd)**

| Category | 1990 | 2000 | 2010 |
|---|---|---|---|
| Domestic Self-Supply | 9.7 | 10.7 | 9.8 |
| Public Supply | 27.7 | 37.7 | 48.4 |
| Agricultural | 20.6 | 39.1 | 46.1 |
| Industrial/Commercial | | | |
| Nonmining | 8.0 | 8.0 | 8.0 |
| Mining | 11.2 | 3.0 | 3.0 |
| Power Generation | 0.0 | 0.0 | 0.0 |
| Recreation | 4.8 | 6.3 | 7.3 |
| Total | **82.0** | **104.8** | **122.6** |

**Table 2.7: Pinellas County Water Use (mgd)**

| Category | 1990 | 2000 | 2010 |
|---|---|---|---|
| Domestic Self-Supply | 3.7 | 0.4 | 0.4 |
| Public Supply | 118.1 | 116.0 | 125.7 |
| Agricultural | 1.3 | 0.5 | 1.1 |
| Industrial/Commercial | | | |
| Nonmining | 0.1 | 0.1 | 0.1 |
| Mining | 0.0 | 0.5 | 0.2 |
| Power Generation | 0.0 | 0.0 | 0.0 |
| Recreation | 5.1 | 5.4 | 6.9 |
| Total | **128.3** | **122.9** | **134.5** |

*Source:* SWFWMD, 1992.



related natural systems. Five constraints are considered in establishing these WUCAs:

- Impacts to native vegetation, primarily wetlands;
- Impacts to minimum flows and levels, primarily spring flows;
- Impacts to ground water quality in terms of increased saltwater intrusion;
- Impacts to existing legal users; and
- Failure to identify a source of supply for future development.

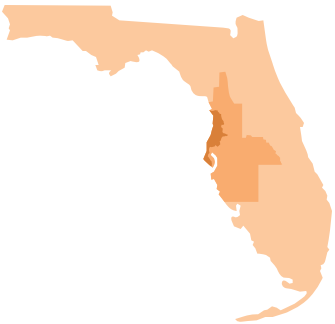
## *Ground Water Quality Issues*

Overall ground water quality in the Springs Coast Basin is very good. However, point and nonpoint source threats to ground water quality exist and may become greater concerns with population growth and changing land uses. A variety of waste sites, some of which are regulated by state and federal programs, threatens the potable ground water supply. However, the quality of ground water that discharges to springs and estuaries is also threatened by point sources of wastewater, as well as nonpoint source activities that add nutrients to the Floridan aquifer.

### Potential Threats to the Potable Water Supply

Ground water quality in the basin is affected in some areas by contaminant sources that are being addressed by several programs managed by the Department. **Figure 2.3** shows known sources of contamination in the Springs Coast Basin. Department databases include the following sites or facilities:

- **Federal Superfund Sites:** One Superfund site in the basin, Stauffer Chemical in Tarpon Springs, is on the National Priority List.
- **State Waste Cleanup Program Sites:** There are two state Waste Cleanup Program sites in the basin: Alaric, Inc. and APF Industries.



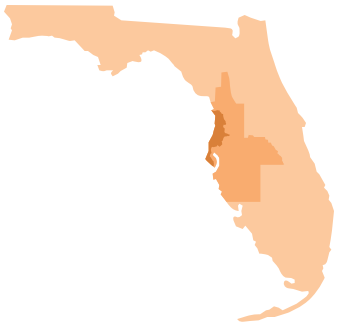
- **Petroleum Contamination Monitoring Sites:** The basin contains more than 1,600 known petroleum contamination monitoring sites. These sites are undergoing ground water monitoring and some are undergoing cleanup. Public or private drinking water supplies affected by petroleum contamination are protected in one of several ways: (1) the affected well is decommissioned, and water is provided from an alternative source, (2) treatment is provided at the water plant, or (3) for affected residential wells, activated carbon filters are installed to remove the contamination and meet drinking water standards.
- **State Dry Cleaning Program Sites:** About 77 dry cleaning program sites have been identified in the basin. Affected water supplies are being addressed as described for petroleum facilities.
- **Brownfield Sites:** Two brownfield sites have been identified: the Clearwater Area and the Young Rainey Star Center Area.
- **Delineated Areas of Ground Water Contamination:** Eight areas of ground water contamination have been identified by the Department's Delineation Program (regulated under Chapter 62-524, F.A.C., New Potable Well Permitting in Delineated Areas). The contaminant of concern is ethylene dibromide, an agrichemical and petroleum fuel additive that is now banned from use.

### Sources of Nutrients Threatening Ground Water Quality and Springs

A major concern in the Springs Coast Basin is the increased nitrate loadings observed in the major springs groups. While the dominant source of nitrate found in the springs is inorganic in nature (i.e., originating from the residential and commercial use of fertilizers), organic sources may still contribute significant quantities in other areas, or on a local scale. The agricultural application of fertilizers is also a potential source of inorganic nitrogen in the basin. Sources of organic nitrogen include sewage effluent disposal, the land disposal of sewage sludge or treated wastewater, effluent from septic tanks, agricultural activities (poultry, dairy, and cattle), and the application of potentially nutrient rich (with nitrogen and phosphorus) reclaimed water as irrigation.

Nutrient concentrations in the Floridan aquifer system in the basin are typically very low. Nitrate is easily leached into ground water, where it disperses through the aquifer system. Natural inputs of nitrogen (e.g., organic decay) have always supplied very low levels of nitrate to the aquifer. However, anthropogenic sources (e.g., fertilizers and septic tanks) are increasing the input of nitrates into the system.

As expected, nitrate concentrations are low in most areas of the basin; in southwestern Hernando County, however, the leaching of nitrogen has increased nitrate concentrations in the aquifer. Recent water quality studies indicate that 95 tons of nitrate per year are discharged from Weeki Wachee Springs. Also, the dramatic increase in nitrate concentrations in the spring since the early 1970s is most likely due to the increased human population in and near Spring Hill.



Recent studies show that the nitrate in the Floridan aquifer system originates from inorganic fertilizers applied to turf acreage near the four major spring complexes. However, the basin's growing population will likely increase the significance of organic sources of nitrogen, such as septic systems and wastewater treatment plants.

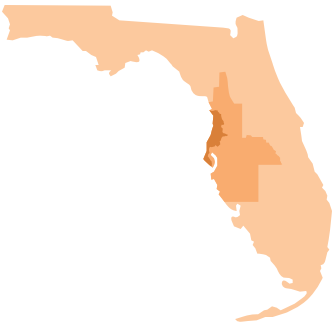
### *Ground Water–Surface Water Interactions*

The Brooksville Ridge is an area of high elevation, characterized by rolling sandhills, that extends along the eastern side of the Springs Coast Basin from north-central Citrus County south-southeastward through central Hernando County southeast through east Pasco County. Although the regional confining unit between the surficial aquifer and upper Floridan aquifer is thickest along the Brooksville Ridge, its integrity is variable in this area. Karst activity has created large breaches in the confining unit, many of which appear at the surface as relatively deep lakes. Due to the large head differences between the surficial and upper Floridan aquifers, the presence of sinkholes that breach the confining unit, and the availability of thick, surficial sands that act as reservoirs, recharge along the Brooksville Ridge can be quite high.

In karst areas such as this, the formation of a unique type of sinkhole called a solution pipe is common. Solution pipes are formed by the collapse of surficial material into long, vertical cavities that have been dissolved in the upper portion of the limestone. In most cases, a natural plug of sands and clays caps the solution pipes. If the cap is washed out, however, the resulting solution pipe sinkhole can act as a direct conduit for the movement of stormwater into the Upper Floridan aquifer. Solution pipe sinkholes often form in the bottom of stormwater retention basins, where the capping plug is thinner. Catastrophic failure can occur if the increased hydraulic pressure exceeds the capacity of the capping plug. Solution pipes act as natural drainage wells and can drain large stormwater basins.

Most of the springs in the basin lie in or near the freshwater/saltwater transition zone, a brackish zone in the Upper Floridan aquifer where seaward-moving fresh water meets landward-moving salt water. As a result of their proximity to the transition zone, many of the basin's springs discharge brackish water. The high salt content of many of these springs indicates that Gulf water has intruded through interconnected solution conduits gulfward of the springs. In general, springs located farther inland are farther from the transition zone and, therefore, have fresher water. A sharp boundary is not present in coastal aquifers because of mechanical dispersion and tidal or water level fluctuations caused by changes in recharge or pumpage over time. Instead, a dynamic equilibrium is established that causes fresh water and salt water to mix and form a transition zone.

There are approximately 140 active wastewater treatment facilities in the ground water basins of the Crystal, Homosassa, Chassahowitzka, Weeki Wachee, and Aripeka spring complexes. These facilities have a total permitted capacity of 15.6 mgd, and their average volume of processed wastewater is approximately 9.2 mgd. Effluent from treatment facilities is disposed of in several different ways. A majority uses percolation ponds. Several studies in the mid-1990s documented that some effluent percolation



ponds in the basin drain extremely rapidly because they have highly porous bottoms composed of clean, fine-grained filter material. Since low-permeability confining units are either not present in the basin, or are frequently breached by sinkholes, treated effluent can rapidly percolate directly into the Floridan aquifer system.

In Citrus County, levels of nitrate exceeding drinking water standards were detected in numerous wells monitoring large effluent percolation ponds. The effect of effluent on the Homosassa and Chassahowitzka spring complexes is probably insignificant, however, because the amount of nitrogen contributed from effluent in these ground water basins is low. In the Weeki Wachee ground water basin, the nitrogen from effluent is high, but the treatment plants are dispersed over a very large area and most are located far from the spring. Also, the low nitrogen isotopic ratios in the springs indicate an inorganic source, most likely from fertilizer application. In the Aripeka ground water basin, the nitrogen from effluent may contribute some nitrogen to the Aripeka Springs Complex, because the Hudson wastewater treatment plant is located approximately 3.5 miles from the spring. However, the plant is probably not the dominant nitrogen source because, like Weeki Wachee Springs, the low nitrogen isotopic ratios indicate an inorganic fertilizer source.

## Major Water Quality Trends

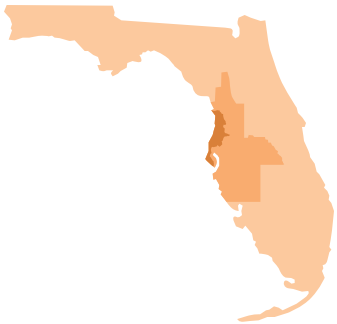
### *Nitrate Contamination in Spring Discharges*

Nitrate concentrations have been increasing in a number of major spring groups in the SWFWMD, including Homosassa, Chassahowitzka, and Weeki Wachee Springs. The most dramatic increase in nitrate occurs in the Weeki Wachee main spring, where concentrations have increased from less than 0.02 mg/L in 1946 to 0.88 mg/L in 2004.

Nitrate concentrations in ground water in undeveloped areas of Citrus, Hernando, and Pasco Counties were compared with nitrate concentrations in ground water discharging from the springs. The spring water concentrations exceeded natural background ground water concentrations. Since the enrichment of nitrate to the level occurring in the spring water does not result from natural processes, human-induced contamination of the ground water must be occurring somewhere within the recharge area of the springs.

Although the nitrate concentrations (0.18 to 0.88 milligrams per liter) in the coastal springs of Citrus, Hernando, and Pasco Counties are considerably lower than those of springs in the surrounding basins, such as Lithia, Buckhorn, and Rainbow Springs, they are still of great concern. Even at these low concentrations, water discharging at the rate of approximately 900 cfs from the main springs and smaller, surrounding springs contains an annual nitrate load of over 360 tons. This nitrate is rapidly delivered by the coastal rivers to the estuaries along the Gulf Coast. As nitrate concentrations continue to rise, it is likely that algae blooms will increase in frequency and duration, and the vegetative composition of these estuarine aquatic systems will be altered.

The water discharging from the springs has probably not been in the aquifer for more than a few decades at most. Nitrogen isotopic data



suggest that the dominant source of nitrate currently discharging from the springs is inorganic. Residential and golf course turf and landscape fertilizers are the likely sources. Organic sources, although regionally less significant, may still elevate nitrate concentrations to high levels on a local scale. Organic sources include naturally occurring organic decay, sewage effluent disposal, land disposal of sewage sludge, effluent from septic tanks, and land disposal of septage sludge, poultry, dairies, and cattle.

## Watershed Management Activities and Processes

Over the years, management plans and activities in the basin have been implemented to eliminate wastewater discharges; reduce discharges of polluted stormwater from urban and agricultural areas; and protect, preserve, and restore special areas. The following section describes historical, current, and ongoing activities and processes to address water quality problems.

Much of the progress in the Springs Coast Basin for developing water quality restoration plans and implementing watershed and water quality improvements is attributable to coordinated local, state, and regional efforts. Many plans share common goals, and their implementation is based on various groups playing critical roles in planning, funding, managing, and executing projects. The Department continues to coordinate its efforts with these entities to obtain data, strengthen monitoring activities, and exchange information through periodic meetings.

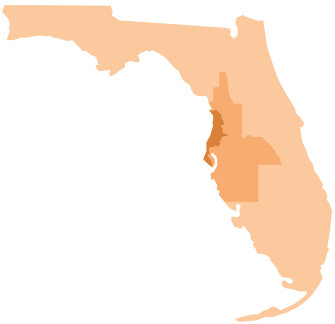
### *Major Programs and Projects*

A number of major restoration initiatives, if continued, will have significant positive effects on the basin's water quality.

#### Crystal River/Kings Bay Surface Water Improvement and Management Plan

As discussed earlier, the original Crystal River/Kings Bay SWIM Plan was prepared and approved in 1989, and the plan was updated in 2000. Many of the projects identified in the original SWIM plan were for studies and data collection efforts—diagnostic tools for resource managers—designed to provide an insight into the intricacies of the system. An emphasis was placed on the development of a comprehensive understanding of the water chemistry of Kings Bay and Crystal River.

The results of this diagnostic work provided the necessary technical information to develop the management strategies for the 2000 SWIM plan update. Ongoing work on five coastal rivers (including Crystal River) and their nutrient assimilative capacity may recommend expanding management actions farther down the rivers and perhaps to the nearshore gulf systems.



The Crystal River/Kings Bay SWIM Plan has established the following goals:

- Achieve and maintain water clarity that will provide an annual average horizontal Secchi reading of 45 feet,
- Stabilize or remove the sediment from areas that have been demonstrated to contribute to reduced water clarity as a result of sediment resuspension,
- Revegetate denuded areas with desirable submerged aquatic vegetation, and
- Restore vital aquatic habitat.

Proposed projects in the SWIM plan include the improvement of stormwater management systems for sediment and debris control, the removal of accumulated sediment from targeted areas of Kings Bay, revegetation following sediment removal, water quality monitoring, and removal of accumulated *Lyngbya* sp. from targeted areas of Kings Bay.

### Land Acquisition

Several agencies have land-buying programs in the basin. These include the Department's Conservation and Recreation Lands Program, the SWFWMD's Save Our Rivers (SOR) Program, and Preservation 2000 and its successor, Florida Forever. The lands targeted for acquisition include riverine swamps and flood conveyance corridors, particularly those downstream of flood detention areas, those in areas of heavy development pressure, or those adjacent to other SWFWMD or public land holdings. Usually, these land acquisition programs emphasize the preservation of natural systems and the enhancement/preservation of water quality. However, since the lands purchased are often flood-prone wetland areas, the acquisitions also prevent development in historical flood storage areas.

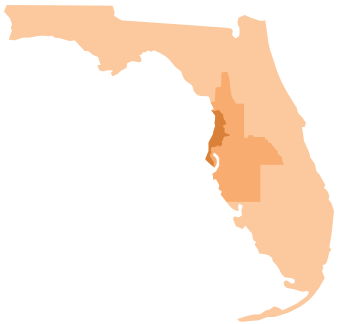
A number of sites in the Springs Coast Basin have been formally evaluated by SOR and approved for acquisition. These include the Chassahowitzka Riverine Swamp Sanctuary, Weeki Wachee Preserve, Annutteliga Hammock, Starkey Wilderness Preserve, Pasco 1, and Hidden Lake Property. The acquisition of the Annutteliga Hammock and Pasco 1 projects is ongoing, while the purchase of the other projects has been completed.

In 1990, Penny for Pinellas was created. The principal goal of this one-cent local option sales tax is to make funds available for the county's endangered lands program. In 1997, voters extended the tax for 10 years.

### Nitrate Remediation Workgroup

The Springs Coast Comprehensive Watershed Management team initiated the Nitrate Remediation Workgroup to address impacts to the region's springs and drinking water sources caused by increasing nitrate levels in ground water and surface water. The workgroup is composed of citizens, industry, and government representatives, including the SWFWMD.

In 2001, more than 2,900 surveys were mailed to residents in the Chassahowitzka, Homosassa, Kings Bay, and Weeki Wachee areas to help



determine how homeowners in the area fertilize and water their lawns and gardens. The information gathered was used to develop an educational program on fertilization and irrigation practices for homeowners, in order to reduce water quality impacts to the basin's springs and spring-fed rivers.

### Pasco County Watershed Management Plan

The Anclote River Watershed Master Plan (Phase I) was completed in February 2001 by Camp Dresser & McKee Inc. for Pasco County under a cooperative project with the SWFWMD. Phase I includes the development of a stormwater model of the watershed and preparation of flood insurance maps. The next phase will address water quality and natural systems.

### Pinellas County Watershed Management Plan

In 1989, Pinellas County began a program of surface water management based on the watershed boundaries of its 52 watersheds. The watershed management planning initiatives that evolved from this were comprehensive in nature including flood control, erosion control, conservation, water quality restoration and protection, natural systems conservation and restoration, and the protection of coastal water quality, biodiversity, and estuarine productivity. The county's Stormwater Management Plan incorporates these aspects of water resource planning into a single comprehensive plan.

Additionally, in 1993 the county developed a priority order for the development of individual plans for the 52 watersheds. By 1995, the county had completed basin studies for Belleair Creek, Bishop Creek, Mullet Creek, Allen's Creek, and Lake Tarpon basin/watersheds. Most recently, the Lake Seminole Watershed Management Plan was completed. The plan provides a detailed restoration plan for the watershed and lake.

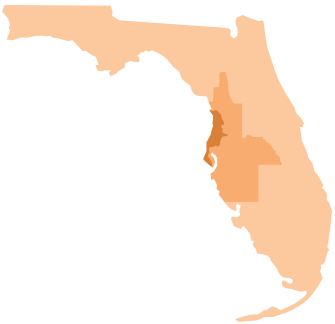
### City of Clearwater

The city of Clearwater has completed two watershed management plans with water quality sections. The first plan was completed in June 1997 for the Alligator Creek watershed. The second was completed in August 2001 for the Stevenson's Creek watershed. The city published a surface water quality monitoring report until 1995.

### Agricultural Best Management Practices

The FWRA authorizes the Florida Department of Agriculture and Consumer Services (DACS) to develop interim measures and agricultural best management practices (BMPs). Additional authority for agricultural BMPs is provided in legislation on nitrates and ground water (Section 576.045, F.S.), the Lake Okeechobee Protection Program (Section 373.4595, F.S.), Agricultural Water Conservation (Section 570.085, F.S.), and Florida Right to Farm Act Amendments (Section 823.14, F.S.). While BMPs are often adopted by rule, they are voluntary if not covered by regulatory programs. If they are adopted by rule and the Department verifies their effectiveness, then implementation provides a presumption of compliance with water quality standards.

Over the last several years, DACS has worked with agriculturists, soil and water conservation entities, the University of Florida's Institute of Food



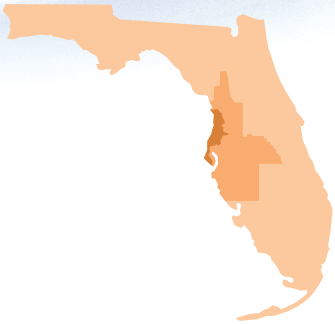
and Agricultural Sciences, and other major interests to improve product marketability and operational efficiency by implementing agricultural BMPs, while at the same time promoting water quality and water conservation objectives. In addition, programs have been established and are being developed to create a network of state, local, federal, and private sources of funds for developing and implementing BMPs.

### Manuals for Best Management Practices

To encourage growers to use BMPs, manuals have been published for a number of Florida agricultural industries, including container-grown plants, blended fertilizer plants, agrichemical handling and farm equipment maintenance, cow/calf operations, aquaculture, citrus, and landscaping. Many of these manuals can be downloaded at http://www.dep.state.fl.us/water or http://www.floridaagwaterpolicy.com. Manuals for row crops, equine or horse farms, and ornamental nurseries are currently being developed. The use of a BMP manual alone, however, does not afford a presumption of compliance with the Department's water quality standards. In general, qualifying for a presumption of compliance requires that a site-specific BMP assessment process be in place or that practices being used have been proven effective through research and demonstration.

# Chapter 3: Preliminary Surface Water Quality Assessment

## Scope of the Preliminary Assessment

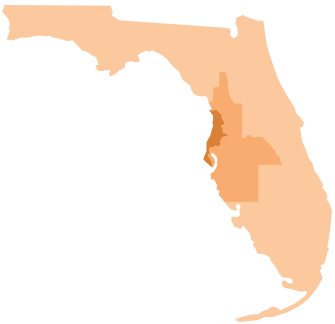


This chapter presents the results of a preliminary assessment of surface water quality in the Springs Coast Basin. The primary purpose of this assessment is to determine if waterbodies or waterbody segments are to be placed on the Planning List of potentially impaired waterbodies. The listing will be in accordance with evaluation thresholds and data sufficiency and data quality requirements in the Identification of Impaired Surface Waters Rule (IWR) (Rule 62-303, Florida Administrative Code [F.A.C.]). The results of the assessment will be used to identify monitoring priorities in Phase 2 of the watershed management cycle and help the Florida Department of Environmental Protection (Department) coordinate with regional and local monitoring activities.

The chapter describes the planning units in the basin used as a basis for the preliminary assessment. A section on each planning unit contains a general description and summary of key water quality indicators (such as nutrients, chlorophyll *a*, dissolved oxygen [DO], and microbiological parameters). Permitted discharges, land uses, ecological status, and water quality improvement plans and projects are summarized for each planning unit. The discussion notes where applicable surface water quality criteria have been exceeded and summarizes the report's findings in maps, noting potentially impaired waterbodies in each planning unit. The chapter also contains background information on sources of data and on designated use attainment, and explains the state's integrated water quality assessment process.

While potentially impaired waters and their causative pollutants are identified, it is not within the scope of this report to identify discrete sources of potential impairments. Information on the sources of impairment will be developed in subsequent phases of the watershed management cycle, including total maximum daily load (TMDL) development and implementation.

**Appendix A** contains a discussion of the legislative and regulatory background for TMDL development and implementation. The methodology used to develop the Planning List is provided in **Appendix B.** The complete text of the IWR is available at http://www.dep.state.fl.us/water/tmdl/docs/AmendedIWR.pdf.



## Sources of Data

The assessment of water quality in the Springs Coast Basin includes an analysis of quantitative data from various sources, some of which are readily available to the public. These sources include the U.S. Environmental Protection Agency's (EPA's) Legacy and "new" **STO**rage and **RET**rieval (STORET) databases, the U.S. Geological Survey, and the Florida Department of Health (DOH). The STORET databases contain water quality data from a variety of sources, including the Department, water management districts, local governments, and volunteer monitoring groups. **Appendix B** contains a detailed description of STORET and the methodology used to develop the Planning and Verified Lists, based on the IWR.

**Table 3.1** summarizes the main data providers who contributed to the IWR Database for the Springs Coast Basin for the period of record used in this assessment. **Figure 3.1** contains a pie chart showing the amount of data provided by each source.

In 2002, the Department created the IWR Database to evaluate data in accordance with the methodology prescribed in the Identification of IWR (Rule 62-303, F.A.C.). For the Planning List assessment, the data evaluation period of record is 10 years, and for the Verified List, 7.5 years. **Table B.2** in Appendix B shows the periods of data record for the Group 1 through 5 basins for the Verified and Planning Lists in the first basin rotation cycle. Data collected between January 1, 1994, and December 31, 2003, were evaluated to establish the Planning List for the Springs Coast Basin (IWR 2003 Run 18).

To support listing decisions, the evaluation of water quality in this basin also includes qualitative information drawn from data in technical reports and documents that are not yet included in the database. Some of these sources include historical water quality or ecological information that was not uploaded to the database because of its qualitative treatment of issues.

**Table 3.1: Summary of Data Providers in the Springs Coast Basin**

| | | Number of Samples Collected | | |
|---|---|---|---|---|
| Agency Code | Agency | Planning Period 1992–2001 | Verification Period 1997–2004 | Total 1992–2004 |
| 112WRD | U.S. Geological Survey | 19,494 | 13,647 | 21,034 |
| 21FLDOH | Florida Department of Health | 1,446 | 6,997 | 6,997 |
| 21FLGFWF | Florida Fish and Wildlife Conservation Commission | 941 | 619 | 959 |
| 21FLHILL | Hillsborough County | 1,910 | 1,543 | 1,910 |
| 21FLKWAT | Florida LakeWatch | 5,945 | 3,310 | 6,478 |
| 21FLPDEM | Pinellas County Department of Environmental Management | 198,824 | 114,966 | 226,972 |
| 21FLSWFD | Southwest Florida Water Management District | 49,158 | 48,072 | 58,271 |
| 21FLTPA | Florida Department of Environmental Protection | 7,178 | 23,414 | 23,601 |
| | TOTAL | 284,896 | 212,568 | 346,222 |

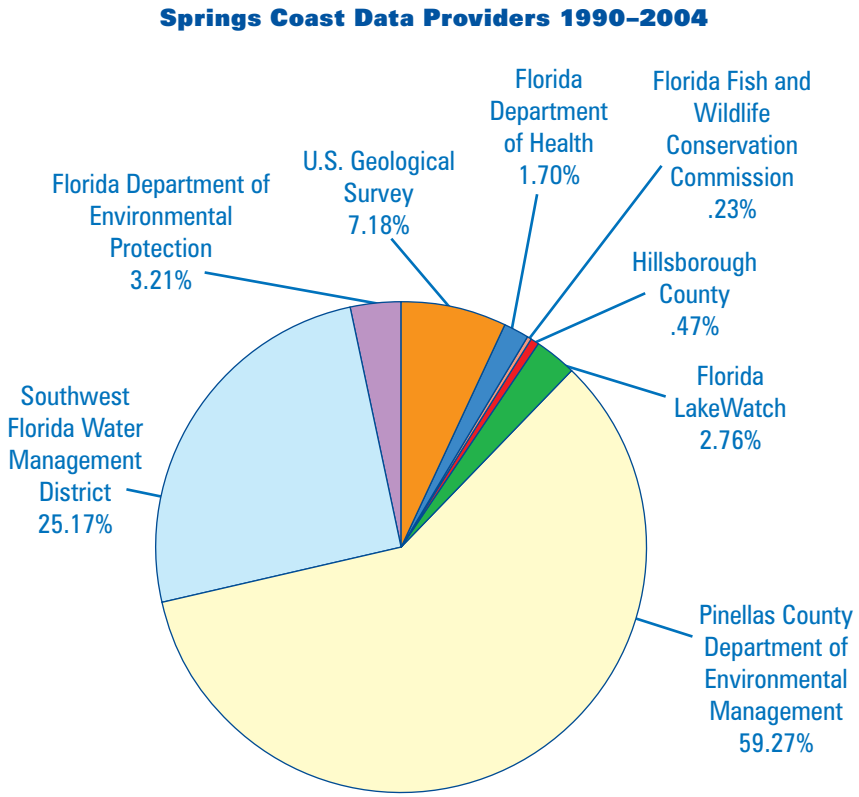
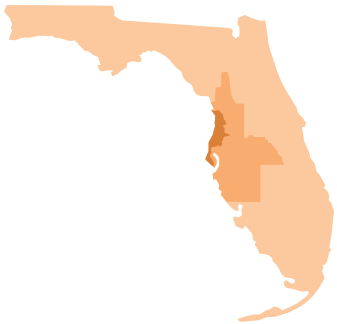



*Figure 3.1: Sources of Data for the Springs Coast Basin*



## Attainment of Designated Use

While the designated uses of a given waterbody are established using the surface water quality classification system described in Chapter 2, it is important to note that the EPA uses slightly different terminology in its description of designated uses. Because the Department is required to provide use attainment status for both the state's 305(b) report and the state's 303(d) list of impaired waters, the Department uses EPA terminology when assessing waters for use attainment. The water quality evaluations and decision processes that are defined in Florida's IWR for listing impaired waters are based on the following designated use attainment categories:

**Aquatic Life Use Support-Based Attainment**
**Primary Contact and Recreation Attainment**
**Fish and Shellfish Consumption Attainment**
**Drinking Water Use Attainment**
**Protection of Human Health**

**Table 3.2** summarizes the designated uses assigned to Florida's various surface water classifications.

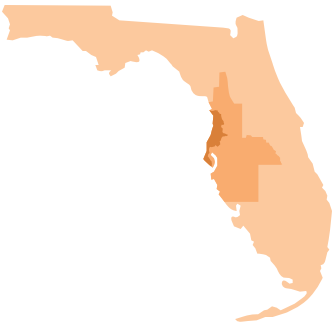


**Table 3.2: Designated Use Attainment Categories for Surface Waters in Florida**

| Designated Use Attainment Category Used in Impaired Surface Waters Rule Evaluation | Applicable Florida Surface Water Classification |
|---|---|
| Aquatic Life Use Support-Based Attainment | Class I, II, and III |
| Primary Contact and Recreation Attainment | Class I, II, and III |
| Fish and Shellfish Consumption Attainment | Class II |
| Drinking Water Use Attainment | Class I |
| Protection of Human Health | Class I, II, and III |

### *Understanding the terms "Pollutant" and "Pollution"*

*For purposes of the TMDL Program, pollutants are chemical and biological constituents, introduced by humans into a waterbody, that may result in pollution (water quality impairment). There are other causes of pollution, such as the physical alteration of a waterbody (for example, canals, dams, and ditches). However, TMDLs are established only for impairments caused by pollutants (a TMDL quantifies how much of a given pollutant a waterbody can receive and still meet its designated uses).*

*Waterbodies that are verified impaired due to specified pollutants, and therefore require a TMDL, are listed under Category 5 in the Integrated Assessment Report; waterbodies with water quality impairments due to other causes, or unknown causes, are listed under Category 4c. Although TMDLs are not established for Category 4c waterbodies, these waterbodies still may be addressed through a watershed management program (for example, the Kissimmee River restoration).*

## Integrated Report Categories and Assessment Overview

The EPA has requested that the states merge their reporting requirements under the Clean Water Act for Section 305(b) surface water quality reports and Section 303(d) lists of impaired waters into an *Integrated Water Quality Monitoring and Assessment Report* (Wayland, 2001). Following the publication of the Status Report and further data evaluation, the Department will produce an Assessment Report integrating the 303(d) list and the 305(b) report for the basin.

Following the EPA's guidance, the Department delineated waterbodies or waterbody segments in each of the state's river basins, assessed them for potential impairment based on individual parameters, and grouped them into one of five major assessment categories and subcategories. These categories provide information on a waterbody's status based on water quality, sufficiency of data, and the need for TMDL development **(Table 3.3)**. This Status Report contains a preliminary evaluation of waterbodies that fall into integrated report Categories 1 through 3 in the table.

Because not enough recent data on chemistry, biology, and fish consumption advisories have been collected, currently only a few waterbodies or waterbody segments statewide fall into Category 1 (attaining all uses). In particular, fish tissues in many waterbodies statewide have not been tested for mercury. Out of 160 waterbodies or waterbody segments in the Springs Coast Basin, none are in Category 1.

More waterbodies and segments statewide fall into Category 2 (attaining some uses but with insufficient data to assess completely) than Category 1 (attaining all uses) because monitoring programs can sometimes provide sufficient data for partially determining whether a designated use in a particular waterbody is attained. A total of 20 waterbody segments in the basin fall into Category 2.

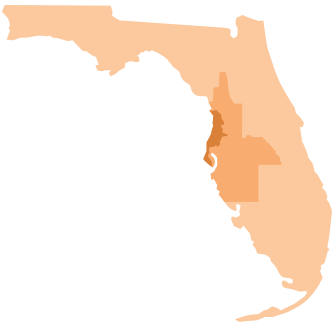
However, most waterbodies in the state fall into Category 3 (having insufficient data). In the Springs Coast Basin, the breakdown of waterbodies or segments in Category 3 is as follows:

- Category 3a—38 segments for which no data are available to determine their water quality status;
- Category 3b—31 segments with some data but not sufficient data for making any determinations;

**Table 3.3: Categories for Waterbodies or Waterbody Segments in the 2002 Integrated Report**

| Category | Description | Comments |
|---|---|---|
| 1 | Attaining all designated uses | If use attainment is verified for a waterbody or segment that was previously listed as impaired, the Department will propose that it be delisted. |
| 2 | Attaining some designated uses and insufficient or no information or data are present to determine if remaining uses are attained | If attainment is verified for some designated uses of a waterbody or segment, the Department will propose partial delisting for the uses attained. Future monitoring will be recommended to determine if remaining uses are attained. |
| 3a | No data and information are present to determine if any designated use is attained | Future monitoring will be recommended to determine if designated uses are attained. |
| 3b | Some data and information are present but not enough to determine if any designated use is attained | Future monitoring will be recommended to gather sufficient information and data to determine if designated uses are 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 | This indicates a waterbody or segment is potentially impaired for one or more designated uses. These waters will be prioritized for future monitoring to verify use attainment or impaired status. |
| 3d | Enough data and information are present to determine that one or more designated uses are not attained according to the Verified List methodology | This indicates that a waterbody or segment exceeds Verified List evaluation criteria and may be listed as impaired at the end of Phase 2 of the watershed management cycle. However, the data have not yet been fully evaluated and the waters have not been formally verified as impaired. Further monitoring and analysis may be necessary. |
| 4a | Impaired for one or more designated uses but does not require TMDL development because a TMDL has already been completed | After the EPA approves a TMDL for the impaired waterbody or segment, the TMDL will be included in a Basin Management Action Plan to reduce pollutant loading toward attainment of designated use(s). |
| 4b | Impaired for one or more designated uses but does not require TMDL development because the water will attain water quality standards due to existing or proposed measures | Pollutant control mechanisms designed to attain applicable water quality standards within a reasonable time frame are either proposed or in place. |
| 4c | Impaired for one or more designated uses but does not require TMDL development because impairment is not caused by a pollutant | This category includes waterbodies or segments that are impaired because of naturally occurring conditions or other causes of pollution. The impairment is not caused by specific pollutants. (See **sidebar** on previous page for a discussion of the difference between the terms "pollutant" and "pollution.") |
| 5 | One or more designated uses are not attained and a TMDL is required | Waterbodies or segments in this category are impaired for one or more designated uses by a pollutant or pollutants. Waters in this category are included on the basin-specific Verified List adopted by the Department's Secretary as Florida's impaired waters list and submitted to the EPA as Florida's 303(d) list of impaired waters at the end of Phase 2. |

**Note:** The descriptions in **Table 3.3** are consistent with the EPA's integrated assessment categories. In the Status Reports for Groups 1 through 3 and in the Assessment Reports for Groups 1 through 2 that were previously produced, Categories 4b and 4c were reversed. That is, the description of Category 4b was previously listed as Category 4c, and the description of Category 4c was listed as Category 4b.



- Category 3c—15 segments that are potentially impaired based on the Planning List criteria; and
- Category 3d—56 segments that may be impaired based on the Verified List criteria but require further evaluation.

Several potentially impaired (Category 3c or 3d) waters either fail to meet water quality standards for DO or show signs of biological stress or nutrient impairment. According to the IWR, specific pollutants causing DO exceedances or biological stress, or an underlying nutrient imbalance creating an imbalance in flora or fauna, must be documented for a waterbody or segment to be listed as impaired. Sometimes these conditions cannot be linked to a causative pollutant, and sometimes they may reflect natural background conditions.

Currently, no waterbodies in the basin are designated as being in Category 4 or Category 5. These will be proposed at the end of Phase 2 when the Verified List of impaired waters is developed.

Category 4 includes those waterbodies/segments that are impaired but do not require a TMDL for one of three reasons:

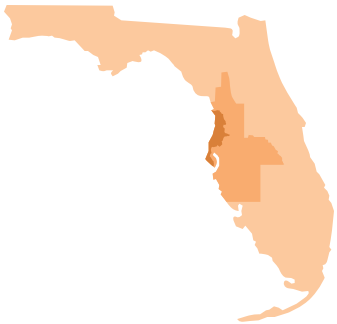
- Category 4a—no segments for which a TMDL has already been developed,
- Category 4b—no segments for which there is reasonable assurance that the designated use of an impaired waterbody will be attained by an existing or proposed pollutant control measure, and
- Category 4c—no segments for which the impairment is not attributable to a pollutant or pollutants, but is due to natural conditions or physical/hydrologic alterations to the waterbody.

Category 5 waterbodies are determined to be impaired and require TMDLs. These are included on the Verified List of impaired waters adopted by the Department's Secretary. However, no waters are formally assigned to this category until the listing process has been completed, even though sufficient data may be available and a waterbody may meet the requirements for impairment under the IWR.

## Planning Units

The Springs Coast Basin encompasses approximately 800 square miles and a complex hydrologic system. To provide a more detailed geographic basis for identifying and assessing water quality improvement activities, the basin was subdivided into smaller areas called planning units. A planning unit is either an individual large tributary basin or a group of smaller adjacent tributary basins with similar characteristics. Planning units help organize information and management strategies around prominent watershed characteristics.

Water quality assessments were conducted for waterbody segments within planning units. Each of these smaller, hydrologically-based



drainage areas within a planning unit is assigned a unique waterbody identification number (WBID). Waterbody segments are assessment units (or geographic information system polygons) that the Department used to define waterbodies when it biennially inventoried and reported on water quality to the EPA under Section 305(b) of the federal Clean Water Act. These WBIDs are the assessment units identified in the Department's lists of impaired waters submitted to the EPA in reports under Section 303(d) of the Clean Water Act.

Although WBIDs often encompass several waterbodies, water quality data usually reflect conditions within the main waterbody within a polygon. In some instances, however, the data from several waterbodies within the polygon have been aggregated. As the water quality assessments are refined in Phase 2 of the watershed management cycle, individual waterbodies within these aggregations that have unique water quality concerns will be assigned unique WBIDs and evaluated individually.

The Springs Coast Basin contains five planning units: Crystal River/Kings Bay, Homosassa River, Chassahowitzka River, Middle Coastal, and Anclote River/Coastal Pinellas County. **Table 3.4** describes these planning units, and **Figure 3.2** shows their locations and boundaries. The remainder of this chapter provides a general description of each planning unit, information on land use and potential point sources of pollution, water quality assessments for individual waterbody segments, and summaries of ecological issues and watershed quality improvement plans and projects.

To determine the status of surface water quality in the Springs Coast Basin, chemistry data, biological data, and, if available, fish consumption, beach closure, and shellfish-harvesting advisories were evaluated to determine potential impairments. **Appendix B** contains a detailed description of the methodology used to determine potential impairment. **Appendix D** of this report contains definitions and specific methods for the generation and analysis of bioassessment data. **Appendix E** includes summary information, by planning unit, for permitted wastewater treatment facilities, Superfund sites, and permitted landfill facilities in the basin. **Appendix F** provides a water quality summary by planning unit. **Appendix G** lists Level I land uses, by planning unit.

**Table 3.4: Planning Units in the Springs Coast Basin**

| Planning Unit | Description |
|---|---|
| Crystal River/ Kings Bay | The planning unit, encompassing over 78 square miles, lies in the northern portion of the basin, in north-central Citrus County. |
| Homosassa River | The planning unit, encompassing almost 90 square miles, is located in central Citrus County. |
| Chassahowitzka River | The planning unit, encompassing over 176 square miles, lies in the central portion of the basin, in southern Citrus and northern Hernando Counties. |
| Middle Coastal | Located in the south-central portion of the basin and encompassing over 466 square miles, the planning unit covers northwestern Pasco County and western Hernando County. |
| Anclote River/ Coastal Pinellas County | The planning unit, encompassing almost 252 square miles, comprises the southern portion of the basin, encompassing western Pinellas County from the Anclote River southward to Gulfport. |

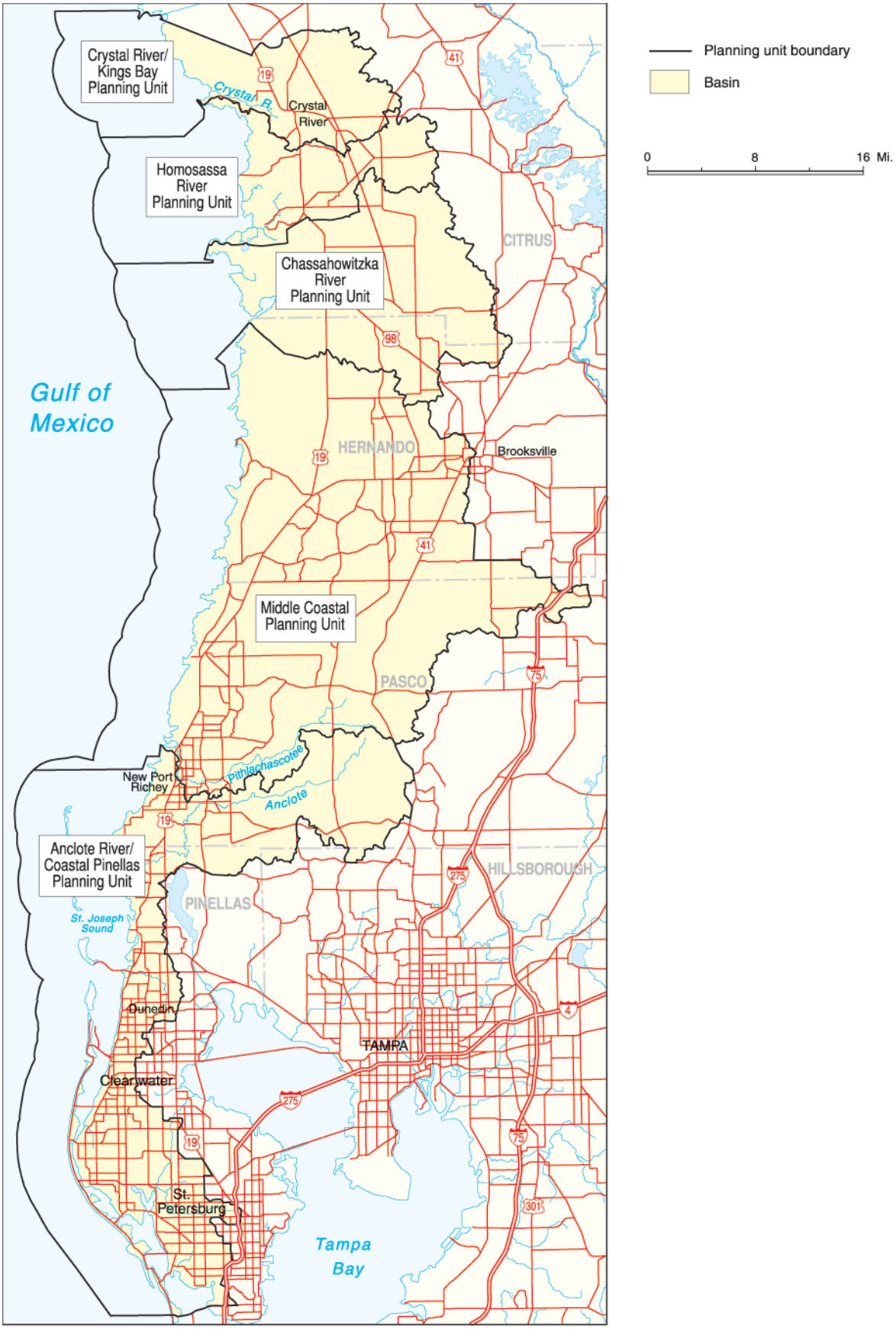
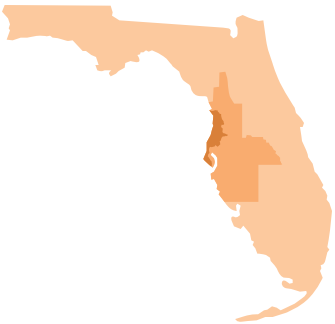



*Figure 3.2: Locations and Boundaries of Planning Units in the Springs Coast Basin*

## Assessment by Planning Unit



- Crystal River/Kings Bay Planning Unit

### General Description

The Crystal River/Kings Bay Planning Unit covers about 78 square miles and contains 12 segments with WBIDs **(Figure 3.3)**.

Crystal River and Kings Bay are located in Citrus County, approximately 60 miles north of Tampa. The tidally influenced Kings Bay is the headwaters of Crystal River, which forms at the northwest corner of the bay. The Kings Bay Springs Complex, the largest spring complex in the basin and the fourth largest in Florida, contains more than 30 springs; it discharges approximately 630 million gallons per day (mgd). Because of their regional significance, both Crystal River and Kings Bay are designated as Outstanding Florida Waters (OFWs) and Surface Water Improvement and Management (SWIM) priority waters.

The Crystal River Nuclear Power Plant lies along the coast, between the mouths of the Crystal and Withlacoochee Rivers.

### Water Quality Summary

Historical water quality in the Crystal River/Kings Bay system was good. In recent years, however, nitrate contamination has increased. Because nitrate concentrations discharging from the springs are 20 times higher than the natural ground water concentrations in the Floridan aquifer statewide, much of the nitrate entering the system comes from the ground water discharging from the springs.

Water clarity in Kings Bay is primarily affected by the concentration of suspended solids in the water column. These result primarily from the resuspension of bottom sediments through wind action or physical disturbance.

Hunters Spring Park, which is part of the Kings Bay system, was closed to swimming during most of the summer of 2000 due to elevated levels of total and fecal coliforms.

The cooling-water intake pipes for the Crystal River Nuclear Power Plant extend into the nearshore area, causing localized increases in water temperature.

**Figure 3.3**, a composite map of the planning unit, shows waters on the 1998 303(d) list and the Planning List. **Table 3.5** summarizes the water quality assessment status of all waterbody segments in the planning unit. The table and figure show that four waterbody segments in the planning unit are potentially impaired. The four potentially impaired segments in the planning unit, and the parameters of impairment, are as follows:

| | |
|---|---|
| Hunters Bay Spring | Dissolved oxygen (DO) |
| Tarpon Springs | DO, conductance |
| Crystal River Gulf 1 | Mercury in fish |
| Fort Island Gulf Beach | Mercury in fish |

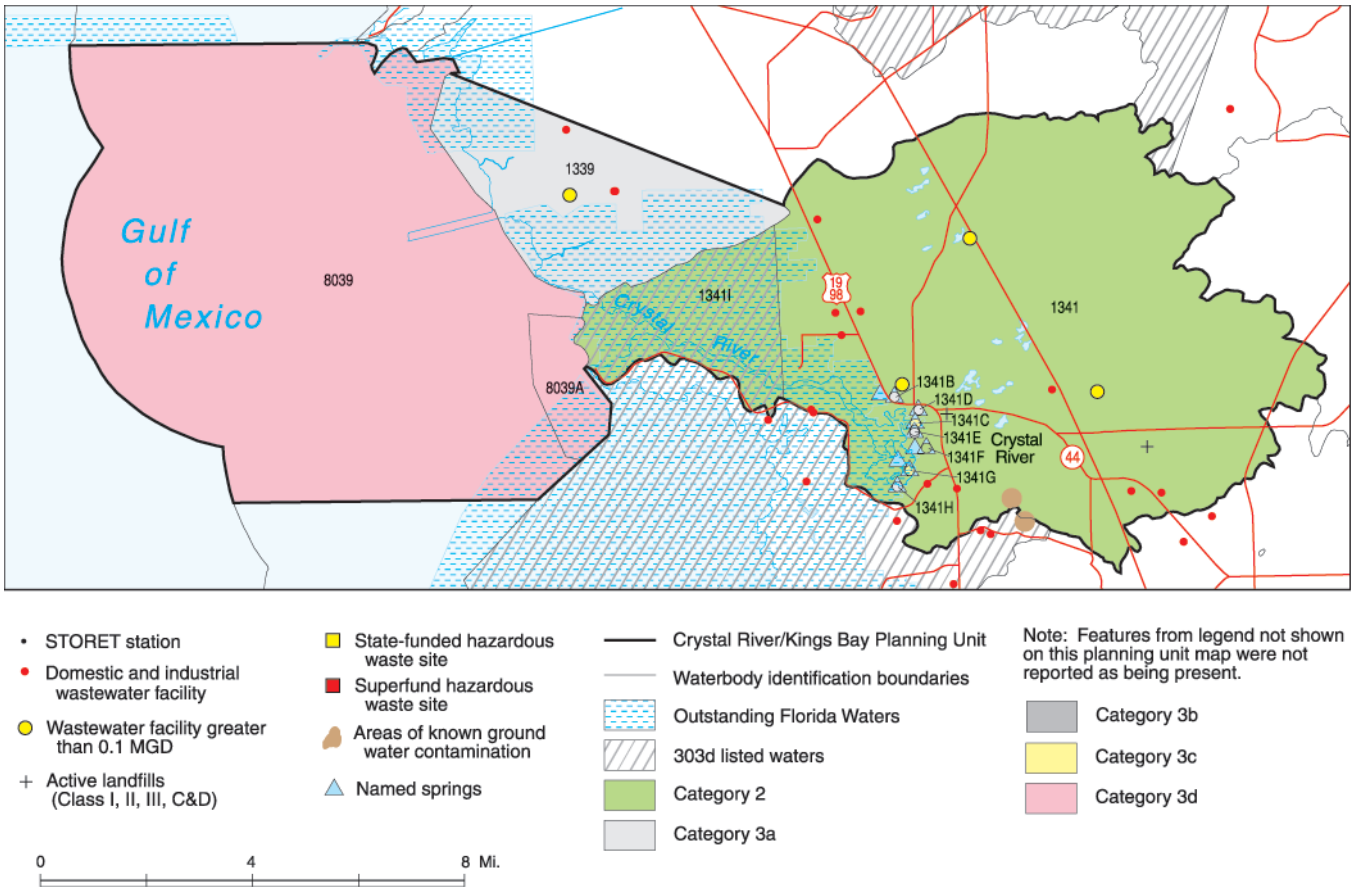



*Figure 3.3: Composite Map of the Crystal River/Kings Bay Planning Unit, Including the 1998 303(d) List and Planning List Waters*

### Permitted Discharges and Land Uses

**Point Sources. Figure 3.3** shows permitted wastewater treatment facilities, landfills, and delineated ground water contamination areas in the planning unit (see **Noteworthy** for a definition of point sources and discussions of environmental remediation and delineated ground water contamination areas). **Appendix E** lists the basin's domestic and industrial surface discharge facilities, along with their permitted flows, by planning unit. It also lists landfills or solid waste facilities by planning unit.

The Crystal River/Kings Bay Planning Unit contains 21 permitted domestic and industrial facilities. Four of them discharge greater than 0.1 mgd through surface water discharges or by land application of the effluent.

There are no hazardous waste cleanup sites in the planning unit.

The planning unit contains one active construction and demolition debris landfill and one closed and monitored Class II solid waste landfill.

**Nonpoint Sources.** Based on Level I and II land use summary information, the predominant land use in the planning unit is urban and built-up (approximately 36 percent of the planning unit's area). Other major land uses include upland forests (26 percent) and wetlands (25 percent). These land uses can be associated with nonpoint discharges of pollutants and eroded sediments (see **Noteworthy** for a definition of nonpoint

**Table 3.5: Integrated Water Quality Assessment Summary for the Crystal River/Kings Bay Planning Unit**

| | | | | Data Evaluation under the Impaired Surface Waters Rule Criteria[3] | | | | |
|---|---|---|---|---|---|---|---|---|
| WBID | Waterbody Segment | Waterbody Type[1] | Class[2] | 1998 303(d) List Parameters of Concern | Potentially Impaired (Cat. 3c) for Listed Parameters | Verified Impaired (Cat. 4a, 4b, 4c, or 5) for Listed Parameters[4] | Not Impaired (Cat. 2) for Listed Parameters | EPA's 305(b)/303(d) Integrated Report Assessment Category for WBID[5] |
| 1339 | Direct Runoff to Gulf | Estuary | II | | | | | 3a |
| 1341 | Crystal River | Stream | II | | | | Chlorophyll *a*, DO, Historical Chlorophyll | 2 |
| 1341B | Cedar Cove Spring | Spring | IIIF | | | | | 3a |
| 1341C | Hunters Bay Spring | Spring | IIIF | | DO | | Conductance, Turbidity, pH | 3c |
| 1341D | American Legion Spring | Spring | IIIF | | | | | 3a |
| 1341E | Crystal Spring | Spring | IIIF | | | | | 3a |
| 1341F | Idiots Delight Spring | Spring | IIIF | | | | Conductance, pH | 2 |
| 1341G | Tarpon Springs | Spring | IIIF | | DO, Conductance | | Turbidity, pH | 3c |
| 1341H | Crescent Drive Spring | Spring | IIIF | | | | | 3a |
| 1341I | Crystal River | Estuary | IIIM | Chlorophyll *a* | | | Chlorophyll *a*, DO, Fluoride, Fecal Coliforms, Historical Chlorophyll, Turbidity, pH | 2 |
| 8039 | Crystal River Gulf 1 | Coastal | IIIM | | | Mercury in Fish | Chlorophyll *a*, DO, Fecal Coliforms, Historical Chlorophyll, Turbidity, pH | 3d |
| 8039A | Fort Island Gulf Beach | Coastal | IIIM | | | Mercury in Fish | DO, Fecal Coliforms, Turbidity, pH | 3d |

Notes:

[1]The designation "stream" includes canals, rivers, and sloughs. The designation "lake" includes some marshes.
[2]The state's surface water classifications are as follows:

**Class I: Potable water supplies**
**Class II: Shellfish propagation or harvesting**
**Class III: Recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife**
**Class IV: Agricultural water supplies**
**Class V: Navigation, utility, and industrial use (there are no state waters currently in this class)**

[3]The EPA's 305(b)/303(d) Integrated Report categories are as follows:

**1**—Attains all designated uses;
**2**—Attains some designated uses;
**3a**—No data and information are available to determine if any designated use is attained;
**3b**—Some data and information are available, but they are insufficient for determining if any designated use is attained;
**3c**—Meets Planning List criteria and is potentially impaired for one or more designated uses;
**3d**—Parameter meets Verified List criteria and is potentially impaired for one or more designated uses;

**Table 3.5 (continued)**

**4a**—Impaired for one or more designated uses and the TMDL is complete;
**4b**—Impaired for one or more designated uses, but no TMDL is required because an existing or proposed pollutant control mechanism provides reasonable assurance that the water will attain standards in the future;
**4c**—Impaired for one or more designated uses but no TMDL is required because the impairment is not caused by a pollutant; and
**5**—Water quality standards are not attained and a TMDL is required.

[4]Parameters in italics are in Category 4 (a, b, or c) waters that do not require TMDL development.

[5]The assessment categories listed in this column represent the status of each WBID as a whole, **based on multiple parameters**. The hierarchy for assigning these categories is Category 5, then 4, then 3c, then 2, and then 3b, i.e., each WBID is assigned a category based on the highest category assigned to an individual parameter. For example, if WBID 9999 has total coliforms as Category 5, fecal coliforms as Category 3c, and coliforms-shellfish as Category 2, the single assessment call for the WBID is Category 5.

BOD = Biological oxygen demand
DO = Dissolved oxygen
F = Fresh water
M = Marine
TSS = Total suspended solids

sources). **Appendix G** provides summary information on Level I land uses in the basin, by planning unit.

### Ecological Summary

While aquatic vegetation is important to water clarity in the Crystal River/Kings Bay system, undesirable aquatic vegetation has been a problem since hydrilla was introduced in 1960. Most recently, *Lyngbya*, an undesirable filamentous algae, has dominated areas of Kings Bay causing habitat destruction, use impairment, and odor problems. Floating plants and Eurasian milfoil *(Myriophyllum spicatum)* are problems in the Crystal River.

## • Homosassa River Planning Unit

### General Description

The Homosassa River Planning Unit covers about 90 square miles and contains 8 segments with WBIDs **(Figure 3.4)**.

Like Crystal River, the Homosassa River is a coastal, spring-fed river/estuarine system located in west Citrus County. Halls River is the only major tributary. The river, which has been designated as an OFW, extends approximately 6 miles from the Gulf of Mexico to its headwaters at Homosassa Springs. The springs discharge about 68 mgd.

Increased development pressures in the planning unit—including residential and commercial growth in "Old Town" Homosassa and the Homosassa Springs area—have degraded the river's water quality. The DOH and the Department found high concentrations of bacteria and nutrient enrichment. Nutrients increased from 1992 through late 1996 in the upper reaches of the river above Halls River. The Homosassa Springs State Wildlife Park, with assistance from the Southwest Florida Water Management District (SWFWMD) and the University of South Florida, investigated the potential addition of bacteria and nutrients from the park's wildlife to the headwaters of the river. These impacts were relatively minor.

## Information on Point Sources in Planning Units

Point sources discharging pollutants to surface water or ground water originate from discrete, well-defined areas such as a facility discharge from the end of a pipe, a disposal well, or a wastewater sprayfield. Point sources generally fall into two major types: domestic wastewater sources (which consist of sewage from homes, businesses, and institutions) and industrial wastewater sources (which include wastewater, runoff, and leachate from industrial or commercial storage, handling, or processing facilities). Landfills, hazardous waste sites, dry cleaning solvent cleanup program sites, and petroleum facility discharges are also considered point sources. These sites have the potential to leach contaminants into ground water and surface water.

Identifying the source of waterbody impairment is an important part of assessing water quality and developing TMDLs. As part of this report, information is presented on point sources, including permitted facilities that discharge wastewater and landfills.

## Environmental Remediation

Environmental remediation activities cover a broad spectrum of cleanup programs. These include state-managed hazardous waste, dry cleaning, and petroleum cleanup programs, as well as the federal Superfund and Resource Conservation and Recovery Act programs. These programs are designed to remediate ground water and soil contamination that pose a threat to public health and the environment.

The National Priorities List (NPL) is a consolidated list of the uncontrolled hazardous waste sites that pose the greatest threat to public health or the environment. Sites are listed on the NPL upon the completion of a preliminary assessment, site inspection, and hazardous ranking system evaluation to determine their potential for adverse impacts and priority for corrective action. The EPA Superfund program administers the cleanup of NPL sites.

The Department's state-funded cleanup program administers the cleanup of contaminated hazardous waste sites when enforcement action taken against a responsible party is unsuccessful or when no responsible party is identified.

Brownfields are abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination. The EPA launched the Brownfields Economic Redevelopment Initiative in January 1995 to empower states, communities, and other stakeholders in economic redevelopment to work together in a timely manner to prevent, inventory, assess, safely clean up, and sustainably reuse Brownfields. The federal and state Brownfields program is funded through the Superfund taxing authority.

## Delineated Ground Water Contamination Areas

The Department's Delineation Program was established in response to the discovery of ground water contaminated by ethylene dibromide, a soil fumigant that was historically used in 38 Florida counties to control nematodes in citrus groves and row crops. The program currently includes ground water contaminated by other pesticides, industrial solvents, and nutrients. However, the coverage of delineated areas in this program is not intended to include all sources of contaminated ground water in Florida. The Delineation Program is designed to ensure the protection of public health when consuming potable ground water supplies and to minimize the potential for cross-contamination of adjacent ground water resources.

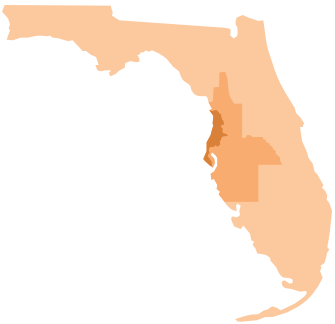
The Delineation Program's primary responsibilities are as follows:

- delineate areas of ground water contamination,
- implement a water well construction permitting/application process that requires stringent construction standards, and
- require water testing after completion of the well to ensure the potable quality of the water source.

Any newly-constructed water wells in delineated areas, and existing water wells found to be contaminated, are remediated by installing individual water treatment systems or by connecting the users to public water supply systems.

## Nonpoint Sources and Land Uses

Rainfall generates stormwater runoff. As it flows over the land and through the ground, runoff may carry nonpoint source pollutants from many different sources to lakes, rivers, and estuaries in a watershed, and into ground water supplies. Nonpoint sources also include atmospheric deposition and leaching from agricultural lands, urban areas, and unvegetated lands. The pollutants in runoff often include fertilizers, bacteria, metals, sediments, and petroleum compounds.



The predominant source of nutrients in the planning unit is golf course, residential turf, and landscape fertilizing. Septic tanks are also a significant source.

### Water Quality Summary

Historical water in the Homosassa River was good, and it remained good through the mid-1980s. A 1989 study, however, found significant water quality degradation in the upper river, primarily due to the effects of septic tanks and treated wastewater effluent. A salt wedge reaching upstream from the Gulf creates variations in salinity.

**Figure 3.4**, a composite map of the planning unit, shows waters on the 1998 303(d) list and the Planning List. **Table 3.6** summarizes the water quality assessment status of all waterbody segments in the planning unit. The table and figure show that three waterbody segments in the planning unit are potentially impaired. The three potentially impaired segments in the planning unit, and the parameters of impairment, are as follows:

| | |
|---|---|
| Homosassa River | Conductance, iron, chlorophyll *a* |
| Homosassa Springs | Biology, conductance, DO |
| Crystal River Gulf 2 | Mercury in fish |

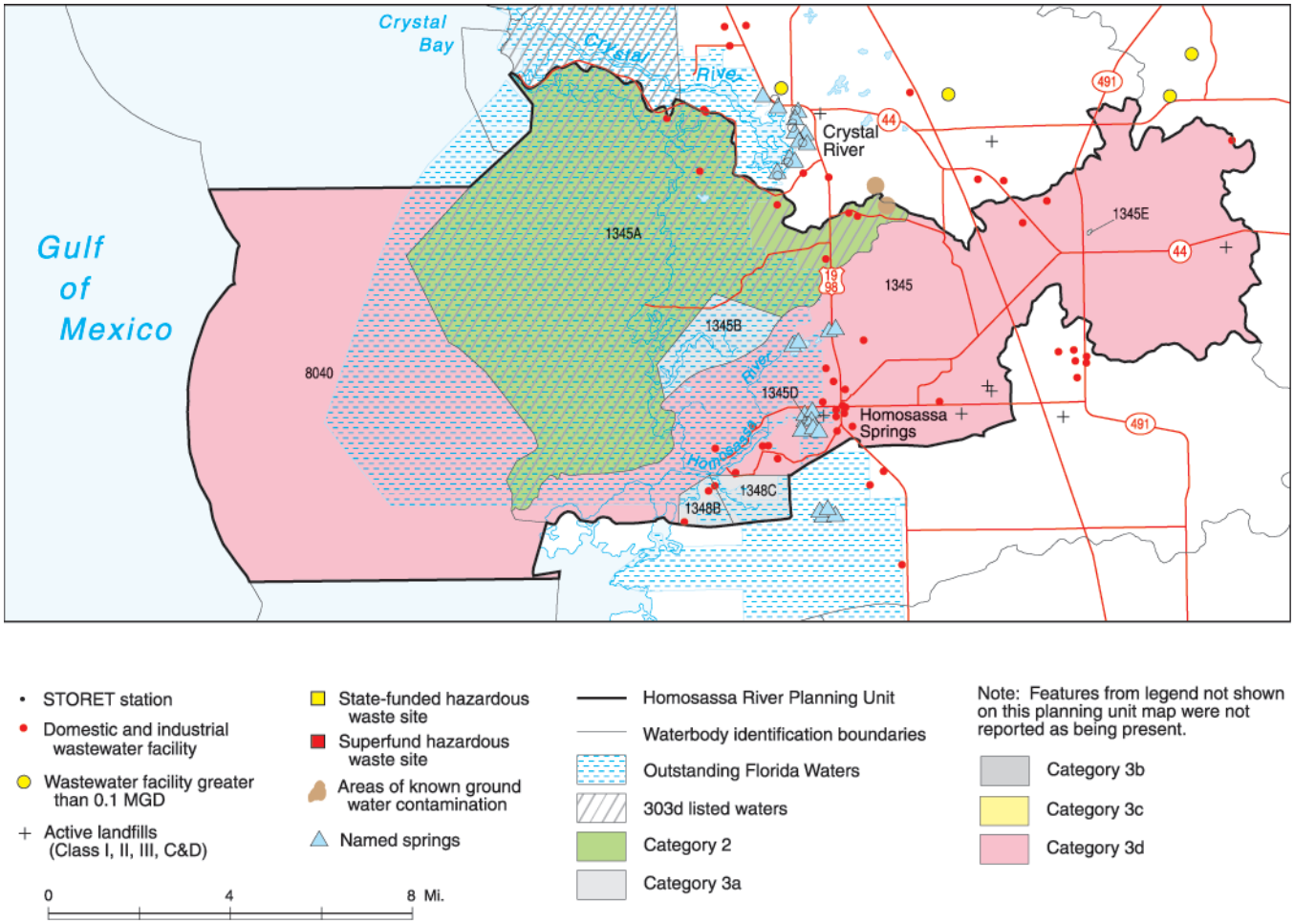



*Figure 3.4: Composite Map of the Homosassa River Planning Unit, Including the 1998 303(d) List and Planning List Waters*

**Table 3.6: Integrated Water Quality Assessment Summary for the Homosassa River Planning Unit**

| | | | | Data Evaluation under the Impaired Surface Waters Rule Criteria[3] | | | | |
|---|---|---|---|---|---|---|---|---|
| WBID | Waterbody Segment | Waterbody Type[1] | Class[2] | 1998 303(d) List Parameters of Concern | Potentially Impaired (Cat. 3c) for Listed Parameters | Verified Impaired (Cat. 4a, 4b, 4c, or 5) for Listed Parameters[4] | Not Impaired (Cat. 2) for Listed Parameters | EPA's 305(b)/303(d) Integrated Report Assessment Category for WBID[5] |
| 1345 | Homosassa River | Stream | IIIF | | Conductance, Iron | Chlorophyll *a* | Alkalinity, DO, Fluoride, Fecal Coliforms, Historical Chlorophyll, Total Coliforms, Turbidity, Unionized Ammonia, pH | 3d |
| 1345A | Crystal River Bay | Estuary | IIIM | Biology, Chlorophyll *a* | | | Chlorophyll a, DO, Fecal Coliforms, Historical Chlorophyll, Turbidity, pH | 2 |
| 1345B | Homosassa River | Stream | IIIF | | | | | 3a |
| 1345D | Homosassa Springs | Spring | IIIF | | Biology, Conductance | DO | Cadmium, Chromium 3, Copper, Fluoride, Fecal Coliforms, Iron, Nickel, Lead, Total Coliforms, Turbidity, Zinc, pH | 3d |
| 1345E | Morrison Pond | Lake | IIIF | | | | | 3a |
| 1348B | Blind Creek | Stream | IIIF | | | | | 3a |
| 1348C | Crawford Creek | Stream | IIIF | | | | | 3a |
| 8040 | Crystal River Gulf 2 | Coastal | IIIM | | | Mercury in Fish | Chlorophyll *a*, DO, Fecal Coliforms, Historical Chlorophyll, Turbidity, pH | 3d |

Notes:

[1]The designation "stream" includes canals, rivers, and sloughs. The designation "lake" includes some marshes.
[2]The state's surface water classifications are as follows:

**Class I: Potable water supplies**
**Class II: Shellfish propagation or harvesting**
**Class III: Recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife**
**Class IV: Agricultural water supplies**
**Class V: Navigation, utility, and industrial use (there are no state waters currently in this class)**

[3]The EPA's 305(b)/303(d) Integrated Report categories are as follows:

**1**—Attains all designated uses;
**2**—Attains some designated uses;
**3a**—No data and information are available to determine if any designated use is attained;
**3b**—Some data and information are available, but they are insufficient for determining if any designated use is attained;
**3c**—Meets Planning List criteria and is potentially impaired for one or more designated uses;
**3d**—Parameter meets Verified List criteria and is potentially impaired for one or more designated uses;
**4a**—Impaired for one or more designated uses and the TMDL is complete;
**4b**—Impaired for one or more designated uses, but no TMDL is required because an existing or proposed pollutant control mechanism provides reasonable assurance that the water will attain standards in the future;

**Table 3.6 (continued)**

**4c**—Impaired for one or more designated uses but no TMDL is required because the impairment is not caused by a pollutant; and
**5**—Water quality standards are not attained and a TMDL is required.
[4]Parameters in italics are in Category 4 (a, b, or c) waters that do not require TMDL development.
[5]The assessment categories listed in this column represent the status of each WBID as a whole, **based on multiple parameters**. The hierarchy for assigning these categories is Category 5, then 4, then 3c, then 2, and then 3b, i.e., each WBID is assigned a category based on the highest category assigned to an individual parameter. For example, if WBID 9999 has total coliforms as Category 5, fecal coliforms as Category 3c, and coliforms-shellfish as Category 2, the single assessment call for the WBID is Category 5.

DO = Dissolved oxygen
F = Fresh water
M = Marine

### Permitted Discharges and Land Uses

**Point Sources. Figure 3.4** shows permitted wastewater treatment facilities, landfills, and delineated ground water contamination areas in the planning unit. **Appendix E** lists the basin's domestic and industrial surface discharge facilities, along with their permitted flows, by planning unit. It also lists landfills or solid waste facilities by planning unit.

The Homosassa River Planning Unit contains 23 permitted domestic and industrial facilities. None of them discharge greater than 0.1 mgd through surface water discharges or by land application of the effluent.

There are no hazardous waste cleanup sites in the planning unit.

The planning unit contains two Class I solid waste landfills—one is active and the other is closed and monitored; one closed and monitored Class II solid waste landfill; and two construction and demolition debris landfills—one is active and the other is inactive.

**Nonpoint Sources.** Based on Level I and II land use summary information, the predominant land use in the planning unit is wetlands (approximately 48 percent of the planning unit's area). Other major land uses include urban and built-up (22 percent) and upland forests (23 percent). These land uses can be associated with nonpoint discharges of pollutants and eroded sediments. **Appendix G** provides summary information on Level I land uses in the basin, by planning unit.

### Ecological Summary

Floating plants, Eurasian milfoil, hydrilla, *Lyngbya*, cattails *(Typha* spp.), and water spinach *(Ipomoea aquatica)* are problems in the Homosassa River.

## • Chassahowitzka River Planning Unit

### General Description

The Chassahowitzka River Planning Unit covers about 176 square miles and contains 8 segments with WBIDs **(Figure 3.5)**.

The Chassahowitzka River is located in southwestern Citrus County approximately 6.5 miles south of Homosassa, just north of the Citrus/Hernando County line. The river begins at Chassahowitzka Springs, approximately 1.5 miles west of U.S. Highway 19 and just north of State Route 480. The springs discharge about 90 mgd.

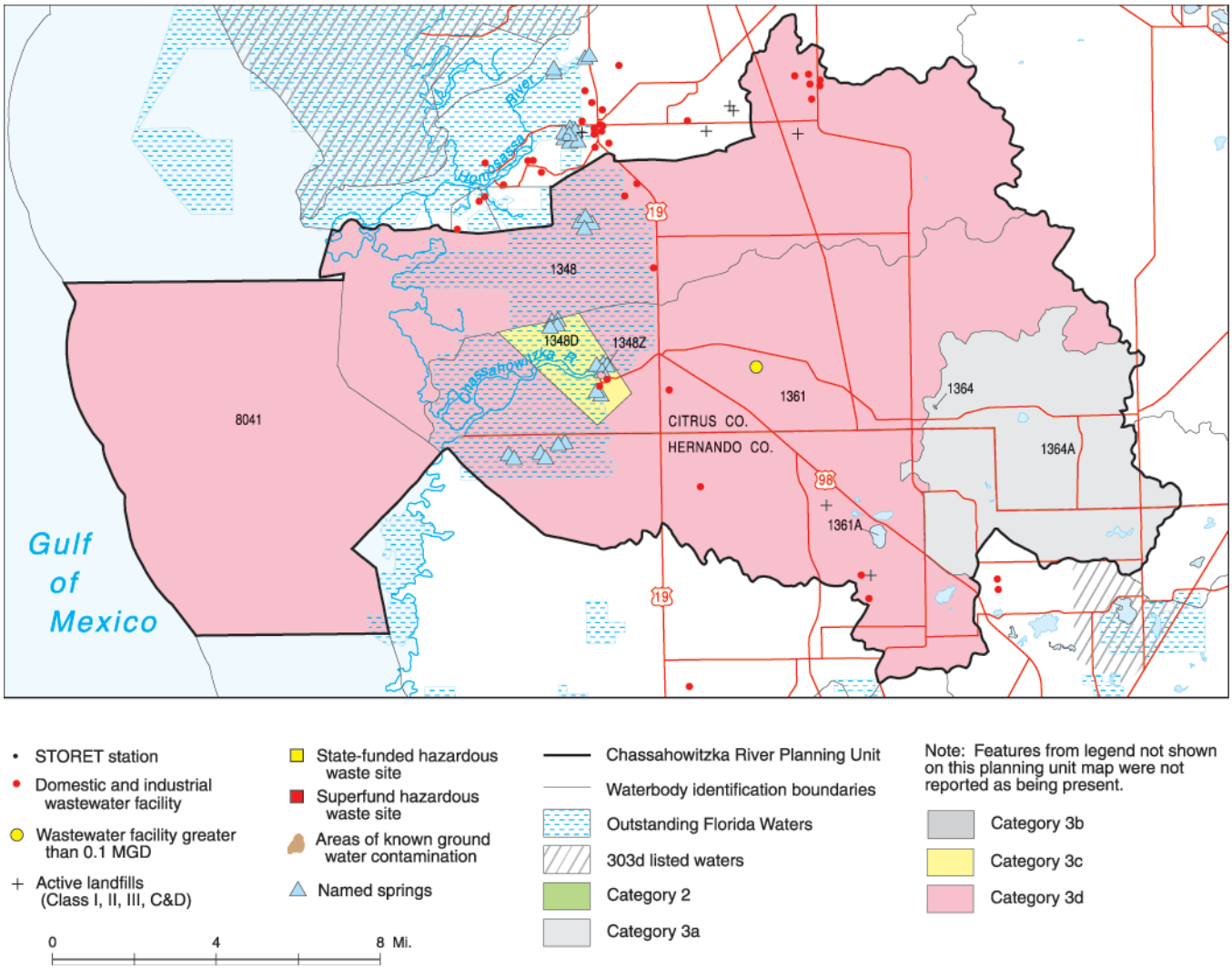
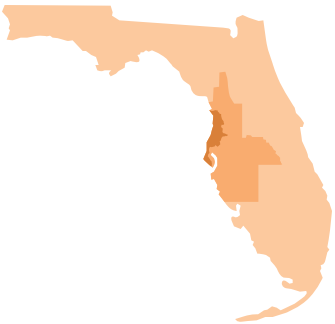



*Figure 3.5: Composite Map of the Chassahowitzka River Planning Unit, Including the 1998 303(d) List and Planning List Waters*

From there, the river flows westerly to the Gulf of Mexico through about six miles of hardwood forests and low coastal marshland. Crab Creek, Cabbage Creek, Baird Creek, Salt Creek, Potter Creek, Crawford Creek, Blue Run, Ryle Creek, and May Creek all flow directly to the Chassahowitzka River, while Chub Creek and Blind Creek flow to the Gulf of Mexico. The Chassahowitzka River and a number of creeks in the system are designated as OFWs.

### Water Quality Summary

Water quality data for the Chassahowitzka River are limited. Limited historical data (collected before 1981) indicated that water quality was good. Data collected from 1992 through 1996 at selected springs are the most consistent data for this system. As with the other coastal spring systems in the basin, nitrates are increasing in the Chassahowitzka system, but mean nitrate concentrations were lowest in the Chassahowitzka spring complex.



Concerns about high bacteria levels in the Chassahowitzka River prompted the SWFWMD to perform remedial sampling of the headwaters and canals during the fall of 1997. Total and fecal coliforms were found to exceed state standards. A more detailed analysis, begun in October 1999, revealed that septic tanks are adversely influencing the water quality of the Chassahowitzka River. Fertilizing of golf courses, residential turf, and landscapes is also a significant source of nutrients.

**Figure 3.5**, a composite map of the planning unit, shows waters on the 1998 303(d) list and the Planning List. **Table 3.7** summarizes the water quality assessment status of all waterbody segments in the planning unit. The table and figure show that six waterbody segments in the planning unit are potentially impaired. The six potentially impaired segments in the planning unit, and the parameters of impairment, are as follows:

| | |
|---|---|
| Chassahowitzka River | Conductance, DO |
| Baird Creek | Conductance |
| Chassahowitzka Spring | Conductance, DO |
| Weeki Wachee River | DO |
| Skinner Lake | Iron, pH |
| Crystal River Gulf 3 | Mercury in fish |

### Permitted Discharges and Land Uses

**Point Sources. Figure 3.5** shows permitted wastewater treatment facilities, landfills, and delineated ground water contamination areas in the planning unit. **Appendix E** lists the basin's domestic and industrial surface discharge facilities, along with their permitted flows, by planning unit. It also lists landfills or solid waste facilities by planning unit.

The Chassahowitzka River Planning Unit contains nine permitted domestic and industrial facilities. One of them discharges greater than 0.1 mgd through surface water discharges or by land application of the effluent.

**Nonpoint Sources.** Based on Level I and II land use summary information, the predominant land use in the planning unit is upland forests (approximately 40 percent of the planning unit's area). Other major land uses include wetlands (22 percent) and urban and built-up (21 percent). These land uses can be associated with nonpoint discharges of pollutants and eroded sediments. **Appendix G** provides summary information on Level I land uses in the basin, by planning unit.

### Ecological Summary

Floating plants, cattails, and hydrilla are problems in the Chassahowitzka River.

**Table 3.7: Integrated Water Quality Assessment Summary for the Chassahowitzka River Planning Unit**

| | | | | Data Evaluation under the Impaired Surface Waters Rule Criteria[3] | | | | |
|---|---|---|---|---|---|---|---|---|
| WBID | Waterbody Segment | Waterbody Type[1] | Class[2] | 1998 303(d) List Parameters of Concern | Potentially Impaired (Cat. 3c) for Listed Parameters | Verified Impaired (Cat. 4a, 4b, 4c, or 5) for Listed Parameters[4] | Not Impaired (Cat. 2) for Listed Parameters | EPA's 305(b)/303(d) Integrated Report Assessment Category for WBID[5] |
| 1348 | Chassahowitzka River | Stream | IIIF | | Conductance | DO | Chlorophyll *a*, Fluoride, Fecal Coliforms, Historical Chlorophyll, Turbidity, Unionized Ammonia, pH | 3d |
| 1348D | Baird Creek | Stream | IIIF | | Conductance | | Chlorophyll *a*, DO, Historical Chlorophyll | 3c |
| 1348Z | Chassahowitzka Main | Spring | IIIF | | Conductance | DO | Fluoride, Fecal Coliforms, Total Coliforms, Turbidity, pH | 3d |
| 1361 | Weeki Wachee River | Stream | IIIF | | | DO | Chlorophyll *a*, Historical Chlorophyll | 3d |
| 1361A | Skinner Lake–Open Water | Lake | IIIF | | Iron, pH | | Conductance, DO, Turbidity, Unionized Ammonia | 3c |
| 1364 | Lizzie Hart Sink | Lake | IIIF | | | | | 3a |
| 1364A | Lizzie Hart Sink Drain | Lake | IIIF | | | | | 3a |
| 8041 | Crystal River Gulf 3 | Coastal | IIIM | | | Mercury in Fish | Chlorophyll *a*, DO, Historical Chlorophyll | 3d |

Notes:

[1]The designation "stream" includes canals, rivers, and sloughs. The designation "lake" includes some marshes.
[2]The state's surface water classifications are as follows:

**Class I: Potable water supplies**
**Class II: Shellfish propagation or harvesting**
**Class III: Recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife**
**Class IV: Agricultural water supplies**
**Class V: Navigation, utility, and industrial use (there are no state waters currently in this class)**

[3]The EPA's 305(b)/303(d) Integrated Report categories are as follows:

**1**—Attains all designated uses;
**2**—Attains some designated uses;
**3a**—No data and information are available to determine if any designated use is attained;
**3b**—Some data and information are available, but they are insufficient for determining if any designated use is attained;
**3c**—Meets Planning List criteria and is potentially impaired for one or more designated uses;
**3d**—Parameter meets Verified List criteria and is potentially impaired for one or more designated uses;
**4a**—Impaired for one or more designated uses and the TMDL is complete;
**4b**—Impaired for one or more designated uses, but no TMDL is required because an existing or proposed pollutant control mechanism provides reasonable assurance that the water will attain standards in the future;
**4c**—Impaired for one or more designated uses but no TMDL is required because the impairment is not caused by a pollutant; and
**5**—Water quality standards are not attained and a TMDL is required.

**Table 3.7 (continued)**

[4]Parameters in italics are in Category 4 (a, b, or c) waters that do not require TMDL development.
[5]The assessment categories listed in this column represent the status of each WBID as a whole, **based on multiple parameters**. The hierarchy for assigning these categories is Category 5, then 4, then 3c, then 2, and then 3b, i.e., each WBID is assigned a category based on the highest category assigned to an individual parameter. For example, if WBID 9999 has total coliforms as Category 5, fecal coliforms as Category 3c, and coliforms-shellfish as Category 2, the single assessment call for the WBID is Category 5.

DO = Dissolved oxygen
F = Fresh water
M = Marine

- Middle Coastal Planning Unit

### General Description

The Middle Coastal Planning Unit covers about 466 square miles and contains 53 segments with WBIDs **(Figure 3.6)**.

The Weeki Wachee River is located in southwest Hernando County, about 12 miles southwest of Brooksville. Weeki Wachee Springs, the headwaters of the river and the largest of 9 springs associated with the Weeki Wachee system, lies just southwest of the junction of U.S. Highway 19 and State Highway 50. The springs discharge an average of 176 cubic feet per second.

From its headwaters, the Weeki Wachee River extends westward through approximately 7.5 miles of coastal swamps and marshes to the Gulf of Mexico. The Department designated the Weeki Wachee River as an OFW.

Tributaries to the river include the Mud River and Jenkins Creek. The Mud River joins the Weeki Wachee about 0.8 miles upstream of the mouth of the river. The headwaters of Jenkins Creek are located east of County Road 595. The creek flows west-northwest approximately 1.3 miles through a coastal marsh before reaching the Gulf of Mexico less than a quarter-mile south of the mouth of the Weeki Wachee River.

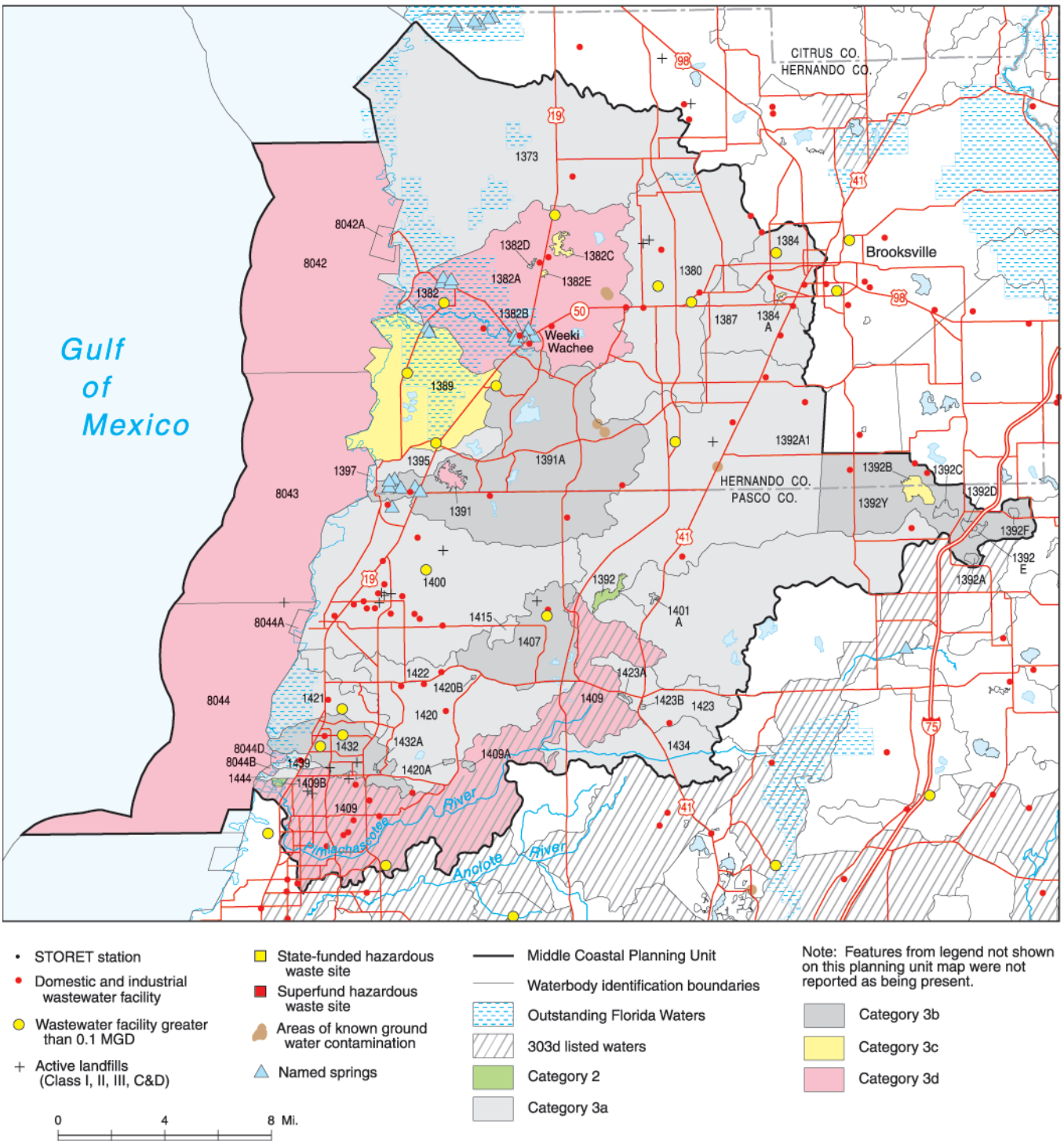
Hammock Creek originates in several small springs clustered in a one-square-mile area in southwestern Hernando County. It is joined by several lesser tidal creeks before reaching the Gulf of Mexico at the town of Aripeka.

The Pithlachascotee River (Cotee River) system, located in western Pasco County, includes both estuarine and freshwater reaches. The river extends approximately 25 miles in a southwest direction, from its headwaters at Crews Lake to the Gulf of Mexico at Port Richey.

Crews Lake, which covers approximately 693 acres, is directly connected to the Floridan aquifer by a sinkhole in the northern part of the lake. The lake level varies seasonally, and the lake may drain completely through the sinkhole during very dry years.

### Water Quality Summary

Except for Weeki Wachee Springs, most of the springs in the Weeki Wachee area have very limited flow and water quality data. Changes in land uses in the watershed of the springs appear to have affected the coastal springs, rivers and creeks, and estuary. Although overall water quality in the river is still good, nitrate concentrations at the headspring have



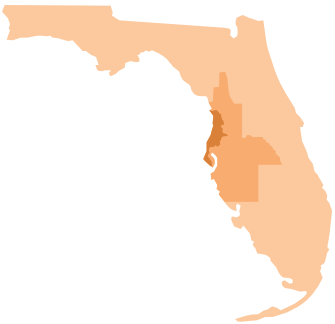

- STORET station
- Domestic and industrial wastewater facility
- Wastewater facility greater than 0.1 MGD
- Active landfills (Class I, II, III, C&D)
- State-funded hazardous waste site
- Superfund hazardous waste site
- Areas of known ground water contamination
- Named springs
- Middle Coastal Planning Unit
- Waterbody identification boundaries
- Outstanding Florida Waters
- 303d listed waters
- Category 2
- Category 3a

Note: Features from legend not shown on this planning unit map were not reported as being present.

- Category 3b
- Category 3c
- Category 3d

0 4 8 Mi.

*Figure 3.6: Composite Map of the Middle Coastal Planning Unit, Including the 1998 303(d) List and Planning List Waters*



increased over time. In 1997, the mean nitrate concentration of the Weeki Wachee main spring was 0.53 milligrams per liter (for data collected from 1992 to 1996), 50 times higher than background levels (< 0.01 mg/L).

Water quality in the Hammock Creek system is relatively good, except for rising nitrate concentrations. This system experiences less inflows of fresh water than other river systems in the area, but remains an important part of the marine/estuarine ecosystem.

Crews Lake exhibited good water quality historically. The upper portions of the Pithlachascotee River are surrounded by primarily rural land uses, while the lower reaches are relatively urbanized, especially around Port Richey and New Port Richey. This reach of the river receives significant amounts of stormwater runoff. As a result, nitrogen and phosphorus levels, as well as bacteria and protozoans, have increased.

Fertilizers on golf courses, residential turf, and landscapes are the predominant source of nutrients in the Weeki Wachee and Hammock Creek systems in the planning unit. Septic tanks are also a significant source.

**Figure 3.6**, a composite map of the planning unit, shows waters on the 1998 303(d) list and the Planning List. **Table 3.8** summarizes the water quality assessment status of all waterbody segments in the planning unit. The table and figure show that 16 waterbody segments in the planning unit are potentially impaired. The 16 potentially impaired segments in the planning unit, and the parameters of impairment, are as follows:

| | |
|---|---|
| Weeki Wachee River | Alkalinity, iron, DO |
| Weeki Wachee Springs | DO |
| Tooke Lake | Alkalinity |
| Highland Lake | Iron |
| Bonnett Pond | Iron |
| Jenkins Spring | Conductance, DO |
| Hunter Lake | Iron, mercury in fish |
| Lake Hancock | Iron, pH |
| Pithlachascotee River | Biology, conductance, bacteria, DO |
| Crystal River Gulf 4 | Mercury in fish |
| Pine Island Beach | Mercury in fish |
| Crystal River Gulf 5 | Mercury in fish |
| Crystal River Gulf 6 | Mercury in fish |
| Robert J. Strickland Beach | Bacteria, mercury in fish |
| Brasher Park Beach | Bacteria, mercury in fish |
| Energy and Marine Center | Bacteria, mercury in fish |

### Permitted Discharges and Land Uses

**Point Sources. Figure 3.6** shows permitted wastewater treatment facilities, landfills, and delineated ground water contamination areas in the planning unit. **Appendix E** lists the basin's domestic and industrial surface discharge facilities, along with their permitted flows by planning unit. It also lists landfills or solid waste facilities by planning unit.

The Middle Coastal Planning Unit contains 71 permitted domestic and industrial facilities. Twenty-six of them discharge greater than

**Table 3.8: Integrated Water Quality Assessment Summary for the Middle Coastal Planning Unit**

| | | | | Data Evaluation under the Impaired Surface Waters Rule Criteria[3] | | | | |
|---|---|---|---|---|---|---|---|---|
| WBID | Waterbody Segment | Waterbody Type[1] | Class[2] | 1998 303(d) List Parameters of Concern | Potentially Impaired (Cat. 3c) for Listed Parameters | Verified Impaired (Cat. 4a, 4b, 4c, or 5) for Listed Parameters[4] | Not Impaired (Cat. 2) for Listed Parameters | EPA's 305(b)/303(d) Integrated Report Assessment Category for WBID[5] |
| 1373 | Direct Runoff to Gulf | Estuary | IIIM | | | | | 3a |
| 1380 | Internally Drained | Stream | IIIF | | | | | 3a |
| 1382 | Weeki Wachee River | Estuary | IIIM | | | | | 3a |
| 1382A | Weeki Wachee River | Stream | IIIF | | Alkalinity, Iron | DO | Chlorophyll *a*, Conductance, Fluoride, Fecal Coliforms, Historical Chlorophyll, Total Coliforms, Turbidity, Unionized Ammonia, pH | 3d |
| 1382B | Weeki Wachee Spring | Spring | IIIF | | | DO | Chlorophyll *a*, Conductance, Historical Chlorophyll, Turbidity, pH | 3d |
| 1382C | Tooke Lake–Open Water | Lake | IIIF | | Alkalinity | | Conductance, DO, Fluoride, Fecal Coliforms, Historic TSI, Total Coliforms, TSI, Turbidity, pH | 3c |
| 1382D | Double Cypress Pond–Open Water | Lake | IIIF | | | | | 3b |
| 1382E | Highland Lake–Open Water | Lake | IIIF | | Iron | | | 3c |
| 1384 | Pecks Sink | Lake | IIIF | Chlorophyll *a* | | | | 3a |
| 1384A | Bonnett Pond–Open Water | Lake | IIIF | | Iron | | Conductance, DO, Turbidity, Unionized Ammonia, pH | 3c |
| 1387 | Pecks Sink Overflow | Stream | IIIF | | | | | 3a |
| 1389 | Jenkins Spring | Stream | IIIF | | Conductance, DO | | Turbidity, pH | 3c |

**Table 3.8 (continued)**

| | | | | Data Evaluation under the Impaired Surface Waters Rule Criteria[3] | | | | |
|---|---|---|---|---|---|---|---|---|
| WBID | Waterbody Segment | Waterbody Type[1] | Class[2] | 1998 303(d) List Parameters of Concern | Potentially Impaired (Cat. 3c) for Listed Parameters | Verified Impaired (Cat. 4a, 4b, 4c, or 5) for Listed Parameters[4] | Not Impaired (Cat. 2) for Listed Parameters | EPA's 305(b)/303(d) Integrated Report Assessment Category for WBID[5] |
| 1391 | Hunter Lake | Lake | IIIF | | Iron | Mercury in Fish | Alkalinity, Conductance, DO, Fluoride, Fecal Coliforms, Historic TSI, TSI, Turbidity, Unionized Ammonia, pH | 3d |
| 1391A | Hunter Lake Outlet | Lake | IIIF | | | | | 3b |
| 1392 | Crews Lake | Lake | IIIF | | | | TSI | 2 |
| 1392A | Lake Iola | Lake | IIIF | | | | | 3b |
| 1392A1 | Crews Lake Outlet | Lake | IIIF | | | | | 3a |
| 1392B | Lake Hancock–Open Water | Lake | IIIF | | Iron, pH | | Conductance, DO, Turbidity, Unionized Ammonia | 3c |
| 1392C | Middle Lake–Open Water | Lake | IIIF | | | | | 3b |
| 1392D | Moody Lake (West)–Open Water | Lake | IIIF | | | | | 3b |
| 1392E | Moody Lake (East)–Open Water | Lake | IIIF | | | | | 3b |
| 1392F | Jessamine Lake–Open Water | Lake | IIIF | | | | | 3b |
| 1392Y | Lake Iola Outlet | Lake | IIIF | | | | | 3b |
| 1395 | Indian Creek | Stream | IIIF | | | | | 3a |
| 1397 | Direct Runoff to Gulf | Stream | IIIF | | | | | 3a |
| 1400 | Magnolia Spring | Spring | IIIF | | | | | 3a |
| 1401 | Jumping Gully | Stream | IIIF | | | | | 3a |
| 1401A | Loyce Lake–Open Water | Lake | IIIF | | | | | 3b |
| 1407 | Buckhorn Creek | Stream | IIIF | | | | | 3b |

**Table 3.8 (continued)**

| | | | | Data Evaluation under the Impaired Surface Waters Rule Criteria[3] | | | | |
|---|---|---|---|---|---|---|---|---|
| WBID | Waterbody Segment | Waterbody Type[1] | Class[2] | 1998 303(d) List Parameters of Concern | Potentially Impaired (Cat. 3c) for Listed Parameters | Verified Impaired (Cat. 4a, 4b, 4c, or 5) for Listed Parameters[4] | Not Impaired (Cat. 2) for Listed Parameters | EPA's 305(b)/303(d) Integrated Report Assessment Category for WBID[5] |
| 1409 | Pithlachascotee River | Stream | IIIF | DO, Coliforms | Biology, Conductance | Bacteria, DO | Alkalinity, Chlorophyll *a*, Fluoride, Fecal Coliforms, Historical Chlorophyll, Total Coliforms, Turbidity, Unionized Ammonia, pH | 3d |
| 1409A | Moon Lake | Lake | IIIF | | | | | 3b |
| 1409B | Oelsner Park Beach | Stream | IIIF | | | | Fecal Coliforms | 2 |
| 1415 | Cabbage Slough | Stream | IIIF | | | | | 3a |
| 1420 | Bear Creek | Stream | IIIF | | | | | 3a |
| 1420A | West Moon Lake–Open Water | Lake | IIIF | | | | | 3b |
| 1420B | Hunters Lake–Open Water | Lake | IIIF | | | | | 3b |
| 1421 | Direct Runoff to Gulf | Stream | IIIF | | | | | 3a |
| 1422 | Noncontributing Area | Stream | IIIF | | | | | 3a |
| 1423 | Gowers Corner Slough | Stream | IIIF | | | | | 3a |
| 1423A | Pierce Lake–Open Water | Lake | IIIF | | | | | 3b |
| 1423B | Green Lake–Open Water | Lake | IIIF | | | | | 3b |
| 1432 | Double Hammock Creek | Stream | IIIF | | | | | 3b |
| 1432A | Lake Worrell–Open Water | Lake | IIIF | | | | | 3b |
| 1434 | Five Mile Creek | Stream | IIIF | | | | | 3a |
| 1439 | Salt Springs Run | Spring | IIIF | | | | | 3a |
| 1444 | Direct Runoff to Gulf | Estuary | IIIM | | | | | 3a |
| 8042 | Crystal River Gulf 4 | Coastal | IIIM | | | Mercury in Fish | Chlorophyll *a*, DO, Historical Chlorophyll | 3d |

**Table 3.8 (continued)**

| | | | | Data Evaluation under the Impaired Surface Waters Rule Criteria[3] | | | | |
|---|---|---|---|---|---|---|---|---|
| WBID | Waterbody Segment | Waterbody Type[1] | Class[2] | 1998 303(d) List Parameters of Concern | Potentially Impaired (Cat. 3c) for Listed Parameters | Verified Impaired (Cat. 4a, 4b, 4c, or 5) for Listed Parameters[4] | Not Impaired (Cat. 2) for Listed Parameters | EPA's 305(b)/303(d) Integrated Report Assessment Category for WBID[5] |
| 8042A | Pine Island Beach | Coastal | IIIM | | | Mercury in Fish | Chlorophyll *a*, DO, Fecal Coliforms, Historical Chlorophyll | 3d |
| 8043 | Crystal River Gulf 5 | Coastal | IIIM | | | Mercury in Fish | Chlorophyll *a*, DO, Historical Chlorophyll | 3d |
| 8044 | Crystal River Gulf 6 | Coastal | IIIM | | | Mercury in Fish | Chlorophyll *a*, DO, Historical Chlorophyll | 3d |
| 8044A | Robert J. Strickland Beach | Coastal | IIIM | | | Bacteria, Mercury in Fish | Chlorophyll *a*, DO, Fecal Coliforms, Historical Chlorophyll | 3d |
| 8044B | Brasher Park Beach | Coastal | IIIM | | | Bacteria, Mercury in Fish | Fecal Coliforms | 3d |
| 8044D | Energy and Marine Center | Coastal | IIIM | | | Bacteria, Mercury in Fish | Fecal Coliforms | 3d |

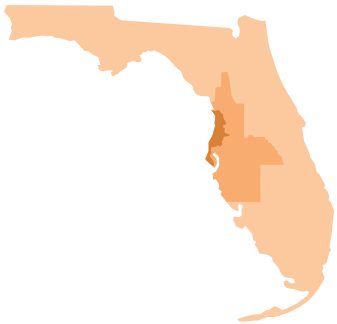
**Notes:**

[1]The designation "stream" includes canals, rivers, and sloughs. The designation "lake" includes some marshes.
[2]The state's surface water classifications are as follows:
- **Class I: Potable water supplies**
- **Class II: Shellfish propagation or harvesting**
- **Class III: Recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife**
- **Class IV: Agricultural water supplies**
- **Class V: Navigation, utility, and industrial use (there are no state waters currently in this class)**

[3]The EPA's 305(b)/303(d) Integrated Report categories are as follows:
- **1**—Attains all designated uses;
- **2**—Attains some designated uses;
- **3a**—No data and information are available to determine if any designated use is attained;
- **3b**—Some data and information are available, but they are insufficient for determining if any designated use is attained;
- **3c**—Meets Planning List criteria and is potentially impaired for one or more designated uses;
- **3d**—Parameter meets Verified List criteria and is potentially impaired for one or more designated uses;
- **4a**—Impaired for one or more designated uses and the TMDL is complete;
- **4b**—Impaired for one or more designated uses, but no TMDL is required because an existing or proposed pollutant control mechanism provides reasonable assurance that the water will attain standards in the future;
- **4c**—Impaired for one or more designated uses but no TMDL is required because the impairment is not caused by a pollutant; and
- **5**—Water quality standards are not attained and a TMDL is required.

[4]Parameters in italics are in Category 4 (a, b, or c) waters that do not require TMDL development.
[5]The assessment categories listed in this column represent the status of each WBID as a whole, **based on multiple parameters**. The hierarchy for assigning these categories is Category 5, then 4, then 3c, then 2, and then 3b, i.e., each WBID is assigned a category based on the highest category assigned to an individual parameter. For example, if WBID 9999 has total coliforms as Category 5, fecal coliforms as Category 3c, and coliforms-shellfish as Category 2, the single assessment call for the WBID is Category 5.

DO = Dissolved oxygen
F = Fresh water
M = Marine
TSI = Trophic State Index



0.1 mgd through surface water discharges or by land application of the effluent.

There are no hazardous waste cleanup sites in the planning unit.

The planning unit contains: two closed and monitored Class I solid waste landfills; five Class II solid waste landfills—one is inactive and four are closed and monitored; two Class III solid waste landfills—one is active and the other is closed and monitored; and seven construction and demolition debris landfills—three are active and four are closed and monitored.

**Nonpoint Sources.** Based on Level I and II land use summary information, the predominant land use in the planning unit is urban and built-up (approximately 33 percent of the planning unit's area). Other major land uses include upland forests (25 percent) and wetlands (22 percent). These land uses can be associated with nonpoint discharges of pollutants and eroded sediments. **Appendix G** provides summary information on Level I land uses in the basin, by planning unit.

### Ecological Summary

Floating plants, cattails, and hydrilla are causing problems in the Weeki Wachee River.

Some wetlands in the planning unit, such as the Jay B. Starkey Wilderness Park in Pasco County, have dried up as a result of ground water pumping from wellfields. In the early to mid-1980s, the SWFWMD documented a shift from wetland to upland vegetation in the far western portion of the planning unit, where the most pumping occurred before 1983.

## • Anclote River/Coastal Pinellas County Planning Unit

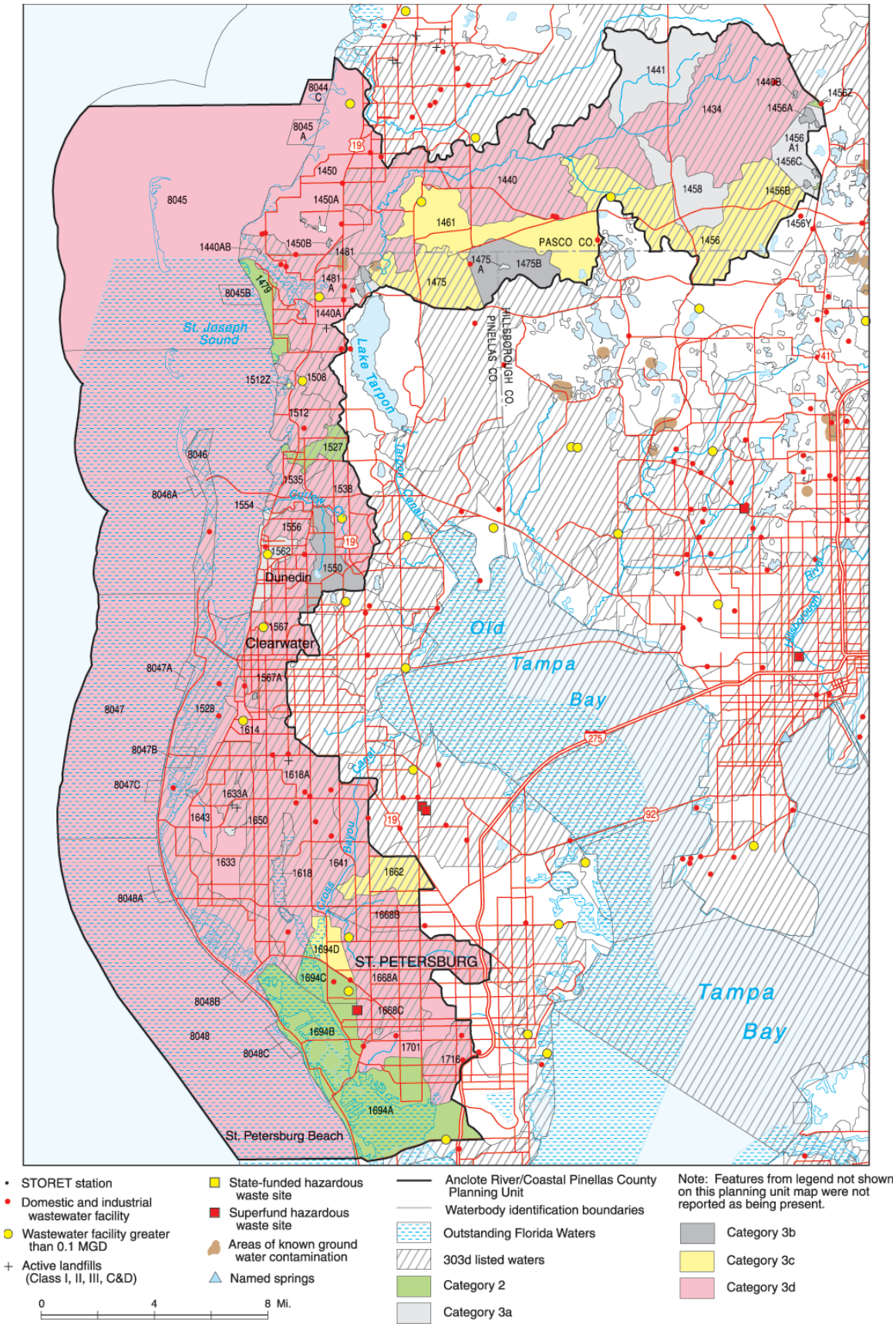
### General Description

The Anclote River/Coastal Pinellas County Planning Unit covers about 252 square miles and contains 78 segments with WBIDs **(Figure 3.7)**.

The Anclote River, which originates in a swampy, low-lying area of south-central Pasco County, flows through the northwestern corner of Pinellas County and enters the Gulf of Mexico just north of Tarpon Springs. The principal tributaries to the river are Cross Cypress Branch, Sandy Branch, and South Branch. Near the coast are Salt Bayou, Whitcomb Bayou, and Kraemer Bay.

From its headwaters to the middle reaches, the river flows through pine flatwoods, citrus, pasture, and forested wetlands. In most years, the upper portion of the river dries up periodically. The lower portion of the river is a tidal estuary that flows into Anclote Anchorage, a shallow area of seagrass beds to the east of Anclote Key. The lower stretches of the river flow through swampy tidally influenced lowlands, and tidal influences extend as much as 14 miles upstream. The mean depth of the lower river is just over 3 feet, except for a dredged shipping channel about 15 feet deep that extends from Tarpon Springs to the river mouth. Salinity at the river mouth ranges from 0.8 to 32.7 parts per thousand, depending on rainfall and tidal flows.

About 45 miles of barrier islands parallel the coast from the Anclote River to the mouth of Tampa Bay. Major land uses in the coastal region

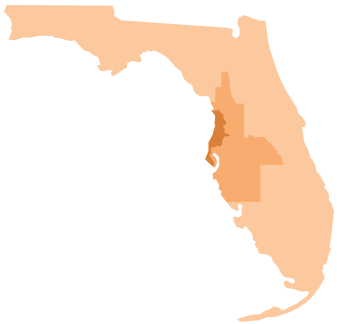



- STORET station
- Domestic and industrial wastewater facility
- Wastewater facility greater than 0.1 MGD
- Active landfills (Class I, II, III, C&D)
- State-funded hazardous waste site
- Superfund hazardous waste site
- Areas of known ground water contamination
- Named springs
- Anclote River/Coastal Pinellas County Planning Unit
- Waterbody identification boundaries
- Outstanding Florida Waters
- 303d listed waters
- Category 2
- Category 3a
- Category 3b
- Category 3c
- Category 3d

Note: Features from legend not shown on this planning unit map were not reported as being present.

0 4 8 Mi.

*Figure 3.7: Composite Map of the Anclote River/Coastal Pinellas County Planning Unit, Including the 1998 303(d) List and Planning List Waters*



include residential and commercial development, citrus, and agriculture. From the Anclote River south to Sunderland Bayou, coastal communities such as mangroves and marshes predominate. Along the remainder of the coastline, however, the natural shoreline has been replaced with seawalls, filled beaches, and riprap.

The Boca Ciega Bay watershed comprises mostly urban land uses (83 percent). Boca Ciega Bay, the southernmost estuary in the basin, has been extensively modified both physically and hydraulically. The bay, which covers about 181 square miles, has a mean depth of less than 7 feet. About 20 percent of its surface area was filled between 1950 and 1965. In addition, 5 major causeways cross the bay.

Lake Seminole, the second largest lake in Pinellas County, was created in 1950 by damming the upper portion of Long Bayou. Currently, almost 80 percent of the lake's drainage area is urban. The lake was isolated by a water control structure built in the 1940s and now discharges over a weir to Long Bayou, which flows to Boca Ciega Bay.

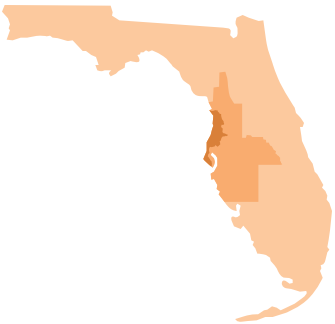
### Water Quality Summary

In the upper stretches of the Anclote River, low DO levels are common because of low flows and the presence of decomposing organic materials (leaves). Most of the land use in this area is agricultural, and the major water quality concerns are bacteria and nutrients. Salinity levels vary in the lower portions of the river because of tidal influences, and elevated levels of phosphorus occur periodically as a result of agricultural runoff. At Tarpon Springs, the river receives urban runoff and point source discharges. Tidal flows, rainfall, and runoff influence water quality in Anclote Anchorage. Urban land uses in the Anclote River watershed are expected to increase by over 270 percent by the year 2010, with corresponding losses to agriculture and upland forest of 98 and 71 percent, respectively.

Water quality in estuarine areas south of Anclote Anchorage depends on tidal flushing and the number of localized discharges from point and nonpoint sources. Curlew Creek has high levels of total phosphorus (TP), ammonia, total Kjeldahl nitrogen, and total and fecal coliforms. In St. Joseph Sound, north-to-south increases in color and chlorophyll *a* levels correspond with increased urbanization and point source discharges.

In the Clearwater Harbor watershed, land use mostly consists of high-density residential development. Clearwater Harbor receives significant amounts of drainage from creeks, channelized ditches and streams, storm sewers, and sheet flow. Water quality in the harbor is generally good; however, some tributaries and areas in the watershed have poor water quality, including Curlew Creek (high concentrations of nitrates and chlorophyll *a*) and Klosterman Bayou/Innisbrook Canal and Stevensons Creek (nitrogen, TP, total suspended solids [TSS], and chlorophyll *a*). The Klosterman Bayou/Innisbrook Canal sampling station located at U.S. 19 was ranked worst among the sites in Clearwater Harbor sampled by Pinellas County.

The Narrows has poor water quality, with high levels of ammonia, TP, orthophosphate, and total Kjeldahl nitrogen from surface runoff and urban stormwater systems.



Water quality in Boca Ciega Bay is affected by proximity to the tributary mouths, barrier island passes, and seasonal patterns of water movement. A number of tributaries to the bay have been converted to underground storm sewers or open ditches, and generally, the quality of urban stormwater draining to the bay is poor. In some areas, there may also be sediment contamination. In particular, Cross Bayou, Long Bayou, Joe's Creek, and Cross Bayou Canal are close to contaminated discharges, and flushing is restricted. These waterbodies have the worst water quality in the Boca Ciega Bay system, with low DO levels and high levels of nutrients, biological oxygen demand, and coliform bacteria.

Stormwater from Bear Creek, a residential drainage basin, contains elevated levels of total and fecal coliforms, lead, and zinc, as well as the pesticides chlordane, Silvex, 2,4-D, and 2,4,5-T. Sediment samples from the creek contain high levels of volatile solids, total nitrogen, TP, and lead, in addition to chlordane, dichlorodiphenyldichloroethane, dieldrin, polychlorinated biphenyls, and heptachlor-epoxide.

The upper reaches of Joe's Creek consist of two-thirds storm sewer and one-third open ditch. Stormwater and sediment quality in the creek are similar to those of Bear Creek, except for higher concentrations of heavy metals, lead, and zinc.

Lake Seminole, which has no tidal flushing, has had poor water quality for many years and is hypereutrophic. The lake has high concentrations of chlorophyll *a* and TSS. The blue-green algae *Cylindrospermopsis* sp. is the main contributor to the lake's algal biomass.

**Figure 3.7**, a composite map of the planning unit, shows waters on the 1998 303(d) list and the Planning List. **Table 3.9** summarizes the water quality assessment status of all waterbody segments in the planning unit. The table and figure show that 46 waterbody segments in the planning unit are potentially impaired.

### Permitted Discharges and Land Uses

**Point Sources. Figure 3.6** shows permitted wastewater treatment facilities, landfills, and delineated ground water contamination areas in the planning unit. **Appendix E** lists the basin's domestic and industrial surface discharge facilities, along with their permitted flows, by planning unit. It also lists landfills or solid waste facilities by planning unit.

The Anclote River/Coastal Pinellas County Planning Unit contains 76 permitted domestic and industrial facilities. Twenty-eight of them discharge greater than 0.1 mgd through surface water discharges or by land application of the effluent.

There is one hazardous waste cleanup site in the planning unit.

The planning unit contains one closed and monitored Class I solid waste landfill; two closed and monitored Class III solid waste landfills; and one closed and monitored construction and demolition debris landfill.

**Nonpoint Sources.** Based on Level I and II land use summary information, the predominant land use in the planning unit is urban and built-up (approximately 57 percent of the planning unit's area). Other major land uses include wetlands (14 percent) and agriculture (12 percent). These land uses can be associated with nonpoint discharges of pollutants

**Table 3.9: Integrated Water Quality Assessment Summary for the Anclote River/Coastal Pinellas County Planning Unit**

| | | | | Data Evaluation under the Impaired Surface Waters Rule Criteria[3] | | | | |
|---|---|---|---|---|---|---|---|---|
| WBID | Waterbody Segment | Waterbody Type[1] | Class[2] | 1998 303(d) List Parameters of Concern | Potentially Impaired (Cat. 3c) for Listed Parameters | Verified Impaired (Cat. 4a, 4b, 4c, or 5) for Listed Parameters[4] | Not Impaired (Cat. 2) for Listed Parameters | EPA's 305(b)/303(d) Integrated Report Assessment Category for WBID[5] |
| 1440 | Anclote River | Stream | IIIF | DO, Mercury in Fish | Mercury in Fish | DO | Alkalinity, Biology, Chlorophyll *a*, Conductance, Fluoride, Fecal Coliforms, Historical Chlorophyll, Total Coliforms, Turbidity, Unionized Ammonia, pH | 3d |
| 1440A | Spring Bayou | Stream | IIIF | BOD, DO, Coliforms, Chlorophyll *a* | BOD, Conductance | DO | Chlorophyll *a*, Fecal Coliforms, Historical Chlorophyll, Total Coliforms, Turbidity, Unionized Ammonia, pH | 3d |
| 1440AB | Anclote River Park Beach | Coastal | IIIM | | | Mercury in Fish | Fecal Coliforms | 3d |
| 1440B | Wistaria Lake–Open Water | Lake | IIIF | | | | | 3b |
| 1441 | Cross Cypress Branch | Stream | IIIF | | | | | 3a |
| 1450 | Direct Runoff to Gulf | Lake | IIIF | | Conductance | TSI | Alkalinity, DO, Fecal Coliforms, Total Coliforms, Turbidity, Unionized Ammonia, pH | 3d |
| 1450A | Lake Conley | Lake | IIIF | | | | | 3b |
| 1450B | Lake Nash | Estuary | IIIM | | | | | 3b |
| 1456 | South Branch | Stream | IIIF | DO, Coliforms, Chlorophyll *a* | DO, Fecal Coliforms, Total Coliforms, Chlorophyll *a* | | | 3c |
| 1456A | Lake Thomas | Lake | IIIF | | | | | 3b |
| 1456A1 | Lake Thomas Drain | Lake | IIIF | | | | | 3a |
| 1456B | Big Lake Vienna–Open Water | Lake | IIIF | | | | | 3b |
| 1456C | Vienna Lake–Open Water | Lake | IIIF | | | | | 3b |
| 1456Y | Vienna Lake | Lake | IIIF | | | | TSI | 2 |

**Table 3.9 (continued)**

| WBID | Waterbody Segment | Waterbody Type[1] | Class[2] | Data Evaluation under the Impaired Surface Waters Rule Criteria[3]: 1998 303(d) List Parameters of Concern | Potentially Impaired (Cat. 3c) for Listed Parameters | Verified Impaired (Cat. 4a, 4b, 4c, or 5) for Listed Parameters[4] | Not Impaired (Cat. 2) for Listed Parameters | EPA's 305(b)/303(d) Integrated Report Assessment Category for WBID[5] |
|---|---|---|---|---|---|---|---|---|
| 1456Z | Treasure Lake | Lake | IIIF | | | | TSI | 2 |
| 1458 | Sandy Branch | Stream | IIIF | | | | | 3a |
| 1461 | Duck Slough | Stream | IIIF | | DO | | | 3c |
| 1464 | Lake Ann | Lake | IIIF | | | | | 3a |
| 1464A | Black Lake–Open Water | Lake | IIIF | | | | | 3b |
| 1464B | Fishing Lake–Open Water | Lake | IIIF | | | | | 3b |
| 1464C | Lake Minniola | Lake | IIIF | | | | Historic TSI, TSI | 2 |
| 1464V | Lake Hiawatha | Lake | IIIF | | | | Historic TSI, TSI | 2 |
| 1464W | Lake Parker | Lake | IIIF | | | | TSI | 2 |
| 1464X | Lake Seminole | Lake | IIIF | | | | Historic TSI, TSI | 2 |
| 1464Y | Lake Geneva | Lake | IIIF | | | | | 2 |
| 1464Z | Bass Lake | Lake | IIIF | | | | | 3b |
| 1475 | Hollin Creek | Stream | IIIF | DO, Chlorophyll *a* | DO, Chlorophyll *a* | | Conductance, pH | 3c |
| 1475A | Lake Dan | Lake | IIIF | | | | | 3a |
| 1475B | Lake Dan Outlet | Lake | IIIF | | | | | 3b |
| 1479 | Direct Runoff to Gulf | Estuary | IIIM | | | | Historical Chlorophyll | 2 |
| 1481 | Salt Lake | Lake | IIIF | | | | | 3b |
| 1481A | Salt Lake Outlet | Lake | IIIF | | | | | 3a |
| 1508 | Klosterman Bayou Run | Estuary | IIIM | DO, Coliforms, Chlorophyll *a* | | Chlorophyll *a*, DO | Fecal Coliforms, Historical Chlorophyll, Total Coliforms, Turbidity, pH | 3d |
| 1512 | Health Spring Drain | Spring | IIIF | Chlorophyll *a* | Fecal Coliforms, Conductance | DO | Chlorophyll *a*, Fluoride, Fecal Coliforms, Historical Chlorophyll, Total Coliforms, Turbidity, Unionized Ammonia, pH | 3d |
| 1512Z | Wall Spring (Health Spring) | Spring | IIIF | | Conductance, DO | | pH | 3c |
| 1527 | Sutherland Bayou | Estuary | IIIM | DO, Chlorophyll *a* | | Chlorophyll *a* | Chlorophyll *a*, DO, Turbidity, pH | 2 |

**Table 3.9 (continued)**

| WBID | Waterbody Segment | Waterbody Type[1] | Class[2] | Data Evaluation under the Impaired Surface Waters Rule Criteria[3]: 1998 303(d) List Parameters of Concern | Potentially Impaired (Cat. 3c) for Listed Parameters | Verified Impaired (Cat. 4a, 4b, 4c, or 5) for Listed Parameters[4] | Not Impaired (Cat. 2) for Listed Parameters | EPA's 305(b)/303(d) Integrated Report Assessment Category for WBID[5] |
|---|---|---|---|---|---|---|---|---|
| 1528 | Direct Runoff to Gulf | Estuary | IIIM | DO, Chlorophyll *a* | | DO | Chlorophyll *a*, Fecal Coliforms, Historical Chlorophyll, Total Coliforms, Turbidity, pH | 3d |
| 1535 | Direct Runoff to Gulf | Estuary | IIIM | DO, Coliforms, Chlorophyll *a* | | DO | Chlorophyll *a*, Fecal Coliforms, Historical Chlorophyll, Total Coliforms, Turbidity, pH | 3d |
| 1538 | Curlew Creek | Estuary | IIIM | DO, Coliforms, Chlorophyll *a* | Biology, Total Coliforms, Fecal Coliforms | Chlorophyll *a*, DO, Historical Chlorophyll | Turbidity, pH | 3d |
| 1550 | Jerry Branch | Stream | IIIF | | | | | 3b |
| 1554 | Direct Runoff to Gulf | Stream | IIIF | | | | | 3a |
| 1556 | Cedar Creek | Estuary | IIIM | DO, Coliforms, Chlorophyll *a* | Total Coliforms, Fecal Coliforms | Chlorophyll *a*, DO | Historical Chlorophyll, Turbidity, pH | 3d |
| 1562 | Direct Runoff to Gulf | Stream | IIIF | | | | | 3a |
| 1567 | Stevenson Creek | Estuary | IIIM | DO, Coliforms, Chlorophyll *a* | Fecal Coliforms, Total Coliforms | Chlorophyll *a*, DO | Historical Chlorophyll, Turbidity, pH | 3d |
| 1567A | Bellevue Lake–Open Water | Lake | IIIF | | | | | 3b |
| 1614 | Belleair Golfclub Run | Stream | IIIF | | Fecal Coliforms, Total Coliforms | DO | Chlorophyll *a*, Conductance, Historical Chlorophyll, Turbidity, Unionized Ammonia, pH | 3d |
| 1618 | Lake Seminole | Lake | IIIF | Coliforms, Chlorophyll *a*, pH | Fecal Coliforms, Unionized Ammonia | TSI, Turbidity | Conductance, DO, Historic TSI, Total Coliforms | 3d |
| 1618A | Lake Seminole Outlet | Lake | IIIF | | | DO, TSI | Conductance, Turbidity, pH | 3d |
| 1633 | McKay Creek | Estuary | IIIM | DO, Coliforms, Chlorophyll *a* | Fecal Coliforms, Total Coliforms | Chlorophyll *a*, DO | Fluoride, Historical Chlorophyll, Turbidity, pH | 3d |

**Table 3.9 (continued)**

| | | | | Data Evaluation under the Impaired Surface Waters Rule Criteria[3] | | | | |
|---|---|---|---|---|---|---|---|---|
| WBID | Waterbody Segment | Waterbody Type[1] | Class[2] | 1998 303(d) List Parameters of Concern | Potentially Impaired (Cat. 3c) for Listed Parameters | Verified Impaired (Cat. 4a, 4b, 4c, or 5) for Listed Parameters[4] | Not Impaired (Cat. 2) for Listed Parameters | EPA's 305(b)/303(d) Integrated Report Assessment Category for WBID[5] |
| 1633A | Taylor Lake | Lake | IIIF | | Fecal Coliforms | DO, TSI | Conductance, Historic TSI, Total Coliforms, Turbidity, Unionized Ammonia, pH | 3d |
| 1641 | Cross Canal (South) | Estuary | IIIM | NPS | Fecal Coliforms, Total Coliforms | Chlorophyll *a*, DO | Historical Chlorophyll, Turbidity, pH | 3d |
| 1643 | Church Creek | Stream | IIIF | | Fecal Coliforms, Total Coliforms | Chlorophyll *a* | Conductance, DO, Historical Chlorophyll, Turbidity, Unionized Ammonia, pH | 3d |
| 1650 | Walsingham Reservoir | Lake | IIIF | | | | | 3a |
| 1662 | Pinellas Park Ditch | Estuary | IIIM | DO, Coliforms, Chlorophyll *a* | DO, Fecal Coliforms, Chlorophyll *a*, Total Coliforms | | Historical Chlorophyll, Turbidity, pH | 3c |
| 1668A | St. Joe Creek | Stream | IIIF | BOD, DO, Coliforms, Chlorophyll *a*, TSS | BOD, Fecal Coliforms, Total Coliforms | Chlorophyll *a*, DO, Historical Chlorophyll, TSS | Conductance, Turbidity, Unionized Ammonia, pH | 3d |
| 1668B | Bonn Creek | Stream | IIIF | BOD, DO, Coliforms, Chlorophyll *a*, Turbidity | BOD, Fecal Coliforms, Total Coliforms | Chlorophyll *a*, DO, Historical Chlorophyll | Conductance, Turbidity, Unionized Ammonia, pH | 3d |
| 1668C | Pasadena Lake–Open Water | Lake | IIIF | | | | | 3b |
| 1694A | Boca Ciega Bay | Estuary | IIIM | | | | Chlorophyll *a*, DO, Fecal Coliforms, Historical Chlorophyll, Total Coliforms, Turbidity, pH | 2 |
| 1694B | Boca Ciega Bay | Estuary | IIIM | | | | Chlorophyll *a*, DO, Fecal Coliforms, Historical Chlorophyll, Total Coliforms, Turbidity, pH | 2 |

**Table 3.9 (continued)**

| | | | | Data Evaluation under the Impaired Surface Waters Rule Criteria[3] | | | | |
|---|---|---|---|---|---|---|---|---|
| WBID | Waterbody Segment | Waterbody Type[1] | Class[2] | 1998 303(d) List Parameters of Concern | Potentially Impaired (Cat. 3c) for Listed Parameters | Verified Impaired (Cat. 4a, 4b, 4c, or 5) for Listed Parameters[4] | Not Impaired (Cat. 2) for Listed Parameters | EPA's 305(b)/303(d) Integrated Report Assessment Category for WBID[5] |
| 1694C | Boca Ciega Bay | Estuary | IIIM | | | | Chlorophyll *a*, DO, Fecal Coliforms, Historical Chlorophyll, Total Coliforms, Turbidity, pH | 2 |
| 1694D | Boca Ciega Bay | Estuary | IIIM | | DO | | Chlorophyll *a*, Turbidity, pH | 3c |
| 1701 | Bear Creek | Stream | IIIF | | Conductance, Fecal Coliforms, Total Coliforms | DO | Chlorophyll a, Historical Chlorophyll, Turbidity, Unionized Ammonia, pH | 3d |
| 1716 | Clam Bayou Drain | Estuary | IIIM | DO, Coliforms, Chlorophyll *a* | Fecal Coliforms | Chlorophyll *a*, DO | Historical Chlorophyll, Total Coliforms, Turbidity, pH | 3d |
| 8044C | Robert K. Rees Park Beach | Coastal | IIIM | | | Mercury in Fish | Fecal Coliforms | 3d |
| 8045 | Crystal River Gulf 7 | Coastal | IIIM | | | Mercury in Fish | Chlorophyll *a*, DO, Historical Chlorophyll, Turbidity, pH | 3d |
| 8045A | Gulf Harbors Beach | Coastal | IIIM | | | Mercury in Fish | Fecal Coliforms | 3d |
| 8045B | Fred Howard Beach | Coastal | IIIM | | | Mercury in Fish | Fecal Coliforms | 3d |
| 8046 | Crystal River Gulf 8 | Coastal | IIIM | | | Mercury in Fish | Chlorophyll a, DO, Fecal Coliforms, Historical Chlorophyll, Total Coliforms, Turbidity, pH | 3d |
| 8046A | Honeymoon Island Beach | Coastal | IIIM | | | Mercury in Fish | Fecal Coliforms | 3d |
| 8047 | Crystal River Gulf 9 | Coastal | IIIM | | pH | Mercury in Fish | DO | 3d |
| 8047A | Sand Key | Coastal | IIIM | | | Mercury in Fish | Fecal Coliforms | 3d |
| 8047B | Belleair Shores Intercoastal | Coastal | IIIM | | | Mercury in Fish | Fecal Coliforms | 3d |
| 8047C | Indian Rocks Beach | Coastal | IIIM | | | Mercury in Fish | Fecal Coliforms | 3d |

**Table 3.9 (continued)**

| | | | | Data Evaluation under the Impaired Surface Waters Rule Criteria[3] | | | | |
|---|---|---|---|---|---|---|---|---|
| WBID | Waterbody Segment | Waterbody Type[1] | Class[2] | 1998 303(d) List Parameters of Concern | Potentially Impaired (Cat. 3c) for Listed Parameters | Verified Impaired (Cat. 4a, 4b, 4c, or 5) for Listed Parameters[4] | Not Impaired (Cat. 2) for Listed Parameters | EPA's 305(b)/303(d) Integrated Report Assessment Category for WBID[5] |
| 8047D | Courtney Campbell Causeway | Coastal | IIIM | | | | Fecal Coliforms | 2 |
| 8048 | Crystal River Gulf 10 | Coastal | IIIM | | | Mercury in Fish | | 3d |
| 8048A | Indian Shores Beach | Coastal | IIIM | | | Mercury in Fish | Fecal Coliforms | 3d |
| 8048B | Madeira Beach | Coastal | IIIM | | | Mercury in Fish | Fecal Coliforms | 3d |
| 8048C | Treasure Island Beach | Coastal | IIIM | | | Mercury in Fish | Fecal Coliforms | 3d |

Notes:

[1]The designation "stream" includes canals, rivers, and sloughs. The designation "lake" includes some marshes.
[2]The state's surface water classifications are as follows:

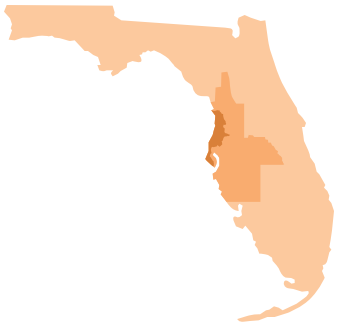
**Class I: Potable water supplies**
**Class II: Shellfish propagation or harvesting**
**Class III: Recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife**
**Class IV: Agricultural water supplies**
**Class V: Navigation, utility, and industrial use (there are no state waters currently in this class)**

[3]The EPA's 305(b)/303(d) Integrated Report categories are as follows:

**1**—Attains all designated uses;
**2**—Attains some designated uses;
**3a**—No data and information are available to determine if any designated use is attained;
**3b**—Some data and information are available, but they are insufficient for determining if any designated use is attained;
**3c**—Meets Planning List criteria and is potentially impaired for one or more designated uses;
**3d**—Parameter meets Verified List criteria and is potentially impaired for one or more designated uses;
**4a**—Impaired for one or more designated uses and the TMDL is complete;
**4b**—Impaired for one or more designated uses, but no TMDL is required because an existing or proposed pollutant control mechanism provides reasonable assurance that the water will attain standards in the future;
**4c**—Impaired for one or more designated uses but no TMDL is required because the impairment is not caused by a pollutant; and
**5**—Water quality standards are not attained and a TMDL is required.

[4]Parameters in italics are in Category 4 (a, b, or c) waters that do not require TMDL development.
[5]The assessment categories listed in this column represent the status of each WBID as a whole, **based on multiple parameters**. The hierarchy for assigning these categories is Category 5, then 4, then 3c, then 2, and then 3b, i.e., each WBID is assigned a category based on the highest category assigned to an individual parameter. For example, if WBID 9999 has total coliforms as Category 5, fecal coliforms as Category 3c, and coliforms-shellfish as Category 2, the single assessment call for the WBID is Category 5.

BOD = Biological oxygen demand
DO = Dissolved oxygen
F = Fresh water
M = Marine
NPS = Nonpoint source
TSI = Trophic State Index



and eroded sediments. **Appendix G** provides summary information on Level I land uses in the basin, by planning unit.

### Ecological Summary

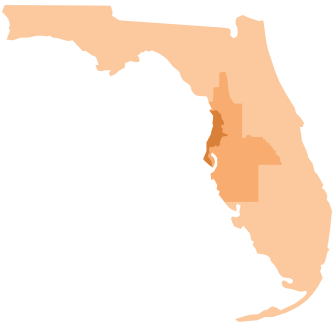
**Invasive Exotic Species.** In a number of areas in the Anclote River watershed, agricultural and urban development have provided pathways for invasive exotic species such as cogon grass *(Imperata cylindrica)*, Brazilian pepper *(Schinus terebinthifolius)*, air potato *(Dioscorea bulbifera)*, skunk vine *(Paederia foetida)*, melaleuca *(Melaleuca quinquenervia)*, and tropical soda apple *(Solanum viarum)*. Portions of the SWFWMD's Starkey wellfield property (about 8,000 acres) and the privately owned Anclote River Ranch (about 4,000 acres) have problems with invasive exotics, as do urban areas near the mouth of the Anclote River.

In the western Pinellas peninsula, Brazilian pepper and Australian pine *(Casuarina equisetifolia)* are found along roadways and in disturbed coastal habitats (i.e., dredged and filled areas and residential areas). Pockets of Australian pine planted in the 1940s and 1950s can be found along several portions of the Intracoastal Waterway and the Gulf beaches. Infestations of hydrilla *(Hydrilla verticillata)* have been found in the Anclote River, Allens, and Stevenson Creeks in the city of Clearwater, drainage canals and retention ponds in the city of Dunedin, and Lake Seminole. Other invasive species in the watershed include cajeput, or punk tree *(Melaleuca quinquenervia)* and water hyacinth *(Eichhornia crassipes)*.

**Forest Fragmentation.** Extensive land clearing for farming and cattle operations has resulted in the destruction and degradation of a number of ecosystem types in the Anclote River watershed, including pine flatwoods, xeric habitats, and riparian and other wetland ecosystems. Urban development pressures are substantial near the mouth of the Anclote River and the southern boundary of the Anclote River watershed. The largest areas of remaining natural habitat include the SWFWMD's Starkey wellfield property (about 8,000 acres), the Serenova tract (about 10,000 acres), and the privately owned Anclote River Ranch (about 4,000 acres). Ground water pumping at the Starkey wellfield has degraded wetland habitats both inside and outside the wellfield's boundaries.

Habitat destruction and fragmentation in western Pinellas County have also been severe. Dredging and filling along the coast and on the barrier islands have destroyed tidal marsh and tidal swamp habitats, while inland development has eliminated most areas of pine flatwoods, depression marsh, and xeric habitat. The remaining natural habitats are highly fragmented and subject to urban impacts. Some of the largest publicly owned lands include Caladesi and Honeymoon Islands, as well as lands owned by Pinellas County adjacent to Boca Ciega Bay (about 200 acres). Habitat improvement efforts in the watershed should focus on restoring coastal wetland and upland habitats.

**Habitat Balance.** About 1.9 percent of Pinellas County consists of conservation lands; Pasco County ranks higher, with 10.4 percent of its lands in conservation. Pinellas County is currently attempting to acquire land along the Anclote River corridor to provide a connection to the



Brooker Creek Preserve, and possibly the Starkey Preservation Area in Pasco County.

Critical issues in the Anclote River watershed include maintaining buffers and floodwater storage areas, as well as stream baseflow. In western Pinellas County, major issues include protecting mangrove habitat; reducing motorized boat traffic to protect nearshore and inshore areas from wake-generated wave damage, propeller dredging, and damage to seagrass from boat propellers; altering shoreline protection devices; restoring seagrasses and dredge holes in the bay bottom, and establishing (or reestablishing) tidal connections to increase water exchange.

**Protection of Wildlife Corridors.** Significant areas of wildlife habitat remain in the Anclote River watershed, and the potential for wildlife corridors is significant. Riparian habitat and associated uplands along the middle and upper reaches of the Anclote River, as well as Cross Cypress Branch and Sandy Branch to the north and south, respectively, provide excellent linkages between areas of core habitat. Much of this riparian habitat is within the SWFWMD's Starkey property (about 8,000 acres) and Serenova tract (about 10,000 acres).

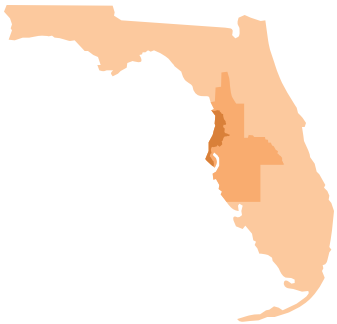
In western Pinellas county, there are few remaining areas of core habitat and, therefore, little corridor potential. Lands adjacent to and near Long Bayou and Lake Seminole provide the best opportunity to protect wildlife corridor habitat.

**Identification and Protection of Estuarine Aquatic Ecosystems.** The Anclote River watershed is still relatively undeveloped, except for the extreme western portion near Lake Tarpon and the Gulf of Mexico. Expanding residential growth into southern Pasco County, however, could jeopardize water quality in the Anclote River. A decline in water quality could damage seagrass beds located south and west of the mouth of the river.

Western Pinellas County, which is highly urbanized, directly influences water quality in lower Tampa Bay, Boca Ciega Bay, Long Bayou, and Clearwater Harbor. Between 1988 and 1994, seagrass coverage in Boca Ciega Bay increased by 17 percent. Future restoration projects should focus on both stormwater treatment and habitat restoration. Completed SWIM restoration projects include Joe's Creek and Boca Ciega Phase I. Future projects include Cross Bayou/Joe's Creek and Boca Ciega Phase II. Water quality and seagrass coverage in Clearwater Harbor and the estuarine coastal areas north of Clearwater should be monitored regularly in order to assess the health of these systems.

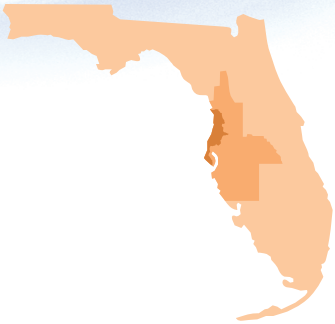
**Nonpoint Source Loading.** Historically, agricultural land uses were the major contributors to nonpoint source pollution in the Anclote River watershed. Recently, as the population has grown in southern Pasco and northern Pinellas County, urban and suburban runoff have become a significant issue. Small creeks and tributaries that empty into the Anclote River, as well as the Anclote River itself, receive stormwater runoff from all of these sources. The SWFWMD has purchased thousands of acres of natural habitat in the watershed, which should help to maintain surface water quality in the middle and upper reaches of the Anclote River and its tributaries.

In western Pinellas County, stormwater runoff from urban and suburban development affects water quality in several estuarine areas, including Clearwater Harbor, Long Bayou, and Boca Ciega Bay. Several current and planned SWIM habitat restoration and stormwater improvement projects should help filter runoff before it enters these sensitive areas.



# Chapter 4: Ground Water and Springs Water Quality Assessment

## Introduction



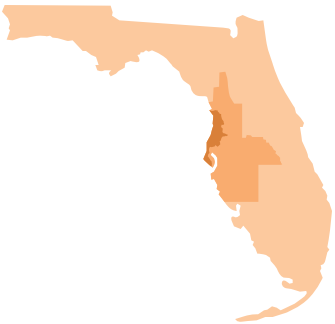
Historically, Florida's ground water monitoring activities focused almost entirely on protecting drinking water supplies. In addition to this focus, the Florida Department of Environmental Protection (Department) now also integrates ground water data into its watershed assessments to help in the evaluation of ground water impacts on surface water quality. This is especially important in the Springs Coast Basin, where ground water discharge to rivers, streams, lakes, and estuaries is substantial, providing most of the total flow to some surface waters. Because of this ground water–surface water interaction, it is important to assess ground water quality, identify potential pollutants, establish whether they are likely to be discharged to surface water, and identify any potential impacts that may already be expressed as surface water impairments.

The assessment presented in this chapter uses ground water data to evaluate water quality in the potable ground water resource and, along with springs data, evaluate the impact of ground water on surface water resources in the Springs Coast Basin. Although some of the data historically collected through ground water monitoring do not specifically serve this purpose, the Department is using the information that is currently available.

## Scope of the Ground Water and Springs Assessment

This chapter presents the results of a preliminary ground water quality assessment, as well as resource priorities and proposed management actions, in the Springs Coast Basin. It includes an evaluation of the quality of the ground water resource used as a potable supply by residents of the basin, as well as an evaluation of potential ground water influences on water quality and ecological conditions in the basin's springs and receiving surface waters. The ground water resource index assessment (GRI) is based on aquifer use and human health-related criteria. The ground water–surface water relational assessment (SRA) includes an evaluation of ground water and springs water quality in planning units where potentially impaired surface waters were identified, using threshold values derived from surface water quality standards or ecological guidelines. These newly developed screening tools provide an indication of potential issues that justify more detailed evaluations.

While these preliminary results do not have regulatory significance, they can assist in identifying priority ground water resource and surface



water quality issues that should be further evaluated to protect human health and/or the ecological integrity of the basin's surface waterbodies. In particular, they may be instrumental in furthering the goals of the Total Maximum Daily Load (TMDL) Program by contributing to an understanding of the extent to which ground water may be a source of pollutants that impair surface waters or may lead to naturally occurring conditions that cause surface water to exceed water quality standards.

In this preliminary assessment for the Springs Coast Basin, a number of significant issues were identified pertaining to the ground water resource, the condition of springs, and potential ground water impacts to surface water. These are listed below and discussed in this chapter.

### *Ground Water Resource Priorities*

- Metals that exceed primary ground water standards,
- Organic contaminant plumes, and
- Nitrate exceedances of primary ground water standards.

### *Ground Water–Surface Water Interaction Priorities*

- Nutrients exceeding screening thresholds in ground water and springs in planning units where potential nutrient-related surface waterbody impairments have been identified by the Impaired Surface Waters Rule (IWR) evaluation (including springs and spring-fed waterbodies),
- Ground water influence on springs listed as potentially impaired by the IWR evaluation based on low dissolved oxygen (DO),
- Contamination of a spring by coliform bacteria, and
- Iron exceeding screening thresholds in ground water in planning units where potential iron-related surface waterbody impairments have been identified by the IWR evaluation.

## Ground Water Data Sources and Parameters

The Department established a statewide ground water quality monitoring network in 1984, under the authority and direction of the 1983 Water Quality Assurance Act. From 1984 to 1999, the Background Network was maintained to establish the background and baseline ground water quality of major aquifer systems in Florida. In 1999, the Department initiated a probabilistic Status Network to assess the water quality over areas defined as reporting units. In 1999, the Springs Task Force was formed under the direction of the Department's Secretary and a concentrated water quality monitoring program was implemented, beginning in 2001. Since the Department initiated the watershed management approach, the state's basin groups have become ground water quality assessment units. The Status and Background Networks, and the additional sources described in **Table 4.1**, were the data sources used in the ground water and springs quality assessment for this report. The additional sources include data provided

**Table 4.1: Summary of Ground Water Data Sources**

| Monitoring Network or Program | Period | Description |
|---|---|---|
| Status Network | 1999–ongoing | Statewide probabilistic sampling network for surface water and ground water data. Sample locations are randomly selected from a list frame of wells. Each year includes approximately 30 samples from unconfined aquifers and 30 from confined aquifers. Objective is to characterize water quality on a basin-wide scale. Ground water analytes correspond with those targeted in surface water evaluation. |
| Background Network | 1985–1999 | Part of statewide network of 1,600 water wells and monitoring wells to spatially monitor general background water quality of local aquifers (surficial, intermediate, and Floridan). On average, each well was sampled once every 3 years for an extensive list of analytes. |
| Southwest Florida Water Management District | Mid-1990s–ongoing | Network of springs and wells monitored in the Springs Coast Basin as part of a series of nonpoint source assessments for nutrients in springs; data also include springs in District's quarterly monitoring network. Data by SWFWMD Resource Data Section. |
| Florida Springs Task Force | 2000–ongoing | Network of first and second magnitude springs being monitored as part of the Springs Task Force effort implemented by the Florida Legislature in 2000. |
| Florida Department of Health/Department Water Supply Restoration Program (WSRP)—Private Well Sampling Program | Ongoing | Private well data collected in investigations of potential ground water contamination, maintained in a WSRP database. Parameter list is variable, depending on contaminants of concern. |

by the Southwest Florida Water Management District (SWFWMD) from their quarterly springs monitoring program and from special studies conducted by the District to identify sources of nitrate affecting springs.

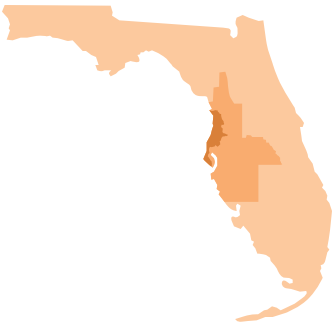
This chapter contains parameter-specific evaluations of ground water data and findings. Evaluations conducted for the Springs Coast Basin were for nutrients, bacteria, metals, and organics. **Table 4.2** summarizes the assessment categories and the specific analytes evaluated. Data were retrieved from several databases maintained by the Department using the

**Table 4.2: Ground Water and Springs Assessment Categories and Parameters[1]**

| Evaluation Category | Parameters Evaluated |
|---|---|
| Nutrients | Nitrogen ($NO_3$-dissolved and total, $NO_2$+$NO_3$-dissolved and total), Phosphorus (phosphorus-dissolved and total, orthophosphate-dissolved) |
| Bacteria | Fecal Coliforms, Enterococci |
| Metals | Primary Metals—Total (Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Lead, Mercury, Nickel, Selenium, Thallium)<br>Secondary Metals—Total (Aluminum, Copper, Iron, Manganese, Silver, Strontium, Vanadium, Zinc) |
| Organics | Volatile and Semivolatile Organics, Pesticides |

Notes:

[1]Springs and ground water data provided by SWFWMD were not assessed for metals.



Hydroport retrieval system maintained by the Ground Water Protection Section. Hydroport was also used to help produce statistical summaries for the evaluations performed for this report.

## Ground Water and Springs Assessments

This section includes basinwide and more detailed by-parameter-category evaluations of ground water quality using the GRI thresholds and ground water–surface water interaction using the SRA thresholds; the evaluation incorporates a spatial analysis of the data using GIS. For reporting the data, this chapter uses planning units consistent with the surface water assessment. This approach allows the Department to conduct a preliminary assessment of large regional aquifer systems and multiple watersheds, rather than individual waterbody segments.

### *Basinwide Screening Results*

The initial step in the ground water quality evaluation included a basinwide screening of water quality data for Floridan and surficial aquifer system wells and for springs. **Table 4.3** summarizes the basinwide results of this evaluation for the Springs Coast Basin.

**Table 4.3** shows the number of wells and springs sampled and median results for the basin. It is of interest that basinwide median concentrations of several parameters are higher than threshold levels. Parameters with basinwide medians exceeding thresholds included nitrate, phosphorus, aluminum, cadmium, copper, iron, and lead. In some cases, higher levels are related to local ambient conditions, but in others, basinwide medians may reflect contamination.

Elevated nitrate levels in the basin are well documented. SWFWMD studies have shown that overall elevated nitrate levels are present in springs and that these are attributed to pollutant sources in their springsheds. However, phosphorus levels have not previously been documented as such, likely because phosphorus poses no threat to potable supply and has no ground water or surface water standard. Observed phosphorus levels in the surficial and Floridan aquifer wells of the basin may, in some cases, be associated with pollutant sources but are probably mainly associated with naturally phosphatic material in the aquifers. Phosphorus levels in Floridan aquifer wells are lower than in the surficial aquifer because the calcium carbonate material making up the Floridan causes soluble phosphorus to precipitate. The statewide SRA threshold for phosphorus (0.025 milligrams per liter [mg/L]), developed based on potential impacts to lakes, may be less applicable in most of the Springs Coast Basin since most of the receiving waters are streams and rivers. Statewide medians for total phosphorus in streams and springs are 0.08 and 0.04 mg/L, respectively (Department, Watershed Assessment Section, 2004).

Basinwide medians for lead, copper, and iron in both the surficial and Floridan aquifers are higher than their respective SRA thresholds, as is the median for cadmium in Floridan aquifer wells. Medians for lead, aluminum, and iron in the surficial aquifer and the median for iron in the Floridan aquifer, also exceed their GRI screening thresholds, which are

**Table 4.3: Screening Thresholds and Basinwide Summary of Ground Water and Springs Water Quality**
(Median concentrations that are higher than the GRI and/or SRA screening thresholds are shown in boldface type with gray highlighting.)

| Parameter | Screening Thresholds | | Surfical Aquifer | | Floridan Aquifer | | Springs | |
|---|---|---|---|---|---|---|---|---|
| **Nutrients (mg/L)** | **GRI[1]** | **SRA[2]** | **Number of Wells[4]** | **Median** | **Number of Wells[4]** | **Median** | **Number of Wells[4]** | **Median** |
| Nitrate (total as N) | 10 | 0.45 | — | — | — | — | 30 | **0.57[2]** |
| Nitrate (dissolved) | 10 | 0.45 | 1 | **1.75[2]** | 158 | 0.25 | 48 | 0.42 |
| Nitrate+Nitrite (total as N) | 10 | 0.45 | 7 | 0.04 | 19 | 0.03 | 13 | **0.50[2]** |
| Nitrate+Nitrite (dissolved as N) | 10 | 0.45 | 10 | 0.04 | 207 | 0.1 | 49 | **0.60[2]** |
| Phosphorus (total as P) | — | 0.025 | 3 | **0.07[2]** | 168 | **0.04[2]** | 50 | 0.025 |
| Phosphorus (dissolved as P) | — | 0.025 | 10 | **0.061[2]** | 42 | **0.031[2]** | 16 | 0.020 |
| Orthophosphate (dissolved as P) | — | 0.025 | 12 | **0.07[2]** | 200 | **0.028[2]** | 52 | 0.019 |
| **Bacteria (colonies/100mL)** | | | | | | | | |
| Fecal Coliforms | 4 | 400 | 5 | 1 | 16 | 20 | — | — |
| Enterococci | — | 61 | 4 | BDL | 9 | BDL | — | — |
| **Metals (μg/L, total)** | | | | | | | | |
| **Primary Metals:** | | | | | | | | |
| Antimony | 6 | 14 | 10 | 0.35 | 37 | 0.2 | 1 | BDL |
| Arsenic | 10 | 10 | 11 | 1 | 41 | 1 | 13 | 4 |
| Barium | 2000 | 1000 | 11 | 12 | 42 | 14.5 | 9 | BDL |
| Beryllium | 4 | 0.0077 | 10 | BDL | 37 | BDL | 1 | BDL |
| Cadmium | 5 | 0.38 | 11 | 0.325 | 43 | **0.5[2]** | 13 | BDL |
| Chromium | 100 | 27.7 | 11 | 5 | 42 | 2.5 | 13 | BDL |
| Lead | 15 | 0.54 | 11 | **13.1[2]** | 43 | **7.96[2]** | 13 | BDL |
| Mercury | 2 | 0.012 | 11 | BDL | 43 | BDL | 13 | BDL |
| Nickel | 100 | 8.3 | 10 | 3.5 | 38 | 3.5 | 13 | BDL |
| Selenium | 50 | 5 | 11 | BDL | 42 | BDL | 13 | BDL |
| Thallium | 2 | 1.7 | 10 | 0.023 | 38 | BDL | 1 | BDL |
| **Secondary Metals:** | | | | | | | | |
| Aluminum | 200 | 1500 | 10 | **686[1]** | 38 | 38 | 13 | BDL |
| Copper | 1000 | 2.85 | 11 | 4.75[2] | 43 | 5[2] | 13 | BDL |
| Iron | 300 | 300 | 11 | **2375 [1,2]** | 43 | **850[1,2]** | 13 | 87 |
| Manganese | 20 | 100 | 11 | 13 | 42 | 15.8 | 13 | 2.3 |
| Silver | 100 | 100 | 11 | BDL | 42 | BDL | 1 | BDL |
| Strontium | 4200 | — | 10 | 86.6 | 38 | 300 | 13 | 328 |
| Vanadium | 49 | — | 10 | 5 | 37 | 2 | 1 | BDL |
| Zinc | 5000 | 37 | 11 | 6 | 41 | 12 | 13 | BDL |
| **Organics[3] (μg/L)** | | | | | | | | |
| 1,1-Dichloroethene | 7 | — | — | BDL | — | BDL | — | — |
| Ethylbenzene | 30 | — | — | BDL | — | BDL | — | — |

**Table 4.3 (continued)**

| Parameter | Screening Thresholds | | Surfical Aquifer | | Floridan Aquifer | | Springs | |
|---|---|---|---|---|---|---|---|---|
| Organics[3] (μg/L), continued | GRI[1] | SRA[2] | Number of Wells[4] | Median | Number of Wells[4] | Median | Number of Wells[4] | Median |
| Methyl tert-butyl ether | 35 | — | — | BDL | — | BDL | — | — |
| Tetrachloroethylene | 3 | — | — | BDL | — | BDL | — | — |
| Trichloroethylene | 3 | — | — | BDL | — | BDL | — | — |
| Vinyl Chloride | 1 | — | — | BDL | — | BDL | — | — |
| Xylenes (total) | 20 | — | — | BDL | — | BDL | — | — |

Notes:

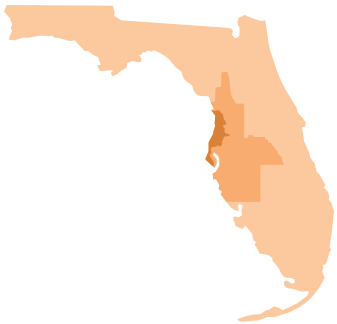
[1]Median values in bold are higher than GRI screening threshold; threshold value based on potable ground water maximum contaminant level (MCL) or guidance level.
[2]Median values in bold are higher than SRA screening threshold; threshold value is based on surface water standard or guidance level based on adverse effect to aquatic life.
[3]Organic compounds listed were found in ground water at levels that exceed MCLs and/or guidance levels. Organics data were obtained from the WSRP private drinking water well sampling. Information on total number of samples, aquifer, etc., was not available.
[4]Number of wells and springs samples vary by parameter. Nutrients data from all available sources were used for ground water and springs evaluations. Total metals data were obtained from Department datasets; SWFWMD datasets did not include total metals analyses.

— = Not applicable. In the case of water quality data, threshold is not applicable to this analyte, or there are no data.

BDL—Median is below detection limit for this analyte.
Basinwide median concentrations are derived from the median value for each well or spring.

based on human health effects. Aluminum and iron are naturally abundant in clays and frequently occur naturally at elevated concentrations in ground water. Cadmium, lead, and copper may occur at low concentrations naturally, depending on the geochemical makeup of the aquifer. It is important to note that adverse effects of lead and copper on aquatic communities depend on the hardness of the water, thus their surface water standards in Florida are calculated values that are hardness dependent. The SRA threshold used in this evaluation is based on an assumed hardness value that may be different from the hardness in local surface waters. The median total hardness for Floridan aquifer wells in this basin (124 mg/L) yields calculated values that are similar to the statewide SRA thresholds, but hardness in individual surface waterbodies (dependent on calcium carbonate levels) will likely vary significantly across the basin.

The following sections describe more detailed steps in the evaluation. These are based on data from all sources currently in the Department's ground water and springs databases plus ground water and springs data provided by SWFWMD. Most data from the Department's databases are from the Status Network, the Background Network, and the Springs Task Force Network. The SWFWMD Water Quality Monitoring Program provided data from their springs monitoring network as well as ground water data from their springs nutrient assessments. The Florida Department of Health (DOH)/Department Water Supply Restoration Program (WSRP) fixed private well sampling dataset was also used in the GRI evaluation. Other sources of data were not available for the detailed evaluation but were considered.



### *Ground Water as a Resource: Issues Related to the Ground Water Resource Index*

The GRI screening identified wells that exceed applicable ground water maximum contaminant levels (MCLs), or Risk Indicators based on guidance values. To be protective, the maximum parameter concentration detected in each well is used, no minimum number of samples is required, and data used are not restricted to a specific period of record for this screening. This evaluation is performed by aquifer (springs are not included in this evaluation). **Table 4.3** provides the thresholds that are pertinent to this report.

**Table 4.4** provides a detailed summary of the findings of the evaluation to identify potential concerns related to ground water used for potable supply. The significance of potential problems was evaluated using available ground water data for each planning unit.

### Use of Affected Aquifers

The majority of data are from wells tapping the Floridan aquifer system, the major potable water source throughout the Springs Coast Basin. A few surficial aquifer system wells are located along the Brooksville Ridge in central Citrus and eastern Hernando and Pasco Counties, and in Pinellas County. These wells provide small volumes of water for local, on-site use, and are in most places hydrologically connected to the underlying upper Floridan aquifer system.

Approximately 68 percent of the ground water pumped from wells is used for potable supply. These include approximately 500 public supply wells, with the largest users being municipal wellfields.

### Data Evaluation and Priorities for Further Evaluation

The data available for this evaluation indicate that water quality problems related to nutrients and metals are present or may be present at different locations in several planning units in the basin. Data insufficiency for all parameters is a very significant concern in some planning units, particularly where an analyte is detected from a single sampling event. Also, this evaluation includes data from sampling events conducted prior to the advancement of water quality sampling and analytical techniques. Thus, older data used in the evaluation may be less reliable.

The significance of GRI threshold exceedances in the basin's planning units was evaluated using water quality data and aquifer information, and is also discussed below. The following sections summarize data findings and potential issues of concern in the Springs Coast Basin. **Table 4.4** presents the data discussed in this section, by planning unit.

### Nutrients

Nitrate ($NO_3$), a nutrient that can threaten drinking water supplies, has a GRI threshold based on the MCL of 10 mg/L established for total nitrate and total nitrate+nitrite. Available data for $NO_3$-total, $NO_3$-dissolved, nitrite+nitrate ($NO_2$+$NO_3$)-total, and $NO_2$+$NO_3$-dissolved were evaluated together using the same 10 mg/L threshold ($NO_3$ and $NO_2$+$NO_3$ results are equivalent because in all cases $NO_2$ concentrations are very low in comparison to $NO_3$). There are 9 wells in the basin that

**Table 4.4: Evaluation Summary: Ground Water Quality and Potential Impacts to Potable Supply**
(Samples above the GRI threshold are shown in boldface type with gray highlighting)

| | Data Evaluation | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Nutrients | | | Bacteria | | Primary Metals | | | Organics | | |
| | (# wells with samples exceeding GRI threshold for nitrate)[1] | | | (# wells with samples exceeding GRI threshold for fecal coliforms and/ or enterococci)[1] | | (# wells with samples exceeding GRI threshold for primary metals)[1] | | | (# wells with samples exceeding GRI threshold for an organic compound, or other significant evidence)[1,2] | | |
| Planning Unit | Aquifer not differentiated[2] | Surficial aquifer | Floridan aquifer | Surficial aquifer | Floridan aquifer | Aquifer not differentiated[2] | Surficial aquifer | Floridan aquifer | Aquifer not differentiated | Use of Affected Aquifer(s) | Priority for Further Evaluation |
| Crystal River/ Kings Bay | — | — | — | — | — | Ni-1 | — | **Pb-2, As-1** | **Benzene-1, Methyl-tert-butylether-1, Ethylene Dibromide-1, Other** | Potable supply and potential use | High (organics, lead, and arsenic) |
| Homosassa River | — | — | — | — | — | Pb-1 | — | Pb-1 | **Ethylene Dibromide-1, Trichloroethylene-1, Other** | Potable supply and potential use | High (organics and lead) |
| Chassahowitzka River | — | — | — | — | — | Pb-2 | **Pb-1** | **Pb-3** | **Vinyl Chloride-1** | Potable supply and potential use | High (organics, lead, and known areas of contamination) |
| Middle Coastal | **$NO_3$-8** | — | — | — | Fecal Coliforms-1 | As-8 | — | Pb-7, Tl-1, As-1 | **1,1-Dichloroethylene-1, Ethylbenzene-2, Ethylene Dibromide-6, Methyl-tert-butylether-6, Tetrachloroethylene-1, Trichloroethylene-3, Xylene-1, Other** | Potable supply and potential use | High (organics, known areas of contamination, lead, arsenic, thallium, nitrate, and coliform bacteria) |
| Anclote River/ Coastal Pinellas County | **$NO_3$-1** | — | — | — | Fecal Coliforms-2 | As-3, Pb-1, Tl-1 | **Pb-4, As-1** | **Pb-3, As-1** | **Ethylene Dibromide-1, Tetrachloroethylene-5, Trichloroethylene-1, Benzene-2, Other** | Potable supply and potential use | High (organics, known areas of contamination, lead, arsenic, thallium, nitrate, and coliform bacteria) |

**Table 4.4 (continued)**

Notes:

$NO_3$ = nitrate or nitrate+nitrite; As = arsenic; Pb = lead; Ni = nickel; Tl = thallium
[1]Value indicates number of well samples exceeding MCL or Risk Indicator threshold.
[2]Assessment using DOH/WSRP private well sampling data, with no information on aquifer available.
Other = Planning unit includes one or more significant area of contamination based on other information.
— = Not applicable; no evidence of ground water criteria exceedance.

**Significance**:
**Low** = No samples above MCL or Risk Indicator, and issue does not need further evaluation at this time.
**Medium** = Samples above MCL and/or Risk Indicator, but affected aquifer is not a significant potable water source; issue is a medium priority for further evaluation.
**High** = Samples above MCL and/or Risk Indicator, and affected aquifer is a significant potable water source; issue justifies further evaluation in this cycle.

exceeded the primary drinking water standard for nitrate (as $NO_3$ and/or $NO_2$+$NO_3$). These are private wells that were sampled by the DOH and included in the WSRP dataset. Eight of these wells are in the Middle Coast Planning Unit. **Figure 4.1** shows the site locations of the wells that exceeded the standard for nutrients. **Table 4.4** provides an evaluation summary. The public health concern associated with the contaminated drinking water wells has been addressed by the WSRP. However, sources of contamination in the vicinity of these wells may not have been addressed.

### Bacteria

Bacteria data were available for fecal coliforms and enterococci from the combination of Department databases. Bacterial contamination of wells does not appear to be a widespread problem in the Springs Coast Basin, based on data from all networks. One Floridan aquifer well along the southeastern margin of the Middle Coastal Planning Unit and two in the northern portion of the Anclote River/Coastal Pinellas County Planning Unit showed fecal coliforms exceedances in the 4 to 10 colonies/100 milliliter range **(Table 4.4)**.

The reason (or reasons) for these exceedances is unknown. Bacterial contamination of wells is a common issue throughout the state. Numerous studies have indicated that bacteria in wells can be attributed to a variety of sources, such as surface water inflows, septic tanks, and livestock waste; most of these sources are localized. Well contamination is frequently associated with sanitary conditions in the immediate vicinity of the well and water delivery system, and bacteria may not actually be present in the ground water.

### Metals

Total (unfiltered) metals data were used in this evaluation, most of which were obtained from the Department's Background Network and the WSRP dataset. Metals that exceed potable ground water criteria/guidance levels may be associated with a contaminant source or they may occur naturally at elevated concentrations in the aquifer material. Elevated detections may also be related to well construction materials and/or sampling technique, and may not be representative of the aquifer being monitored. Stations used in the evaluation were chosen to represent background

Noteworthy

## Data Provided By Southwest Florida Water Management District

The Ambient Ground-Water Quality Monitoring Program of the SWFWMD conducted a series of studies to develop a better understanding of sources of nitrate and other contaminants affecting springs throughout the district. These documents currently exist as the definitive references for springs-related evaluations in the district. The following documents provide detailed information on the springs water quality in the Springs Coast Basin:

*Origin of Nutrients in Ground Water Discharging from the King's Bay Springs*, by G. W. Jones and S. B. Upchurch. July, 1994 (revised 1998).

*Water-Quality and Hydrology of the Homosassa, Chassahowitzka, Weeki Wachee, and Aripeka Spring Complexes, Citrus and Hernando Counties, Florida-Origin of Increasing Nitrate Concentrations*, by G. W. Jones, et al. October, 1997.

*Origin of Nitrate in Ground Water Discharging from Crystal Springs: Pasco County, Florida*, by Kyle Champion and D. J. DeWitt. June, 2000.

*Chemical Characteristics of Selected Springs in the Southwest Florida Water Management District*, by Kyle Champion. March, 2001.

*The Hydrology and Water Quality of Springs in West-Central Florida*, by Kyle Champion and R. Starkes. May 2001.

*Priority Pollutant Screening at Select Springs Within Southwest Florida Water Management District*, by J. D. Haber. September, 2003.

Detailed reference citations are provided in the Reference section.

## Water Supply Restoration Program

Contaminated drinking water wells are identified through the sampling efforts of the local County Public Health Units supported by Department funding. To optimize resources, wells are sampled in areas of known or suspected contamination, such as agricultural areas or near underground storage tanks. Two primary contaminant types are emphasized in this sampling.

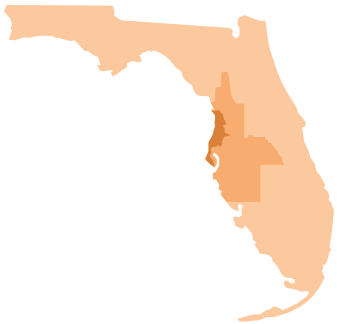
The Super Act program at DOH concentrates its efforts in areas suspected to have petroleum-related contamination and targets drinking water wells near known storage tanks for sampling. In addition, various solvent contaminants are frequently found when sampling near these tanks. This program also coordinates the sampling of filter systems that may be placed on contaminated wells.

The agricultural chemical sampling program looks for contamination related to use of pesticides or fertilizers. This program is a cooperative effort between DOH, the County Public Health Units, and the Department. The Department funds the program through a contract with DOH, and DOH directs the sampling effort with the health units. With an increasing frequency of solvent contamination now being detected in the Super Act Program, the pesticides contract is being used to continue that sampling effort until a permanent program can be implemented.

Wells are tested using sampling procedures approved by the Department. The DOH water quality lab in Jacksonville analyzes samples. Results are sent to the county sampler, the well owner/resident, and the applicable Department and DOH program coordinators. The WSRP downloads results for all samples that exceed a Health Advisory Limit or MCL on a weekly basis to expedite the restoration/replacement process. Pesticides manufacturers occasionally participate in restoration/replacement efforts where their products contaminate drinking water wells.

The property owner, when notified of the contamination, is asked to provide the information necessary to request restoration/replacement assistance from the WSRP. This information must be received by the WSRP prior to any remedial action.

Restoration or replacement implies looking at various options, and in fact, Florida Statutes require the WSRP to determine the most cost-effective solution in response to each contaminated water supply. Where available, and cost-effective, the preferred solution for a contaminated water supply is to replace it with a connection to a public water system. If a public water system is not available, or if a water line extension and connection is not cost-effective, a filter system(s) is usually installed to remove the contaminant(s). In some circumstances, a new well may be constructed; however, this option is exercised only when chances are very good that the new well will meet all existing water standards for use as a potable water source.



conditions and are intended to be minimally affected by anthropogenic activities. Regardless of the source, the occurrence of metals at elevated concentrations is important because of the population served by wells. It is particularly important for metals that have primary MCLs, which pertain to adverse impacts to human health. Metals data are treated conservatively in this preliminary evaluation phase, with the maximum concentration detected in each well being used. Subsequent reviews of the data will consider sampling history, well construction, and potential for sampling bias.

Metals exceeding GRI screening thresholds based on primary ground water MCLs include lead, arsenic, thallium, and nickel. Lead was detected at above-threshold levels in a total of 25 wells, which included 16 in the Floridan aquifer system, 5 in the surficial aquifer system, and 4 in private wells sampled by the DOH for which the aquifer designation was not determined. Arsenic was detected at above-MCL levels in 16 wells, which included 3 in the Floridan aquifer system, 2 in the surficial aquifer system, and 11 in private wells with no aquifer designation. Thallium occurred at above-MCL concentrations in 2 wells, 1 in the Floridan aquifer system, and the other a private well with no aquifer designation sampled by the DOH. Nickel also occurred in 1 private well at above-MCL levels. **Figure 4.2** shows well locations where these metals exceeded MCLs, and **Table 4.4** lists their distribution by aquifer and by planning unit.

In many wells, several metals exceeded their GRI screening thresholds based on secondary ground water MCLs. Secondary metals are considered less significant in terms of protecting the potable water resource, since their secondary MCLs pertain to nuisance issues rather than human health. They are, however, prioritized differently in the SRA due to their potential adverse ecological impacts in surface waterbodies and receive greater emphasis in that discussion.

Samples from approximately 67 percent of Floridan aquifer system wells and 90 percent of surficial aquifer system wells were higher than the GRI screening threshold for iron, while samples from 13 percent of Floridan aquifer system wells and 90 percent of surficial aquifer system wells were higher than the threshold for aluminum. This may be natural, as slightly acidic rainwater leaches these metals from iron-rich surficial sands and iron/aluminum-rich clays, which are very common within and just below the upper soil zones in much of Florida.

In addition, samples from 38 percent of the Floridan aquifer system wells and 27 percent of the surficial aquifer system wells were above the manganese threshold and samples from 8 percent of Floridan aquifer system wells showed elevated levels of strontium. Manganese is often found with, and behaves in a similar geochemical manner to, iron. Trace amounts of strontium carbonate (strontianite) within the Tertiary limestones of the Floridan aquifer system comprise a likely source for this trace metal.

### Organics

Volatile organic compounds were detected at levels exceeding primary ground water MCLs/guidance levels throughout the Springs Coast Basin in samples collected from private wells by the DOH under the State Underground Petroleum Environmental Response petroleum

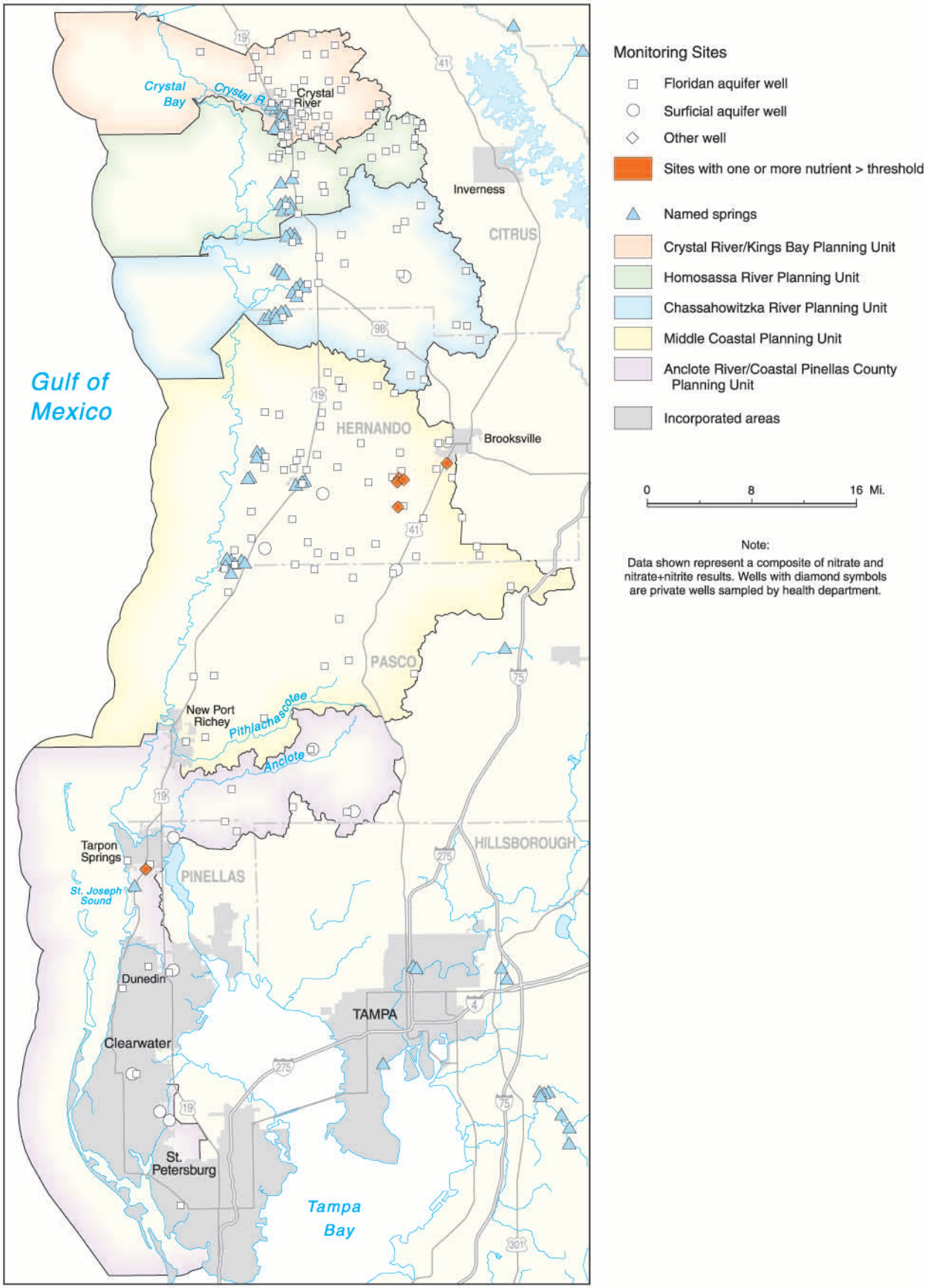



*Figure 4.1: Ground Water Resource Index Assessment for Nutrients*

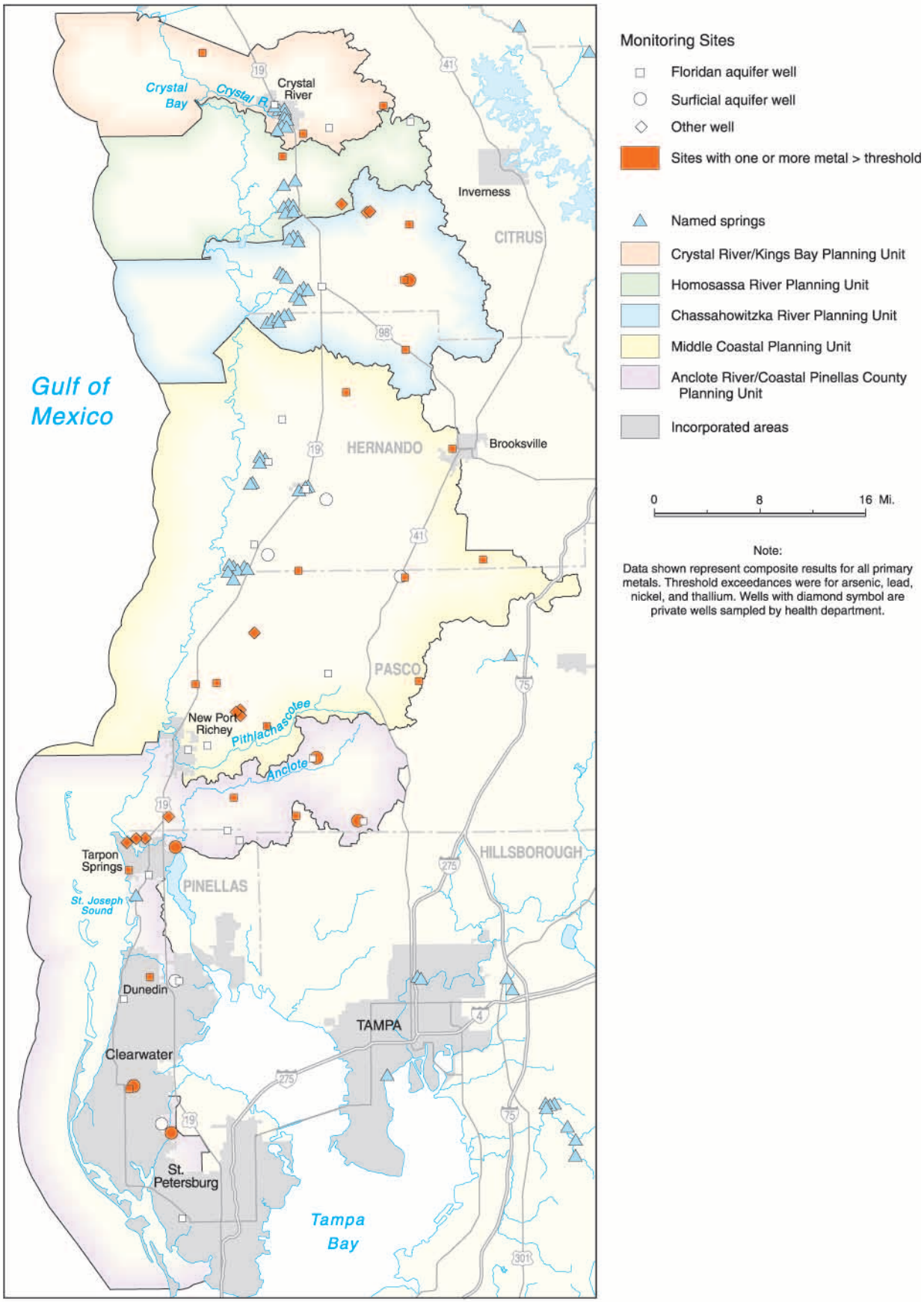
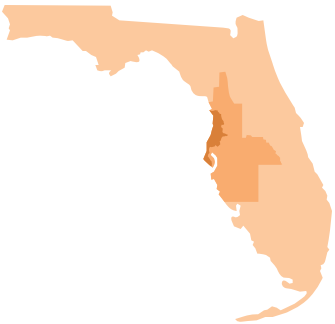



*Figure 4.2: Ground Water Resource Index Assessment for Primary Metals*



surveillance program or pesticide monitoring programs. However, no organic compounds (including volatiles, semivolatiles, and pesticides) were detected in the Department's ambient monitoring wells. **Figure 4.3** shows the distribution of wells contaminated by volatile organics, and **Table 4.4** lists these analytes by planning unit. Several of the wells with organics are within or adjacent to known delineated areas and/or sources of ground water contamination.

Most private wells found to be contaminated by organics are in the Middle Coastal Planning Unit (16 wells), and about half are located along the U.S. 41 corridor near Brooksville. Ethylene dibromide (EDB) was the most prevalent compound found (contaminating 9 wells, with at least 1 well in 4 of the basin's 5 planning units). EDB, now banned from use, was a fumigant used on citrus groves in the area and was also an additive to leaded gasoline. In the 1980s, EDB was the subject of an intensive private well sampling program conducted by DOH, and EDB plumes shown in **Figure 4.3** were delineated by the Department. Benzene, methyltert-butyl ether, and xylene (detected in 6, 7, and 1 wells, respectively) are components of gasoline and are typically associated with petroleum contamination sites. The chlorinated compounds tetrachloroethylene, trichloroethylene, 1,1-dichloroethylene, and vinyl choride (in 6, 5, 1, and 1 wells, respectively) are all associated with commercial solvents and degreasers used in a wide range of applications, one of the most common being commercial dry cleaning operations.

### *Ground Water–Surface Water Interaction: Issues Related to the Ground Water–Surface Water Relational Assessment*

The SRA methodology was applied to identify wells in subregional areas where ground water contributions to surface water could adversely affect surface waterbodies. In an initial SRA screening, concentrations in ground water and springs that exceed surface water "adverse impact" thresholds are identified. The statewide SRA thresholds used in this assessment are based on surface water standards or target levels that, if exceeded, could result in adverse impacts to aquatic communities.

In this evaluation, the results of the SRA and lists of potentially impaired surface waterbodies are reviewed together. Where similar pollutants or analytes occur, the potential for discharge from ground water to surface water is assessed. This evaluation is also conservative. As with the GRI screening, the maximum value measured for each well or spring is used in the analysis, and there are no minimum sample population restrictions or specified periods of record for ground water data. In addition, the threshold values selected are intentionally protective. **Table 4.3** provides the SRA thresholds used in this evaluation.

**Table 4.5** summarizes the findings of the evaluation for each parameter category for surficial and Floridan aquifers and for springs, and identifies (also for each parameter category) individual waterbody segments in each planning unit where ground water could adversely affect surface water quality. The two right-hand columns in the table, which list the ground water to surface water pathways and the priority for further evaluation, provide information about the potential ground water–surface water

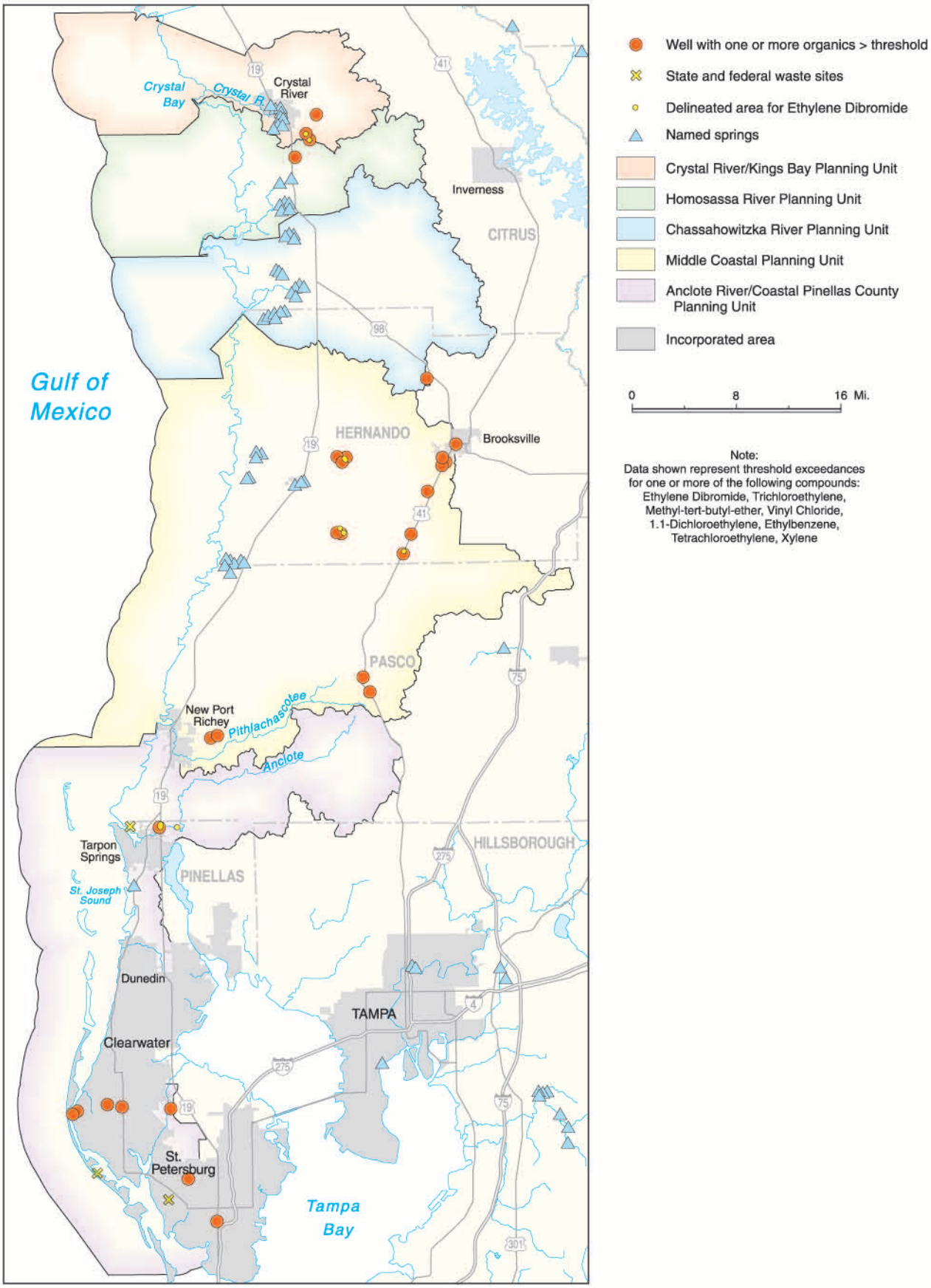



*Figure 4.3: Ground Water Resource Index Assessment for Organics*

**Table 4.5. Evaluation Summary: Ground Water Influence on Surface Water Quality**
(Samples above the SRA screening thresholds-are shown in boldface type with light gray highlighting)

| | Data Evaluation | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Nutrients (wells/springs with samples higher than SRA threshold for nitrate and/or phosphorus; planning unit includes surface waters potentially impaired by nutrients [based on TSI, chlorophyll a, DO, and/or biology])[1] | | | | Bacteria ( wells/springs with samples higher than SRA threshold for total and/or fecal coliform; planning unit includes surface waters potentially impaired by bacteria)[1] | | | Metals (wells/springs with samples higher than SRA threshold for one of more metals; planning unit includes surface waters potentially impaired by metals)[1] | | | | | |
| **Planning Unit** | **Surficial aquifer** | **Floridan aquifer** | **Springs** | **Potentially impaired surface waters (WBIDs)[2]** | **Surficial aquifer** | **Floridan aquifer** | **Potentially impaired surface waters (WBIDs)[2]** | **Surficial aquifer** | **Floridan aquifer** | **Springs** | **Potentially impaired surface waters (WBIDs)[2]** | **Ground Water to Surface Water Pathways** | **Priority for Further Evaluation** |
| Crystal River/ Kings Bay | — | **$NO_3$-6, P-45** | $NO_3$-5, P-11 | WBIDs **1341C, 1341G** | — | — | — | — | **Fe-4, Hg-1, Pb-5, Cu-2, Cd-2, Zn-2,Se-1, Mn-3, As-1, Ag-1** | — | — | Spring discharge and seepage | High (nutrients/ low DO) |
| Homosassa River | — | $NO_3$-4, P-22 | $NO_3$-9, P-12 | WBIDs 1345, **1345D** | — | — | — | — | **Pb-2** | **Fe-4** | WBIDs 1345 (iron) | Spring discharge and seepage | High (nutrients/ low DO) |
| Chassahowit-zka River | P-2 | $NO_3$-10, P-16 | **$NO_3$-11, P-10** | WBIDs 1348, 1348Z, 1361 | — | — | — | **Fe-1, Cu-1, Cd-1, Mn-1, Pb-1** | **Fe-4, Pb-4, Cu-2, Cd-2, Zn-3, Mn-2** | — | WBIDs 1361A (Iron) | Spring discharge and seepage | High (nutrients/ low DO, iron) |
| Middle Coastal | $NO_3$-2, P-4 | $NO_3$-29, P-33 | $NO_3$-12, P-13 | WBIDs 1382A, **1382B**, 1389, 1409 | — | — | WBIDs 1409, 8044A, 8044B, 8044D | Fe-2, Cu-1, Zn-1, Pb-2, Ag-1 | Fe-11, Hg-6, Pb-15, Cu-12, Cd-3, Tl-1, Zn-5, Se-1, Ni-2, Mn-5, As-1, Ag-1 | **As-1, Fe-1** | WBIDs 1382A, 1382E, 1384A, 1391, 1391B (all for iron) | Spring discharge and seepage | High (nutrients/ low DO, iron) |

**Table 4.5 (contined)**

| Planning Unit | Data Evaluation | | | | | | | | | | | Ground Water to Surface Water Pathways | Priority for Further Evaluation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Nutrients (wells/springs with samples higher than SRA threshold for nitrate and/or phosphorus; planning unit includes surface waters potentially impaired by nutrients [based on TSI, chlorophyll a, DO, and/or biology])[1] | | | | Bacteria ( wells/springs with samples higher than SRA threshold for total and/or fecal coliform; planning unit includes surface waters potentially impaired by bacteria)[1] | | | Metals (wells/springs with samples higher than SRA threshold for one of more metals; planning unit includes surface waters potentially impaired by metals)[1] | | | | | |
| | Surficial aquifer | Floridan aquifer | Springs | Potentially impaired surface waters (WBIDs)[2] | Surficial aquifer | Floridan aquifer | Potentially impaired surface waters (WBIDs)[2] | Surficial aquifer | Floridan aquifer | Springs | Potentially impaired surface waters (WBIDs)[2] | | |
| Anclote River/ Coastal Pinellas County | $NO_3$-2, P-7 | $NO_3$-2, P-11 | $NO_3$**-2, P-2** | WBIDs 1440, 1440A, 1450, 1456, 1461, 1475, 1508, **1512**, **1512Z**, 1528, 1535, 1538, 1556, 1567, 1614, 1618, 1618A, 1633, 1633A, 1641, 1643, 1662, 1668A, 1668B, 1701, 1716 | — | — | WBIDs **1512**, 1456, 1556, 1567, 1614, 1633, 1633A, 1668A, 1668B, 1662, 1618, 1633, 1641, 1643, 1662, 1701, 1716 | **Fe-7, Hg-2, Pb-7, Cu-4, Cd-1, Mn-2, Ni-3, As-2, Zn-1, Ag-1** | **Fe-9, Hg-5, Pb-10, Cu-6, Cd-2, Zn-3, Se-2, Ni-1, Mn-3, As-1, Ag-3** | — | — | Spring discharge and seepage | High (nutrients/ low DO, bacteria) |

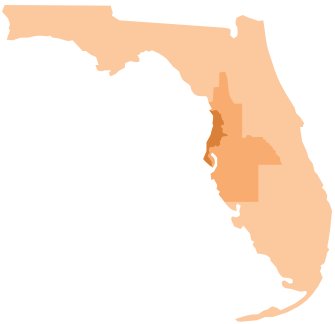


**Table 4.5 (continued)**

Notes:

[1]Value indicates number of wells exceeding SRA threshold(s).
WBIDs in bold are springs.
[2]Potentially impaired waterbodies identified in Chapter 3.
— = Not applicable; no evidence of ground water threshold exceedance for ground water columns or potential impairment for surface water columns.

| | | |
|---|---|---|
| As = Arsenic | Hg = Mercury | Pb = Lead |
| Ag = Silver | Mn = Manganese | Se = Selenium |
| Cd = Cadmium | Ni = Nickel | Tl = Thallium |
| Cu = Copper | NO3 = Nitrate or nitrite+nitrate | Zn = Zinc |
| Fe = Iron | P=Phosphorus | |

Evaluation for metals is based on total metals concentrations.

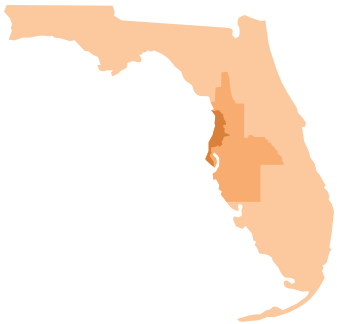
**Priority for further evaluation:**
**Low** = No potentially impaired surface waters, or potentially impaired surface waters, but no ground water samples above SRA threshold for listed category and no need for further evaluation at this time.
**Medium** = Potentially impaired surface waters and corresponding ground water samples above SRA threshold for listed category; ground water seepage from unconfined aquifers as the only pathway; issue is a medium priority for further evaluation.
**High** = Potentially impaired surface waters and corresponding ground water samples above threshold for listed category; unconfined ground water seepage and springs discharge from confined aquifers identified as pathways; issue justifies further evaluation in this cycle.

interaction issues that need to be evaluated in Phase 2 of the watershed management cycle.

The significance and likelihood of potential ground water to surface water impacts were evaluated by considering the coincidence of elevated concentrations of potential pollutants in ground water with impaired or potentially impaired surface waterbodies in the same planning unit. Next, the presence or absence of pathways between the aquifer and impaired/potentially impaired surface waterbodies was considered. Finally, the type of pathway and its potential for transporting pollutants over distances was considered. Of course, water quality measurements in springs provide direct and straightforward evidence of ground water influence on a surface waterbody (the spring itself and its spring run).

Where evidence is present that the pathway exists and a surface waterbody is possibly affected, the significance of the ground water issue is increased. Following this logic, the need for further evaluation in the planning unit is based on the following:

- Sufficient data for a planning unit showing that ground water or spring water exceeds an applicable SRA threshold value for a specific parameter,
- The identification of that specific parameter as causing potential impairment of one or more surface waterbodies in the planning unit,
- Evidence that a potential pathway exists between the affected aquifer and the impaired or potentially impaired waterbody (which is obvious in the case of springs),



- Reason to believe that the pathway would have an effect over a significant subregional area, such as a springshed, and
- The 1998 303(d) listing status of the potentially impaired surface water and schedule for TMDL development, if any.

### Ground Water to Surface Water Pathways

The potential for constituents in ground water to affect surface water quality and ecological health adversely depends on the proximity and available pathway by which ground water to surface water discharge would occur.

In the Springs Coast Basin, virtually all coastal rivers from central Pasco County northward begin as Floridan aquifer system springs, including Crystal River (Kings Bay Spring Cluster), Homosassa River (Homosassa Springs Cluster), Chassahowitzka River (Chassahowitzka Springs Cluster), Weeki Wachee River (Weeki Wachee Springs Cluster), the Aripeka Springs Complex, and numerous smaller spring-fed creeks and runs. This stretch of coastal lowlands is only surpassed by the Suwannee River–Santa Fe River region in the number of first- and second-magnitude springs, and the resulting volume of ground water discharge to surface waters. Several springs in the area discharge at rates of more than 100 cubic feet per second, and their springsheds (shown on **Figures 4.4** and **4.5**) include many square miles, in several instances extending east of the basin boundary.

Springs are the outlets of underground conduit systems that formed in jointed and fractured carbonate rocks, which comprise the Floridan aquifer system. These conduit systems are capable of transmitting large volumes of water that may have traveled long distances over relatively short periods. Most of these discharge upper Floridan aquifer system waters, but several spring vents in Hernando and Pasco Counties discharge waters high in sulfate and chloride, indicative of lower Floridan aquifer system sources.

The predominance of spring-fed and spring-sourced surface waterbodies declines to the south in coastal Pinellas County. Baseflow through seepage from the surficial aquifer is a more dominant ground water to surface water pathway in the southern part of the basin. Ground water seepage from the unconfined aquifers sustains lake levels and stream baseflow throughout this part of the basin. Seepage from shallow aquifers (the surficial and unconfined Floridan aquifers) often occurs through granular material such as sand, silt, and clay at a relatively slow rate compared with spring discharge. Although it occurs at a slow rate, this type of discharge can account for very significant volumes of water over time.

The significance of the two pathways, springs discharge and seepage, are weighted differently due to the potential distance over which pollutants may be able to migrate to a surface waterbody and the radius of the area over which pollutant sources might be present. The Floridan aquifer springs in the basin discharge vast amounts of water, and their springsheds can cover many square miles that contain potential sources of pollutants.

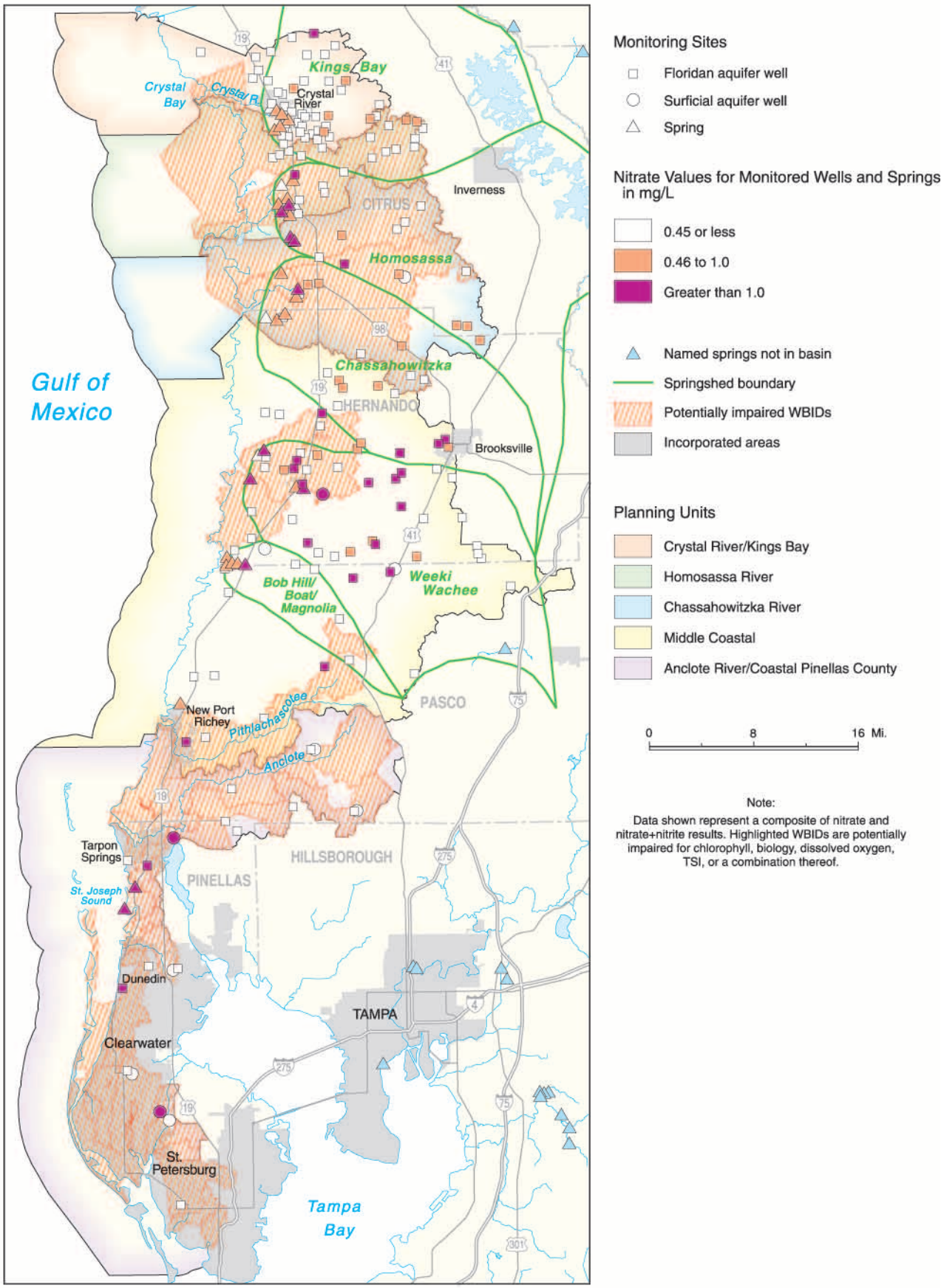



*Figure 4.4: Ground Water–Surface Water Relational Assessment for Nitrate*

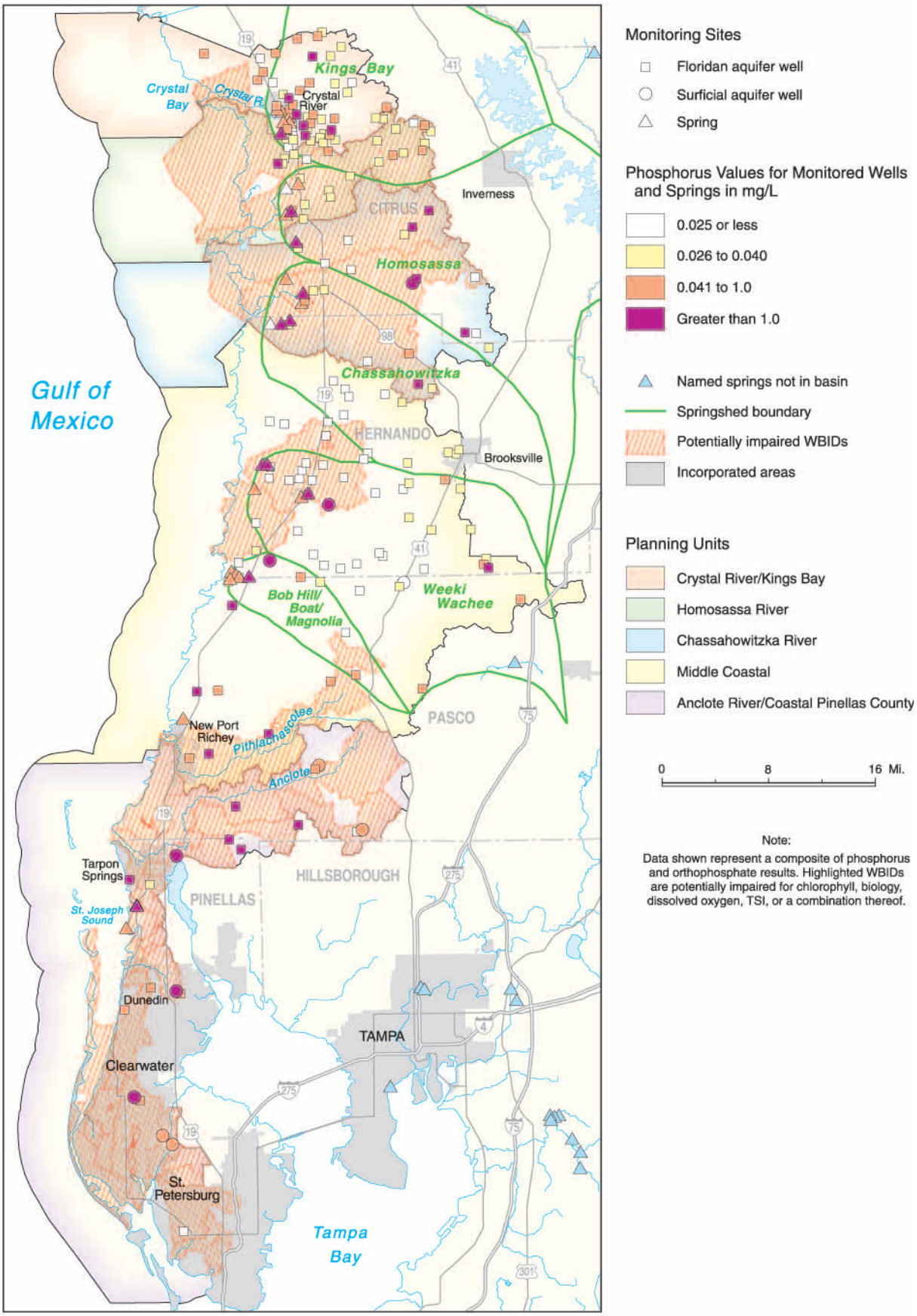
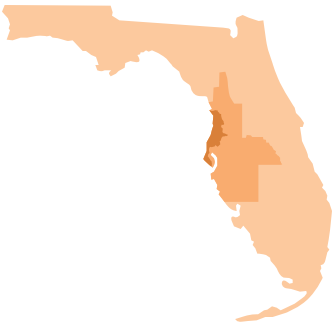



*Figure 4.5: Ground Water–Surface Water Relational Assessment for Phosphorus*



## Data Evaluation and Priorities for Further Evaluation

Using available data, the potential for ground water to adversely affect surface water quality was evaluated for nutrients, bacteria, and metals. SRA threshold criteria have not yet been developed to evaluate the potential adverse effects of organics that may be introduced via ground water.

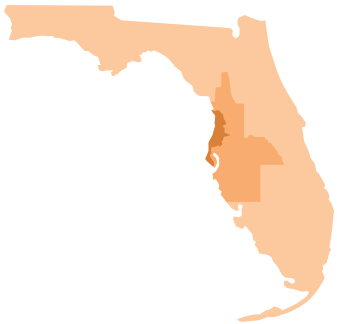
The data in **Table 4.5** indicate that nutrients and trace metals are the analytes of greatest concern to surface waters in the basin.

### Nutrients

**Figures 4.4** and **4.5** show the geographical distribution and results for wells and springs sampled for nitrate and phosphorus, respectively. The figures also show highlighted areas that contain the surface waterbodies that are potentially impaired based on elevated chlorophyll, historical chlorophyll trends, high Trophic State Index (TSI), low DO, and/or biological impairment.

The bulk of the nitrate found in ground water and springs must be attributable to anthropogenic sources, and previous work by SWFWMD has documented elevated nitrate in springs as a problem. As listed in **Table 4.5**, nitrate concentrations (as $NO_3$ total and dissolved, $NO_2$+$NO_3$ total and dissolved) were higher than the SRA threshold of 0.45 mg/L in 4 surficial aquifer wells, 51 Floridan aquifer system wells, and 39 springs in all planning units. Most of the wells and springs sampled for nitrate are in the 4 northernmost planning units, where springs are abundant and intensively studied by SWFWMD. The greatest number of Floridan aquifer system well and spring samples with nitrate above the threshold were from the Middle Coastal Planning Unit (29 wells and 12 springs above the threshold). However, similar numbers were observed for springs in the other 3 northern basins. Homosassa Springs (waterbody identification number [WBID] 1345D) in the Homosassa River Planning Unit had elevated nitrate and was also found by the IWR evaluation to be potentially impaired because of a biological imbalance that may be nutrient-related. Samples from 2 Floridan aquifer wells and springs in the Anclote River/Coastal Pinellas County Planning Unit were also higher than the SRA screening threshold for nitrate. In this planning unit, Health Spring and Crystal Beach Submarine Spring had especially high nitrate values (greater than 1 mg/L). Of these 2, Health Spring (known as Health Springs Drain [WBID 1512] in the IWR database) was listed by the IWR evaluation as potentially impaired by high chlorophyll *a*. Mounting evidence indicates that some surface water aquatic organisms are adversely affected by nitrate concentrations at or below 1 mg/L.

Phosphorus in Florida is naturally abundant, but it can also originate from anthropogenic sources. In the Springs Coast Basin, natural phosphorus originates from phosphate that occurs in the Hawthorn Group material, which can influence water quality in the surficial aquifer system and, to a lesser extent, the Floridan aquifer system. Phosphorus (P) results, coming from a variety of data sources, was measured as P-dissolved, P-total, and dissolved orthophosphate (PORD). The predominant phosphorus



species found in ground water is orthophosphate; therefore, in general, phosphorus and orthophosphate results should be equivalent.

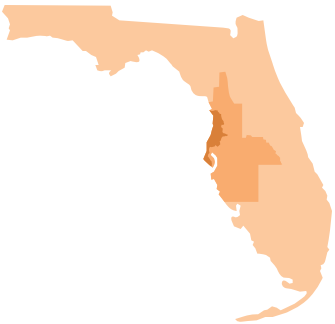
Results for wells and springs with phosphorus data are shown in **Figure 4.5** and the data summarized in **Table 4.5**. Concentrations of phosphorus and/or orthophosphate were above the SRA threshold value of 0.025 mg/L in 10 of the surficial aquifer system wells, 117 of the Floridan aquifer system wells, and 48 springs, which was more than half of the wells and springs in the basin that had data. Basinwide median phosphorus and orthophosphate concentrations for both the surficial and Floridan aquifer system wells were higher than the SRA threshold value, but median concentrations in springs were not **(Table 4.3)**.

The statewide SRA threshold for phosphorus is based on a level that may cause adverse chlorophyll *a* growth in lakes, but it can be less meaningful when used to evaluate potential impacts to springs and stream systems. The statewide P-total medians for springs and streams are 0.040 and 0.080 mg/L, respectively, which are both higher than the 0.025 mg/L threshold. However, more than half of the well and spring samples in the basin were still above a more conservative phosphorus threshold of 0.04 mg/L that was proposed by the U.S. Environmental Protection Agency (EPA) for streams in this ecoregion (EPA, 2000).

Since nitrate levels are already elevated in ground water and springs in many areas of the basin, phosphorus concentrations are of some concern, as phosphorus may be the limiting nutrient in nutrient-impaired surface waters dominated by ground water inputs. A higher-than-threshold concentration of phosphorus in itself does not necessarily pose a threat to surface waters in this basin, but it may warrant further evaluation where potentially impaired surface waters have been identified by the IWR evaluation.

In the Springs Coast Basin, 37 waterbodies or segments are identified as potentially impaired by nutrients or nutrient-related causes, and potentially nutrient-impaired waters are present in all 5 planning units. Seven potentially impaired waterbodies are springs. Nitrate and phosphorus levels are above SRA threshold concentrations in wells and springs throughout the basin and in all planning units. Almost all surface waterbodies in the 4 northern planning units (Crystal River/Kings Bay, Homosassa River, Chassahowitzka River, and Middle Coastal) receive a large percentage of flow from ground water sources, and nutrient impacts may be due to elevated nutrient loading from spring and seepage baseflow pathways. Because of ongoing land use changes due to rapid growth and development, nutrient inputs in most Springs Coast Basin springsheds may increase in the future. Therefore, further evaluation of the influence of ground water discharge of nutrients to surface waters and their effects is a high priority.

Thirty-two surface waterbodies are potentially impaired because of low DO. Potential impairment of a waterbody is based on DO concentrations that do not meet surface water standards and where there is no assigned causative pollutant (e.g., nitrogen or phosphorus). Nutrient-impaired waterbodies may exhibit low DO concentrations, but low DO is not always an indicator of impaired conditions. In surface waterbodies with a significant ground water contribution, such as springs, spring runs, and spring-fed



rivers, DO concentrations may be naturally lower than Florida's standard of 5 mg/L.

According to the basinwide ground water quality evaluation, the median DO concentrations in unconfined and confined aquifers were 1.33 and 0.71 mg/L, respectively, and most samples were lower than the SRA screening threshold of 4 mg/L.

Clearly, it is important to identify and document instances where low DO in surface waters is naturally occurring due to ground water discharge. The Planning List currently includes seven springs as potentially impaired due to low DO: Hunters Bay Spring (WBID 1341C), Tarpon Springs (WBID 1341G), Homosassa Springs (WBID 1345D), Chassahowitzka Main Spring (WBID 1348Z), Weeki Wachee Spring (WBID 1382B), Health Spring Drain (WBID 1512), and Health Spring Drain (WBID 1512Z). Samples from the receiving waterbodies for these springs may also have low DO due to ground water influence.

### Bacteria

Many surface waters in the Middle Coastal and Anclote/Coastal Pinellas County Planning Units are potentially impaired by bacteria, either due to total and/or fecal coliforms concentrations or to bacteria-related beach advisories. One of the waterbodies potentially impaired by bacteria is a spring (Health Spring Drain, WBID 1512). However, bacteria levels in the available ground water samples do not exceed SRA screening thresholds for potential ground water to surface water adverse impact. Although the available ground water data do not indicate an issue, the presence of bacteria in a spring suggests that in this instance, ground water migration should be further evaluated.

### Metals

Basinwide, lead, copper, iron, and manganese median concentrations in ground water are higher than their SRA thresholds. SRA thresholds for these and other metals were exceeded in samples from both unconfined and confined aquifers. Other metals found included arsenic, cadmium, mercury, nickel, selenium, silver, and zinc. In four springs, iron was found at levels higher than the SRA threshold and arsenic was found in one spring at a level above its SRA threshold.

Metals samples used in the evaluation were from Background Network monitoring wells, which are supposed to represent ambient conditions. Assuming ground water quality reflects background conditions, the concentrations of these metals are potentially attributed to the soil and aquifer matrix material through which ground water flows. However, elevated metals concentrations may also be associated with well construction, sampling/analytical biases, or ground water contaminant sources. The incidence of metals exceeding SRA thresholds is summarized by the planning units listed in **Table 4.5** and shown in aggregate in **Figure 4.6**. **Figure 4.6** also shows surface waterbodies potentially impaired by metals.

Iron is the only metal associated with potential surface water impairment. There are seven surface waterbodies in the basin identified by the IWR evaluation as potentially impaired by iron, which also occurs at elevated concentrations in both surficial and Floridan aquifer system wells.

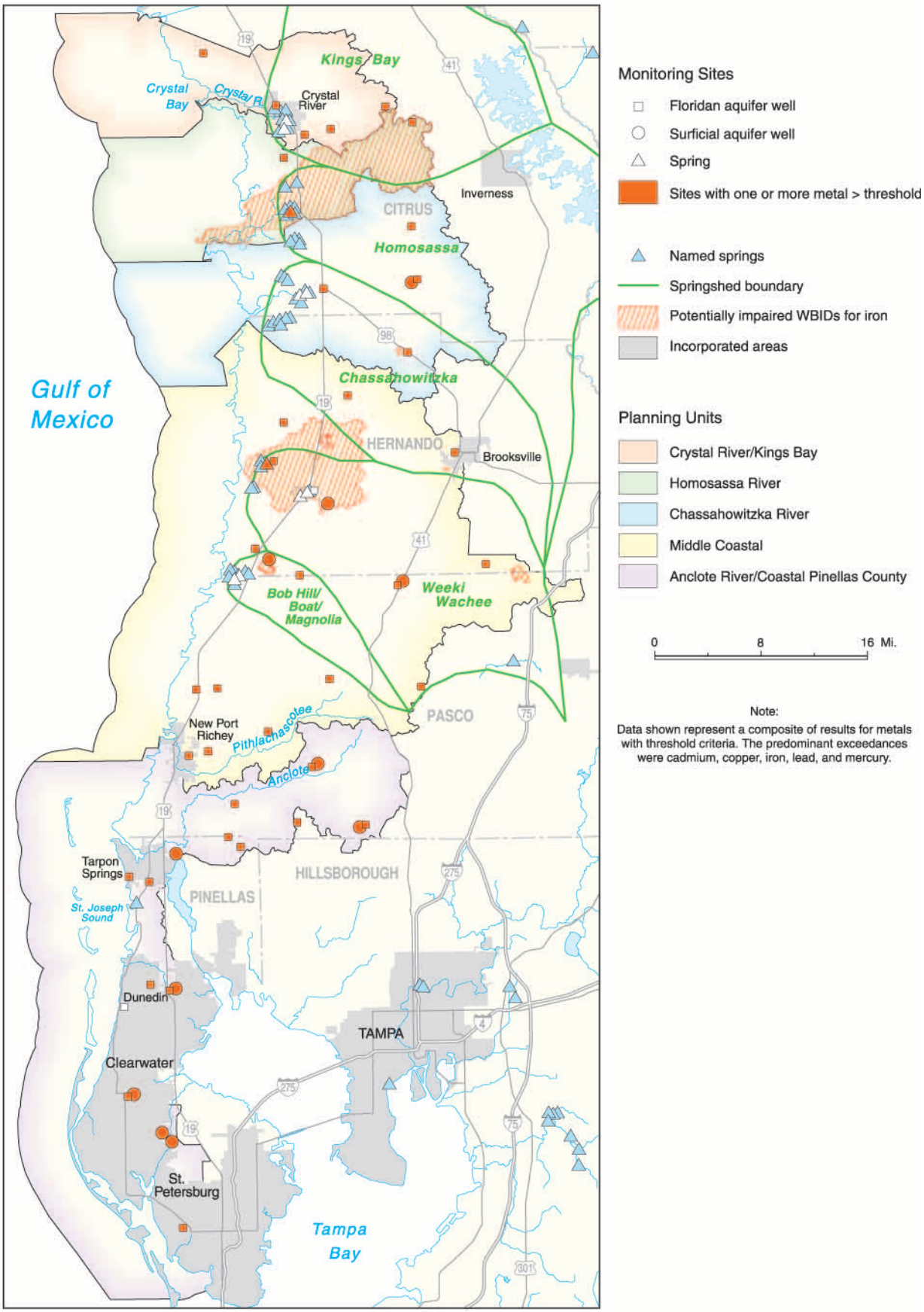
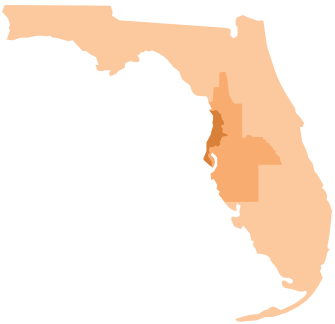



*Figure 4.6: Ground Water–Surface Water Relational Assessment for Metals*



The surface waters potentially impaired by iron include two streams (one each in the Homosassa River and Chassahowitzka River Planning Units) and five lakes (in the Middle Coastal Planning Unit). No springs were identified by the IWR evaluation as having elevated iron, although the Homosassa River (WBID 1345), a spring flow-dominated river, was found to be potentially impaired by iron. Four springs in the Homosassa River Planning Unit had iron concentrations above the SRA threshold, one of which was Homosassa Springs. The natural occurrence of iron in these instances should be evaluated.

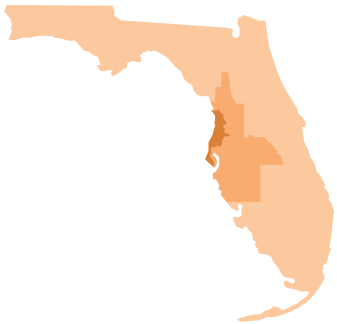
### *Addressing Potential Issues*

Beginning in Phase 2 of the watershed management cycle, the Department will address the higher priority potential issues identified in the GRI and SRA screening evaluations. The following describes the high- and medium-priority issues identified in this evaluation and proposed actions to better understand and verify conditions. These are organized by GRI and SRA, respectively.

#### Ground Water Resource Priorities and Proposed Actions

- **Issue:** Metals that exceed primary ground water standards (lead in 25 wells, arsenic in 15 wells, thallium in 2 wells, and nickel in 1 well)
- **Actions:** Above-MCL concentrations were detected in wells throughout the basin. Some of these wells were monitoring wells, while others were private wells used for potable supply. Some of these detections (particularly lead) may be the result of well effects, rather than true ground water concentrations. However, arsenic and thallium concentrations more likely reflect aquifer conditions. Review and verify the actual presence of elevated metals concentrations in ground water; follow up by resampling critical wells that have not already been addressed. Identify wells included in Department monitoring networks (particularly Background Network wells) that may have been compromised for lead and associated trace metals—i.e., those previously used as water level recorder wells. Many of these wells historically used lead weights in the well casing. Remove these potentially contaminated wells from consideration for trace metals. The public health concern associated with the contaminated drinking water wells has been addressed by the WSRP. However, sources of contamination in the vicinity of contaminated wells may not have been addressed. Also, monitoring data from other wells verified as contaminated may show other potentially impacted areas where wells are used for potable supply. Identify wells with elevated concentrations that may be in the vicinity of potable supply wells and work with DOH/WSRP to identify potential future health risks.

- **Issue:** Organic contaminant plumes
- **Actions:** Continue coordination with DOH/WSRP on developing future ground water monitoring priorities as potential issues are identified. By Phase 2, this evaluation will begin to incorporate information on potential areas of concern identified in the



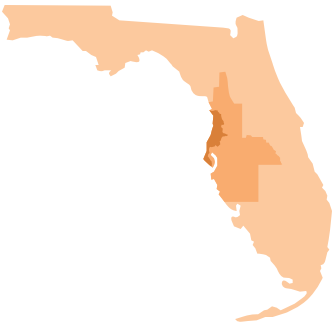
Department's Source Water Assessment and Protection Program assessment of the Springs Coast Basin. Examine areas in the basin where the potential exists for organic contaminant plumes to affect potable water supplies, including a review of smaller-scale assessments conducted for the Department's Division of Waste Management. As with metals above, public health department monitoring may reveal sources of contamination that should be assessed.

- **Issue:** Nitrate exceedances of primary ground water standards
- **Actions:** Samples from 9 private drinking water wells were found to exceed the MCL for nitrate. These drinking water wells with elevated concentrations in the WSRP dataset have already been addressed, but these may be impacted areas where other wells used for potable supply are also being threatened. Identify wells with elevated concentrations that may be in the vicinity of potable supply wells and work with DOH/WSRP to identify potential future health risks and identify sources of elevated nitrate.

- **Issue:** Fecal coliform bacteria exceedances of primary ground water standards
- **Actions:** Identify wells with elevated concentrations within the Department's monitoring network that may be in service for potable supply and verify that well owner notification has occurred. Work with DOH to minimize health risks. Elevated concentrations were detected in three confined Floridan aquifer system wells. Well contamination by bacteria is usually localized.

### Ground Water–Surface Water Interaction Priorities and Proposed Actions

- **Issue:** Nitrate and phosphorus levels exceeding screening threshold limits in the surficial aquifer system, Floridan aquifer system and springs in planning units where potential nutrient-related surface waterbody impairments have been identified (including springs and spring-fed waterbodies)
- **Actions:** Increasing nitrate levels in Florida's springs are recognized as a growing problem statewide. A number of efforts have contributed to the body of knowledge about ground water to surface water interactions and potential sources and contributing areas of ground water to these springs. The Florida Springs Initiative is endeavoring to establish the cause-and-effect relationships between increasing nutrients (i.e., nitrate) and potential downstream biological effects. In the Springs Coast Basin, the SWFWMD is assessing baseline conditions and the nutrient-limiting status of phytoplankton in five spring-fed rivers, monitoring water quality in rivers and estuaries, and monitoring and mapping seagrasses in offshore waters. Water clarity studies and the removal of nonnative submerged aquatic vegetation, with the replanting of native species, have been performed on a limited basis in Kings Bay. The SWFWMD has also completed detailed



studies of all first-magnitude spring clusters in the basin, including the mapping of springshed boundaries. In late 2001, the Department (through the Florida Springs Initiative) began quarterly water quality monitoring of major springs in the basin. Using information from these studies, further evaluation needs to be performed to determine the extent that ground water discharges influence surface water bodies that are potentially impaired by nutrients according to the IWR evaluation.

Specific actions to limit the increase of nutrients in springs and ground water in the basin are just beginning. An effort is under way to identify specific karst features, such as sinkholes, that serve as direct conduits into spring cave systems, with an eye toward future protection measures such as acquisition, conservation easements, or the establishment of protective buffer zones. The Florida Springs Initiative, along with the Department and the Florida Department of Community Affairs, has published and distributed guidebooks on nutrient management for homeowners and land managers.

- **Issue:** Ground water influence on surface waterbodies listed as potentially impaired based on low DO (includes seven springs)
- **Actions:** Carry out further evaluations to characterize the contribution of ground water to the planning-listed waterbodies having low DO, and document ground water influence. If low DO occurs, the documentation of ground water influence on low DO would be used to determine further actions that would be taken to identify causative pollutants in surface waters with low DO.

- **Issue:** Contamination of a spring by coliform bacteria based on the IWR criteria
- **Actions:** One spring (Health Spring Drain) was identified by the IWR evaluation as potentially impaired by bacteria. The source of the bacteria should be further evaluated. Ground water in this vicinity may also contain high coliform levels.

- **Issue:** Iron exceeding screening thresholds in ground water in planning units where potential iron-related surface waterbody impairments have been identified.
- **Actions:** Ground water conveyance of metals to surface water may result in naturally occurring elevated metals concentrations in surface water. Anthropogenic sources may also contribute to metals in surface waters. Verify metals concentrations in ground water in the basin, establish ambient metals concentrations, evaluate potential sources, and better define metals transport and attenuation by surface water.

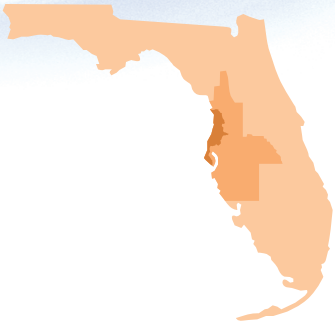
# Chapter 5: The Planning List of Potentially Impaired Waters

## The Planning List

The Planning List **(Table 5.1)** includes all waterbody segments (waterbody identification numbers) in the Springs Coast Basin that are identified as potentially impaired. The table also indicates the parameters of concern.

**Figure 5.1** shows waterbody segments on the Planning List. In this figure, the entire watersheds for listed waterbody segments are highlighted. Often, however, only the main waterbody in the assessment unit has been assessed. Other waters in the assessment unit may not be impaired, or data may not be available.

The Impaired Surface Waters Rule (IWR) methodology used to develop the Planning List follows the tenet of "independent applicability," which means that a waterbody will be listed if any of its designated uses are potentially impaired. Waterbody segments on the Planning List must meet specific thresholds and data sufficiency and data quality requirements in the IWR (Rule 62-303, Florida Administrative Code). **Appendix A** describes the legislative and regulatory background for the development of the Planning and Verified Lists. The methodology in **Appendix B** describes the criteria and thresholds required for both lists under the IWR.



### *Significance of the Planning List*

*Under the Florida Watershed Restoration Act, Planning Lists of potentially impaired waters are submitted to the EPA for informational purposes only and are not used in administering or implementing any regulatory programs. The Planning List is important, as it is used to guide monitoring in the basin and is the precursor to the Verified List of impaired waters. As such, stakeholders are encouraged to review the Planning List carefully, including the data used by the Department to produce the list. If reviewers identify and have access to pertinent data that were not used, they should enter the data into STORET or submit the data to the Department so that it can be used in evaluating waterbodies to be included on the Verified List.*

## Relationship Between the Planning List and the 303(d) List

The state's Section 303(d) list of impaired waters for the Springs Coast Basin is updated in two stages. The Planning List represents the first stage of this process (see sidebar for a discussion of the significance of the Planning List).

Potentially impaired waters identified in this report will be further assessed in Phase 2 of the watershed management cycle to verify their impairment. In addition to evaluating more thoroughly the data used to place these waters on the Planning List (including the verification of quality assurance and data sufficiency), the Florida Department of Environmental Protection (Department), working with local stakeholders, will identify other existing data and collect additional data as needed to complete the assessment.

Once the additional monitoring is completed, the data will be assessed and the Department will develop a Verified List of impaired waters. **Appendix B** describes the criteria for data evaluation used to verify impaired waterbodies and produce the Verified List. The Verified List will be adopted by Secretarial Order and then submitted to the U.S. Environmental Protection Agency (EPA) as an update to Florida's current 303(d)

**Table 5.1: Planning List of Potentially Impaired Waters in the Springs Coast Basin, by Planning Unit**

| WBID | Water Segment Name | Water-body Type | Water-body Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the IWR | Assessment Status | Integrated Report Category[1] | Priority for TMDL Develop-ment[2] | Projected Year For TMDL Develop-ment[2] | Comment (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Crystal River/Kings Bay Planning Unit** | | | | | | | | | | |
| 1341C | Hunters Bay Spring | Spring | IIIF | | DO | Planning List | 3c | | | Planning period: 6/13; verified period: 6/14. |
| 1341G | Tarpon Springs | Spring | IIIF | | Conduc-tance | Planning List | 3c | | | Planning period: 33/38; verified period: 21/22. |
| 1341G | Tarpon Springs | Spring | IIIF | | DO | Planning List | 3c | | | Planning period: 12/12; verified period: 13/13. |
| 1668A | St. Joe Creek | Stream | IIIF | BOD | BOD | No Data | 3c | High | 2006 | |
| 1668A | St. Joe Creek | Stream | IIIF | Coliforms | Fecal Coliforms | Planning List | 3c | High | 2006 | Planning period: 41/66; verified period: 0/18. |
| 1668A | St. Joe Creek | Stream | IIIF | Coliforms | Total Coliforms | Planning List | 3c | High | 2006 | Planning period: 13/59; verified period: 0/18. |
| 1668A | St. Joe Creek | Stream | IIIF | DO | DO | Impaired | 3d | High | 2006 | Planning period: 114/286; verified period: 84/194. |
| 1668A | St. Joe Creek | Stream | IIIF | Nutrients | Nutrients (Chlorophyll *a*) | Impaired | 3d | High | 2006 | Planning period: Poten-tially impaired; verified period: Potentially impaired. |
| 1668A | St. Joe Creek | Stream | IIIF | | Nutrients (Historical Chlorophyll) | Impaired | 3d | | | Planning period: Poten-tially impaired; verified period: Potentially impaired. |
| 1668B | Bonn Creek | Stream | IIIF | BOD | BOD | No Data | 3c | High | 2006 | |
| 1668B | Bonn Creek | Stream | IIIF | Coliforms | Fecal Coliforms | Planning List | 3c | High | 2006 | Planning period: 31/48. |
| 1668B | Bonn Creek | Stream | IIIF | Coliforms | Total Coliforms | Planning List | 3c | High | 2006 | Planning period: 7/36. |
| 1668B | Bonn Creek | Stream | IIIF | DO | DO | Impaired | 3d | High | 2006 | Planning period: 72/130; verified period: 24/45. |
| 1668B | Bonn Creek | Stream | IIIF | Nutrients | Nutrients (Chlorophyll *a*) | Impaired | 3d | High | 2006 | Planning period: Poten-tially impaired; verified period: Potentially impaired. |
| 1668B | Bonn Creek | Stream | IIIF | | Nutrients (Historic Chlorophyll *a*) | Impaired | 3d | | | Planning period: Poten-tially impaired; verified period: Potentially impaired. |
| **Homosassa River Planning Unit** | | | | | | | | | | |
| 1345 | Homosassa River | Stream | IIIF | | Conduc-tance | Planning List | 3c | | | Planning period: 59/63. |
| 1345 | Homosassa River | Stream | IIIF | | Iron | Planning List | 3c | | | Planning period: 4/6. |

**Table 5.1 (continued)**

| WBID | Water Segment Name | Water-body Type | Water-body Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the IWR | Assessment Status | Integrated Report Category[1] | Priority for TMDL Develop-ment[2] | Projected Year For TMDL Develop-ment[2] | Comment (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Homosassa River Planning Unit, continued** | | | | | | | | | | |
| 1345 | Homosassa River | Stream | IIIF | | Nutrients (Chlorophyll *a*) | Impaired | 3d | | | Planning period: Potentially impaired; verified period: Potentially impaired. |
| 1345D | Homosassa Springs | Spring | IIIF | | Biology | Planning List | 3c | | | |
| 1345D | Homosassa Springs | Spring | IIIF | | Conductance | Planning List | 3c | | | Planning period: 106/119; verified period: 64/66. |
| 1345D | Homosassa Spring | Spring | IIIF | | DO | Impaired | 3d | | | Planning period: 37/39; verified period: 40/42. |
| **Chassahowitzka River Planning Unit** | | | | | | | | | | |
| 1348 | Chassahowitzka River | Stream | IIIF | | Conductance | Planning List | 3c | | | Planning period: 19/21. |
| 1348 | Chassahowitzka River | Stream | IIIF | | DO | Impaired | 3d | | | Planning period: 50/153; verified period: 25/91. |
| 1348D | Baird Creek | Stream | IIIF | | Conductance | Planning List | 3c | | | Planning period: 7/7. |
| 1348Z | Chassahowitzka Main | Spring | IIIF | | Conductance | Planning List | 3c | | | Planning period: 35/78; verified period: 23/44. |
| 1348Z | Chassahowitzka Main | Spring | IIIF | | DO | Impaired | 3d | | | Planning period: 23/26; verified period: 25/28. |
| 1361 | Weeki Wachee River | Stream | IIIF | | DO | Impaired | 3d | | | Planning period: 41/198; verified period: 38/142. |
| 1361A | Skinner Lake–Open Water | Lake | IIIF | | Iron | Planning List | 3c | | | Planning period: 10/11; verified period: 0/1. |
| 1361A | Skinner Lake–Open Water | Lake | IIIF | | pH | Planning List | 3c | | | Planning period: 4/11; verified period: 0/1. |
| **Middle Coastal Planning Unit** | | | | | | | | | | |
| 1382A | Weeki Wachee River | Stream | IIIF | | Alkalinity | Planning List | 3c | | | Planning period: 13/33. |
| 1382A | Weeki Wachee River | Stream | IIIF | | DO | Impaired | 3d | | | Planning period: 47/286; verified period: 30/193. |
| 1382A | Weeki Wachee River | Stream | IIIF | | Iron | Planning List | 3c | | | Planning period: 12/17; verified period: 0/5. |
| 1382B | Weeki Wachee Springs | Spring | IIIF | | DO | Impaired | 3d | | | Planning period: 104/109; verified period: 64/64. |

**Table 5.1 (continued)**

| WBID | Water Segment Name | Water-body Type | Water-body Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the IWR | Assessment Status | Integrated Report Category[1] | Priority for TMDL Develop-ment[2] | Projected Year For TMDL Develop-ment[2] | Comment (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Middle Coastal Planning Unit, continued** | | | | | | | | | | |
| 1382C | Tooke Lake–Open Water | Lake | IIIF | | Alkalinity | Planning List | 3c | | | Planning period: 4/4; verified period: 3/3. |
| 1382E | Highland Lake–Open Water | Lake | IIIF | | Iron | Planning List | 3c | | | Planning period: 3/4; verified period: 0/1. |
| 1384A | Bonnett Pond–Open Water | Lake | IIIF | | Iron | Planning List | 3c | | | Planning period: 10/11; verified period: 0/1. |
| 1389 | Jenkin's Spring | Stream | IIIF | | Conduc-tance | Planning List | 3c | | | Planning period: 10/11; verified period: 10/11. |
| 1389 | Jenkin's Spring | Stream | IIIF | | DO | Planning List | 3c | | | Planning period: 4/5; verified period: 4/5. |
| 1391 | Hunter Lake | Lake | IIIF | | Iron | Planning List | 3c | | | Planning period: 13/15; verified period: 1/3. |
| 1391 | Hunter Lake | Lake | IIIF | | Mercury in Fish | Impaired | 3d | | | |
| 1392B | Lake Hancock–Open Water | Lake | IIIF | | Iron | Planning List | 3c | | | Planning period: 13/15; verified period: 1/4. |
| 1392B | Lake Hancock–Open Water | Lake | IIIF | | pH | Planning List | 3c | | | Planning period: 8/16; verified period: 2/4. |
| 1409 | Pithlachas-cotee River | Stream | IIIF | | Bacteria | Impaired | 3d | | | The waterbody segment exceeded the 21-day closure, advisories, or warnings in 2002 with 73 days, and 2003 with 199 days, as per IWR Rule 62-303.360(1)(c). |
| 1409 | Pithlachas-cotee River | Stream | IIIF | | Biology | Planning List | 3c | | | |
| 1409 | Pithlachas-cotee River | Stream | IIIF | | Conduc-tance | Planning List | 3c | | | Planning period: 36/153; verified period: 31/90. |
| 1409 | Pithlachas-cotee River | Stream | IIIF | DO | DO | Impaired | 3d | Low | 2011 | Planning period: 108/226; verified period: 74/163. |
| 1694D | Boca Ciega Bay | Estuary | IIIM | | DO | Planning List | 3c | | | Planning period: 7/17; verified period: 5/14. |
| 1701 | Bear Creek | Stream | IIIF | | Fecal Coliforms | Planning List | 3c | | | Planning period: 31/37. |
| 1701 | Bear Creek | Stream | IIIF | | Total Coliforms | Planning List | 3c | | | Planning period: 7/23. |
| 1701 | Bear Creek | Stream | IIIF | | Conduc-tance | Planning List | 3c | | | Planning period: 76/97; verified period: 15/35. |

**Table 5.1 (continued)**

| WBID | Water Segment Name | Water-body Type | Water-body Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the IWR | Assessment Status | Integrated Report Category[1] | Priority for TMDL Develop-ment[2] | Projected Year For TMDL Develop-ment[2] | Comment (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Middle Coastal Planning Unit, continued** | | | | | | | | | | |
| 1701 | Bear Creek | Stream | IIIF | | DO | Impaired | 3d | | | Planning period: 89/132; verified period: 51/71. |
| 1716 | Clam Bayou Drain | Estuary | IIIM | Coliforms | Fecal Coliforms | Planning List | 3c | Low | 2011 | Planning period: 44/77; verified period: 1/17. |
| 1716 | Clam Bayou Drain | Estuary | IIIM | DO | DO | Impaired | 3d | Low | 2011 | Planning period: 61/167; verified period: 28/67. |
| 1716 | Clam Bayou Drain | Estuary | IIIM | Nutrients | Nutrients (Chlorophyll *a*) | Impaired | 3d | Low | 2011 | Planning period: Potentially impaired; verified period: Potentially impaired. |
| 8039 | Crystal River Gulf 1 | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8040 | Crystal River Gulf 2 | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| **Anclote River/Coastal Pinellas County Planning Unit** | | | | | | | | | | |
| 1440 | Anclote River | Stream | IIIF | DO | DO | Impaired | 3d | Low | 2011 | Planning period: 222/394; verified period: 115/186. |
| 1440 | Anclote River | Stream | IIIF | Mercury in Fish | Mercury in Fish | Planning List | 3c | Low | 2011 | |
| 1440A | Spring Bayou | Stream | IIIF | BOD | BOD | No Data | 3c | Low | 2011 | |
| 1440A | Spring Bayou | Stream | IIIF | | Conduc-tance | Planning List | 3c | | | Planning period: 62/74; verified period: 6/18. |
| 1440A | Spring Bayou | Stream | IIIF | DO | DO | Impaired | 3d | Low | 2011 | Planning period: 62/110; verified period: 31/54. |
| 1440AB | Anclote River Park Beach | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 1450 | Direct Runoff to Gulf | Lake | IIIF | | Conduc-tance | Planning List | 3c | | | Planning period: 23/23; verified period: 9/9. |
| 1450 | Direct Runoff to Gulf | Lake | IIIF | | Nutrients (TSI) | Impaired | 3d | | | Planning period: Potentially impaired; verified period: Potentially impaired. |
| 1456 | South Branch | Stream | IIIF | Coliforms | Fecal Coliforms | Insufficient Data | 3c | High | 2006 | Planning period: 0/3; verified period: 1/12. |
| 1456 | South Branch | Stream | IIIF | Coliforms | Total Coliforms | Insufficient Data | 3c | High | 2006 | Verified period: 0/9. |
| 1456 | South Branch | Stream | IIIF | DO | DO | Planning List | 3c | High | 2006 | Planning period: 5/5; verified period: 8/13. |

**Table 5.1 (continued)**

| WBID | Water Segment Name | Water-body Type | Water-body Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the IWR | Assessment Status | Integrated Report Category[1] | Priority for TMDL Develop-ment[2] | Projected Year For TMDL Develop-ment[2] | Comment (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Anclote River/Coastal Pinellas County Planning Unit, continued** | | | | | | | | | | |
| 1456 | South Branch | Stream | IIIF | Nutrients | Nutrients (Chlorophyll *a*) | Insufficient Data | 3c | High | 2006 | Planning period: Insufficient data; verified period: Insufficient data. |
| 1461 | Duck Slough | Stream | IIIF | | DO | Planning List | 3c | | | Planning period: 3/3; verified period: 2/2. |
| 1475 | Hollin Creek | Stream | IIIF | DO | DO | Planning List | 3c | Low | 2011 | Planning period: 4/4; verified period: 13/16. |
| 1475 | Hollin Creek | Stream | IIIF | Nutrients | Nutrients (Chlorophyll *a*) | Insufficient Data | 3c | Low | 2011 | Planning period: No data; verified period: Insufficient data. |
| 1508 | Klosterman Bayou Run | Estuary | IIIM | DO | DO | Impaired | 3d | High | 2006 | Planning period: 66/204; verified period: 42/126. |
| 1508 | Klosterman Bayou Run | Estuary | IIIM | Nutrients | Nutrients (Chlorophyll *a*) | Impaired | 3d | High | 2006 | Planning period: Potentially impaired; verified period: Potentially impaired. |
| 1512 | Health Spring Drain | Spring | IIIF | | Fecal Coliforms | Planning List | 3c | | | Planning period: 7/47; verified period: 0/18. |
| 1512 | Health Spring Drain | Spring | IIIF | | Conductance | Planning List | 3c | | | Planning period: 65/96; verified period: 19/44. |
| 1512 | Health Spring Drain | Spring | IIIF | | DO | Impaired | 3d | | | Planning period: 96/168; verified period: 69/116. |
| 1512Z | Wall Spring (Health Spring) | Spring | IIIF | | Conductance | Planning List | 3c | | | Planning period: 10/10; verified period: 4/4. |
| 1512Z | Wall Spring (Health Spring) | Spring | IIIF | | DO | Planning List | 3c | | | Planning period: 4/4; verified period: 3/3. |
| 1528 | Direct Runoff to Gulf (Clearwater Harbor) | Estuary | IIIM | DO | DO | Impaired | 3d | Low | 2011 | Planning period: 78/909; verified period: 58/472. |
| 1535 | Direct Runoff to Gulf | Estuary | IIIM | DO | DO | Impaired | 3d | Low | 2011 | Planning period: 59/110; verified period: 32/55. |
| 1538 | Curlew Creek | Estuary | IIIM | | Biology | Planning List | 3c | | | |
| 1538 | Curlew Creek | Estuary | IIIM | Coliforms | Fecal Coliforms | Planning List | 3c | Low | 2011 | Planning period: 46/55; verified period: 2/18. |
| 1538 | Curlew Creek | Estuary | IIIM | Coliforms | Total Coliforms | Planning List | 3c | Low | 2011 | Planning period: 20/47; verified period: 0/18. |

**Table 5.1 (continued)**

| WBID | Water Segment Name | Water-body Type | Water-body Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the IWR | Assessment Status | Integrated Report Category[1] | Priority for TMDL Develop-ment[2] | Projected Year For TMDL Develop-ment[2] | Comment (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Anclote River/Coastal Pinellas County Planning Unit, continued** | | | | | | | | | | |
| 1538 | Curlew Creek | Estuary | IIIM | DO | DO | Impaired | 3d | Low | 2011 | Planning period: 47/258; verified period: 25/171. |
| 1538 | Curlew Creek | Estuary | IIIM | Nutrients | Nutrients (Chlorophyll *a*) | Impaired | 3d | Low | 2011 | Planning period: Potentially impaired; verified period: Potentially impaired. |
| 1538 | Curlew Creek | Estuary | IIIM | | Nutrients (Historic Chlorophyll *a*) | Impaired | 3d | | | Planning period: Potentially impaired; verified period: Potentially impaired. |
| 1556 | Cedar Creek | Estuary | IIIM | Coliforms | Fecal Coliforms | Planning List | 3c | Low | 2011 | Planning period: 24/37; verified period: 6/17. |
| 1556 | Cedar Creek | Estuary | IIIM | Coliforms | Total Coliforms | Planning List | 3c | Low | 2011 | Planning period: 5/27; verified period: 0/17. |
| 1556 | Cedar Creek | Estuary | IIIM | DO | DO | Impaired | 3d | Low | 2011 | Planning period: 62/116; verified period: 33/72. |
| 1556 | Cedar Creek | Estuary | IIIM | Nutrients | Nutrients (Chlorophyll *a*) | Impaired | 3d | Low | 2011 | Planning period: Potentially impaired; verified period: Potentially impaired. |
| 1567 | Stevenson Creek | Estuary | IIIM | Coliforms | Fecal Coliforms | Planning List | 3c | High | 2006 | Planning period: 50/77; verified period: 0/21 Need 2 additional season samples in order to delist. |
| 1567 | Stevenson Creek | Estuary | IIIM | Coliforms | Total Coliforms | Planning List | 3c | High | 2006 | Planning period: 16/68; verified period: 0/21 Need 2 additional season samples in order to delist. |
| 1567 | Stevenson Creek | Estuary | IIIM | DO | DO | Impaired | 3d | High | 2006 | Planning period: 139/236; verified period: 75/133. |
| 1567 | Stevenson Creek | Estuary | IIIM | Nutrients | Nutrients (Chlorophyll *a*) | Impaired | 3d | High | 2006 | Planning period: Potentially impaired; verified period: Potentially impaired. |
| 1614 | Belleair Golfclub Run | Stream | IIIF | | Fecal Coliforms | Planning List | 3c | | | Planning period: 34/36. |
| 1614 | Belleair Golfclub Run | Stream | IIIF | | Total Coliforms | Planning List | 3c | | | Planning period: 15/26. |
| 1614 | Belleair Golfclub Run | Stream | IIIF | | DO | Impaired | 3d | | | Planning period: 31/125; verified period: 16/65. |

**Table 5.1 (continued)**

| WBID | Water Segment Name | Water-body Type | Water-body Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the IWR | Assessment Status | Integrated Report Category[1] | Priority for TMDL Develop-ment[2] | Projected Year For TMDL Develop-ment[2] | Comment (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Anclote River/Coastal Pinellas County Planning Unit, continued** | | | | | | | | | | |
| 1618 | Lake Seminole | Lake | IIIF | Coliforms | Fecal Coliforms | Planning List | 3c | High | 2006 | Planning period: 67/366; verified period: 0/11. |
| 1618 | Lake Seminole | Lake | IIIF | Nutrients | Nutrients (TSI) | Impaired | 3d | High | 2006 | Planning period: Potentially impaired; verified period: Potentially impaired. |
| 1618 | Lake Seminole | Lake | IIIF | | pH | Planning List | 3c | | | Planning period: 741/1422; verified period: 422/639. |
| 1618 | Lake Seminole | Lake | IIIF | | Turbidity | Impaired | 3d | | | Planning period: 93/1056; verified period: 88/487. |
| 1618 | Lake Seminole | Lake | IIIF | | Unionized Ammonia | Planning List | 3c | | | Planning period: 46/286; verified period: 0/8. |
| 1618A | Lake Seminole Outlet | Lake | IIIF | | DO | Impaired | 3d | | | Planning period: 13/23; verified period: 13/25. |
| 1618A | Lake Seminole Outlet | Lake | IIIF | | Nutrients (TSI) | Impaired | 3d | | | Planning period: Potentially impaired; verified period: Potentially impaired. |
| 1633 | McKay Creek | Estuary | IIIM | Coliforms | Fecal Coliforms | Planning List | 3c | Low | 2011 | Planning period: 34/36; verified period: 1/14. |
| 1633 | McKay Creek | Estuary | IIIM | Coliforms | Total Coliforms | Planning List | 3c | Low | 2011 | Planning period: 15/26; verified period: 0/14. |
| 1633 | McKay Creek | Estuary | IIIM | | Total Coliforms | Planning List | 3c | | | Planning period: 15/26; verified period: 0/14. |
| 1633 | McKay Creek | Estuary | IIIM | DO | DO | Impaired | 3d | Low | 2011 | Planning period: 67/130; verified period: 38/83. |
| 1633 | McKay Creek | Estuary | IIIM | Nutrients | Nutrients (Chlorophyll a) | Impaired | 3d | Low | 2011 | Planning period: Potentially impaired; verified period: Potentially impaired. |
| 1633A | Taylor Lake | Lake | IIIF | | Fecal Coliforms | Planning List | 3c | | | Planning period: 6/36. |
| 1633A | Taylor Lake | Lake | IIIF | | DO | Impaired | 3d | | | Planning period: 63/117; verified period: 36/55. |
| 1633A | Taylor Lake | Lake | IIIF | | Nutrients (TSI) | Impaired | 3d | | | Planning period: Potentially impaired; verified period: Potentially impaired. |

**Table 5.1 (continued)**

| WBID | Water Segment Name | Water-body Type | Water-body Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the IWR | Assessment Status | Integrated Report Category[1] | Priority for TMDL Develop-ment[2] | Projected Year For TMDL Develop-ment[2] | Comment (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Anclote River/Coastal Pinellas County Planning Unit, continued** | | | | | | | | | | |
| 1641 | Cross Canal (South) | Estuary | IIIM | | Fecal Coliforms | Planning List | 3c | | | Planning period: 16/36; Segment was placed on 1998 303(d) list based on NPS survey. |
| 1641 | Cross Canal (South) | Estuary | IIIM | | Total Coliforms | Planning List | 3c | | | Planning period: 5/30; Segment was placed on 1998 303(d) list based on NPS survey. |
| 1641 | Cross Canal (South) | Estuary | IIIM | | DO | Impaired | 3d | | | Planning period: 67/147; verified period: 45/86; Segment was placed on 1998 303(d) list based on NPS survey. |
| 1641 | Cross Canal (South) | Estuary | IIIM | | Nutrients (Chlorophyll *a*) | Impaired | 3d | | | Planning period: Potentially impaired; verified period: Potentially impaired. Segment was placed on 1998 303(d) list based on NPS survey. |
| 1643 | Church Creek | Stream | IIIF | | Fecal Coliforms | Planning List | 3c | | | Planning period: 12/13; verified period: 0/1. |
| 1643 | Church Creek | Stream | IIIF | | Total Coliforms | Planning List | 3c | | | Planning period: 10/10. |
| 1643 | Church Creek | Stream | IIIF | | Nutrients (Chlorophyll *a*) | Impaired | 3d | | | Planning period: Potentially impaired; verified period: Potentially impaired. |
| 1662 | Pinellas Park Ditch | Estuary | IIIM | Coliforms | Fecal Coliforms | Planning List | 3c | Low | 2011 | Planning period: 8/12; verified period: 0/7. |
| 1662 | Pinellas Park Ditch | Estuary | IIIM | Coliforms | Total Coliforms | Insufficient Data | 3c | Low | 2011 | Planning period: 2/8; verified period: 0/7. |
| 1662 | Pinellas Park Ditch | Estuary | IIIM | DO | DO | Planning List | 3c | Low | 2011 | Planning period: 3/12; verified period: 2/7. |
| 1662 | Pinellas Park Ditch | Estuary | IIIM | Nutrients | Nutrients (Chlorophyll *a*) | Planning List | 3c | Low | 2011 | Planning period: Potentially impaired; verified period: Insufficient data. |
| 8039A | Fort Island Gulf Beach | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8041 | Crystal River Gulf 3 | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8042 | Crystal River Gulf 4 | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8042A | Pine Island Beach | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |

**Table 5.1 (continued)**

| WBID | Water Segment Name | Water-body Type | Water-body Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the IWR | Assessment Status | Integrated Report Category[1] | Priority for TMDL Develop-ment[2] | Projected Year For TMDL Develop-ment[2] | Comment (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Anclote River/Coastal Pinellas County Planning Unit, continued** | | | | | | | | | | |
| 8043 | Crystal River Gulf 5 | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8044 | Crystal River Gulf 6 | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8044A | Crystal River Gulf 6 | Coastal | IIIM | | Bacteria | Impaired | 3d | | | The waterbody segment exceeded the 21-day closure, advisories, or warnings in 2002 (68 days), and 2003 (154 days) as per IWR Rule 62-303.360(1)(c). |
| 8044A | Robert J. Strickland Beach | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8044B | Brasher Park Beach | Coastal | IIIM | | Bacteria | Impaired | 3d | | | The waterbody segment exceeded the 21-day closure, advisories, or warnings in 2003 with 104 days as per IWR Rule 62-303.360(1)(c). |
| 8044B | Brasher Park Beach | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8044C | Robert K. Rees Park Beach | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8044D | Energy and Marine Center | Coastal | IIIM | | Bacteria | Impaired | 3d | | | The waterbody segment exceeded the 21-day closure, advisories, or warnings in 2002, 55 days, and 2003, 188 days, as per IWR Rule 62-303.360(1)(c). |
| 8044D | Energy and Marine Center | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8045 | Crystal River Gulf 7 | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8045A | Gulf Harbors Beach | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8045B | Fred Howard Beach | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8046 | Crystal River Gulf 8 | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8046A | Honeymoon Island Beach | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8047 | Crystal River Gulf 9 | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |

**Table 5.1 (continued)**

| WBID | Water Segment Name | Water-body Type | Water-body Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the IWR | Assessment Status | Integrated Report Category[1] | Priority for TMDL Develop-ment[2] | Projected Year For TMDL Develop-ment[2] | Comment (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Anclote River/Coastal Pinellas County Planning Unit, continued** | | | | | | | | | | |
| 8047 | Crystal River Gulf 9 | Coastal | IIIM | | pH | Planning List | 3c | | | Planning period: 5/22; verified period: 5/18. |
| 8047A | Sand Key | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8047B | Belleair Shores Intercoastal | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8047C | Indian Rocks Beach | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8048 | Crystal River Gulf 10 | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8048A | Indian Shores Beach | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8048B | Madeira Beach | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |
| 8048C | Treasure Island Beach | Coastal | IIIM | | Mercury in Fish | Impaired | 3d | | | |

Notes:

[1]3c—Meets planning list criteria and is potentially impaired for one or more designated uses, 3d—Meets verified list criteria and is potentially impaired for one or more designated uses.
[2]Priorities and schedule for TMDL development are provided for waters on the 303(d) list. Priorities were retained from the 1998 303(d) list (i.e., High or Low).

Planning Period: 1/1/1994 to 12/31/2003; Verified Period: 1/1/1999 to 6/30/2006.

The Springs Coast Group 5 Basin Master List is based on IWR Run 18.

list. Subsequently, the Department will develop total maximum daily loads for 303(d)-listed waterbodies.

## Summary of Potential Impairments

The Springs Coast Basin contains a total of 160 waterbody segments. Of these, 71 are on the Planning List as potentially impaired based on the IWR evaluation criteria and/or the 1998 303(d) list criteria. **Table 5.2** summarizes the major parameters for which potential impairments were identified.

**Table 5.2** shows that dissolved oxygen (DO) levels exceeding criteria are a potential cause of impairment in waterbody segments in this basin. As previously mentioned, low DO levels are often natural and not always attributable to pollutants. For this reason, additional work will be conducted to differentiate between pollutant-related and other causes of low DO before the Verified List for the basin is developed.

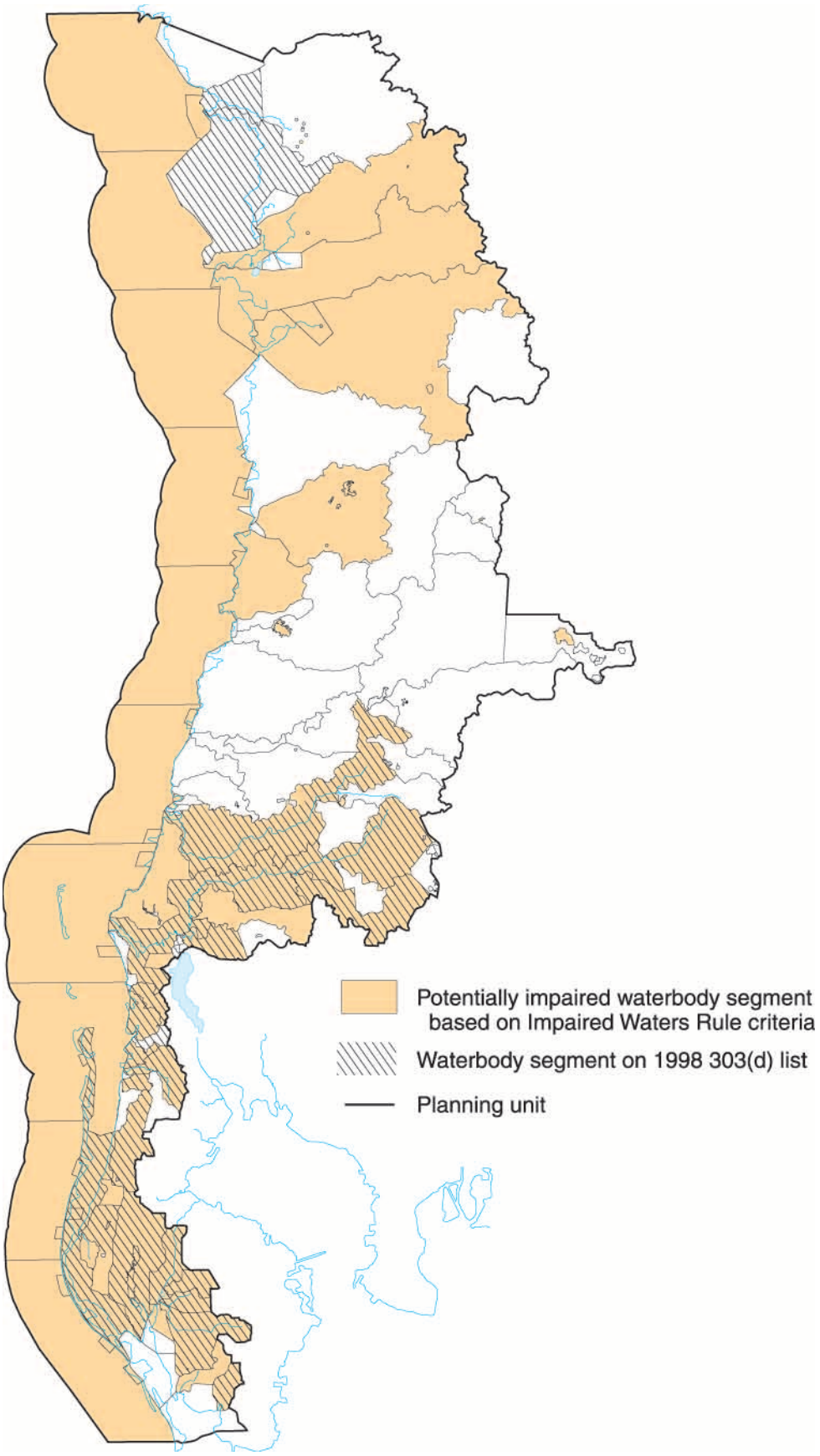



*Figure 5.1: Springs Coast Basin Planning List for All Causes of Potential Impairment, with Overlay of 1998 303(d) List*

**Table 5.2: Parameters Causing Potential Impairments in the Springs Coast Basin**

| | Potential Waterbody Segment Impairments | | | |
|---|---|---|---|---|
| Parameter | Included Only on the 1998 303(d) List | Identified Only by the IWR Evaluation | Identified on Both the 1998 303(d) List and by the IWR Evaluation | Total Potential Impairments |
| Dissolved Oxygen | | 19 | 16 | 35 |
| Coliforms (General, Total, Fecal) | | 13 | 13 | 26 |
| Nutrients (General, Chlorophyll *a*, Other Data) | | 9 | 12 | 21 |
| Fish Advisory (Mercury) | | 20 | 1 | 21 |
| Conductance | | 12 | | 12 |
| Metals (Iron) | | 6 | | 6 |
| Biology | | 5 | | 5 |
| pH | | 4 | | 4 |
| Biological Oxygen Demand | 3 | | | 3 |
| Suspended Solids (Turbidity) | | 1 | | 1 |

## Waters with Insufficient Data To Determine Impairment

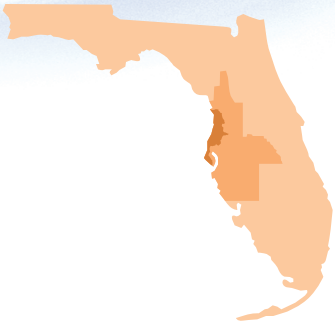
Any waters that do not have sufficient data to be analyzed in accordance with the requirements of the IWR, but that were included on the 1998 303(d) list, will remain on the 303(d) list maintained by EPA. They will also be included on the Planning List until sufficient data are available to evaluate their condition. The Department intends to collect data on these waters in Phase 2 of the watershed management cycle to verify their condition.

Many waterbodies in the Springs Coast Basin are not identified on the 1998 303(d) list and do not have sufficient (or any) data to be assessed under the IWR methodology. Because of resource limitations, it may not be possible for the Department to monitor all of these waterbodies during the first five-year watershed management cycle. The priority during Phase 2 of the cycle is to conduct monitoring and other data gathering to address potentially impaired waters identified on the Planning List.

While the Department plans to monitor waters without enough data to determine potential impairment during subsequent watershed cycles, available data gathered by others will also be used for this purpose. It is important that the Department and stakeholders in the basin coordinate their monitoring plans to collect data most efficiently for these waterbodies. Chapter 6 discusses monitoring and data evaluation priorities and objectives, database management issues, and the development of the Verified List.

# Chapter 6: Strategic Monitoring and Data Evaluation

## Strategic Monitoring and Data Acquisition Priorities



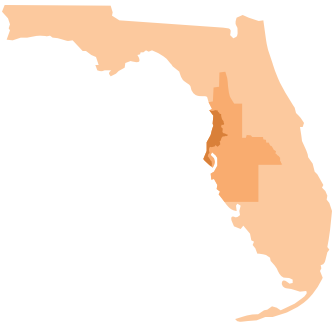
Waters on the Planning List must meet specific thresholds and data sufficiency and data quality requirements in the Impaired Surface Waters Rule (IWR) (Rule 62-303, Florida Administrative Code [F.A.C.]). The Planning List includes waterbody segments that were previously on the 1998 303(d) list, but for which the Florida Department of Environmental Protection (Department) had insufficient data for assessment under the IWR. Additional data that are collected will be used to verify the status of waters listed as potentially impaired, assess those with insufficient data, and support modeling efforts to develop total maximum daily loads for impaired waterbodies.

Due to resource limitations, the Department alone is not capable of addressing all of the strategic monitoring objectives within the first five-year cycle for the five Group 5 basins. The Department's monitoring focus during the months prior to submitting the Verified List of impaired waters to the U.S. Environmental Protection Agency (EPA) is to obtain data necessary to verify the status of potentially impaired waters.

Priority for data acquisition has been given to Planning List waterbody segments that are also on the 1998 303(d) list and the potentially impaired waterbodies that did not have sufficient data to verify their condition at the time the Planning List was generated. Data from other monitoring organizations will be included in the evaluation to help verify the condition of potentially impaired waterbodies and provide data by which other waterbodies can be evaluated.

## Data Acquisition Objectives

As discussed, the Department's focus prior to producing the Verified List is to collect and assemble sufficient data to evaluate waterbodies that are potentially impaired for parameters that do not have sufficient data to meet the Verified List evaluation criteria (Section 62-303.400, F.A.C.). The priority is to collect data for waterbodies on the 1998 303(d) list. An additional monitoring priority is to develop data that may be needed to identify pollutants causing dissolved oxygen exceedances or biological impairments. As mentioned in Chapter 3, these conditions are at times not attributable to pollutants.



## Phase 2 Assessment: Data Collection and Database Management Leading to the Development of the 303(d) List of Impaired Waters

The Department has been working to update the database that will be used in the Phase 2 assessment, collecting its own data as well as working with the other key data providers to obtain the most current and comprehensive water quality data. The data to be used in evaluating waterbodies to be included on the Verified List include the following:

- Existing data in the database that were not collected during the Planning List period of record,
- Existing data that had not been imported into the IWR Database at the time of the Planning List evaluation, and
- Monitoring data that had not been collected or reported.

The database now includes monitoring data collected before and after the Planning List period of record that were not evaluated for the Planning List. The 10-year period of record for the data used to produce the Planning List for the Springs Coast Basin extends from January 1, 1994, to December 31, 2003. The 7.5-year period of record for the Verified List evaluation, from January 1, 1999, to June 30, 2006, will capture more recent data.

The IWR Database contains data that were uploaded since the Planning List evaluation was conducted. Over the past year, the Department has provided support to organizations that are interested in uploading their water quality data to the national **STO**rage and **RET**rieval (STORET) Database. Data uploaded since the Planning List evaluation will be included in the database.

Based on preliminary data reviewed for the production of this Status Report, the Department developed a plan to address potential data gaps. The Water Quality Section of the Department's Southwest District began a strategic monitoring program in 2005 to address TMDL Program data needs. The focus of this program is to collect additional data to verify conditions in many of the potentially impaired waterbody segments.

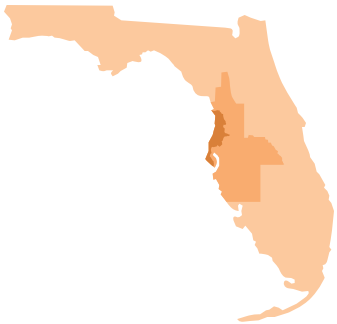
## Verified List Development and Public Comment

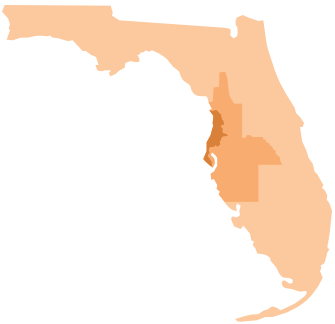
The Verified List of impaired waters for the Springs Coast Basin will be produced by the Department in the early summer of 2006, and will be adopted by the Secretary of the Department and submitted to the EPA later in the year. The tentative submittal date to the EPA for the adopted Verified List is October 1, 2006.

Prior to the Secretary's action, the Department will distribute the draft Verified List to the public. As part of the review process, public workshops will be advertised and held in each basin to help explain the process for

developing the Verified List, exchange information, and encourage public involvement.

If additional information or data is provided during the public comment period or before, the Department will consider it before submitting the proposed list to the Secretary and EPA.





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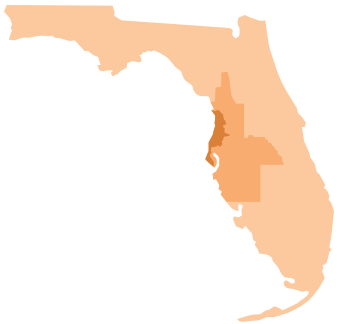

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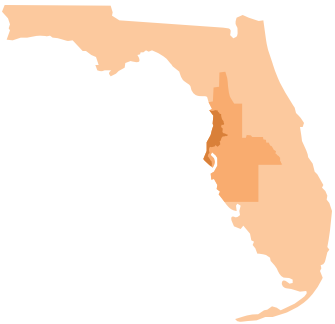

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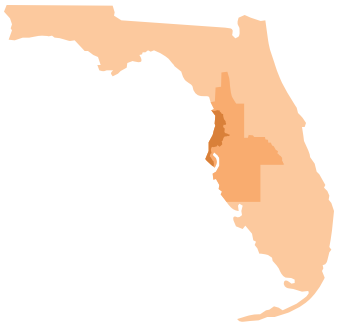

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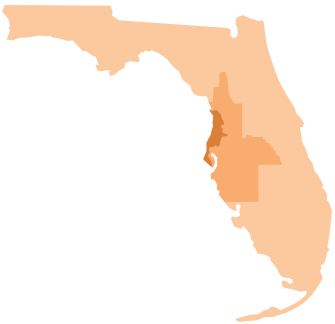

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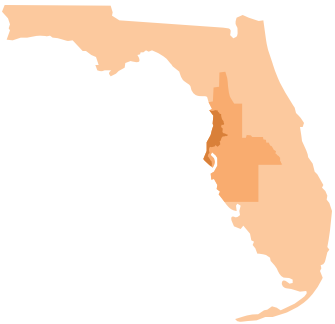

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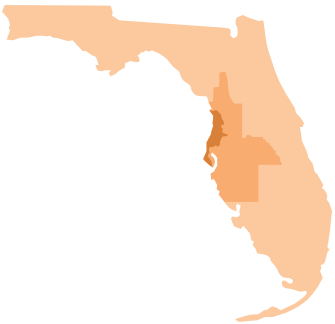

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# *Appendix A: Legislative and Regulatory Background on the Watershed Management Approach and the Implementation of Total Maximum Daily Loads*

## Federal and State Legislation on Surface Water Quality and Total Maximum Daily Loads

### *Clean Water Act*

Congress enacted the Clean Water Act in 1972 with the goal of restoring and maintaining the "chemical, physical, and biological integrity of the nation's waters" (33 U.S.C. § 1251[a]). The ultimate goal of the act is to eliminate the "discharge of [all] pollutants into navigable waters" (33 U.S.C. § 1251[a][1]).

Section 305(b) of the Clean Water Act requires states to report biennially to the EPA on their water quality. The 305(b) report provides information on the physical, chemical, biological, and cultural features of each river basin in Florida. This initial assessment provides a common factual basis for identifying information sources and major issues, and for determining the future changes, strategies, and actions needed to preserve, protect, and/or restore water quality. Understanding the physical framework of each basin allows the development of a science-based methodology for assessing water quality and an accurate picture of the waters that are most impaired or vulnerable to contamination.

Section 303(d) of the Clean Water Act requires states to submit to the EPA lists of surface waters that do not meet applicable water quality standards and establish total maximum daily loads (TMDLs) for each of these waters on a schedule. A pollution limit is then allocated to each pollutant source in an individual river basin.

A TMDL represents the maximum amount of a given pollutant that a waterbody can assimilate and meet all of its designated uses (see **Noteworthy** on Florida's surface water quality classifications for a listing of these classifications). A waterbody that does not meet its designated use is defined as *impaired*.

---

*NOTEWORTHY: FLORIDA'S SURFACE WATER QUALITY CLASSIFICATIONS*

*Florida's water quality standards program, the foundation of the state's program of water quality management, designates the "present and future most beneficial uses" of the waters of the state (Subsection 403.061[10], F.S.). Water quality criteria, expressed as numeric or narrative limits for specific parameters, describe the water quality necessary to maintain these uses for surface water and ground water. Florida's surface water is protected for five designated use classifications, as follows:*

| | |
|---|---|
| ***Class I*** | ***Potable water supplies*** |
| ***Class II*** | ***Shellfish propagation or harvesting*** |
| ***Class III*** | ***Recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife*** |
| ***Class IV*** | ***Agricultural water supplies*** |
| ***Class V*** | ***Navigation, utility, and industrial use (there are no state waters currently in this class)*** |

### *Florida Watershed Restoration Act*

In 1998, the EPA settled a lawsuit with the environmental group Earthjustice over Florida's TMDL Program. The Consent Decree resulting from the lawsuit requires all TMDLs on the state's 1998 Section 303(d) list of impaired waters to be developed in thirteen years. If the state fails to develop the TMDLs, the EPA is required to do so.

In response to concerns about the TMDL lawsuit and in recognition of the important role that TMDLs play in restoring state waters, the 1999 Florida legislature enacted the Florida Watershed Restoration Act (Chapter 99-223, Laws of Florida). The act clarified the Department's statutory authority to establish TMDLs, required the Department to develop a methodology for identifying impaired waters, specified that the Department could develop TMDLs only for waters on a future state list of impaired waters developed using this new methodology, and directed the Department to establish an Allocation Technical Advisory Committee to address the allocation process for TMDLs. The act also declared Lake Okeechobee impaired and, as required under the TMDL Consent Decree, allowed the state to develop a TMDL for the lake (see **Noteworthy** for a description of the legislation's major provisions).

---

*NOTEWORTHY: THE FLORIDA WATERSHED RESTORATION ACT*

*The Florida Watershed Restoration Act contains the following major provisions:*

- *Establishes that the 303(d) list submitted to the EPA in 1998 is for planning purposes only.*
- *Requires the Department to adopt 303(d) listing criteria (that is, the methodology used to define impaired waters) by rule.*
- *Requires the Department to verify impairment and then establish a Verified List for each basin. The Department must also evaluate whether proposed pollution control programs are sufficient to meet water quality standards, list the specific pollutant(s) and concentration(s) causing impairment, and adopt the basin-specific 303(d) list by Secretarial Order.*
- *Requires the Department's Secretary to adopt TMDL allocations by rule. The legislation requires the Department to establish "reasonable and equitable" allocations of TMDLs, but does not mandate how allocations will be made among individual sources.*
- *Requires that TMDL allocations consider existing treatment levels and management practices; the differing impacts that pollutant sources may have; the availability of treatment technologies, best management practices (BMPs), or other pollutant reduction measures; the feasibility, costs, and benefits of achieving the allocation; reasonable time frames for implementation; the potential applicability of moderating provisions; and the extent that nonattainment is caused by pollutants from outside Florida, discharges that have ceased, or alteration to a waterbody.*
- *Required a report to the legislature by February 2001 addressing the allocation process.*

- *Authorizes the Department to develop basin plans to implement TMDLs, coordinating with the water management districts, the Florida Department of Agriculture and Consumer Services (FDACS), the Soil and Water Conservation Districts, regulated parties, and environmental groups in assessing waterbodies for impairment, collecting data for TMDLs, developing TMDLs, and conducting at least one public meeting in the watershed. Implementation is voluntary if not covered by regulatory programs.*

- *Authorizes the Department and FDACS to develop interim measures and BMPs to address nonpoint sources. While BMPs would be adopted by rule, they will be voluntary if not covered by regulatory programs. If they are adopted by rule and the Department verifies their effectiveness, then implementation will provide a presumption of compliance with water quality standards.*

- *Directs the Department to document the effectiveness of the combined regulatory/voluntary approach and report to the legislature by January 1, 2005. The report will include participation rates and recommendations for statutory changes.*

## Determining Impairment Based on the State's Impaired Surface Waters Rule

Section 303(d) of the federal Clean Water Act and the Florida Watershed Restoration Act describe impaired waters as those waterbodies or waterbody segments that do not meet applicable water quality standards. "Impairment" is a broad term that includes designated uses, water quality criteria, the Florida antidegradation policy, and moderating provisions (see **Noteworthy** for explanations of these terms).

The state's Identification of Impaired Surface Waters Rule (Rule 62-303, F.A.C.) was developed in cooperation with a Technical Advisory Committee and adopted by the Florida Environmental Regulation Commission on April 26, 2001. It provides a science-based methodology for evaluating water quality data in order to identify impaired waters, and it establishes specific criteria for impairment based on chemical parameters, the interpretation of narrative nutrient criteria, biological impairment, fish consumption advisories, and ecological impairment. The complete text of the rule is available at http://www.dep.state.fl.us/water/tmdl/docs/AmendedIWR.pdf.

The Impaired Surface Waters Rule also establishes thresholds for data sufficiency and data quality, including the minimum sample size required and the number of exceedances of the applicable water quality standard for a given sample size that identify a waterbody as impaired. The number of exceedances is based on a statistical approach designed to provide greater confidence that the outcome of the water quality assessment is correct. Waters that are identified as impaired through the Impaired Surface Waters Rule are prioritized for TMDL development and implementation.

*NOTEWORTHY: EXPLANATION OF TERMS*

- ***Designated uses,*** *discussed in an earlier sidebar, comprise the five classifications applied to each of the state's surface waterbodies.*

- ***Water quality criteria*** *comprise numeric or narrative limits of pollutants.*

- ***The Florida Antidegradation Policy*** *(Sections 62-302.300 and 62-4.242, F.A.C.) recognizes that pollution that causes or contributes to new violations of water quality standards or to the continuation of existing violations is harmful to the waters of the state. Under this policy, the permitting of new or previously unpermitted existing discharges is prohibited where the discharge is expected to reduce the quality of a receiving water below the* ***classification*** *established for it. Any lowering of water quality caused by a new or expanded discharge to surface waters must be in the public interest (that is, the benefits of the discharge to public health, safety, and welfare must outweigh any adverse impacts on fish and wildlife or recreation). Further, the permittee must demonstrate that other disposal alternatives (for example, reuse) or pollution prevention are not economically and technologically reasonable alternatives to the surface water discharge.*

- ***Moderating provisions*** *(provided in Subsection 62-302.300[10], and Rules 62-4 and 62-6, F.A.C., and described in Sections 62-302.300, 62-4.244, 62-302.800, 62-4.243, F.A.C., and Sections 403.201 and 373.414, F.S.) include mixing zones, zones of discharge, site-specific alternative criteria, exemptions, and variances. These provisions are intended to moderate the* ***applicability*** *of water quality standards where it has been determined that, under certain special circumstances, the social, economic, and environmental costs of such* ***applicability*** *outweigh the benefits.*

Determining impairment in individual waterbodies takes place in two phases. First, in each river basin the Department evaluates the existing water quality data, using the methodology prescribed in the Impaired Surface Waters Rule, to determine whether waters are potentially impaired. Waters found to be potentially impaired are included on a *Planning List* for further assessment under Subsections 403.067(2) and (3), F.S. As required by Subsection 403.067(2), F.S., the Planning List is not used to administer or implement any regulatory program. It is submitted to the EPA for informational purposes only.

The second step is to assess waters on the Planning List under Subsection 403.067(3), F.S., as part of the Department's watershed management approach (described in the following section). The Department carries out additional data gathering and strategic monitoring, focusing on these potentially impaired waters, and determines—using the methodology in Part III, Section 62-303.400, F.A.C.—if a waterbody is, in fact, impaired and if the impairment is caused by pollutant discharges.

An Assessment Report is produced containing the results of this updated evaluation and a *Verified List* of impaired waters. The criteria for the Verified List are more stringent than those for the Planning List. The Department is required to develop TMDLs for waters on the Verified List under Subsection 403.067(4), F.S. A watershed management plan (called a Basin Management Action Plan) to reduce the amount of pollutants that cause impairments must also be produced and implemented.

The Verified List is adopted by Secretarial Order in accordance with the Florida Watershed Restoration Act. Once adopted, the list is submitted to the EPA for approval as the state's Section 303(d) list of impaired waters for the basin.

## Implementing Total Maximum Daily Loads

### *The Watershed Management Approach*

The Department's statewide approach to water resource management, called the watershed management approach, is the framework for implementing TMDLs as required by the federal and state governments. The approach does not focus on individual causes of pollution. Instead, each basin is assessed as an entire functioning system, and aquatic resources are evaluated from a basinwide perspective that considers the cumulative effects of human activities. Water resources are managed on the basis of natural boundaries, such as river basins, rather than political or regulatory boundaries. Federal, state, regional, tribal, and local governments identify watersheds not meeting clean water or other natural resource goals and work cooperatively to focus resources and implement effective strategies to restore water quality. Extensive public participation in the decision-making process is crucial.

The watershed management approach is not new, nor does it compete with or replace existing programs. Rather than relying on single solutions to water resource issues, it is intended to improve the health of surface water and ground water resources by strengthening coordination among such activities as monitoring, stormwater management, wastewater treatment, wetland restoration, land acquisition, and public involvement.

By promoting the management of entire natural systems and addressing the cumulative effects of human activities on a watershed basis, this approach is intended to protect and enhance the ecological structure, function, and integrity of Florida's watersheds. It provides a framework for setting priorities and focusing the Department's resources on protecting and restoring water quality, and aims to increase cooperation among state, regional, local, and federal interests. By emphasizing public involvement, the approach encourages stewardship by all Floridians to preserve water resources for future generations.

The watershed approach is intended to speed up projects by focusing funding and other resources on priority water quality problems, strengthening public support, establishing agreements, and funding multiagency projects. It avoids duplication by building on existing assessments and restoration activities and promotes cooperative monitoring programs. It encourages accountability for achieving water quality improvements through improved monitoring and the establishment of TMDLs.

### *The Watershed Management Cycle*

As part of the Department's watershed management approach, TMDLs will be developed, and the corresponding pollutant loadings allocated, as part of a watershed

management cycle that rotates through the state's fifty-two river basins over a nine-year period. The cycle's five phases are as follows:

- ***Phase 1: Preliminary Watershed Evaluation.*** For each river basin, a **Basin Status Report** is developed, containing a *Planning List* of potentially impaired waters that may require the establishment of TMDLs. The report characterizes each basin's hydrologic, ecological, and socioeconomic setting as well as historical, current, and proposed watershed management issues and activities. It also contains a preliminary evaluation of major water quality parameters, water quality issues by planning unit, ecological resources, and basinwide pollutant loading trends related to land uses. At the end of Phase 1, a **Strategic Monitoring Plan** is developed.

- ***Phase 2: Strategic Monitoring and Assessment.*** Additional data are collected through strategic monitoring and uploaded to STORET. The data are used to verify whether potentially impaired waters in each basin are impaired and to calibrate and verify models for TMDL development. At the end of Phase 2, an **Assessment Report** is produced for each basin that contains a *Verified List* of impaired waters. The report also provides an updated and more thorough evaluation of water quality, associated biological resources, and current management plans. The Department will adopt the Verified List through a Secretarial Order and submit it to the EPA as the state's Section 303(d) list of impaired waters.

- ***Phase 3: Development and Adoption of TMDLs.*** TMDLs for priority impaired waters in the basin will be developed and adopted by rule. Because TMDLs cannot be developed for all listed waters during a single watershed management cycle due to fiscal and technical limitations, waterbodies will be prioritized using the criteria in the Identification of Impaired Surface Waters Rule (Rule 62-303, F.A.C.).

- ***Phase 4: Development of a Basin Management Action Plan (BMAP).*** A BMAP will be developed for each basin to specify how pollutant loadings from point and nonpoint sources will be allocated and reduced in order to meet TMDL requirements. The plans will include regulatory and nonregulatory (i.e., voluntary) and structural and nonstructural strategies, and existing management plans will be used where feasible. The involvement and support of affected stakeholders in this phase will be especially critical.

- ***Phase 5: Implementation of a Basin Management Action Plan.*** Implementation of the activities specified in the BMAP will begin. This includes carrying out rule development as needed, securing funding, informing stakeholders and the public, and monitoring and evaluating the implementation of the plan.

To implement the watershed cycle, the state's river basins have been divided into five groups within each of the Department's six districts statewide, and each district will assess one basin each year. **Table A.1** shows the basin groups for implementing the

cycle in the Department's districts, and **Figure A.1** shows these groups and the rotating cycle in the districts. **Table A.2,** which lists the basin rotation schedule for TMDL development and implementation, shows that it will take nine years to complete one full cycle of the state.

The watershed management cycle is an iterative, or repeated, process. One of its key components is that the effectiveness of management activities (TMDL implementation) will be monitored in successive cycles. Monitoring conducted in Phase 2 of subsequent cycles will be targeted at evaluating whether water quality objectives are being met and whether individual waters are no longer impaired. The Department also will track the implementation of scheduled restoration activities, whether required or voluntary, to ensure continued progress towards meeting the TMDLs.

**Table A.1: Basin Groups for Implementing the Watershed Management Cycle, by Department District Office**

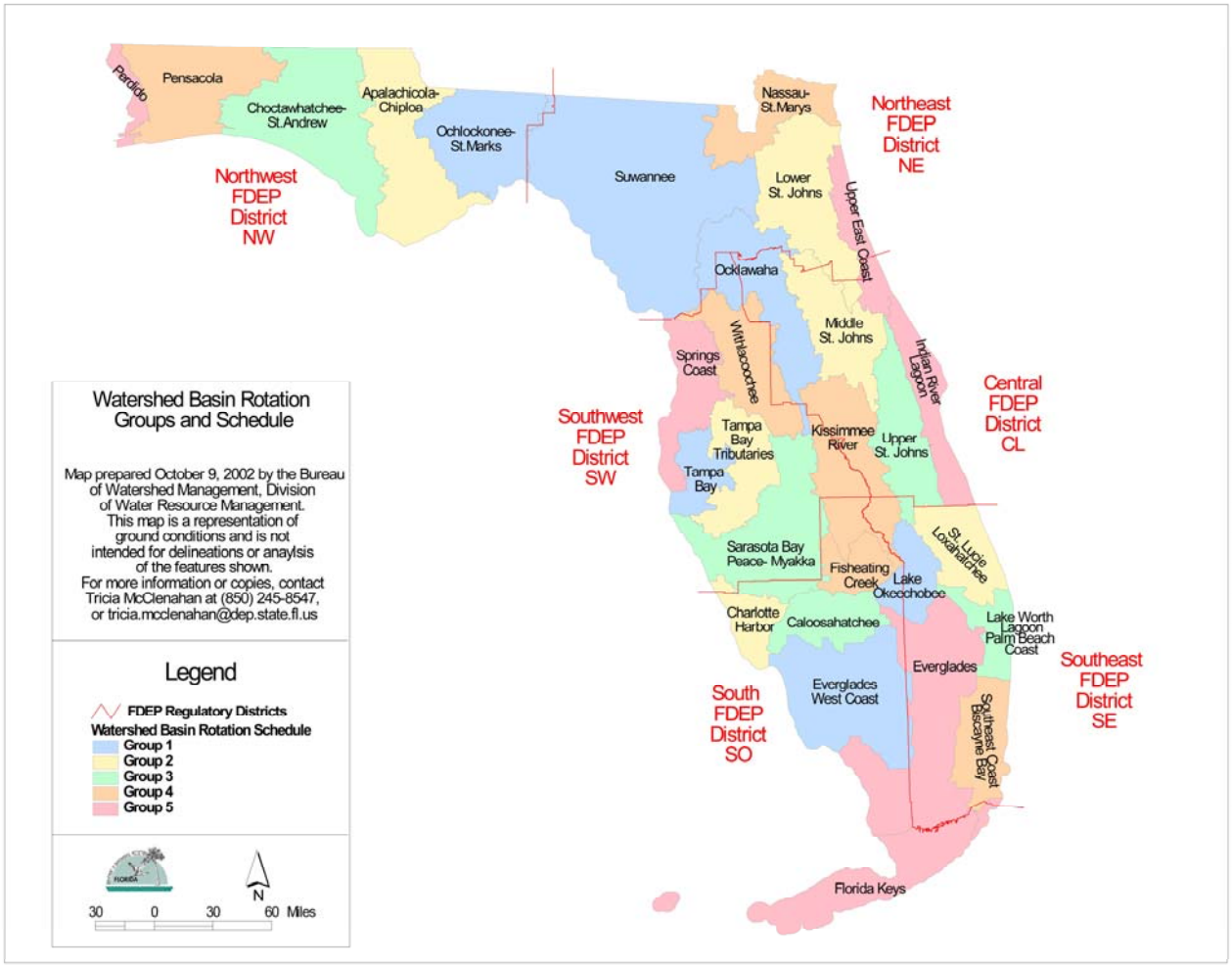
| District | Group 1 Basins | Group 2 Basins | Group 3 Basins | Group 4 Basins | Group 5 Basins |
|---|---|---|---|---|---|
| **Northwest** | Ochlockonee–-St. Marks Rivers | Apalachicola–Chipola Rivers | Choctawhatchee River and Bay and St. Andrews Bay | Pensacola Bay | Perdido River and Bay |
| **Northeast** | Suwannee River | Lower St. Johns River | - | St. Marys–Nassau Rivers | Northeast Coast Lagoons |
| **Central** | Ocklawaha River | Middle St. Johns River | Upper St. Johns River | Kissimmee River | Indian River Lagoon |
| **Southwest** | Tampa Bay | Tampa Bay Tributaries | Sarasota Bay and Peace–Myakka Rivers | Withlacoochee River | Springs Coast |
| **South** | Everglades West Coast | Charlotte Harbor | Caloosahatchee River | Fisheating Creek | Florida Keys |
| **Southeast** | Lake Okeechobee | St.Lucie–Loxahatchee Rivers | Lake Worth Lagoon/Palm Beach Coast | Southeast Urban Coast | Everglades |

**Table A.2: Basin Rotation Schedule for TMDL Development and Implementation**

| Year | 00 01 | 01 02 | 02 03 | 03 04 | 04 05 | 05 06 | 06 07 | 07 08 | 08 09 | 09 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Group 1 | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 | PHASE 5 | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 | PHASE 5 |
| Group 2 | | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 | PHASE 5 | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 |
| Group 3 | | | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 | PHASE 5 | PHASE 1 | PHASE 2 | PHASE 3 |
| Group 4 | | | | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 | PHASE 5 | PHASE 1 | PHASE 2 |
| Group 5 | | | | | PHASE 1 | PHASE 2 | PHASE 3 | PHASE 4 | PHASE 5 | PHASE 1 |
| | 1st Five-Year Cycle – High-Priority Waters | | | | | 2nd Five-Year Cycle – Medium-Priority Waters | | | | |

Note: Projected years for Phases 3, 4, and 5 may change due to accelerated local activities, length of plan development, legal challenges, etc.

**Figure A.1: Five-Year Rotating Basin Cycle in the Department's Six Districts**



Pollutants can enter a waterbody through point source discharges (generally from a specific facility) or nonpoint discharges (e.g., stormwater runoff, septic tanks). Government agencies, businesses, organizations, and individuals who contribute to these discharges will be asked to share the responsibility of attaining TMDLs through load allocations (the amount of a specified pollutant allotted for discharge) that are based on an established TMDL. **Table A.3** summarizes these potentially affected stakeholders, and the actions they may be asked to take to help achieve a TMDL.

**Table A.3: Potentially Affected Stakeholders and Actions To Achieve TMDLs**

| Potentially Affected Stakeholders | Actions To Achieve TMDL |
|---|---|
| Municipal stormwater/wastewater programs | Reduce and treat urban stormwater runoff through stormwater retrofits, replacement of septic tanks |
| Commercial developers, homebuilders, individual homeowners | Improve development design and construction, enhance best management practices, replace septic tanks |
| Municipal and industrial wastewater treatment facilities, National Pollutant Discharge Elimination System (NPDES) permitted facilities | Reduce pollutant loadings from permitted discharges |
| Farming and silviculture operations | Reduce and treat runoff through best management practices |
| Federal, regional, state agencies; regional and local water quality coalitions | Carry out waterbody restoration projects |

## *Permitting and Other Approaches*

### NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMITS

All point sources that discharge to surface waterbodies require a National Pollutant Discharge Elimination System (NPDES) permit. These permits can be classified into two types: domestic or industrial wastewater discharge permits, and stormwater permits. NPDES-permitted point sources may be affected by the development and implementation of a TMDL. All NPDES permits include "reopener clauses" that allow the Department to incorporate new discharge limits when a TMDL is established. These new limitations may be incorporated into a permit when a TMDL is implemented or at the next permit renewal, depending on the timing of the permit renewal and workload. For NPDES municipal stormwater permits, the Department intends to insert the following statement once a BMAP is completed:

*"The permittee shall undertake those activities specified in the (Name of Waterbody) Basin Management Action Plan in accordance with the approved schedule set forth in the BMAP."*

### Domestic and Industrial Wastewater Permits

In addition to NPDES-permitted facilities, all of which discharge to surface waters, Florida also regulates domestic and industrial wastewater discharges to ground water via land application. Since ground water and surface water are so intimately linked in much of the state, reductions in loadings from these facilities may be needed to meet TMDL limitations for pollutants in surface waters. If such reductions are identified in the B-MAP, they would be implemented through modifications of the existing state permits.

### Florida Stormwater/Environmental Resource Permits (ERPs)

With the implementation of the state's stormwater treatment rule in 1982, Florida was the first state to require the treatment of stormwater from all new development. Today, except in the area served by the Northwest Florida Water Management District, new development projects receive an Environmental Resource Permit that combines stormwater flood protection, stormwater treatment, and wetland protection/mitigation into a single permit. These permits are designed to obtain 80 percent average annual load reduction of total suspended solids. This level of treatment may need to be increased, depending on the allocation of load reductions, especially for nutrients. For example, the St. Johns River Water Management District recently adopted basin-specific criteria for the Lake Apopka Basin that require the phosphorus loading from new development not to exceed predevelopment phosphorus loading.

### Local Land Development Codes

Since structural stormwater treatment practices can only achieve certain levels of load reductions, and because the hydrologic changes accompanying urban development often cause ecological impacts to aquatic systems, local land development codes that promote "low-impact development" are an important component of restoring impaired waters. Local codes may need to be reviewed to determine how to promote developments that minimize impervious surfaces (such as reduced street widths or the use of pervious pavements), promote the protection of vegetation, promote the protection and restoration of riparian buffers along streams and lakes, and adopt the principles of the Florida Yards and Neighborhoods Program in local landscaping codes.

### Best Management Practices

Typically, best management practices (BMPs) refer to a practice or combination of practices that, based on sound science and best professional judgment, are determined to be the most effective and practicable means of reducing nonpoint source pollutant discharges and improving water quality. Both economic and technological considerations are included in the evaluation of what is practicable. BMPs may include structural controls (such as retention areas or detention ponds) or nonstructural controls (such as street sweeping or public education). Many BMPs have been developed for urban stormwater to reduce pollutant loadings and peak flows. These BMPs accommodate site-specific conditions, including soil type, slope, depth to ground water, and the designation of receiving waters.

The passage of the Florida Watershed Restoration Act increased the emphasis on implementing BMPs to reduce nonpoint source pollutant discharges from agricultural operations. Recognizing that the development and adoption of BMPs might take several years, the legislature authorized the use of IMs during the BMP development process for agricultural operations. In essence, IMs are a set of logical conservation practices designed to reduce agricultural nonpoint pollutant discharges based on current knowledge and best professional judgment. These practices will evolve into more formal BMPs as better scientific data on their effectiveness is obtained.

Once the Florida Department of Agriculture and Consumer Services adopts BMPs, the Department is charged with verifying their effectiveness in reducing agricultural nonpoint sources. Once verified, agricultural operations that have implemented BMPs will receive a waiver of liability and presumption of compliance similar to that granted a developer who obtains an Environmental Resource Permit.

### Nonregulatory Partnerships

An excellent example of a nonregulatory partnership, established by local stakeholders through the Tampa Bay Estuary Program, is the Tampa Bay Nitrogen Management Consortium. Formed to address the issue of reducing current and future nitrogen loading, the Consortium is a dynamic alliance of local governments, regulatory agencies and key industry representatives committed to “holding the line” on future nitrogen loading. Through an interlocal agreement, the Consortium voluntarily developed and implemented an action plan to reduce the projected increase in nitrogen loading of 84 tons per year by two-thirds (a 56-ton-per-year reduction) by the year 2000. The identified reductions come from sources throughout the watershed, including urban stormwater, industrial point sources, fertilizer shipping and handling practices, and intensive agriculture.

The Consortium is composed of a team of scientists and engineers; managers from the agricultural, phosphate, and electric utility industries; and local, state, and federal government representatives. In March 1998, the Consortium adopted *Partners for Progress,* a compilation of 105 projects that are either completed or to be undertaken by Consortium partners by the year 2000.

The projects include the construction of regional stormwater treatment facilities, the conversion of septic tanks to central sewer systems, improvements to manufacturing processes to reduce pollutant discharges, the conversion to more efficient agricultural irrigation and fertilization practices, and land acquisition programs to prevent environmentally significant lands from being developed. Also included are public outreach initiatives such as the Florida Yards & Neighborhoods Program that are designed to educate homeowners about environmentally friendly landscaping practices.

Measuring the success of the management activities initiated by the Tampa Bay Estuary Program has been critical to building and maintaining community support for the restoration of the bay. The baywide monitoring program is not run by one agency, but is a combined effort of the cities, counties, and regulatory agencies. The Department has recognized the successful coordination of these efforts as a model for statewide implementation.

OTHER STRATEGIES

The success of implementing nonpoint source TMDL load allocations will require variety, creativity, stakeholder commitment to watershed management, and personal stewardship. In addition to BMPs, other possible strategies for meeting TMDLs, restoring water quality, and preventing the further degradation of Florida's watersheds include cost sharing, waste minimization, pollution prevention, new approaches to land use design and development, and pollutant trading. The Department will assemble a Technical Advisory Committee to help develop a pollutant-trading rule, which must be reviewed by the legislature prior to its adoption. The Department will also continue to work with local stakeholders on TMDL allocation issues and implementation plans.

### *Sources of Information*

For additional information on the Department's Watershed Management Program and TMDLs, please contact the following basin coordinators:

- Southwest Florida and Lake Okeechobee, Pat Fricano (850) 245-8559
- Southeast Florida and Ochlockonee-St. Marks Basins, Kevin O'Donnell (850) 245-7607
- Northwest and Central Florida, Mary Paulic, (850) 245-8560
- Northeast Florida and Suwannee Basin, John Abendroth (850) 245-8557
- West Central Florida and Tampa Bay Region, Tom Singleton (850) 245-8561

For information on establishing and implementing TMDLs, contact Jan Mandrup-Poulsen at (850) 245-8448. Additional information is available on the Department's Web site at www.dep.state.fl.us/water/watersheds/index.htm.

# *Appendix B: Methodology for Determining Impairment Based on the Impaired Surface Waters Rule*

## The Impaired Surface Waters Rule

To identify impaired waters in each of the state's river basins, the Department evaluates water quality data using the science-based methodology in the Identification of Impaired Surface Waters Rule (Rule 62-303, F.A.C.). The rule establishes specific criteria and thresholds for impairment, in addition to data sufficiency and data quality requirements. The methodology described in the rule is based on a statistical approach designed to provide greater confidence that the outcome of the water quality assessment is correct. The complete text of the Impaired Surface Waters Rule is available at http://www.dep.state.fl.us/water/tmdl/docs/AmendedIWR.pdf

As part of the watershed management approach, for each river basin in the state the Department will follow the methodology in Section 62-303.300, F.A.C., to develop a Planning List of potentially impaired waters to be assessed under Subsections 403.067(2) and (3), F.S. The methodology for developing the Planning List includes an evaluation of aquatic life use support, primary contact and recreational use support, fish and shellfish consumption use support, drinking water use support, and protection of human health. Data older than ten years cannot be used to evaluate water quality criteria exceedances for the Planning List. As required by Subsection 403.067(2), F.S., the Planning List will not be used to administer or implement any regulatory program, and is submitted to the EPA for informational purposes only.

After further assessment, using the methodology in Part III, Section 62-303.400, F.A.C., the Department will determine if waters on the Planning List are, in fact, impaired and if the impairment is caused by pollutant discharges. These waters are placed on a Verified List. The criteria for the Verified List are more stringent than those for the Planning List. Data older than 7.5 years should not be used to verify impairment. The Verified List will be adopted by Secretarial Order and forwarded to the EPA for approval as Florida's Section 303(d) list of impaired waters. The Department will develop TMDLs for these waters under Subsection 403.067(4), F.S.

## Attainment of Designated Use(s)

While the designated uses of a given waterbody are established using the surface water quality classification system described previously, it is important to note that the EPA uses slightly different terminology in its description of designated uses. Because the Department is required to provide use attainment status for both the state's 305(b) report and the state's 303(d) list of impaired waters, the Department uses EPA terminology when assessing waters for use attainment. The water quality evaluations and decision processes for listing impaired waters that are defined in Florida's Impaired Surface Waters Rule are based on the following designated use attainment categories:

**Aquatic Life Use Support-Based Attainment**
**Primary Contact and Recreation Attainment**
**Fish and Shellfish Consumption Attainment**
**Drinking Water Use Attainment**
**Protection of Human Health**

**Table B.1** summarizes the designated uses assigned to Florida's various surface water classifications.

**Table B.1: Designated Use Attainment Categories for Surface Waters in Florida**

| Designated Use Attainment Category Used in Impaired Surface Waters Rule Evaluation | Applicable Florida Surface Water Classification |
|---|---|
| Aquatic Life Use Support-Based Attainment | Class I, II, and III |
| Primary Contact and Recreation Attainment | Class I, II, and III |
| Fish and Shellfish Consumption Attainment | Class II |
| Drinking Water Use Attainment | Class I |
| Protection of Human Health | Class I, II, and III |

## Sources of Data

The Department's assessment of water quality for each basin statewide includes an analysis of quantitative data from a variety of sources, many of which are readily available to the public. These sources include the EPA's Legacy and modernized STOrage and RETrieval (STORET) databases, the U.S. Geological Survey (USGS), the Department, the Florida Department of Health (DOH), the water management districts, local governments, and volunteer monitoring groups.

Historically, the Department carried out statewide water quality assessments using data available in the EPA's Legacy STORET Database; STORET makes up approximately 60 percent of the statewide data used in the Impaired Surface Waters Rule assessment. The Legacy STORET Database is a repository of data collected and uploaded by numerous organizations through 1999. The Legacy STORET Database can be accessed at http://www.dep.state.fl.us/water/storet/index.htm

In 2000, the EPA created a modernized version of STORET that included new features designed to address data quality assurance/quality control concerns (see the new STORET Web site at http://www.epa.gov/storet/. However, because of software difficulties associated with batch uploading of data to the modernized STORET, the data being uploaded to the national repository decreased dramatically, and lingering problems have temporarily reduced STORET's importance as a statewide data source. It houses only about 5 percent of the statewide Impaired Surface Waters Rule Database.

Approximately 35 percent of the data used in the assessment under the Impaired Surface Waters Rule was provided by individual organizations that for various reasons, such as time constraints or resource limitations, were not able to enter their data into the national database. The organizations providing the largest datasets include the South Florida, Southwest Florida, and St. Johns River Water Management Districts; the USGS; and the University of Florida LakeWatch volunteer monitoring group. Several of these

databases are readily available to the public via the Internet: the South Florida Water Management District at http://www.envirobase.usgs.gov/, the USGS at http://water.usgs.gov/, and LakeWatch at http://lakewatch.ifas.ufl.edu/.

The Department created the Impaired Surface Waters Rule Database in 2002 to evaluate data simultaneously in accordance with the Impaired Surface Waters Rule methodology for every basin in the state, based on the appropriate data "window." For the Verified List assessment, the window is 7.5 years (for the Impaired Surface Waters Rule Database), and the Planning List assessment window is 10 years. **Table B.2** shows the periods of record for the Verified and Planning Lists for the five basin groups.

The evaluation of water quality in the state's basins also includes some qualitative information. These sources are described in the Basin Status Reports and Assessment Reports for each basin.

**Table B.2: Data Used in Developing the Planning and Verified Lists, First Basin Rotation Cycle**

| Basin Group | Reporting | Period of Data Record Used in Impaired Surface Waters Rule Evaluation |
|---|---|---|
| Group 1 | Planning List | January 1, 1989–December 31, 1998 |
| | Verified List | January 1, 1995–June 30, 2002 |
| Group 2 | Planning List | January 1, 1991–December 31, 2000 |
| | Verified List | January 1, 1996–June 30, 2003 |
| Group 3 | Planning List | January 1, 1992–December 31, 2001 |
| | Verified List | January 1, 1997–June 30, 2004 |
| Group 4 | Planning List | January 1, 1993–December 31, 2002 |
| | Verified List | January 1, 1998–June 30, 2005 |
| Group 5 | Planning List | January 1, 1994–December 31, 2003 |
| | Verified List | January 1, 1999–June 30, 2006 |

Notes: Typically, a 10-year data record is used for the development of the Planning Lists, and a 7-year record is used for the Verified Lists.

## Methodology

To determine the status of surface water quality in individual river basins in Florida, three categories of data—chemistry data, biological data, and fish consumption advisories—were evaluated to determine potential impairments for the four designated use attainment categories discussed earlier: aquatic life, primary contact and recreation, fish and shellfish consumption, and drinking water use and protection of human health.

### *Aquatic Life Based Attainment*

The Impaired Surface Waters Rule follows the principle of independent applicability. A waterbody is listed for potential impairment of aquatic life use support based on

exceedances of any one of four types of water quality indicators (numeric water quality criteria, nutrient thresholds, biological thresholds, and toxicity data).

### Exceedances of Numeric Water Quality Criteria

The chemistry data from STORET used in evaluating impairment were also used for preparing the state's 2000 305(b) report. Only ambient surface water quality stations were included in the assessment of impairment. Water quality information from point sources or wells was excluded. Monitoring stations were classified as one of five waterbody types—spring, stream, lake, estuary, or blackwater—based on criteria described in the latest 305(b) report. The assessments included the following parameters:

- **Metals** Arsenic, aluminum, cadmium, chromium VI, chromium III, copper, iron, lead, mercury, nickel, selenium, silver, thallium, and zinc
- **Nutrients** Chlorophyll *a* for streams and estuaries, and Trophic State Index (TSI) (chlorophyll *a*, total nitrogen, and total phosphorus) for lakes
- **Conventionals** Dissolved oxygen (DO), fecal coliforms, total coliforms, pH, unionized ammonia

The requirements for placing waters on the Planning List included a minimum of ten temporally independent samples from the ten-year period of record shown in **Table B.2,** unless there were three exceedances of water quality or one exceedance of an acute toxicity criterion in a three-year period. The screening methodology for the Verified List requires at least twenty samples from the last five years preceding the Planning List assessment. For most parameters, an exceedance is recorded any time the measured value is higher than the applicable water quality criterion by any amount. However, for the DO criterion, which is expressed as a minimum numeric value, an "exceedance" is recorded whenever the measured value is lower than the applicable DO criterion.

To determine if a water should be placed on the Planning List for each parameter, the chemical data were analyzed using a computer program written to assess the data, based on criteria established in the Impaired Surface Waters Rule, with two exceptions. First, unionized ammonia data were not analyzed by the program, but rather with an Excel spreadsheet. Second, because the full complexity of the pH criterion could not be programmed, the incomplete listings for pH are not included. They will be further examined while additional data are collected during Phase 2 of the watershed management cycle. Data analysis and statistical summaries of WBIDs, waterbody types, and parameters obtained from the STORET Database were conducted using Access, SAS statistical software, and ArcView GIS applications.

The data for metals and conventional parameters were compared with the state surface water quality criteria in Section 62-302.530, F.A.C. (Identification of Impaired Surface Waters Rule). The rule contains a table of sample numbers versus exceedances. A waterbody was placed on the Planning List if there was at least 80 percent confidence

that the actual criteria exceedance rate was greater than or equal to 10 percent. To be placed on the Verified List, at least a 90 percent confidence rate was required.

#### Exceedances of Nutrient Thresholds

The state currently has a narrative nutrient criterion instead of a numeric value for nutrient thresholds. The narrative criterion states, "In no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna." The Impaired Surface Waters Rule provides an interpretation of the narrative nutrient criterion. In general, the Trophic State Index (TSI) and the annual mean chlorophyll *a* values are the primary means for assessing whether a waterbody should be assessed further for nutrient impairment.

The rule also considers other information that might indicate an imbalance in flora or fauna due to nutrient enrichment, such as algal blooms, excessive macrophyte growth, a decrease in the distribution (either in density or aerial coverage) of seagrasses or other submerged aquatic vegetation, changes in algal species richness, and excessive diel oxygen swings.

Potential nutrient impairment was evaluated by calculating annual mean chlorophyll *a* values for estuaries and streams and the TSI for lakes. For lakes, the TSI was calculated using chlorophyll *a*, total phosphorus, and total nitrogen measurements. Direct evidence of imbalances of flora and fauna in waterbodies was also considered in the evaluation of nutrient impairments.

In estuarine areas, a water was considered nutrient enriched if the annual mean chlorophyll *a* values were greater than 11 micrograms per liter (μg/L) or if annual mean chlorophyll *a* values increased by more than 50 percent over historical values for at least two consecutive years. For streams, a water was considered nutrient enriched if the annual mean chlorophyll *a* values were greater than 20 μg/L or if the annual mean increased by more than 50 percent over historical values for at least two consecutive years.

A lake with a mean color greater than 40 platinum cobalt units (PCUs) was considered nutrient enriched if the annual mean TSI exceeded 60. A lake with a mean color less than or equal to 40 PCUs was considered nutrient enriched if the annual mean TSI exceeded 40. In addition, a lake was considered nutrient enriched if there was an increase in TSI over the 1989 to 2000 period or if TSI measurements were 10 units higher than historical values.

#### Exceedances of Biological Thresholds

Bioassessments were carried out for streams, lakes, canals, and rivers using the Impaired Surface Waters Rule as guidance and following the Department's standard operating procedures, which provide definitions and specific methods for the generation and analysis of bioassessment data. These are referenced in the individual bioassessment data tables contained in the Basin Status Reports. The purpose behind using a bioassessment methodology in surface water characterizations is that biological components of the environment manifest long-term water quality conditions and thus provide a better indication of a waterbody's true health than discrete chemical or physical

measurements alone. Similar to water quality criteria, bioassessment methods involve the identification of a biological reference condition, based on data from unimpaired or least impacted waters in a given region.

For the Planning and Verified List assessments, the reference condition data were used to establish expected scores, ranging from best to worst, for various measures of community structure and function, such as numbers or percentages of particular species or feeding groups. Data on community structure and function from waters of unknown quality in the same region as reference waters were compared with the expected scores of metrics to evaluate their biological integrity.

Metrics (e.g., number of taxa, percent Diptera, percent filter feeders) were used independently and as an aggregated group called an index. Indices have advantages over individual metrics in that they can integrate several related metrics into one score that reflects a wider range of biological variables. A number of bioassessment metrics and indices exist for assessing populations of plant and animal life, including fish, diatoms (e.g., microscopic algae and unicellular plankton), and macroinvertebrates (e.g., insects, crayfish, snails, and mussels).

Only macroinvertebrate data from ambient sites in state surface waters were used in the bioassessments analyzed for the Planning and Verified Lists. The data included sites designated as test and background sites for National Pollutant Discharge Elimination System (NPDES) fifth-year inspections, but excluded data from effluent outfalls from discharging facilities or data from monitoring sites not clearly established to collect ambient water quality data. Because site-specific habitat and physicochemical assessment information (e.g., percent suitable macroinvertebrate habitat, water velocities, extent of sand or silt smothering, and riparian *[Definition: Of, on, or relating to the banks of a natural course of water])* buffer zone widths) was not available at the time of reporting, it was not included. However, this information is instrumental in pinpointing the causes for failed bioassessment metrics and will be included in future reporting.

The data used to develop the Planning and Verified Lists were obtained from the Department's Biological Database (SBIO) and the EPA's STORET Water Quality Database, where it could be substantiated that the data were generated in compliance with the bioassessment standard operating procedures referenced in the Impaired Surface Waters Rule (Section 62-303.330, F.A.C.).

The data from these databases are used without regard to the randomness of sample site selection. For the purposes of the Basin Status Reports, the seasons are defined as follows: winter (1/1–3/31), spring (4/1–6/30), summer (7/1–9/30), and fall (10/1–12/31). Wet seasons are generally spring and summer, and dry seasons are fall and winter, although conditions can vary in the state as a whole.

### Lake Condition Index

The scoring of the individual metrics of the Lake Condition Index (LCI), except percent Diptera, was performed according to the following formula:

*100(B/A) where A = the 95 percentile of the reference population and B = observed value*

For percent Diptera, the following formula was used:

*100 (100-B)/(100-A) where A = the 95 percentile of the reference population and B = observed value*

An average LCI score was calculated by averaging the scores of the six metrics in the method: total number of taxa; total number of taxa belonging to the orders Ephemeroptera, Odonata, and Trichoptera (EOT taxa); percent EOT taxa; Shannon-Wiener Diversity Index score; Hulbert Index score; and percent Dipteran individuals. LCI calculations were only provided for clear lakes ($\leq$ 20 platinum cobalt units [PCUs]). As macroinvertebrate-based indices have not been shown to assess colored lakes in Florida accurately (> 20 PCUs), they have been excluded from bioassessments. A poor or very poor rating based on the average score constituted a failed bioassessment, based on the Impaired Surface Waters Rule.

#### Stream Condition Index

A total Stream Condition Index (SCI) score was calculated by adding the scores of the seven metrics in the method: total number of taxa; total number of taxa belonging to the orders Ephemeroptera, Plecoptera, and Trichoptera (EPT taxa); percent Chironomid taxa; percent dominant taxa; percent Diptera; percent filter feeders; and Florida Index. A poor or very poor rating based on the total score constituted a failed bioassessment, based on the Impaired Surface Waters Rule. The Basin Status Reports contain definitions and specific methods for the generation and analysis of bioassessment data.

#### BioRecon

To establish an impairment rating based on BioRecon data, three metrics were used: the Florida Index score, total number of taxa, and total number of EPT taxa. If all three metrics failed to meet thresholds, the water was deemed “impaired” based on the Impaired Surface Waters Rule.

#### Biological Integrity Standard

Quantitative data, generated through the use of Hester-Dendy artificial substrate samplers, were used to calculate Shannon-Wiener Diversity Index scores for paired background and test sites, as specified in the Biological Integrity Standard, Subsection 62-302.530(11), F.A.C. One failure of the standard meant that a waterbody segment was listed as potentially impaired.

#### Evaluation of Toxicity Data

Although the Impaired Surface Waters Rule describes the use of toxicity data for the assessment of aquatic life-based attainment, no ambient toxicity data are available for assessment, and this metric was not used.

### *Primary Contact and Recreation Attainment*

For Class I, II, or III waters, a waterbody was potentially impaired if the following criteria were met:

- The waterbody segment did not meet the applicable water quality criteria for bacteriological quality,
- The waterbody segment included a bathing area that was closed by a local health department or county government for more than 1 week or more than once during a calendar year based on bacteriological data,
- The waterbody segment included a bathing area for which a local health department or county government issued closures, advisories, or warnings totaling 21 days or more during a calendar year based on bacteriological data, or
- The waterbody segment included a bathing area that was closed or had advisories or warnings for more than 12 weeks during a calendar year based on previous bacteriological data or on derived relationships between bacteria levels and rainfall or flow.

### *Fish and Shellfish Consumption Attainment*

For Class I, II, or III waters, a waterbody was potentially impaired if it did not meet the applicable Class II water quality criteria for bacteriological quality, or if a fish consumption advisory had been issued. Fish consumption advisories were based on the Florida Department of Health's "limited consumption" or "no consumption" advisories for surface waters because of high levels of mercury in fish tissue. In addition, for Class II waters, waterbody segments that had been approved for shellfish harvesting but were downgraded to a more restrictive classification were listed as potentially impaired.

### *Drinking Water Attainment and Protection of Human Health*

For Class I waters, a waterbody was potentially impaired if it did not meet the applicable Class I water quality criteria.

# *Appendix C: Supplementary Ecological Information for the Springs Coast Basin*

*NOTEWORTHY: SOURCES OF INFORMATION*

*Much of the information about the ecology of the Springs Coast Basin in this appendix was excerpted or adapted from* An Ecological Characterization of the Florida Springs Coast: Pithlachascotee to Waccasassa Rivers *(U.S. Department of the Interior, December 1990) and the SWFWMD's* Springs Coast Comprehensive Watershed Management Plan *(April 2001).*

## Saltwater and Coastal Communities

Marine and coastal environments are shaped by major factors such as geology, topography, winds, currents and tides, water depth, water temperature, and water chemistry. The following describes the major coastal saltwater habitats and communities in the Springs Coast Basin, as well as their associated species.

### ESTUARIES

In most nearshore areas of the basin, the water is less saline than marine water because of low wave action and the large quantities of fresh water discharged through streams, springs, and sheet flow. Salinity patterns in these inshore waters are estuarine, as are the plant and animal species living there.

Estuaries play an important role in the life cycles of numerous species of fish and invertebrates. For example, the young and juvenile populations of many sport and commercial species use estuaries as nursery grounds. Between 90 and 97 percent of the total commercial fisheries' catch of the Gulf of Mexico states use estuaries during some phase of their life cycle.

Along the Springs Coast, there are five dominant intertidal estuarine habitats—brackish marshes, salt marshes, intertidal flats, oyster reefs, and, to a lesser extent, intertidal mangrove forests.

**Brackish marshes.** The Springs Coast comprises one of the largest and most spectacular mixtures of salt marshes and brackish marshes in Florida. The area is characterized by numerous karst features, such as creek channels, circular ponds, bedrock highs, and freshwater springs. The low-energy, karstic coastline gives rise to an intricate mosaic of marshes and coastal hammocks, where small changes in elevation, tidal inundation, soil characteristics, and freshwater flow control the various zones of vegetation.

The marshes are primarily dominated by sawgrass *(Cladium jamaicense)*, but cattails (*Typha* spp.) are codominant or dominant in many areas. Large patches of black needlerush *(Juncus roemerianus)* and other herbs interrupt the sawgrass, particularly near the river channels. The brackish vegetation is perennial, but it dies back in the fall, providing organic detritus that feeds species at the base of the food chain. Submergent vegetation includes a number of freshwater plants that are tolerant of low salinities, such

as eelgrass *(Vallisneria neotropicalis)*, sago pondweed *(Potamogeton pectinatus)*, and wigeongrass *(Ruppia maritima)*. Numerous species of fish and macroinvertebrates use these areas.

**Salt marshes.** Salt marshes, which dominate the basin's coastline, represent a transitional zone between terrestrial and marine ecosystems. They develop in the zero-energy areas along the Springs Coast, where they are protected from waves. Salt marshes are highly productive systems because of the large input of nutrients and organic particulate matter from tides and river flows, which support abundant quantities of phytoplankton, algae, and vascular plants.

Salt marshes are generally made up of large, homogeneous expanses of dense, grasslike species. Along the Springs Coast, black needlerush *(Juncus roemerianus)* predominates. Smooth cordgrass *(Spartina alternifloria)* is usually restricted to the narrow fringes bordering the coastline, the edges of tidal creeks and channels, and small islands. Other species present include saltgrass *(Spartina patens)*, marsh spike grass *(Distichlis spicata)*, and glasswort *(Salicornia perennis)*.

Cabbage palm *(Sabal palmetto)*, red cedar *(Juniperus silicicola)*, and live oak *(Quercus virginiana)* usually dominate the coastal hammock islands; these are widely scattered on limestone outcrops among the Spring Coast's salt marshes and brackish marshes.

Salt marsh species are frequently exposed to harsh and variable conditions. Conditions in the marsh change with tidal ebbs and flows, resulting in salinity, temperature, oxygen, and pH fluctuations. Conditions can also vary from one area to another. Some animal species live permanently in the marshes; others use it only during certain seasons or stages in their life cycles.

Fish are seasonally very abundant and diverse. Over sixty species of birds, including wading birds and shore birds, also use the Springs Coast salt marshes for food, nesting areas, and refuges. The tricolored heron *(Egretta tricolor)* is the most abundant species. The marshes are also an important wintering area for the largest concentration of redhead ducks *(Anas acuta)* in the southeastern United States and also provide feeding sites for bald eagles (*Haliaeetus leucocephalus)*.

Reptiles and mammals found in the basin's salt marshes include the Gulf salt marsh snake (*Nerodia clarkii clarkii)*, diamondback terrapin *(Malaclemys terrapin macrospilota)*, and American alligator *(Alligator mississippiensis)*, the marsh rabbit *(Sylvilagus palustris)*, marsh rice rat *(Oryzomys palustris)*,hispid cotton rat *(Sigmodon hispidus)*, and Duke's saltmarsh vole *(Microtus pennsylvanicus dukecampbelli)*.

**Intertidal flats.** These comprise the portions of the unvegetated bottoms of estuaries, bays, lagoons, and river mouths that lie between the high- and low-tide marks. Made up of sandy and muddy sediments, they appear barren and unproductive because of the absence of macrophytes, such as marshgrasses or seagrasses. However, they contain abundant benthic microalgae, bacteria, fungi, and invertebrates, which provide food for numerous species of birds and crabs. Bird species found in the intertidal flats include herons, egrets, ibises, yellowlegs, sandpipers, plovers, godwits, and curlews. Important invertebrate predators are fiddler crabs *(Uca* spp.), blue crabs *(Callinectes sapidus)*, stingrays *(Dasyatis sabina)*, and horseshoe crabs *(Limulus polyphemus)*.

**Oyster reefs.** Oysters are typically reef organisms, growing on the shell substrate accumulated from previous generations of oysters. In the Springs Coast Basin, they are found primarily outside the numerous river mouths. Tides bring in food and carry away waste. The reefs range in size from small, scattered clumps to massive, solid mounds of living oysters and dead shells.

Oyster reefs influence estuaries physically by removing suspended particulates and altering currents, and biologically by removing phytoplankton and other particles and producing large quantities of oyster biomass and pseudofeces. In addition, the reef provides habitats for many estuarine organisms.

The principal oyster species in the Springs Coast Basin are the eastern or American oyster *(Crassostrea virginica)* and the crested oyster *(Ostreola equestris).* Both species grow in a wide range of salinities. Oysters are commercially harvested in Citrus and Pasco Counties.

Oyster reefs usually contain large and diverse numbers of other species, such as marine insects (*Anurida maritima),* barnacles *(Balanus improvisus),* mud crabs (*Eurypanopeus depressus* and *Panopeus herbstii),* and various polychaetes, amphipods, gastropods, bivalves, mussels, and worms. Stone crabs *(Menippe mercenaria)* are an important commercial fishery along the Springs Coast. The American oystercatcher *(Haematopus palliatus)* is the most important vertebrate predator of oysters in the area.

**Intertidal mangrove forests.** Mangroves are mainly found fringing the outer marsh islands, especially in the southern portion of the Springs Coast Basin. Three mangrove species are present: black mangrove *(Avicennia germinans),* red mangrove *(Rhizophora mangle),* and white mangrove *(Laguncularia racemosa).* The black mangrove is found throughout Florida's Gulf coast and is the most cold resistant; the red mangrove is present as far north as Levy County; and the white mangrove occurs as far north as Hernando County.

Mangroves grow in a variety of soils but flourish on muds and fine-grained siliceous sands. Wave and current energy control sediment distribution and mangrove development. Mangrove forests modify the substrate through peat deposition. Extensive populations of fungi on the submerged portions of the prop roots, stems, branches, and living and dead leaves convert mangrove leaf material into detritus that can be used by other species. Fires play an important role in mangrove succession. Most fires in Springs Coast mangrove stands are started by lightning and result in small, circular openings in the forest canopy.

Mangrove forests support diverse algae that attach to the prop roots or live in the muddy sediments. Also present is an abundant microscopic community of diatoms and dinoflagellates and other filamentous green and blue-green algae. A number of salt-tolerant vascular plants are found in mangrove stands. These include leather leaves *(Acrostichum aureum* and *A. Danaeifolium),* chaff flower *(Alternanthera ramosissima),* Spanish bayonet *(Yucca aloifolia*), lianas, and a variety of bromeliads.

A distinctive and highly diverse group of arthropods, mostly insects, lives in the mangrove forests. Other species include the mangrove tree crab *(Aratus pisonii),* which feeds in the mangrove canopy; numerous small invertebrates that graze on the prop-root algae; and many other filter feeders and carnivores. The mangrove system also provides nursery habitat for the Florida spiny lobster *(Panulirus argus).* Juveniles are especially

abundant in the prop-root system, which provides protection and food. Fish species found here include killifish *(Fundulus confluentus)*, pinfish, silver perch, pigfish, anchovies, snook, ladyfish, tarpon, gar, and mangrove snapper. Some of these are fished commercially and recreationally. Amphibians and reptiles include four species of marine turtles, three species of lizards *(Anolis)*, and American alligators *(Alligator mississippiensis)*.

In addition, mangroves harbor a diverse bird assemblage: wading birds (herons, egrets, ibises, bitterns, and spoonbills), probing shorebirds (clapper rails, willets, and black-necked stilts), floating and diving birds (ducks, grebes, loons, cormorants, and gallinules), aerially searching birds (gulls, terns, kingfishers, black skimmers, and fish crows), birds of prey (hawks, falcons, vultures, and owls), and arboreal birds (pigeons, cuckoos, woodpeckers, flycatchers, thrushes, vireos, warblers, blackbirds, and sparrows).

### Marine areas

**Open-water estuarine areas.** These areas are characterized by extreme spatial variability, based on daily and seasonal fluctuations in local salinity and temperature, and wind and tidal mixing.

Abundant phytoplankton and zooplankton serve as the base of the food chain. Permanent fauna live in the estuaries for an entire life cycle. Temporary fauna include the juvenile and larval forms of marine organisms such as polychaetes, fish, shrimp, bivalves, and crabs. These use estuarine areas as nursery grounds, and are dispersed by the currents to different habitats when they reach maturity.

Recreationally and commercially important species in the estuaries of the Springs Coast Basin include striped mullet *(Mugil cephalus)*, red drum *(Sciaenops ocellatus)*, spotted seatrout *(Cynoscion nebulosus)*, Gulf menhaden *(Brevoortia patronus)*, Atlantic croaker *(Micropogonias undulatus)*, sea catfish *(Arius felis)*, gafftopsail catfish *(Bagre marinus)*, bay anchovy *(Anchoa mitchilli)*, and striped anchovy (*Anchoa hepsetus)*. Two species of sea turtles are occasionally found here: the Atlantic loggerhead *(Caretta caretta)* and Atlantic leatherback *(Dermochelys coriacea)*.

**Soft-bottom areas.** Subtidal unconsolidated bottom environments such as mud and sand form extensive areas of habitat in the Springs Coast Basin. They are mainly found between oyster bars and seagrass beds, and at the mouths of rivers.

These areas contain many different kinds of species, most of which are buried in the bottom sediments, or live and feed on the bottom. They include polychaetes, oligochaetes, chironomids, amphipods, bivalves, and isopods, as well as starfish, sand dollars, blue crabs, spider crabs, benthic fish, and skates and rays. Recreationally and commercially important species found here include southern flounder *(Paralichthys lethostigma)*, northern quahog *(Mercenaria mercenaria)*, sunray venus *(Macrocallista nimbosa)*, and blue crab *(Callinectes sapidus)*.

**Seagrass beds.** Seagrasses are an extremely important habitat in the nearshore coastal waters of the Springs Coast Basin. Five species are found here: turtlegrass *(Thalassia testudinum)*, manateegrass *(Syringodium filiforme)*, shoalgrass *(Halodule wrightii)*, and star grass *(Halophila engelmanii)* are abundant, while another star grass species, *H. decipiens*, is relatively scarce. The seagrasses form essentially one bed,

extending from Florida's Big Bend area to the open-sand areas along the southernmost reaches of the Springs Coast Basin, covering more than 3,000 square kilometers. They occur in an offshore band 10 to 35 kilometers wide between St. Marks and Tarpon Springs. The seagrass beds have remained relatively stable over time partly because of the region's extensive, undisturbed tidal marshes and swamps, which filter sediment carried from upland areas. Seagrasses are extremely vulnerable to any activities that reduce water clarity, such as dredging and filling.

The distribution and composition of seagrass meadows along the Springs Coast depends on salinity levels. Because the major bed-forming species, *Thalassia* and *Syringodium*, do not grow in low-salinity areas, the river mouths are dominated by wigeongrass *(Ruppia maritima)*, and brackish-tolerant, freshwater species such as eelgrass (*Vallisneria neotropicalis).* Seagrass levels along the Springs Coast are highest and least patchy for the Weeki Wachee estuary, because of its excellent water clarity and relatively smooth bottom. In contrast, seagrass beds in the Crystal River estuary are intermixed with shoals and bars.

Seagrass meadows are highly productive. The numerous types of algae that attach to the grasses are an important food source for many herbivorous species. Seagrasses harbor a large and diverse number of animals, ranging from tiny, sessile organisms to large, commercially important fish such as sea trout. Organisms such as gastropods are found on the seagrass blades themselves. Crustaceans are especially abundant in the seagrass meadows, both on the blades and in sediments. Fish and scallops are also plentiful. Two scallop species—bay scallops *(Argopecten irradians)* and calico scallops *(A. gibbus)*—are found here. Juvenile and adult blue crabs are also found in large numbers.

**Open marine waters.** The basin's marine open-water habitat is physically stable compared with that of the estuaries. Salinity varies only slightly throughout the year, and temperatures do not fluctuate as much or as quickly. Phytoplankton species diversity is higher than in the estuaries.

Many fish use the estuaries as nursery areas and migrate to deeper marine waters as adults, eventually to spawn. This habitat includes prized sport and commercial fish such as grouper *(Mycteroperca* spp.), Spanish mackerel *(Scomberomorus maculatus)*, king mackerel *(S. cavalla)*, dolphin *(Coryphaena hippurus)*, billfish *(Istioophoridae)*, and invertebrates such as the brown shrimp *(Penaeus aztecus).* Five species of threatened or endangered marine turtles are occasionally found in the Springs Coast Basin: the Atlantic green turtle *(Chelonia mydas mydas)*, Atlantic hawksbill *(Eretmochelys imbricata imbricata)*, Atlantic leatherback *(Dermochelys coriacea)*, Atlantic loggerhead *(Caretta caretta)*, and Kemp's ridley *(Lepidochelys kempii).* The endangered West Indian manatee *(Trichechus manatus latirostris)* is also found here.

## Terrestrial and Freshwater Communities

Terrestrial and freshwater communities vary depending on factors such as geology, topography, the amount of sunlight available, flooding, fire, and soil chemistry. The following describes the major terrestrial and freshwater communities in the Springs Coast Basin, as well as their associated species.

### Coastal Strand

The coastal areas in the Springs Coast Basin are very flat, sloping imperceptibly from low, flat uplands through a level tidal zone and into the very shallow waters of the Gulf of Mexico. The coastline is relatively sheltered from wave action and tides, and has very small vertical tidal fluctuations. The horizontal tidal fluctuation, however, is large because the land surface is so flat. Consequently, a band of salt marsh borders most of this low-energy coastline; in inland areas, this gives way to forest.

In only a few spots—mostly on offshore islands in the basin—are beaches, sand dunes, or coastal strand forests present. The sand for these beaches is supplied by the remnants of ancient sand dunes, which are gradually eroding away as the coastline subsides and sea levels rise.

Some of the islands support coastal-strand forest (maritime hammock), which is dominated by sand live oak *(Quercus geminata)* and live oak *(Quercus virginiana),* in association with cabbage palm *(Sabal palmetto),* red cedar *(Juniperus silicicola),* and other trees. The majority of coastal live oak, cabbage palm, and red cedar forest is on low-lying land subject to flooding, and is classified as hydric hammock.

Because beaches do not support any living communities of vascular plants, the food chain here is based mainly on detritus and sea wrack washed up by storm tides and waves. This includes seagrasses and other plant debris, as well as shells, dead fish, jellyfish, crabs, and other marine creatures. Insects, amphipods, ghost crabs, fiddler crabs, seagulls, and other species feed on the detritus. In turn, shore birds such as gulls and sandpipers feed on the insects, amphipods, and crabs.

### Scrub

A small but ecologically significant scrub area is present in southern Pasco County, in the Middle Coastal Planning Unit.

Scrub is almost completely restricted to Florida, and many scrub species are endemic, that is, they occur only on the Florida peninsula in this habitat. It is, on average, the most xeric (dry and hot) of Florida's communities, and is adapted to natural fires. These burn the vegetation periodically (every ten to fifty years); plants resprout from their base or roots. Scrub occurs only on well-drained sand with a low nutrient content.

Scrub vegetation is almost entirely evergreen. It consists of a dense growth of evergreen shrubs and small trees without much herbaceous ground cover. It is often fairly uniform in density from the ground to the top of the canopy, except for mature sand pine scrub, in which the sand pines form a canopy above the rest of the vegetation.

In addition to sand pine, scrub plant species include the long-spurred mint *(Dicerandra cornutissima),* scrub pawpaw *(Asimina obovata),* Florida rosemary *(Ceratiola ericoides),* garbaria *(Garbaria heterophylla),* palafoxia *(Palafoxia feayi),* scrub palmetto *(Sabal etonia),* and silkbay *(Persea humilis).*

Animal species, some of which are endemic to scrub, include the scrub jay *(Aphelocoma coerulescens),* short-tailed snake *(Stilosoma extenuatum),* worm lizard *(Rhineura floridana),* peninsula mole skink *(Eumeces egregious onocrepis),* central Florida crowned snake *(Tantilla relicta neilli),* Florida black bear *(Ursus americanus*

*floridanus),* raccoon *(Procyon lotor),* white-tailed deer *(Odocoileus virginianus),* wild hog *(Sus scrofa),* gray squirrel *(Sciurus carolinensis),* Sherman's fox squirrel *(Sciurus niger shermani),* and wild turkey *(Meleagris gallopavo).* Insects include the pushup beetle *(Peltotrupes spp.),* numerous grasshopper species, and the Florida harvester ant *(Pogonomyrmex badius).*

### High Pine Forest (Sandhill)

Most of the well-drained uplands in the Springs Coast Basin were originally open forests of longleaf pine *(Pinus palustris),* with a scattered subcanopy of deciduous oaks and a ground cover of wiregrass *(Aristida stricta),* other grasses, and broad-leaved herbs. Several hundred thousand acres of younger, denser forest of this type remain, mostly in the Withlacoochee State Forest and elsewhere on the Brooksville Ridge in central Citrus and Hernando Counties. However, there are no virgin sandhill tracts left in Florida.

Fire plays a dominant role in the sandhill community. Historically, it burns mostly in summer every two to three years. When fire is suppressed, the community is replaced within a century by a xeric (dry) to mesic (moist) hammock of low diversity.

Most sandhill species are adapted to—and in fact depend on—frequent, low-intensity ground fires. Grasses, herbs, and small woody plants resprout from their bases or roots, while longleaf pine and hardwoods such as turkey oak *(Quercus laevis),* southern red oak *(Quercus falcata),* and mockernut hickory *(Carya tomentosa)* have thick bark, stems, branches, and buds to withstand the effects of fire. Longleaf pine cannot reproduce unless fires thin out the understory vegetation and leaf litter, allowing the seedlings to take hold. Other plant species found here include dwarf blueberry *(Vaccinium myrsinites),* gopher apple *(Licania michauxii),* and showy pawpaw *(Asimina incarna).*

The high pine community supports numerous animal species, many of which are declining. Of these, the gopher tortoise *(Gopherus polyphemus)* is perhaps the most important. The tortoise's 15- to 20-foot-long burrows are home to nearly forty additional species, such as the Florida mouse *(Podomys floridanus),* gray fox *(Urocyon cinereoargenteus),* indigo snake *(Drymarchon corais),* coachwhip *(Masticophis flagellum),* eastern diamondback rattlesnake *(Crotalus adamanteus),* and gopher frog *(Rana capito).*

Other sandhill species include the red-cockaded woodpecker *(Dendrocopos borealis),* southeastern kestrel *(Falco sparverius),* and Sherman's fox squirrel *(Sciurus niger shermani),* common ground dove *(Columbina passerina),* loggerhead shrike *(Lanius ludovicianus),* Bachman's sparrow *(Aimophila aestivalis*), northern bobwhite *(Colinus virginianus),* eastern bluebird *(Sialia sialis),* tufted titmouse *(Parus bicolor),* great crested flycatcher *(Myiarchus crinitus),* and screech owl *(Otus asio).*

Sandhills dominated by turkey oak *(Quercus laevis)* are common today on the Brooksville Ridge. Most of the original longleaf pines growing in these areas were harvested for use in the rosin industry.

### Pine Flatwoods

The pine flatwoods community is found in southern and central Pasco County and a very small area in south-central Hernando County, in the Middle Coastal Planning Unit.

It occurs on very flat, poorly drained land where the soil is sandy, acidic, and low in nutrients. A clay hardpan layer usually underlies the water table, which ranges from 1 to 4 feet below the surface. During wet periods, the soils may remain saturated with water for several months. Conversely, during droughts, the water table may lie below plant root zones. Both of these conditions, in addition to the lack of nutrients and soil acidity, severely stress plant and animal species and restrict species composition.

Like the high pine forest, fire plays a similar role, and some of the dominant plants (such as longleaf pine and wiregrass) are the same. However, the shrub understory burns less frequently (every two to five years, with considerable variation) but more intensely.

This community has two layers: a tall forest of pine with a second layer of evergreen shrubs, mostly saw palmetto *(Serenoa repens),* gallberry *(Ilex glabra),* and fetterbush *(Lyonia lucida).* Diverse grasses and wildflowers are also present.

Animal species include the pine woods tree frog *(Hyla femoralis),* southern black racer *(Coluber constrictor priapus),* eastern diamondback rattlesnake *(Crotalus adamanteus),* eastern indigo snake *(Drymarchon corais couperi),* pine warbler *(Dendroica pinus),* brown-headed nuthatch *(Sitta pusilla),* summer tanager *(Piranga rubra),* blue-gray gnatcatcher *(Polioptila caerulea),* eastern wood-pewee *(Contopus virens),* northern bobwhite *(Colinus virginianus),* Bachman's sparrow *(Aimophila aestivalis),* rufous-sided towhee *(Pipilo erythrophthalmus),* white-eyed vireo *(Vireo griseus),* Carolina wren *(Thryothorus ludovicianus),* white-tailed deer *(Odocoileus virginianus),* wild hog *(Sus scrofa),* and hispid cotton rat *(Sigmodon hispidus).*

### Hammocks

Hammocks are found in a number of areas in the Springs Coast Basin, mainly in Pasco, Hernando, and Citrus Counties in a broad north-south belt that lies just inland from the coast. Other areas are located in south-central Hernando County and eastern Citrus, Hernando, and Pasco Counties. These hammocks are particularly important to the fauna of much of the eastern United States, because they support very large populations of overwintering songbirds and provide important habitat for migrants that winter farther south.

Scattered in a few spots throughout Florida's original vast pine forests, these dense hardwood forests develop in places that are protected to some degree from wildfire by bodies of water or swamps. While most hammocks occur in flat areas, some are found in slopes along rivers and their tributaries, and on the sides of sinkholes. Hammocks grow in a wide variety of soils, but they are generally found in areas containing relatively fertile soil, with either clay or limerock near the surface. There are three main types of hammocks: xeric (dry), mesic (moist), and hydric (wet).

The dominant trees are usually a mixture of oaks *(Quercus* spp.*),* other hardwoods, understory trees, and shrubs; the individual species vary depending on the type of hammock and its distance from the coast.

The most distinctive feature of hammocks is the invertebrate fauna of the forest floor, which includes snails, earthworms, millipedes, isopods, springtails, harvestmen, mites, beetles, orthopterans, dipterans, and hemipterans. These in turn support a diversity of spiders and other predatory insects, amphibians, reptiles, birds, and mammals.

### Sinkholes and Terrestrial Caves

Caves are common in the Springs Coast Basin, particularly in central Citrus and Hernando Counties. Inside the caves, algae and fungi predominate, but there are no vascular plants. However, there is often an interesting community of calcareous (mesic) hammock plants in sinkholes or on the rock outcrops associated with the caves. Many fern species are largely confined to sinkholes with limerock outcrops. Central Citrus and Hernando Counties contain the best-known populations of some of these plants. They include two species of maidenhair fern *(Adiantum tenerum* and *A. capillus-veneris),* two species of brake fern *(Pteris vittata* and *P. cretica),* a number of species of spleenwort *(Asplenium heterochroum, A. resiliens, A. cristatum, A. pumilum, A. verecundum, A. auritum,* and *A. subtile),* southern lip fern (*Cheilanthes microphylla),* sinkhole fern *(Blechnum occidentale),* and several species of wood fern *(Thelypteris* spp.). Other species include mosses and liverworts. Twenty-four species of pteridophytes (ferns and fern allies), were recorded from Pineola Grotto in Citrus County.

There is less animal life in the caves than in surface habitats. Species found in the caves include deer mice *(Peromyscus* spp.), eastern woodrats *(Neotoma floridana),* rat snakes *(Elaphe* spp.), and salamanders. Their main habitat value is for bats. Breeding colonies of the southeastern myotis bat *(Myotis austroriparius),* sometimes numbering in the thousands, occupy some of the caves during the summer. Several other bat species also use the caves.

The bat guano in the caves serves as the base of the food chain for cave invertebrates. These include two spiders *(Gaucelmus augustinus* and *Nesticus pallidus),* two springtails *(Isotoma notabilis* and *Tomocerus dubius),* and a cave cricket *(Ceuthopilus latibuli).* The caves also contain mites *(Acarina),* harvestmen *(Phalangida),* and other invertebrates—including aquatic invertebrates if water is present.

### Bayhead

Bayheads in the Springs Coast region occur mostly as small, scattered patches of a few acres to perhaps 100 acres. This community is generally defined as a wetland forest dominated by any one or a combination of three species of broad-leaved evergreen trees, known as bay trees. Swamp tupelo *(Nyssa sylvatica var. biflora),* a deciduous tree, is also generally codominant. There is usually a moderately dense shrub layer dominated by broad-leaved, evergreen species. Ferns are often abundant in the ground cover.

Soils are acidic and usually made up of peat or organic muck, underlain by sand. Bayheads may either be on seepage slopes or on peat bogs with good drainage. Although found in moist areas, they are usually not subject to flooding. They are exposed to fire but, unlike pine communities, are neither adapted to fire nor dependent on it.

Plant species found here include loblolly bay *(Gordonia lasianthus),* sweet bay *(Magnolia virginiana),* and swamp bay *(Persea palustris).* Animal species include numerous birds, amphibians, reptiles, and black bears.

### Mixed Swamp

There are large areas of mixed swamp all along the Gulf coast, with one of the largest and best examples in and around the Chassahowitzka National Wildlife Refuge.

Mixed swamps generally occur as strands or sloughs, or as the deep-water part of the floodplain forests beside rivers, creeks, or lakes. These wetlands are often flooded for months at a time. They are generally tall, dense forests, with an open, deeply shaded understory and sparse ground cover. However, some of the most deeply flooded swamps and most swamps right on the coast have an open canopy of shorter trees and much more shrub and groundcover vegetation.

Soils in mixed swamps are usually sand or clay over limerock, with varying amounts of muck on the surface. Because the swamps are generally connected hydrologically to an established drainage system, the water is generally flowing except during very low water. The soil never dries out much below the surface. Mixed swamps are flooded a little more than half the time. They rarely, if ever, burn, except for individual trees struck by lightning.

Mixed swamps are very fertile and productive communities, but they are not especially diverse. Tree species such as green ash *(Fraxinus pennsylvanica),* pumpkin ash *(Fraxinus profunda),* swamp tupelo *(Nyssa sylvatica),* bald cypress *(Taxodium distichum),* and red maple *(Acer rubrum)* are present. Other trees that are mixed in to some degree—usually in the shallower areas or edges of the swamp—are cabbage palm *(Sabal palmetto),* swamp laurel oak *(Quercus laurifolia),* sweet bay *(Magnolia virginiana),* sweet gum *(Liquidambar styraciflua),* American hornbeam *(Carpinus caroliniana),* and Florida elm *(Ulmus Americana var. floridana).* Buttonbush *(Cephalanthus occidentalis)* is often the only shrub, except in the more open forests, where wax myrtle *(Myrica cerifera)* is also common.

A combination of flooding and shade restricts the diversity of herbaceous plants. The more open, deep-muck swamps may contain an abundance of bamboo vine *(Smilax laurifolia).* Densely forested mixed swamps may have very few herbaceous plants.

The major swamp habitats are the crowns of the tall trees, the hollow trunks and branches of older trees, the muck, and the water. Animal species include mud-dwelling earthworms, several kinds of crayfish and shrimp, several kinds of snails—including the Florida apple snail (*Pomacea paludosa),* which is the primary food source for the limpkin *(Aramus guarauna)*—and numerous insects and their larvae. The cavities in tree trunks are especially important, because there is little shelter on the ground. Swamp-dwelling birds requiring cavities for nesting include the wood duck *(Aix sponsa),* barred owl *(Strix varia),* great crested flycatcher *(Myiarchus crinitus),* Carolina chickadee *(Parus carolinensis),* tufted titmouse *(P. bicolor),* and prothonotary warbler *(Protonotaria citrea).* Other tree-dwelling species include the gray squirrel *(Sciurus carolinensis),* flying squirrel *(Glaucomys volans),* eastern woodrat *(Neotoma floridana),* cotton mouse *(Peromyscus gossypinus),* Virginia opossum *(Didelphis virginiana),* raccoon *(Procyon lotor),* and various snakes and lizards.

### Cypress Dome

Cypress domes occur as isolated swamps in depressions scattered throughout the pine flatwoods community in south-central Hernando County and central Pasco County in the Springs Coast Basin. Most of these domes range between 1 and 100 acres in size. The smaller ones are mostly round to oval and are often dome-shaped when viewed from

the side, since the tallest trees grow in the center of the swamp. Some larger domes are open in the middle and contain either an open-water pond or a small marsh.

Pond cypress *(Taxodium ascendens)* are the predominant tree species in the domes. Very dense shrubs usually form a border around the edge. These support much of the plant and animal diversity, and help to maintain a moist microclimate inside the dome. If shrubs or groundcover are present in the interior, they usually comprise fetterbush *(Lyonia lucida)* and Virginia chain fern *(Woodwardia virginica).* Other hardwoods may also be present around the edge.

Soils are nutrient poor and more acidic than in other kinds of swamps. Cypress domes have clay hardpans at varying depths, so that they are rather like large, shallow saucers that hold water. Some organic topsoil or sediment is usually present on the surface.

The domes are isolated hydrologically except at high water, when they overflow through poorly defined channels from one dome to the next. As with other swamps, many domes lose their surface water almost every year during the dry season. During severe droughts, however, the water stored in the soil may also disappear, subjecting the vegetation to severe drought stress. Cypress domes are a fire-adapted community; the bark of pond cypress is much thicker than that of other cypress species, allowing it to withstand fires.

The cypress domes provide valuable habitat for a number of reptile and amphibian species, but have few mammals and no unique bird species. However, they add an important element of diversity to the flatwoods areas, support a higher density and diversity of animals than the surrounding flatwoods, and are important as a refuge for the flatwoods fauna when the pine forests are harvested. The dense thicket at the edge is especially valuable habitat, containing much higher densities and diversity of reptiles, amphibians, and birds than either adjacent community. Cypress domes, especially the edge thickets, are an important habitat for white-tailed deer. Other animal species found here include the chicken turtle *(Deirochelys reticularia),* glossy crayfish snake *(Regina rigida),* and dwarf siren *(Pseudobranchus striatus).*

#### Freshwater Marshes and Prairies

The Springs Coast Basin contains numerous freshwater marshes and prairies scattered throughout the pine flatwoods areas, or in low spots on the Brooksville Ridge. These treeless wetlands vary in size from less than an acre to several hundred acres. They occur in areas of permanent shallow water, around lakes, or in areas that flood or burn frequently enough to prevent woody plants from invading. The term wet prairie is used in central and south Florida for very shallow marshes in the pine flatwoods that are often dry and burn frequently. Soils are made up of sand over limerock—or, in the flatwoods, of varying amounts of organic muck over sand, with a clay layer beneath.

Marshes and wet prairies are often dominated by one species of tall grass, sedge, or other herb. The predominance of a species often changes with water depth, sometimes producing a series of bands of different vegetation from the edge to the deepest area. In general, the emergent plants are more common in areas with shallower water, and the

floating-leaved and submerged plants are more common in deeper water. Algae comprise the base of the food chain in the marshes and prairies.

Many of the basin's marshes comprise nearly pure stands of maidencane *(Panicum hemitomon).* Other species that may be present—depending on the soil, water depth, and hydroperiod—are pickerelweed *(Pontederia cordata),* bladderwort *(Utricularia* spp.*),* and bluestem *(Andropogon* spp.). Cordgrass *(Spartina bakeri)* and swamp hibiscus *(Hibiscus grandiflorus)* are found in mildly brackish areas near the coast. Cattail *(Typha* spp.) marsh grows in areas of high fertility, often replacing other forms of marsh in the presence of nutrients from fertilizers or sewage effluent.

Some marsh vegetation on the edges of lakes is highly desirable. The deep-water parts of the marsh often contain patches of white water lilies *(Nymphaea odorata),* spatterdock *(Nuphar luteum),* or thin stands of maidencane *(Panicum hemitomon).* These provide good habitat for large fish, such as largemouth bass *(Micropterus salmoides)* and bream *(Lepomis macrochirus).* The denser marsh vegetation in shallower waters harbors numerous smaller fish, providing a nursery area and a habitat that supports an important part of the food chain. Marshes also support many other animals, help remove nutrients from the lake, and trap sediments washed from the shore into the lake.

Marshes and prairies are habitat for a number of broadly adapted aquatic species and a few terrestrial species. Some animals are specifically adapted to this habitat. Species that use marshes include the hispid cotton rat *(Sigmodon hispidus),* red-winged blackbird *(Agelaius phoeniceus),* peninsula newt *(Notophthalmus viridescens piaropicola),* several kinds of frogs, and a number of small fish species. Insects, crayfish, snails, and other invertebrates are also quite abundant, providing a good food source for wading birds, raptors, and other predators. Marshes that go dry periodically are particularly important feeding habitat for wood storks *(Mycteria americana).* Other species that use marshes include the sandhill crane *(Grus canadensis),* American bittern *(Botaurus lentiginosus),* king rail *(Rallus elegans),* Florida green water snake *(Nerodia floridana),* and round-tailed muskrat *(Neofiber alleni).*

### Ponds

Ponds are small bodies of open, nonflowing water. There are thousands of ponds of 5 acres or less in the Springs Coast Basin, and dozens of larger ones. Most were formed by the collapse of solution caves in the underground limestone aquifer, while others are shallow depressions that were once part of ancient seas. They are diverse in their sizes, depths, and locations.

While many ponds are permanent, some are ephemeral, drying out completely every few years. All ponds are temporary, however, since they eventually fill up with sediment. Pond ecology is influenced by the surrounding upland soils and biological communities. Another important factor is whether a pond is isolated or part of a drainage system. The most important factor determining the diversity and species inhabiting a pond is whether it is permanent.

The plants around the edges of ponds are mostly swamp, marsh, and wet prairie plants. Some of the submerged marsh plants grow in the open-water areas. Pond species include duckweed *(Lemna* spp. and *Spirodela* spp.*),* water spangles *(Salvinia minima),*

mosquito fern *(Azolla caroliniana),* and several kinds of *Sagittaria.* However, algae are the most important plants in terms of importance to wildlife.

No other habitat has such a high value per acre, and the habitat value of ponds increases with their isolation and separation from other wetlands. A very significant part of the animal species of an area larger than 2,000 acres may depend on less than 1 acre of ephemeral, isolated pond. A single, isolated pond may also have great importance as a source of drinking water for some animals, such as doves *(Columbina passerina* and *Zenaida macroura),* and nighthawks *(Chordeiles minor).* Ponds are breeding sites for a number of insects, amphibians, and birds, including toads *(Bufo* spp. and *Scaphiopus holbrookii),* tree frogs *(Hyla* spp.), gopher frogs *(Rana capito),* and dragonflies.

### Lakes

The Springs Coast Basin contains several hundred scattered lakes with areas of 5 to 1,000 acres. Like ponds, these large, permanently flooded bodies of nonflowing, open water were formed through the collapse of solution caves in the limestone aquifer, or are shallow depressions that once formed on an ancient sea floor. Factors influencing the ecology of lakes include size, depth, type of bottom, water quality, water level fluctuation, water inflow and outflow, and adjacent wetland and upland ecosystems.

The swamps and marshes that are often found on the edges of a lake's open-water area are important to the lake's ecology. They are generally more productive than open water, supplying small fish, insects, crayfish, amphibians, and other small animals. These provide an abundant food source for the larger fish and predators in the open water. Wetlands also serve as nursery areas for some open-water species, remove excess nutrients and other pollutants before they enter the lake, and buffer wave action.

Marsh and swamp plant species, discussed earlier, are commonly found on the margins of lakes. Plants in the open-water areas are dominated by single-celled algae, mostly diatoms and green algae.

Animal species found in or near lakes include numerous birds, fish, reptiles, and amphibians.

### Springs, Spring Runs, and Spring-Fed Rivers

Coastal areas of the Springs Coast Basin contain many springs. These result from rain falling on inland areas; the water drains underground through sinkholes and other channels and fissures in the porous limestone rock, reemerging at the land surface. The largest springs in the basin are Crystal River, Chassahowitzka, Homosassa, and Weeki Wachee, which form the headwaters of large coastal rivers that flow to the Gulf of Mexico. Many smaller springs are also present.

Springs provide permanent base flow to rivers and streams in the basin. The water temperature remains nearly constant year round, and the water itself is very clear, nonacidic, and high in dissolved solids such as calcium carbonate.

Spring-connected streams have a diverse and productive year-round aquatic plant community. In addition, because they never stop flowing, they provide important refuges during droughts for aquatic animal species.

The plant species along spring runs and spring-fed rivers usually consist of mixed swamp on shore and freshwater marsh in some scattered, shallow-water areas. In some places, hammock forests reach the stream banks. The submerged plants on the stream bottom, however, are markedly different. There are abundant quantities of eelgrass *(Vallisneria americana)* and arrowhead (*Sagittaria)*. Of equal or greater importance are the diatoms and filamentous algae that are attached to these plants and to everything else on the stream. The submerged plants and algae provide dense cover and a productive foundation for the food chain.

Large numbers of aquatic snails support predators such as the loggerhead musk turtle *(Sternotherus minor minor)* and limpkin *(Aramus guarauna).* The latter feeds mainly on the Florida apple snail *(Pomacea paludosa).* Other species include marine fish and the endangered West Indian manatee *(Trichechus manatus latirostris).*

#### Aquatic Caves

The thick bed of limerock under the Springs Coast Basin contains many cracks, joints, fissures, and caves filled with water. Underwater or aquatic caves formed when the slightly acidic water dissolved larger passageways over thousands of years. The caves are often interconnected, forming a complex, extensive maze of passageways beneath much of the basin. There are distinct layers in the limerock, each with its own caves, and the different layers are interconnected by occasional vertical shafts. The Crystal River Formation in the upper Eocene formation contains the most caverns.

The water in the caves is generally very clear, with a constant temperature, relatively neutral pH, and high levels of dissolved calcium carbonate. Considerable currents may be present.

A unique and specialized group of animal species has evolved to take advantage of this unique habitat. The region may have more species of blind aquatic cave-dwelling animals than any other region in the world. Invertebrates are predominant. Species found here include McLane's cave crayfish *(Troglocambarus maclanei),* pallid cave crayfish *(Procambarus pallidus),* light-fleeing cave crayfish *(P. lucifugus),* and Leitheuser's cave crayfish *(P. leitheuseri).* At least two amphipods, two isopods, and one shrimp are present. The caves also provide important habitat for the American eel *(Anguilla rostrata)* and redeye chub *(Notropis harperi).*

## Land Cover

The Springs Coast Basin is noteworthy for the extent and diversity of its remaining natural lands. **Table C.1** provides comparisons of current and historical acreages for the major types of land cover in the basin. **Table C.2** lists the major conservation areas, including their total acreages, locations, and managing entities.

Of the twenty-one most-endangered ecosystems in the United States, six are found in the basin. Xeric uplands originally accounted for about 40 percent of the basin's total land area. The **longleaf pine–turkey oak sandhill** community has been reduced to only 15 percent of its historical range on the Gulf coastal plain, while **Florida scrub** has been eliminated from 65 to 75 percent of its original statewide range. Sandhill vegetation was

the hallmark natural community of the Brooksville Ridge. It is characteristic of the deep, well-drained sands that distinguish the ridge and impart the very high ground water recharge rates. The permeability of these sands also makes the local ground water highly susceptible to contamination.

The coniferous (longleaf pine) and broadleaf (hammock) forests of the southeastern United States are among the most biologically valuable on earth. They are also highly endangered. Of all the communities in the basin, pine flatwoods has been most severely reduced by development. Only 16,700 acres remain, or approximately 20 percent, of this community's historical coverage. The **upland hardwood community** that distinguishes the rich, biologically and culturally significant Annutteliga Hammock has been reduced to 50 percent of its historical coverage. Most of the original expanse of hardwood forest associated with the Annutteliga system has been lost to development and mining of limerock. Unfortunately, much of the remaining "hammock" consists of small fragments that retain little of their original habitat value.

**Southern forested wetlands** are represented by a spectacular, unbroken expanse of hydric hammock along the basin's Gulf Coast shoreline. Although estimates of wetland area for the Springs Coast Basin vary, wetlands account generally for around 25 percent of the basin. Wetlands have fared much better than uplands, because the majority of wetland acreage in the basin occurs as large, continuous systems aligned along the coast. These have not been as susceptible to destruction through land development as the relatively small, isolated wetlands that characterize large portions of other basins in the state.

**Cave and karst systems** consist of a unique network of first-magnitude springs and spring-fed rivers. **Coastal communities** comprise one of the most pristine and productive estuarine systems in Florida.

Patterns of public land ownership can help to explain the effective protection of wetlands, relative to uplands, in the Springs Coast Basin. Of the 194,500 acres dedicated to conservation, approximately 141,350 acres are sandwiched between the Gulf of Mexico and U.S. Highway 19. This amounts to 73 percent of conservation lands in the basin. Three of the four large conservation tracts located inland of the coast (Citrus, Serenova, and Starkey) lie on the basin's boundary, with large portions extending into adjoining basins.

### *Conservation Priorities*

A SWFWMD study of the remaining natural lands in the basin, using a geographic information system (GIS) analysis, assessed the relative importance of proposed acquisitions and identified other potential sites. The most important sites include the northern segment of the coastline (extending from the Homosassa River northward to the boundary of the basin), the Annutteliga Hammock, an existing gap in public ownership between the Weeki Wachee River and the southern boundary of the Chassahowitzka Wildlife Management Area, and a small coastal segment immediately south and west of the SWFWMD's Weekiwachee Preserve.

The protection of these tracts would preserve the overall size of the protected core habitat along the coastline by maintaining the existing contiguity in that system. It would

also maintain the existing connectivity between the coastal core and the core habitats provided by the Citrus Tract (the Withlacoochee State Forest) and the Big Bend coastline north of the basin, and prevent the loss of valuable coastal habitat at the southern end of the Weekiwachee Preserve. The latter serves as habitat for a population of the threatened Florida black bear and other imperiled species, and also helps to buffer the Weekiwachee Preserve from the intensive development that has consumed the coastal area in the southern reaches of the basin. Another ecologically important area is west-central Pasco County, east of Port Richey from the Starkey Wilderness Preserve toward the Weekiwachee Preserve.

The highest priority for habitat protection lies in the coastal lands at the northern end of the basin. These connect the coastal systems of the basin with the Big Bend coastline, creating a continuous swath of core habitat covering nearly 1.2 million acres. Although the vast majority of the core area lies outside the SWFWMD's boundaries, maintaining connectivity within this vast area would help to ensure the long-term integrity of the basin's network of conservation lands.

The second priority is protecting the gap in public ownership north of the Weeki Wachee River and maintaining connectivity with the Citrus Tract by protecting the Annutteliga Hammock. The latter would also protect the remaining remnants of the hammock vegetation that once distinguished this region of Florida.

**Table C.1: Comparisons of Current and Historical Land Cover**

| Land Cover Category | Current Coverage (Acres) | Percent of Total | Historical Coverage (Acres) | Percent of Total | Area Lost (Acres) | Percent Historical Remaining |
|---|---|---|---|---|---|---|
| Disturbed | 174,000 | 30 % | 35,400 | 6 % | N/A | N/A |
| Agriculture | 82,000 | 14 % | N/A | N/A | N/A | N/A |
| Herbaceous Wetland | 17,100 | 3 % | 14,900 | 2.5 % | +2,200 | 115 % |
| Forested Wetland | 73,000 | 12 % | 63,500 | 11 % | +9,500 | 115 % |
| Pine Flatwoods | 16,700 | 3 % | 82,600 | 14 % | 65,900 | 20 % |
| Xeric Uplands | 103,000 | 17.5 % | 230,500 | 40 % | 127,500 | 45 % |
| Upland Hardwoods | 37,500 | 6.5 % | 75,350 | 13 % | 37,850 | 50 % |
| Salt Marsh | 43,000 | 7 % | 46,000 | 8 % | 3,000 | 91 % |
| Open Water | 35,750 | 6 % | 33,150 | 5.5 % | + 2,070 | 108 % |

N/A – Not available.

Note: Current land cover is based on photo interpretation of 1995 color infrared aerial photography. Estimates of historical land cover are based on an analysis of soil surveys conducted by the U.S. Soil Conservation Service. Historical land cover was extrapolated by assigning each soil type to the general land cover category most likely to occur on that soil type. Disturbance associated with mining activities and other development that pre-dated the soil surveys precluded inference of historical land cover over portions of the basin, which accounts for the occurrence of a "disturbed" category under historical vegetation.

**Table C.2: Conservation Lands**

| Name of Conservation Tract | Total Acreage | Location | Managing Entity[1] |
|---|---|---|---|
| Chassahowitzka National Wildlife Refuge | 30,842 | Citrus and Hernando Counties | USFWS |
| Chassahowitzka Wildlife Management Area | 28,656 | Citrus and Hernando Counties | FWC |
| Chassahowitzka Riverine Swamp Sanctuary | 5,680 | Citrus County | FDEP |
| Crystal River National Wildlife Refuge | 80 | Citrus County | USFWS |
| Crystal River State Buffer Preserve | 36,000 | Citrus County | FDEP |
| St. Martins Marsh Aquatic Preserve | 23,120 | Citrus County | FDEP |
| Withlacoochee State Forest, Citrus and Homosassa Planning Units | Approximately 32,500 (portion of Citrus outside watershed) | Citrus and Hernando Counties | FDOF |
| Weekiwachee Preserve | 7,300 | Hernando County | SWFWMD |
| Ficket Hammock | 150 | Hernando County | Hernando County |
| Annutteliga Hammock | 8,600 (acquisition in progress by SWFWMD) | Citrus and Hernando Counties | FDOF and SWFWMD |
| Janet Butterfield Brooks Preserve | 335 | Polk County | TNC |
| Homosassa Springs State Wildlife Park | 178 | Citrus County | FDEP |
| Cross Bar Ranch Wellfield | Approximately 8,300 | Pasco County | Tampa Bay Water |
| Hidden Lake | 589 | Pasco County | SWFWMD |
| Fillman Bayou Preserve | 608 | Pasco County | TNC |
| Werner Boyce Gulf Coast Reserve | 1,685 | Pasco County | Pasco County |
| Berkovitz-Pines Property | 1,708 | Pasco County | Pasco County |
| Serenova | 6,533 (approximately 4,500 acres in basin) | Pasco County | FDOT |
| Starkey Wilderness Park | 8,620 (approximately 4,000 acres in basin) | Pasco County | SWFWMD |

[1] USFWS = U.S. Fish and Wildlife Service
FWC = Florida Fish and Wildlife Conservation Commission
FDEP = Florida Department of Environmental Protection
FDOF = Florida Division of Forestry
TND = Nature Conservancy
FDOT = Florida Department of Transportation

# *Appendix D: Bioassessment Supporting Data for the Springs Coast Basin*

## Methodology

An increasingly accepted tool for evaluating the biological integrity of surface water is bioassessment. The premise behind using bioassessment methodology in surface water characterizations is that biological components of the environment manifest long-term water quality conditions and can presumably give a better indication of the true health of the waters involved than discrete chemical or physical measurements alone.

Similar to water quality criteria, bioassessment methods involve the identification of a biological reference condition, based on data from unimpaired or least impacted waters in a given region. The reference condition data are used to establish expected scores, ranging from best to worst, for various measures of community structure and function, such as numbers or percentages of particular species or feeding groups. Data on community structure and function from waters of unknown quality in the same region as reference waters are compared with the expected scores of metrics to evaluate their biological integrities. Metrics may be used independently or as an aggregated group called an index. Indices have advantages over individual metrics in that they can integrate several related metrics into one score that reflects a wider range of biological variables. A number of bioassessment metrics and indices exist for assessing populations of plant and animal life, including fish, diatoms, and macroinvertebrates.

Only macroinvertebrate data are included in the following bioassessments. Because site-specific habitat and physicochemical assessment information (e.g., percent suitable macroinvertebrate habitat, water velocities, extent of sand or silt smothering, and riparian buffer zone widths) was not available at the time of reporting, it is not included here. However, habitat and physicochemical assessment information is instrumental in pinpointing the causes for failed bioassessment metrics and should be included in future reporting.

Data used in this report were obtained from the Department's Biological Database (SBIO) and the EPA's STORET Water Quality Database, where it could be substantiated that such data were generated in compliance with the bioassessment standard operating procedures referenced in the Impaired Surface Waters Rule (Section 62-303.330, F.A.C.). Bioassessments are provided from streams, canals, and rivers, with data generated according to Department standard operating procedure FS-7420 and FS-7430 and analyzed according to the Stream Condition Index (SCI) for Florida (Barbour *et al.*, 1996; FDEP SOP #LT-7200) and/or Subsection 62-302.530(11), F.A.C. (Biological Integrity Standard). Bioassessments are also provided for clear lakes (< = 20 platinum cobalt units) with data generated according to Department standard operating procedure FS-6460 and analyzed according to the Lake Condition Index (LCI) for Florida (Gerritsen *et al.*, 2000; FDEP SOP #LT-7300). Since macroinvertebrate-based indices have not been shown to assess colored lakes in Florida accurately (>20 platinum cobalt units), they have been excluded from the following bioassessments.

Only ambient data from state surface waters were used in the following bioassessments, excluding data from effluent outfalls from discharging facilities or data

from monitoring sites not clearly established to collect ambient water quality data. Data were used from the databases noted above without regard to the randomness of sample site selection. For the purposes of this report, the seasons are defined as follows; winter (1/1-3/31), spring (4/1-6/30), summer (7/1-9/30) and fall (10/1-12/31). Wet seasons are generally spring and summer and dry seasons are fall and winter, although conditions can vary within the state as a whole.

**Metric Definitions**

**# of Taxa**—This metric is otherwise known as taxa richness. In this report, it indicates the total number of macroinvertebrate taxa found in a sample of stream or lake bottom, other in-water substrate such as fallen branches or roots, or artificial surface in the waterbody for invertebrate colonization. A taxon (singular) is a group of organisms with common traits and characteristics, such as dragonflies (taxon Odonata). As the environment is stressed, the number of taxa generally decreases.

**# of Chironomid Taxa**—Chironomids are larval flies that are prevalent in many surface waters. This metric is also a measure of taxa richness.

**# of EPT or EOT Taxa**—Particular organisms or groups of organisms in a given surface water habitat are more sensitive to changes in the environment than others, making them good indicators of environmental stress. Mayflies (Ephemeroptera), stoneflies (Plecoptera), caddisflies (Trichoptera), and dragonflies and damselflies (Odonata) are four such taxa.

**% Diptera**—Dipterans are larval flies, many of which are tolerant of poor water quality conditions. This metric represents the fraction of the total number of dipteran organisms in a sample. A large fraction indicates an invertebrate community that is predominantly tolerant of low water quality.

**Florida Index**—The Florida Index is a weighted measurement of the numbers of Class I and Class II macroinvertebrate species known in Florida. It assigns points to stream-dwelling macroinvertebrates based on their sensitivities to pollution. It is an index in itself, but the results can be incorporated into other indices as measurements of biological integrity.

**% Filter Feeders**—Filter-feeding organisms indicate the flow regime in a waterbody. The larger the fraction of the total community consisting of filter feeders, the more likely it is that the waterbody has a good flow regime.

**% Dominant Taxon**—In all waterbodies, the taxon that exists in greater number than all others is known as the dominant taxon. A high percentage of the dominant taxon in a sample indicates lower diversity and poorer water quality.

**Shannon-Wiener Diversity Index**—This measurement of macroinvertebrate community health is specified in Rule 62-302, F.A.C. It incorporates level of taxa richness (how many taxa are present) within the distribution of individuals among taxa present (how evenly they are distributed). Like the Florida Index, it is an index in itself. However, the result is often included in other indices of biological integrity. Low diversity scores are indicative of conditions where only a few species are present to the exclusion of other taxa.

**Hulbert Index**—This index is also a weighted measurement of the numbers of Class A and Class B species of macroinvertebrates known in Florida lakes. It is also an index in itself, but the result is included in the calculation of the LCI as a separate metric value.

## References

Barbour, M.T., J. Gerrisen, and J.S. White. 1996. *Development of the Stream Condition Index (SCI) for Florida.* Prepared for the Florida Department of Environmental Protection. Owings Mills, Maryland: Tetra Tech, Inc.

Gerritsen, J., B. Jessup, E. Leppo, and J. White. 2000. *Development of Lake Condition Indexes (LCI) for Florida.* Owings Mills, Maryland: Tetra Tech, Inc.

# *Appendix E: Permitted Discharge Facilities, Superfund Sites, and Landfills in the Springs Coast Basin, by Planning Unit*

**Table E.1: Permitted Facilities with Discharges to Surface Water and Ground Water, by Planning Unit**

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| **Crystal River/Kings Bay Planning Unit** | | | | | |
| FLA016960 | FLORIDA POWER CORP CRYSTAL RIVER GW | A | 0.0000 | N | This MW-16 replaces MW-16 (11063) |
| FLA011845 | MEADOWCREST WWTF | A | 0.5000 | N | MW-3 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OUTFALL 006 NUCLEAR SERVICES UNIT 3 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | DISCHARGE CANAL #8 |
| FLA011941 | WITHLACOOCHEE RIVER ELECTRIC COOP | N | 0.0000 | N | MONITOR WELL #2 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OUTFALL 009 MIXING ZONE SOUTH ASH POND |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | NORTH RUNOFF COLLEC RET POND |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OUTFALL 003 LAUNDRY & SHOWER SUMP TANK |
| FLA287407 | ALLEN SITE A | A | 0.0000 | N | Sloped cow pasture |
| FLA287407 | ALLEN SITE A | A | 0.0000 | N | West pasture |
| FLA011922 | COMFORT INN | A | 0.0150 | N | After disinfection and prior to land app |
| FLA011923 | ENCORE SUPER PARK CRYSTAL RIVER | A | 0.0300 | N | REUSE EFFLUENT TO PERCOLATION BASINS (10 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | Helper Cooling tower effluent to the sit |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OUTFALL 001 COOLING WATER UNIT 1 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | MONITOR WELL #3 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | WELL #6.(INACTIVE) |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OUTFALLS 001, 002 & 005 MIXING ZONE |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OUTFALL 004 MIXING ZONE NORTH ASH POND |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OUTFALL 004 NORTH ASH POND |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | Nuclear services and Decay Heat Sea wate |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | Ash pond discharge for unit 1&2tothe sit |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | Once through cooling water from Unit1. |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | WELL #1 (INACTIVE) |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | WEST POND EFFLUENT |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | WELL #5 (INACTIVE) |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | MONITOR WELL #17 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | ACTIVE ASH POND |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | WELL #5(INACTIVE) |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | MONITOR WELL #20 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | MONITOR WELL #25 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OUTFALL 002 COOLING WATER UNIT 2 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OUTFALL 009 SOUTH ASH POND |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | SOUTH RUNOFF COLLECTION RET. POND |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OUTFALL 013 HELPER COOLING TOWER B |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OUTFALL 008 COAL PILE RUNOFF |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | MONITOR WELL #19 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | MONITOR WELL #4 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | MONITOR WELL #14 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | MONITOR WELL #15 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | EAST POND EFFLUENT |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | INTAKE CANAL #7 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OSN 007 (AS PER SPECIFIC CONDITION # 38) |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | WELL #1 (INACTIVE) |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | Helper Cooling Tower effluent to the sit |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | Ash Pond discharges to Units 1 and 2 com |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | CONDENSATE HOTWELL TO 006 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OUTFALL 007 REGEN. WASTE NEUT. TANK |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OUTFALL 012 HELPER COOLING TOWER A |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | INTAKE CANAL |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | WELL #4 (INACTIVE) |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | WELL #4 (INACTIVE) |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | MONITOR WELL #18 |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | OUTFALL 005 COOLING WATER UNIT 3 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | Coal Pile runoff (units 1 and 2) to the |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | Once through cooling water from unit 2 |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | SOUTH COAL PILE RUNOFF COLL RET POND |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | NORTH PLANT DRAINS COLLEC POND |
| FL0000159 | FLORIDA POWER CORP CRYSTAL RIVER (PROGRE | A | 0.6800 | Y | Once through cooling water from unit 3 |
| FLA011941 | WITHLACOOCHEE RIVER ELECTRIC COOP | N | 0.0000 | N | MONITOR WELL #1 |
| FLA011941 | WITHLACOOCHEE RIVER ELECTRIC COOP | N | 0.0000 | N | DISCHARGE FROM OIL/WATER SEPARATOR |
| FLA011941 | WITHLACOOCHEE RIVER ELECTRIC COOP | N | 0.0000 | N | MONITOR WELL #3 |
| FL0036366 | FLORIDA POWER CORP CRYSTAL RIVER 4 & 5 ( | A | 0.0000 | Y | Cooling Tower Blowdown for unit 5 to the |
| FL0036366 | FLORIDA POWER CORP CRYSTAL RIVER 4 & 5 ( | A | 0.0000 | Y | Cooling Tower Blowdown for unit 4 to the |
| FL0036366 | FLORIDA POWER CORP CRYSTAL RIVER 4 & 5 ( | A | 0.0000 | Y | Ashpond discharges for units 4 and 5 com |
| FL0036366 | FLORIDA POWER CORP CRYSTAL RIVER 4 & 5 ( | A | 0.0000 | Y | Coal Storage Area Run off and run off fr |
| FL0036366 | FLORIDA POWER CORP CRYSTAL RIVER 4 & 5 ( | A | 0.0000 | Y | Run off collection system overflow from |
| FLA016960 | FLORIDA POWER CORP CRYSTAL RIVER GW | A | 0.0000 | N | MONITOR WELL #1 |
| FLA016960 | FLORIDA POWER CORP CRYSTAL RIVER GW | A | 0.0000 | N | This is MWIF-2 |
| FLA016960 | FLORIDA POWER CORP CRYSTAL RIVER GW | A | 0.0000 | N | MW-29 is a new monitor well |
| FLA016960 | FLORIDA POWER CORP CRYSTAL RIVER GW | A | 0.0000 | N | This MW-7 replaces MW-7(11067) |
| FLA016960 | FLORIDA POWER CORP CRYSTAL RIVER GW | A | 0.0000 | N | This MW-2 replaces MW-2 (11077) |
| FLA016960 | FLORIDA POWER CORP CRYSTAL RIVER GW | A | 0.0000 | N | MW-27 |
| FLA016960 | FLORIDA POWER CORP CRYSTAL RIVER GW | A | 0.0000 | N | MW-28 is a new monitor well |
| FLA016960 | FLORIDA POWER CORP CRYSTAL RIVER GW | A | 0.0000 | N | This MW-12 replaces MW-12 (11066) |
| FLA016960 | FLORIDA POWER CORP CRYSTAL RIVER GW | A | 0.0000 | N | This MW-21 replaces MW-21 (11075) |
| FLA011845 | MEADOWCREST WWTF | A | 0.5000 | N | MW-2A |
| FLA011845 | MEADOWCREST WWTF | A | 0.5000 | N | MW-1 |
| FLA011845 | MEADOWCREST WWTF | A | 0.5000 | N | MW-3A |
| FLA011845 | MEADOWCREST WWTF | A | 0.5000 | N | MW-1 |
| FLA011845 | MEADOWCREST WWTF | A | 0.5000 | N | MW-6 |
| FLA011845 | MEADOWCREST WWTF | A | 0.5000 | N | REUSE EFFLUENT TO PERCOLATION BASINS |
| FLA011845 | MEADOWCREST WWTF | A | 0.5000 | N | WWTF EFFLUENT |
| FLA011845 | MEADOWCREST WWTF | A | 0.5000 | N | MW-5 |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FLA011845 | MEADOWCREST WWTF | A | 0.5000 | N | MW-4 |
| FLA011846 | KEY PINE VILLAGE WWTF | A | 0.0075 | N | EFA01 AFTER DISINFECTION AND PRIOR TO DI |
| FLA011848 | CRYSTAL RIVER CITY OF WWTF | A | 1.5000 | N | Spray field intermediate well |
| FLA011848 | CRYSTAL RIVER CITY OF WWTF | A | 1.5000 | N | North Pond well |
| FLA011848 | CRYSTAL RIVER CITY OF WWTF | A | 1.5000 | N | Spray field compliance well |
| FLA011848 | CRYSTAL RIVER CITY OF WWTF | A | 1.5000 | N | South Pond well |
| FLA011848 | CRYSTAL RIVER CITY OF WWTF | A | 1.5000 | N | Spray field back ground well |
| FLA011848 | CRYSTAL RIVER CITY OF WWTF | A | 1.5000 | N | After disinfection and prior to the reus |
| FLA011849 | CRYSTAL ACRES MHP WWTF | A | 0.0100 | N | EFA-01-10780 AFTER DISINFECTION AND PRIO |
| FLA011850 | PLANTATION INN GOLF RESORT | A | 0.0400 | N | EFA01- AFTER DISINFECTION AND PRIOR TO D |
| FLA011856 | ANCHORAGE WWTF | A | 0.0268 | N | REUSE EFFLUENT TO PERCOLATION/EVAPORATIO |
| FLA011861 | SEVEN RIVERS COMMUNITY HOSPITAL | A | 0.0500 | N | After disinfection and prior to land app |
| FLA011862 | FLORIDA POWER CORP CRYSTAL RIVER 4 & 5 | A | 0.0200 | N | EFA01 AFTER DISINFECTION AND PRIOR TO DI |
| FLA118753 | FLORIDA POWER 1, 2, & 3 | A | 0.0300 | N | After disinfection and prior to discharg |
| FLA011876 | INDIAN SPRINGS UTILITIES | A | 0.0300 | N | WWTF EFFLUENT |
| FLA011895 | THUNDERBIRD MHP WWTP | A | 0.0050 | N | AFTER DISINFECTION AND PRIOR TO DISCHARG |
| **Homosassa River Planning Unit** | | | | | |
| FLA011924 | LECANTO HILLS MH PARK | A | 0.0120 | N | After treatment and prior to land applic |
| FLA011925 | TURTLE CREEK CAMPGROUND | A | 0.0372 | N | R-001 |
| FLA011942 | MR. AND MRS. SUDSY'S CAR WASH | A | 0.0000 | N | EFFLUENT TO DRAINFIELD |
| FLA011854 | ATLANTIS ARMS APARTMENTS | A | 0.0200 | N | After disinfection and prior to land app |
| FLA011857 | MANATEE CAMPGROUND & MARINA | A | 0.0100 | N | After disinfection and prior to land app |
| FLA011858 | SPRING GARDENS | A | 0.0200 | N | p/e ponds (3) 34,000 sf |
| FLA011859 | TRADEWINDS FISHING VILLAGE | A | 0.0050 | N | Land application system consisting of on |
| FLA011867 | RIVERVIEW MOBILE ESTATES | A | 0.0150 | N | WWTF EFFLUENT |
| FLA011872 | IMPERIAL GARDENS MHP | A | 0.0050 | N | EFA-01 AFTER DISINFECTION AND PRIOR TO D |
| FLA011873 | PARK INN | A | 0.0600 | N | After disinfection, prior to discharge t |
| FLA033065 | ISLAND CONDOMINIUMS WWTF | A | 0.0300 | N | AFTER DISINFECTION AND PRIOR TO DISCHARG |
| FLA011882 | OLD HOMOSASSA INDUSTRIAL PARK WWTP | A | 0.0320 | N | EFA-01 AFTER DISINFECTION AND PRIOR TO D |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FLA011883 | STONEBROOK MH COMM | A | 0.0351 | N | After disinfection and prior to land app |
| FLA011885 | NATURE'S RESORT WWTF | A | 0.0240 | N | AFTER DISINFECTION AND PRIOR TO DISCHARG |
| FLA011888 | CAMP `N' WATER OUTDOOR RESORT | A | 0.0175 | N | AFTER DISINFECTION AND PRIOR TO DISCHARG |
| FLA011890 | MISTY RIVER SEAFOOD HOUSE | A | 0.0060 | N | EFA01 AFTER DISINFECTION AND PRIOR TO DI |
| FLA011897 | WEST WIND VILLAGE RCA WWTF | A | 0.0210 | N | EFA-01-10907 AFTER DISINFECTION AND PR |
| FLA011899 | CEDARS MHP | A | 0.0140 | N | EFA-01 AFTER DISINFECTION AND PRIOR TO D |
| FLA011901 | BELL VILLA MHP | A | 0.0125 | N | REUSE EFFLUENT TO PERCOLATION BASINS (45 |
| FLA011909 | FLORIDA POWER NUCLEAR OPER TR CTR | A | 0.0035 | N | After disinfection and prior to land app |
| FLA011912 | MEADOWS OF HOMOSASSA SPRINGS, THE | A | 0.0150 | N | EFA01 - AFTER DISINFECTION AND PRIOR TO |
| FLA011913 | RIVER COVE LANDINGS WWTF | A | 0.0150 | N | MONITOR WELL #3 ABANDONDED |
| FLA011913 | RIVER COVE LANDINGS WWTF | A | 0.0150 | N | MONITOR WELL #2 ABANDONDED |
| FLA011913 | RIVER COVE LANDINGS WWTF | A | 0.0150 | N | MONITOR WELL #1 ABANDONDED |
| FLA011913 | RIVER COVE LANDINGS WWTF | A | 0.0150 | N | EFA01 - AFTER DISINFECTION AND PRIOR TO |
| FLA011915 | FOREST VIEW | A | 0.0400 | N | REUSE EFFLUENT TO THE PERCOLATION PONDS |
| **Chassahowitzka River Planning Unit** | | | | | |
| FLA011919 | WHISPERING PINES MHP WWTF | A | 0.0050 | N | EFA01 - AFTER DISINFECTION AND PRIOR TO |
| FLA011940 | K C CRUMP RESTAURANT (FORMERLY SUNSET | N | 0.0000 | N | SAMPLE POINT 002 OUTSIDE POND WEIR |
| FLA011940 | K C CRUMP RESTAURANT (FORMERLY SUNSET | N | 0.0000 | N | SAMPLE POINT 001 END OF CASCADE |
| FLA012068 | DUNES AT SEVILLE WWTP | A | 0.0150 | N | PIEZOMETER S4 |
| FLA012068 | DUNES AT SEVILLE WWTP | A | 0.0150 | N | PIEZOMETER S6 |
| FLA012068 | DUNES AT SEVILLE WWTP | A | 0.0150 | N | PIEZOMETER S8 |
| FLA012068 | DUNES AT SEVILLE WWTP | A | 0.0150 | N | PIEZOMETER S2 |
| FLA012068 | DUNES AT SEVILLE WWTP | A | 0.0150 | N | At headworks, prior to treatment, and ah |
| FLA012068 | DUNES AT SEVILLE WWTP | A | 0.0150 | N | After disinfection, and prior to dischar |
| FLA012068 | DUNES AT SEVILLE WWTP | A | 0.0150 | N | PIEZOMETER S3 |
| FLA012068 | DUNES AT SEVILLE WWTP | A | 0.0150 | N | PIEZOMETER S5 |
| FLA012068 | DUNES AT SEVILLE WWTP | A | 0.0150 | N | PIEZOMETER S7 |
| FLA012068 | DUNES AT SEVILLE WWTP | A | 0.0150 | N | PIEZOMETER S1 |
| FLA011851 | SUNNY DAYS PLAZA | A | 0.0070 | N | After disinfection and before discharge |
| FLA011852 | CHASSAHOWITZKA RIVER LODGE | A | 0.0100 | N | REUSE EFFLUENT TO ABSORPTION FIELD (3,48 |
| FLA011866 | CHASSAHOWITZKA RIVER CAMPGROUND WWTP | A | 0.0170 | N | After disinfection and prior to entering |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FLA011903 | SUGARMILL WOODS WWTF | A | 0.5000 | N | FLORIDAN INTERMEDIATE (SMWD-9) |
| FLA011903 | SUGARMILL WOODS WWTF | A | 0.5000 | N | FLORIDAN BACKGROUND (SMWD-2) |
| FLA011903 | SUGARMILL WOODS WWTF | A | 0.5000 | N | FLORIDAN COMPLIANCE (SMWD-8) |
| FLA011903 | SUGARMILL WOODS WWTF | A | 0.5000 | N | AFTER DISINFECTION AND PRIOR TO DISCHARG |
| FLA011903 | SUGARMILL WOODS WWTF | A | 0.5000 | N | FLORIDAN COMPLIANCE (SMWD-6) |
| FLA011907 | EVANRIDGE MHP | A | 0.0200 | N | Land application sytstem consisting of d |
| FLA011916 | WALDEN WOODS OF SUGARMILL MHC | A | 0.0245 | N | EFA01- AFTER DISINFECTION AND PRIOR TO D |
| **Middle Coastal Planning Unit** | | | | | |
| FLA012057 | RIVER RUN CONDOMINIUM | A | 0.0600 | N | WWTF EFFLUENT |
| FLA012069 | GLEN LAKES SUBREGIONAL WWTP | A | 1.0000 | N | Compliance monitoring well located at th |
| FLA012088 | SOUTHWEST FLORIDA WATER MNGT DIST | A | 0.0100 | N | After disinfection and prior to discharg |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | MONITOR WELL EHN-2S (DENTON AVE RIBs) |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | HD-8 (F) |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | SH-1 |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | MWC-3 COMPLIANCE |
| FLA012748 | COUNTRY VILLAGE MHP WWTP | A | 0.0125 | N | EFA01 - AFTER DISINFECTION, PRIOR TO DIS |
| FLA012755 | ANCLOTE VILLAS WWTP | A | 0.0420 | N | EFA-01 After disinfection and prior to d |
| FLA012758 | LAKEWOOD TP | A | 0.0150 | N | MONITORING WELL #2 (CLOSED) |
| FLA012758 | LAKEWOOD TP | A | 0.0150 | N | EFA01 - AFTER DISINFECTION AND PRIOR TO |
| FLA012767 | TROPIC BREEZE MHP | A | 0.0075 | N | EFA01 - AFTER DISINFECTION AND PIROR TO |
| FLA012770 | BRENTWOOD ESTATES | A | 0.0300 | N | After disinfection, and prior to dischar |
| FLA012773 | PALM TERRACE GARDENS | A | 0.1300 | N | Formerly MW-EN6WA |
| FLA012773 | PALM TERRACE GARDENS | A | 0.1300 | N | Formerly MW-EN4WS |
| FLA012773 | PALM TERRACE GARDENS | A | 0.1300 | N | Formerly MW-EN2WS |
| FLA012773 | PALM TERRACE GARDENS | A | 0.1300 | N | Formerly MW-EN3WS |
| FLA012773 | PALM TERRACE GARDENS | A | 0.1300 | N | Formerly MW-EN5WA |
| FLA012773 | PALM TERRACE GARDENS | A | 0.1300 | N | 2 p/e ponds - north 28,750 sq. ft. - sou |
| FLA012786 | SHADY ACRES MHP | A | 0.0150 | N | EFA01 - AFTER DISINFECTION AND PRIOR TO |
| FLA012788 | CARIBBEAN MOBILE HOME ESTATES WWTF | A | 0.0200 | N | EFA-01-13938 AFTER DISINFECTION AND PRIO |
| FLA012790 | ORANGEWOOD LAKES MHP COMMUNITY WWTF | A | 0.0750 | N | AFTER DISINFECTION AND PRIOR TO DISCHARG |
| FLA012792 | OSCEOLA MHP | A | 0.0125 | N | EFA-01-13945 AFTER DISINFECTION AND PRIO |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FLA012793 | HACIENDA VILLAGE | A | 0.0950 | N | EFA01 - AFTER DISINFECTION AND PRIOR TO |
| FLA012794 | SHADOW WOOD VILLAGE MHP | A | 0.0200 | N | EFA01 - AFTER DISINFECTION AND PRIOR TO |
| FLA012796 | GULF BREEZE RV PARK WWTP | A | 0.0120 | N | EFA-01-13957 After disinfection and prio |
| FLA012802 | SEVEN OAKS TRAVEL PARK | A | 0.0250 | N | EFA01 - AFTER DISINFECTION AND PRIOR TO |
| FLA012805 | FOREST GREEN MHP | A | 0.0210 | N | EFA-01 AFTER DISINFECTION AND PRIOR TO D |
| FLA012806 | BAYONET POINT VILLAGE MHP WWTP | A | 0.0200 | N | Effluent after disinfection prior to dis |
| FLA012811 | SUNBURST RV PARK-PORT RICHEY | A | 0.0600 | N | EFF-01 FINAL EFFLUENT SAMPLE POINT |
| FLA012819 | EAST LAKE LANDINGS MHP WWTF | A | 0.0200 | N | EFA-01-14004 AFTER DISINFECTION AND PRIO |
| FLA012830 | SUNCOAST R V RESORT | A | 0.0150 | N | AFTER DISINFECTION AND PRIOR TO DISCHARG |
| FLA012831 | TRAVELER'S REST RV PARK WWTP | A | 0.1000 | N | MONITOR WELL #3 |
| FLA012831 | TRAVELER'S REST RV PARK WWTP | A | 0.1000 | N | MONITOR WELL #1 |
| FLA012831 | TRAVELER'S REST RV PARK WWTP | A | 0.1000 | N | AFTER DISINFECTION, AND PRIOR TO DISCHAR |
| FLA012831 | TRAVELER'S REST RV PARK WWTP | A | 0.1000 | N | MONITOR WELL #2 |
| FLA012832 | ARIPEKA WEST MHP (FORMERLY A&W MHP) | A | 0.0300 | N | EFA-01 AFTER DISINFECTION AND PRIOR TO D |
| FLG110229 | FLORIDA ROCK INDUSTRIES, INC. - HUDSON P | A | 0.0000 | Y | EFFLUENT - DISCHARGE OFF OWNERS' PROPERT |
| FLR05E125 | FEDERAL EXPRESS CORP GIFA | A | 0.0000 | Y | OUTFALL TO DITCH TO MASARYKTOWN CANAL PI |
| FLR05C148 | DEER PARK WWTP | A | 0.0000 | Y | OUTFALL TO UNNAMED TRIBUTARY TO PITHLACH |
| FLR05B179 | CROSSROADS SAWMILL & LUMBER | A | 0.0000 | Y | OUTFALL UNNAMED CYPRESS HEAD TO THE PITH |
| FLA012028 | BROOKRIDGE SUBREGIONAL WWTP | A | 0.7500 | N | MW-6 |
| FLA012043 | SPRING HILL WRF | A | 2.5000 | N | TP-1 |
| FLA012060 | BERKELEY MANOR WWTP | A | 0.7500 | N | MONITOR WELL B-#4 (PLUGGED) |
| FLA012069 | GLEN LAKES SUBREGIONAL WWTP | A | 1.0000 | N | Compliance monitoring well located at th |
| FL0040746 | DEER PARK SUBREGIONAL WWTF | A | 1.2000 | Y | Compliance well for Timber Greens Develo |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | TON-1 @ TIMBER OAKS NORTH RIB |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | MWC-8 COMPLIANCE |
| FLA012773 | PALM TERRACE GARDENS | A | 0.1300 | N | formerly MW-EN1WS |
| FL0027651 | OLDSMAR CITY OF | A | 2.2500 | Y | EFA01 - AFTER DISINFECTION AND PRIOR TO |
| FLA012024 | WEEKI WACHEE WWTP | A | 0.2500 | N | MONITOR WELL #4 |
| FLA012024 | WEEKI WACHEE WWTP | A | 0.2500 | N | MONITOR WELL #2 |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FLA012024 | WEEKI WACHEE WWTP | A | 0.2500 | N | MONITOR WELL #5 |
| FLA012024 | WEEKI WACHEE WWTP | A | 0.2500 | N | MONITOR WELL #1 |
| FLA012024 | WEEKI WACHEE WWTP | A | 0.2500 | N | MONITOR WELL #3F |
| FLA012024 | WEEKI WACHEE WWTP | A | 0.2500 | N | MONITOR WELL #4F |
| FLA012024 | WEEKI WACHEE WWTP | A | 0.2500 | N | MONITOR WELL #3 |
| FLA012024 | WEEKI WACHEE WWTP | A | 0.2500 | N | AFTER DISINFECTION, AND PRIOR TO DISCHAR |
| FLA012028 | BROOKRIDGE SUBREGIONAL WWTP | A | 0.7500 | N | AFTER DISINFECTION, AND PRIOR TO DISCHAR |
| FLA012028 | BROOKRIDGE SUBREGIONAL WWTP | A | 0.7500 | N | MW-4 (EXPANSION) |
| FLA012028 | BROOKRIDGE SUBREGIONAL WWTP | A | 0.7500 | N | MW-1 (EXPANSION) |
| FLA012028 | BROOKRIDGE SUBREGIONAL WWTP | A | 0.7500 | N | MONITOR WELL #3 |
| FLA012028 | BROOKRIDGE SUBREGIONAL WWTP | A | 0.7500 | N | MONITOR WELL #1A |
| FLA012028 | BROOKRIDGE SUBREGIONAL WWTP | A | 0.7500 | N | MW-2 (EXPANSION) |
| FLA012028 | BROOKRIDGE SUBREGIONAL WWTP | A | 0.7500 | N | MW-3 (EXPANSION) |
| FLA012028 | BROOKRIDGE SUBREGIONAL WWTP | A | 0.7500 | N | MONITOR WELL #2 |
| FLA012028 | BROOKRIDGE SUBREGIONAL WWTP | A | 0.7500 | N | Land Application System (2 percolation/e |
| FLA012028 | BROOKRIDGE SUBREGIONAL WWTP | A | 0.7500 | N | MW-5 (EXPANSION) |
| FLA012030 | HERNANDO BEACH WWTP | A | 0.2500 | N | Monitor Well #4, compliance |
| FLA012030 | HERNANDO BEACH WWTP | A | 0.2500 | N | Monitor Well #3, compliance |
| FLA012030 | HERNANDO BEACH WWTP | A | 0.2500 | N | Monitor Well #1, compliance |
| FLA012030 | HERNANDO BEACH WWTP | A | 0.2500 | N | Monitor Well #2, complaince |
| FLA012030 | HERNANDO BEACH WWTP | A | 0.2500 | N | After disinfection, and prior to dischar |
| FLA012033 | VETERAN'S SCHOOL COMPLEX | A | 0.0500 | N | rapid rate pond system |
| FLA012036 | BROOKSVILLE CITY OF COBB ROAD WWTF | A | 1.6000 | N | EFA-01 AFTER DISINFECTION, AND PRIOR TO |
| FLA012038 | WEEKI WACHEE NORTH | A | 0.0260 | N | STP EFFLUENT |
| FLA012039 | CAMP E-HOW-KEE | A | 0.0075 | N | EFA-01 AFTER DISINFECTION, AND PRIOR TO |
| FLA012042 | CENTRAL POWER & LIME | A | 0.0060 | N | EFA-01 AFTER DISINFECTION, AND PRIOR TO |
| FLA012043 | SPRING HILL WRF | A | 2.5000 | N | TP-2 |
| FLA012043 | SPRING HILL WRF | A | 2.5000 | N | MW-5 |
| FLA012043 | SPRING HILL WRF | A | 2.5000 | N | TP-5 |
| FLA012043 | SPRING HILL WRF | A | 2.5000 | N | TP-3 |
| FLA017223 | HERNANDO AIRPORT SUBREGIONAL WWTF | A | 0.7500 | N | MW #3, RIBs |
| FLA017223 | HERNANDO AIRPORT SUBREGIONAL WWTF | A | 0.7500 | N | MW #4, RIBS |
| FLA017223 | HERNANDO AIRPORT SUBREGIONAL WWTF | A | 0.7500 | N | MW #2, RIBs |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FLA017223 | HERNANDO AIRPORT SUBREGIONAL WWTF | A | 0.7500 | N | MW #1 |
| FLG110581 | TARMAC/SOUTH ORANGE CONCRETE BATCH PLANT | A | 0.0180 | N | DISCHARGE TO POND |
| FLA012719 | SHADY HILLS ELEM SCH | A | 0.0100 | N | EFA01 - AFER DISINFECTION AND PRIOR TO D |
| FL0040746 | DEER PARK SUBREGIONAL WWTF | A | 1.2000 | Y | AR WEST (SURFACE WATERS) |
| FL0040746 | DEER PARK SUBREGIONAL WWTF | A | 1.2000 | Y | After disinfection and prior to discharg |
| FL0040746 | DEER PARK SUBREGIONAL WWTF | A | 1.2000 | Y | Effluent discharge Outfall to Deer Park |
| FL0040746 | DEER PARK SUBREGIONAL WWTF | A | 1.2000 | Y | MONITOR WELL DPMW-2 (Intermediate) |
| FL0040746 | DEER PARK SUBREGIONAL WWTF | A | 1.2000 | Y | Outfall from Deer Park Wetland Cell "C" |
| FL0040746 | DEER PARK SUBREGIONAL WWTF | A | 1.2000 | Y | MONITOR WELL SSMW-3 (Intermediate) |
| FL0040746 | DEER PARK SUBREGIONAL WWTF | A | 1.2000 | Y | MONITOR WELL DPMW-3 (Compliance) |
| FLA012732 | CYPRESS ELEMENTARY SCHOOL WWTP | A | 0.0100 | N | EFFLUENT FROM WWTP |
| FLA012733 | HUDSON SCHOOL COMPLEX WWTP | A | 0.0600 | N | R001 - 2 CELL PERC/EVAP POND SYSTEM |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | MONITOR WELL P-2R (PONDS-COMPLIANCE) |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | MONITOR WELL EXW-2 (FOX HOLLOW RIBs) |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | MONITOR WELL DMW-1 (FOX HOLLOW RIBs) |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | MONITOR WELL EXW-3A(FOX HOLLOW RIBs) |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | P-2RA (REPLACEMENT) |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | DMW-3R (REPLACEMENT WELL) FOX HOLLOW RI |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | BW-3A COMPLIANCE |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | MONITOR WELL EH-1 (Embassy Hills WWTP) |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | GCW-2 @ TIMBER OAKS GC-Floridan |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | TOE-2 @ TIMBER OAKS EAST RIB |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | BW-1 @ BEACON WOODS PLANT |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | MONITOR WELL EHN-3S (DENTON AVE RIBs) |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | MONITOR WELL EH-3 (EMBASSY HILLS WWTF) |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | TOE-1 @ TIMBER OAKS EAST RIB |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | TON-2 @ TIMBER OAKS NORTH RIB |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | GCW-3 @ TIMBER OAKS GC - Floridan |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | EXW-1A (REPLACES EXW-1) FOX HOLLOW RIBs |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | BWSI-2A @ BEACON WOODS GC |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | MONITOR WELL EH-2 (EMBASSY HILLS WWTF) |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | EXW-1 (PONDS) (PLUGGED) |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | MONITOR WELL DMW-4 (FOX HOLLOW RIBs) |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | EHN-7S DENTON AVE RIBs |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | MONITOR WELL EHN-1S (DENTON AVE RIBs) |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | TOE-3 @ TIMBER OAKS EAST RIB |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | BWSI-1 @ BEACON WOODS GC |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | MONITOR WELL EHN-4S (DENTON AVE RIBs) |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | P-5RA (NP-5),(REPLACEMENT) FOX HOLLOW RI |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | After disinfection, and prior to dischar |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | BWSI-4A @ BEACON WOODS GC |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | BW-2 @ BEACON WOODS PLANT |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | TON-3 @ TIMBER OAKS NORTH RIB |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | EHN-6F DENTON AVENUE PONDS |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | MONITOR WELL EHN-5F (DENTON AVE RIBs) |
| FLA012735 | EMBASSY HILLS | A | 3.5000 | N | GCW-4 @ TIMBER OAKS GC - Floridan |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | HD-10 (F) |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | HD-3 (S) |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | HD-7 (F) |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | HD-9 (F) |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | HD-6 (F) |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | Background well for Heritage Pines GC |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | Compliance well for Heritage Pines GC |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | HD-2 (S) |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | HD-4 (S) |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | HD-12F, Hudson RIBs |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | HD-11 (S) |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | Comliance well for Heritage Pines GC |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | HD-1 (S) |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | After disinfection,and prior to discharg |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | Intermediate Well for Heritage Pines GC |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | HD-5 (S) |
| FLA012738 | HUDSON SUBREGIONAL WWTF | A | 3.0000 | N | Compliance well for Heritage Pines GC |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | After disinfection and prior to discharg |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | DMW-2 COMPLIANCE/MWC |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | MWB-1 BACKGROUND |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | SH-5A |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | SH-3 |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | SH-2 |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | MWC-5 COMPLIANCE |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | SH-7 |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | MWI-4 INTERMEDIATE |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | DMW-1 BACKGROUND/MWB |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | SH-8 |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | DMW-2 |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | SH-4A |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | DMW-1 |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | MWI-7 INTERMEDIATE |
| FLA012741 | SHADY HILLS SUBREGIONAL WWTF | A | 2.0000 | N | MWI-2 INTERMEDIATE |
| FLA012043 | SPRING HILL WRF | A | 2.5000 | N | TP-4 |
| FLA012043 | SPRING HILL WRF | A | 2.5000 | N | TP-6 |
| FLA012043 | SPRING HILL WRF | A | 2.5000 | N | B-3A |
| FLA012044 | CAMP A WYLE | A | 0.0350 | N | After disinfection and prior to dichrge |
| FLA012048 | BIG TREE MOBILE HOME & RV VILLAGE | A | 0.0135 | N | Sampling point after disinfection and pr |
| FLA012054 | FRONTIER CAMPGROUND MHP | A | 0.0200 | N | after disinfection prior to land applica |
| FLA012059 | IMPERIAL ESTATES MHP | A | 0.0200 | N | 2 p/e ponds of 11,250 square feet total |
| FLA012060 | BERKELEY MANOR WWTP | A | 0.7500 | N | MONITOR WELL B-#2 (PLUGGED) |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FLA012060 | BERKELEY MANOR WWTP | A | 0.7500 | N | MONITOR WELL DW-5 |
| FLA012060 | BERKELEY MANOR WWTP | A | 0.7500 | N | MONITOR WELL DW-#1 |
| FLA012060 | BERKELEY MANOR WWTP | A | 0.7500 | N | MONITOR WELL DW-#4 (COMPLIANCE) |
| FLA012060 | BERKELEY MANOR WWTP | A | 0.7500 | N | MONITOR WELL B-#3 (PLUGGED) |
| FLA012060 | BERKELEY MANOR WWTP | A | 0.7500 | N | MONITOR WELL DW-#2 (COMPLIANCE) |
| FLA012060 | BERKELEY MANOR WWTP | A | 0.7500 | N | STP EFFLUENT |
| FLA012060 | BERKELEY MANOR WWTP | A | 0.7500 | N | MONITOR WELL SW-#4 (COMPLIANCE) |
| FLA012060 | BERKELEY MANOR WWTP | A | 0.7500 | N | MONITOR WELL B-#1 (PLUGGED) |
| FLA012060 | BERKELEY MANOR WWTP | A | 0.7500 | N | MONITOR WELL SW-#2 (COMPLIANCE) |
| FLA012060 | BERKELEY MANOR WWTP | A | 0.7500 | N | MONITOR WELL DW-#3 (COMPLIANCE) |
| FLA012060 | BERKELEY MANOR WWTP | A | 0.7500 | N | MONITOR WELL SW-#3 (COMPLIANCE) |
| FLA012065 | TOPICS R V PARK | A | 0.0250 | N | After disinfection and prior to discharg |
| FLA012066 | YOUTH CAMP CHURCH OF GOD PROPHECY | A | 0.0150 | N | EFA-01 AFTER DISINFECTION, AND PRIOR TO |
| FLA012069 | GLEN LAKES SUBREGIONAL WWTP | A | 1.0000 | N | Compliance monitoring well located at th |
| FLA012069 | GLEN LAKES SUBREGIONAL WWTP | A | 1.0000 | N | Compliance monitoring well located at th |
| FLA012069 | GLEN LAKES SUBREGIONAL WWTP | A | 1.0000 | N | Compliance monitoring well located at th |
| FLA012069 | GLEN LAKES SUBREGIONAL WWTP | A | 1.0000 | N | Compliance monitoring well located at th |
| FLA012069 | GLEN LAKES SUBREGIONAL WWTP | A | 1.0000 | N | Compliance monitoring well located at th |
| FLA012069 | GLEN LAKES SUBREGIONAL WWTP | A | 1.0000 | N | Background monitoring well located upgra |
| FLA012069 | GLEN LAKES SUBREGIONAL WWTP | A | 1.0000 | N | Well located downgradient from a polluti |
| FLA012069 | GLEN LAKES SUBREGIONAL WWTP | A | 1.0000 | N | Compliance monitoring well located at th |
| FLA012070 | HOLIDAY SPRINGS TRAVEL PARK | A | 0.0270 | N | R001 RAPID RATE REUSE SYSTEM |
| FLA012073 | FLORIDA CRUSHED STONE - GREGG MINE | A | 0.0000 | N | EMERGENCY SPILLWAY FROM POND # 7 |
| FLA012073 | FLORIDA CRUSHED STONE - GREGG MINE | A | 0.0000 | N | GROUNDWATER MONITORING WELL |
| FLA012073 | FLORIDA CRUSHED STONE - GREGG MINE | A | 0.0000 | N | EMERGENCY SPILLWAY FROM POND # 4 |
| FLA012081 | WITHLACOOCHEE RIVER ELECTRIC COOP | N | 0.0000 | N | DISCHARGE FROM OIL/WATER SEPARATOR |
| FLA012081 | WITHLACOOCHEE RIVER ELECTRIC COOP | N | 0.0000 | N | MONITOR WELL #1 (INTERMEDIATE) |
| FLA012081 | WITHLACOOCHEE RIVER ELECTRIC COOP | N | 0.0000 | N | MONITOR WELL #3 (BACKGROUND) |
| FLA012081 | WITHLACOOCHEE RIVER ELECTRIC COOP | N | 0.0000 | N | MONITOR WELL #2 |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FLA012084 | VULCAN/ICA DISTRIBUTION COMPANY | A | 0.0000 | N | OIL SEP & SEDIMENTATION TANK system |
| **Anclote River/Coastal Pinellas County Planning Unit** | | | | | |
| FLA012720 | CENTRAL PASCO COUNTY GOVT CENTER | A | 0.0800 | N | R001 Rapid Rate Reuse System |
| FLA012730 | ODESSA SUBREGIONAL WWTP | A | 0.3000 | N | OD - 7 COMPLIANCE MON WELL |
| FLA012749 | FLORIDA POWER CORP ANCLOTE #2 | A | 0.0050 | N | WELL # 6 |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MONITORING WELL NORTH |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | WELL-4. |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | POND-3A |
| FLA012852 | TURKO PACKING, INC | A | 0.0000 | N | Background Well No. 1 |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | BAYPINES VET HOS SCB-105 |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | BRODERICK PARK, PINELLAS PARK |
| FLA128821 | ST PETERSBURG NORTHWEST WWTP | A | 20.0000 | N | IW-1 (799) |
| FLA128856 | ST PETERSBURG NORTHEAST WWTP | A | 16.0000 | N | ST PETE NE MONITOR 4 (783) |
| FLA128953 | LEISURE LAKE TP | A | 0.0250 | N | After disinfection and prior to land app |
| FL0000477 | COCA COLA FOODS-MINUTE MAID FOOD SERVIC | A | 0.0000 | Y | Intermediate Well #2 |
| FL0020931 | NEW PORT RICHEY CITY OF WWTF | A | 7.5000 | Y | EFA-01 FINAL EFFLUENT SAMPLE POINT |
| FLA012749 | FLORIDA POWER CORP ANCLOTE #2 | A | 0.0050 | N | WELL # 7 |
| FLA012749 | FLORIDA POWER CORP ANCLOTE #2 | A | 0.0050 | N | Effluent sampling point after treatment |
| FLA012749 | FLORIDA POWER CORP ANCLOTE #2 | A | 0.0050 | N | WELL # 8 |
| FLA012749 | FLORIDA POWER CORP ANCLOTE #2 | A | 0.0050 | N | WELL # 5 |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MW-4B |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MW-4A |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | S-3 |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MW-6 |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MW-3 |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MS-5 |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | After disinfection and prior to the publ |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MONITOR WELL #2 WWTF |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MS-4 |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MW-1 |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MONITORING WELL SOUTH |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | S-2 |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MS-3A |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MS-3B |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MONITOR WELL #1 WWTF |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | S-1A |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MS-2 |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MS-1 |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MW-5 |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MONITOR WELL #3 WWTF |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | MW-2 |
| FLA012752 | SEVEN SPRINGS WWTF | A | 1.6000 | N | S-1B |
| FLA012779 | LAKE BAMBI MOBILE RANCH WWTP | A | 0.0075 | N | EFA-01-13913 After disinfection and prio |
| FLA012785 | OLSEN APARTMENTS WWTP | A | 0.0150 | N | Flow to one P/E pond |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | DISCHARGE 005 COOLING TOWER |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | DISCHARGE 001 CONDENSER |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | MONITORING WELL #1 |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | WELL-3. |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | MONITORING WELL #3 |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | MONITOR WELL #3 (INTERMEDIATE) |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | MONITOR WELL #4 (BACKGROUND) |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | POND-3A, 1-TIME ANALYSIS, PURGEABLES |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | POND-3B, 1-TIME ANALYSIS, PURGEABLES |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | WELL-1. |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | MONITORING WELL #4 |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | MW-4, ONE TIME-ANALYSIS, SURFICIAL |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | POND-1 |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | MONITOR WELL #6 (INTERMEDIATE) |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | DISCHARGE 002 CONDENSER |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | POND-1, 1-TIME ANALYSIS, PURGEABLES |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | (NEW) INTAKE CANAL |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | WELL # 1 |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | MONITOR WELL #1 (INTERMEDIATE) |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | POND-2 |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | MONITOR WELL #7 (INTERMEDIATE) |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | DISCHARGE 004 COMBINED PLANT |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | MONITIRIMG WELL #2 |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | WELL-5. |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | WELL-2. |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | MONITORING WELL #5 |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | POND 3 EFF POINT SAMPLE (QUARTERLY) |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | DISCHARGE 003 DILUTION PUMP |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | MONITOR WELL #2 (INTERMEDIATE) |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | MONITOR WELL #5 (INTERMEDIATE) |
| FLA012852 | TURKO PACKING, INC | A | 0.0000 | N | Groundwater monitor system |
| FLA012852 | TURKO PACKING, INC | A | 0.0000 | N | MONITOR WELL #2 (COMPLIANCE) |
| FLA012852 | TURKO PACKING, INC | A | 0.0000 | N | MW-4 (COMPLIANCE) |
| FLG110180 | KEYS CONCRETE INDUSTRIES, INC -ODESSA PL | A | 0.0000 | Y | KEYS CONCRETE MW-1 BACKGROUND |
| FLG110180 | KEYS CONCRETE INDUSTRIES, INC -ODESSA PL | A | 0.0000 | Y | KEYS CONCRETE MW-2 COMPLIANCE |
| FLG110180 | KEYS CONCRETE INDUSTRIES, INC -ODESSA PL | A | 0.0000 | Y | KEYS CONCRETE MW-3 COMPLIANCE |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | Effluent sampling loction at outfall D00 |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | A-3 MONITOR WELL UIC WELL |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | EM-1 MONITOR WELL (IW-E) UIC WELL |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | A-6 MONITOR WELL UIC WELL |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | SCB REUSE-MEMORIAL PARK CEMETARY SCB-102 |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | SCB REUSE-MEMORIAL PARK CEMETARY SCB-103 |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | C WELL |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | D WELL |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | LK SEMINOLE PARK SCB-107 |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | OS-1B MONITOR WELL (P/A) UC UIC WEL |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | HOWARTH PARK, PINELLAS PARK |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | SCB REUSE-MEMORIAL PARK CEMETARY SCB-101 |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | DM-1 MONITOR WELL (IW-D) UIC WELL |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | OS-2 MONITOR WELL, UC UIC WELL |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | OS-1 MONITOR WELL UC UIC WELL |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | CITY OF SOUTH PASADENA MW-1 |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | CITY OF SOUTH PASADENA MW-3 |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | BAYPINES VET HOS SCB-104 |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | BAYPINES VET HOS SCB-106 |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | GATEWAY CENTRE, PINELLAS PARK |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | 0S-3 MONITOR WELL UIC WELL |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | LK SEMINOLE PARK SCB-108 |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | MAINLAND GOLF COURSE, PINELLAS PARK |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | EFD-02 AFTER REAERATION STRUCTURE |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | CM-1 MONITOR WELL (IW-C) UIC WELL |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | E WELL |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | CITY OF SOUTH PASADENA MW-2 |
| FLR05D071 | THE MINUTE MAID COMPANY | A | 0.0000 | Y | OUTFALL TO ST. JOSEPH SOUND |
| FLR05D071 | THE MINUTE MAID COMPANY | A | 0.0000 | Y | OUTFALL TO ST.JOSEPH SOUND |
| FLR05E111 | HOMEPORT MARINA | A | 0.0000 | Y | OUTFALL TO ST JOSEPH SOUND |
| FLR05E205 | PINELLAS CAST STONE INC | A | 0.0000 | Y | OUTFALL KILLARNEY LAKE CANAL |
| FLR05E305 | USPS ST PETERSBURG VEHICLE MAINTENANCE F | A | 0.0000 | Y | OUTFALL CITY'S MUNICIPAL STORM WATER SYS |
| FLA012750 | HOLIDAY OAKS APARTMENTS WWTF | A | 0.0150 | N | EFA-01-13787 AFTER DISINFECTION AND PRIO |
| FL0002992 | FLORIDA POWER CORP ANCLOTE PLANT | A | 0.0000 | Y | POND-2, 1-TIME ANALYSIS, PURGEABLES |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | CITY HALL, IN PINELLAS PARK |
| FL0128775 | WILLIAM E DUNN WRF | A | 9.0000 | Y | Compliance monitoring well located at th |
| FL0021326 | DUNEDIN CITY OF MAINLAND | A | 6.0000 | Y | after disinfection and prior to the mast |
| FL0026603 | LARGO CITY OF | A | 15.0000 | Y | HMW-1 Highlands Park |
| FLA012905 | ON TOP OF THE WORLD WWTP | A | 0.6000 | N | MW-1 BACKGROUND MONITOR WELL |
| FLR05C455 | KOOL SEAL INC | A | 0.0000 | Y | OUTFALL TO LAKE SEMINOLE BY PASS CANAL |
| FLR05C397 | STARKEY RD AUTO PARTS | A | 0.0000 | Y | OUTFALL TO PINELLA CO DOT STARKEY RD DRA |
| FLR05C254 | ROADWAY EXPRESS INC (T713) | A | 0.0000 | Y | OUTFALL TO CROSS BAYOU |
| FLR05C254 | ROADWAY EXPRESS INC (T713) | A | 0.0000 | Y | OUTFALL TO CROSS BAYOU |
| FLR05B735 | SOUTH CROSS BAYOU WRF | A | 0.0000 | Y | OUTFALL TO JOE'S CREEK |
| FLR05B511 | HOWCO ENVIRONMENTAL SERVICES | A | 0.0000 | Y | OUTFALL CHILDS PARK CREEK |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FLR05B149 | ACME SPONGE & CHAMOIS CO INC | A | 0.0000 | Y | OUTFALL TO WETLAND WEST OF PROPERTY |
| FLR05B072 | METAL INDUSTRIES INC | A | 0.0000 | Y | OUTFALL TO ALLIGATOR CREEK |
| FLR05A996 | SUNCOAST PAVING INC | A | 0.0000 | Y | OUTFALL MEYERS COVE |
| FLR05A349 | STAMAS YACHT INC | A | 0.0000 | Y | outfall to tarpon bayou |
| FLR05A349 | STAMAS YACHT INC | A | 0.0000 | Y | outfall to tarpon bayou |
| FLR05A349 | STAMAS YACHT INC | A | 0.0000 | Y | outfall to tarpon bayou |
| FLR05A349 | STAMAS YACHT INC | A | 0.0000 | Y | outfall to tarpon bayou |
| FLR05A349 | STAMAS YACHT INC | A | 0.0000 | Y | outfall to tarpon bayou |
| FLR05A349 | STAMAS YACHT INC | A | 0.0000 | Y | outfall to tarpon bayou |
| FLR05A349 | STAMAS YACHT INC | A | 0.0000 | Y | outfall to tarpon bayou |
| FL0040436 | SOUTH CROSS BAYOU WRF | A | 33.0000 | Y | A-4 MONITOR WELL UIC WELL |
| FL0128775 | WILLIAM E DUNN WRF | A | 9.0000 | Y | Compliance monitoring well located at th |
| FL0128775 | WILLIAM E DUNN WRF | A | 9.0000 | Y | Compliance monitoring well located at th |
| FL0128775 | WILLIAM E DUNN WRF | A | 9.0000 | Y | After disinfection and prior to the publ |
| FL0128775 | WILLIAM E DUNN WRF | A | 9.0000 | Y | Compliance monitoring well located at th |
| FL0128775 | WILLIAM E DUNN WRF | A | 9.0000 | Y | Compliance monitoring well located at th |
| FL0128775 | WILLIAM E DUNN WRF | A | 9.0000 | Y | Background monitoring well located upgra |
| FL0128775 | WILLIAM E DUNN WRF | A | 9.0000 | Y | Compliance monitoring well located at th |
| FLA128813 | ST PETERSBURG MASTER URBAN REUSE SYSTEM | A | 67.8540 | N | MW-777A MONITOR WELL #777A |
| FLA128821 | ST PETERSBURG NORTHWEST WWTP | A | 20.0000 | N | IW-2 (797) |
| FLA128821 | ST PETERSBURG NORTHWEST WWTP | A | 20.0000 | N | After disinfection and prior to onsite s |
| FLA128821 | ST PETERSBURG NORTHWEST WWTP | A | 20.0000 | N | After filtration and prior to disinfecti |
| FLA128821 | ST PETERSBURG NORTHWEST WWTP | A | 20.0000 | N | MONITOR WELL M-1(330) (798) |
| FLA128856 | ST PETERSBURG NORTHEAST WWTP | A | 16.0000 | N | ST PETE NE INJECTION WELL #3 |
| FLA128856 | ST PETERSBURG NORTHEAST WWTP | A | 16.0000 | N | ST PETE NE INJECTION WELL #2 |
| FLA128856 | ST PETERSBURG NORTHEAST WWTP | A | 16.0000 | N | ST PETE NE MONITOR 3 (782) |
| FLA128856 | ST PETERSBURG NORTHEAST WWTP | A | 16.0000 | N | ST PETE NE MONITOR 2 (781) |
| FLA128856 | ST PETERSBURG NORTHEAST WWTP | A | 16.0000 | N | INJ EFFLUENT SAMPLE POINT FOR INJECTIO |
| FLA128856 | ST PETERSBURG NORTHEAST WWTP | A | 16.0000 | N | ST PETE NE MONITOR 5 (784) |
| FLA128856 | ST PETERSBURG NORTHEAST WWTP | A | 16.0000 | N | ST PETE NE INJECTION WELL #1 |
| FLA128856 | ST PETERSBURG NORTHEAST WWTP | A | 16.0000 | N | EFA FINAL EFFLUENT SAMPLE POINT FOR RE |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FL0020184 | BELLEAIR TOWN OF | A | 0.9000 | Y | MW-4 BELLEVIEW BILTMORE COUNTRY CLUB |
| FL0020184 | BELLEAIR TOWN OF | A | 0.9000 | Y | MW-6 BELLEAIR COUNTRY CLUB |
| FL0020184 | BELLEAIR TOWN OF | A | 0.9000 | Y | MW-5 BELLEAIR COUNTRY CLUB |
| FL0020184 | BELLEAIR TOWN OF | A | 0.9000 | Y | MW-3 BELLEVIEW BILTMORE COUNTRY CLUB |
| FL0020184 | BELLEAIR TOWN OF | A | 0.9000 | Y | MW-7 BELLEAIR COUNTRY CLUB |
| FL0020184 | BELLEAIR TOWN OF | A | 0.9000 | Y | MW-2 BELLEVIEW BILTMORE COUNTRY CLUB |
| FL0020184 | BELLEAIR TOWN OF | A | 0.9000 | Y | EFA01 - AFTER DISINFECTION AND PRIOR TO |
| FL0021326 | DUNEDIN CITY OF MAINLAND | A | 6.0000 | Y | DCC-4 |
| FL0021326 | DUNEDIN CITY OF MAINLAND | A | 6.0000 | Y | Public access reuse |
| FL0021326 | DUNEDIN CITY OF MAINLAND | A | 6.0000 | Y | DCC-1 |
| FL0021326 | DUNEDIN CITY OF MAINLAND | A | 6.0000 | Y | DCC-2 |
| FL0021326 | DUNEDIN CITY OF MAINLAND | A | 6.0000 | Y | DCC-3 |
| FL0021326 | DUNEDIN CITY OF MAINLAND | A | 6.0000 | Y | DCC-5 |
| FL0021857 | CLEARWATER CITY OF MARSHALL ST AWTTP | A | 10.0000 | Y | EFD FINAL EFFLUENT SAMPLE POINT DISCHAR |
| FL0026603 | LARGO CITY OF | A | 15.0000 | Y | LMGC-2 Largo Municipal GC |
| FL0026603 | LARGO CITY OF | A | 15.0000 | Y | EBCC-1 East Bay CC |
| FL0026603 | LARGO CITY OF | A | 15.0000 | Y | EBCC-3 East Bay CC |
| FL0026603 | LARGO CITY OF | A | 15.0000 | Y | LMGC-1 Largo Municipal GC |
| FL0026603 | LARGO CITY OF | A | 15.0000 | Y | HMW-2 Highlands Park |
| FL0026603 | LARGO CITY OF | A | 15.0000 | Y | EBCC-2 East Bay CC |
| FL0030406 | TARPON SPRINGS CITY OF | A | 4.0000 | Y | MW-2 COMPLIANCE MONITOR WELL |
| FL0030406 | TARPON SPRINGS CITY OF | A | 4.0000 | Y | MW-3 BACKGROUND MONITOR WELL |
| FL0030406 | TARPON SPRINGS CITY OF | A | 4.0000 | Y | MW-6 COMPLIANCE MONITOR WELL |
| FL0030406 | TARPON SPRINGS CITY OF | A | 4.0000 | Y | MW-1 COMPLIANCE MONITOR WELL |
| FL0030406 | TARPON SPRINGS CITY OF | A | 4.0000 | Y | EFA-1 FINAL EFFLUENT SAMPLE POINT CHAR |
| FL0030406 | TARPON SPRINGS CITY OF | A | 4.0000 | Y | DOO2 INTERMITTENT DISCHARGE |
| FL0030406 | TARPON SPRINGS CITY OF | A | 4.0000 | Y | MW-5 INTERMDIATE MONITOR WELL |
| FL0030406 | TARPON SPRINGS CITY OF | A | 4.0000 | Y | D001 SURFACE WATER DISCHARGE TO ANCLOTE |
| FL0030406 | TARPON SPRINGS CITY OF | A | 4.0000 | Y | MW-7 COMPLIANCE MONITOR WELL |
| FL0030406 | TARPON SPRINGS CITY OF | A | 4.0000 | Y | MW-4 BACKGROUND MONITOR WELL |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FLA012896 | TARPON GLEN MHP WWTF | A | 0.0250 | N | EFF-01 FINAL EFFLUENT SAMPLE POINT |
| FL0034789 | MID-COUNTY SERVICES INC (DYNA-FLOW) | A | 0.9000 | Y | Discharge of treated effluent to Curlew |
| FLA012903 | HOLIDAY INN TARPON SPRINGS | A | 0.0200 | N | After disinfection and prior to discharg |
| FLA012905 | ON TOP OF THE WORLD WWTP | A | 0.6000 | N | MW-4 INTERMEDIATE MONITORING WELL |
| FLA012906 | LINGER LONGER MHP | A | 0.0900 | N | EFF FINAL EFFLUENT SAMPLE POINT |
| FLG110184 | CEMEX, INC LARGO PLANT #2(F/K/A FLORIDA | A | 0.0000 | Y | BOILER BLODOWN (INFLUENT) |
| FLG110184 | CEMEX, INC LARGO PLANT #2(F/K/A FLORIDA | A | 0.0000 | Y | WASTEWATER (EFFLUENT) TREATED |
| FLG110184 | CEMEX, INC LARGO PLANT #2(F/K/A FLORIDA | A | 0.0000 | Y | DISCHARGE 001 |
| FLG110184 | CEMEX, INC LARGO PLANT #2(F/K/A FLORIDA | A | 0.0000 | Y | DAILY WASTEWATER (INFLUENT) |
| FLG110310 | CEMEX, INC -ST PETE PLANT(F/K/A FLORID | A | 0.0000 | Y | EFFLUENT TO POND |
| FL0000477 | COCA COLA FOODS-MINUTE MAID FOOD SERVIC | A | 0.0000 | Y | Compliance Well #3 |
| FL0000477 | COCA COLA FOODS-MINUTE MAID FOOD SERVIC | A | 0.0000 | Y | Intermediate Well #4 |
| FL0000477 | COCA COLA FOODS-MINUTE MAID FOOD SERVIC | A | 0.0000 | Y | Sampling Point |
| FL0000477 | COCA COLA FOODS-MINUTE MAID FOOD SERVIC | A | 0.0000 | Y | Submerged Outfall |
| FL0000477 | COCA COLA FOODS-MINUTE MAID FOOD SERVIC | A | 0.0000 | Y | Background Well #1 |
| FLG110174 | FLORIDA ROCK INDUSTRIES -ST PETE | A | 0.0000 | Y | OUTFALL 001 |
| FLA012928 | SUNCOAST PAVING, INC. | A | 0.0000 | N | MW-1B |
| FLG110070 | FLORIDA ROCK INDUSTRIES - OLDSMAR | A | 0.0000 | Y | OUTFALL 001 (DETENTION POND DISCHARGE) |
| FLA012941 | CALADESI ISLAND STATE PARK | A | 0.0050 | N | EFA-01 AFTER DISINFECTION AND PRIOR TO D |
| FLR05F373 | CLEARWATER AUTOMOTIVE | A | 0.0000 | Y | outfall to gulf of mexico |
| FLR05F373 | CLEARWATER AUTOMOTIVE | A | 0.0000 | Y | outfall to gulf of mexico |
| FLR05F410 | INDIAN SPRINGS MARINA | A | 0.0000 | Y | outfall to marina boat basin |
| FLR05F410 | INDIAN SPRINGS MARINA | A | 0.0000 | Y | outfall to marina boat basin |
| FLR05F486 | MARKER 1 MARINA | A | 0.0000 | Y | outfall to st joseph sound |
| FLR05F486 | MARKER 1 MARINA | A | 0.0000 | Y | outfall to st joseph sound |
| FLR05F600 | GREAT AMERICAN MARINE | A | 0.0000 | Y | Outfall Boca Ciega BAY |
| FLR05F632 | THE LANDING AT TARPON SPRINGS | A | 0.0000 | Y | OUTFALL DISCHARGE TO ANCLOTE RIVER |
| FL0041441 | VENICE EASTSIDE WWTP | A | 3.0000 | Y | KTMW-1 MONITOR WELL LOCATION KNIGHT'S TR |
| FL0041441 | VENICE EASTSIDE WWTP | A | 3.0000 | Y | EFD FINAL EFFLUENT SAMPLE POINT FOR DIS |
| FLR05C471 | MARSHALL ST WASTEWATER APCF | A | 0.0000 | Y | OUTFALL TO STEVENSON CREEK |
| FLR05E320 | LESTER'S AUTO SALVAGE | A | 0.0000 | Y | OUTFALL LAKE GRIFFIN |

| Facility ID | Name | Status | Design Capacity | NPDES | Discharge Description |
|---|---|---|---|---|---|
| FLA016778 | FLORIDA POWER CORPORATION-ANCLOTE (GW PE) | A | 0.0000 | N | Compliance monitoring well located at th |
| FLA016778 | FLORIDA POWER CORPORATION-ANCLOTE (GW PE) | A | 0.0000 | N | Compliance monitoring well located at th |
| FLA016778 | FLORIDA POWER CORPORATION-ANCLOTE (GW PE) | A | 0.0000 | N | Background monitoring well located upgra |
| FLA016778 | FLORIDA POWER CORPORATION-ANCLOTE (GW PE) | A | 0.0000 | N | Compliance monitoring well located at th |
| FLA186261 | CLEARWATER CITY OF MASTER URBAN REUSE | A | 40.0000 | N | MW-5 COMPL MON WELL |
| FLA186261 | CLEARWATER CITY OF MASTER URBAN REUSE | A | 40.0000 | N | MW-8 COMPL MON WELL |
| FLA186261 | CLEARWATER CITY OF MASTER URBAN REUSE | A | 40.0000 | N | MW-9 COMPL MON WELL |
| FLA186261 | CLEARWATER CITY OF MASTER URBAN REUSE | A | 40.0000 | N | MW-14 COMPL MON WELL |
| FL0040746 | DEER PARK SUBREGIONAL WWTF | A | 1.2000 | Y | MONITOR WELL SSMW-6 (COMPLIANCE WELL) |
| FL0040746 | DEER PARK SUBREGIONAL WWTF | A | 1.2000 | Y | DPMW-1B (Background Well) |
| FL0040746 | DEER PARK SUBREGIONAL WWTF | A | 1.2000 | Y | MONITOR WELL SSMW-1 (Background) |
| FL0040746 | DEER PARK SUBREGIONAL WWTF | A | 1.2000 | Y | MONITOR WELL SSMW-2 (GOLF COURSE)-DRY!! |
| FL0040746 | DEER PARK SUBREGIONAL WWTF | A | 1.2000 | Y | INTERMEDIATE WELL SSMW-5 |
| FLA012725 | LAND-O-LAKES HIGH SCH | P | 0.0200 | N | STP EFFLUENT |
| FLA012730 | ODESSA SUBREGIONAL WWTP | A | 0.3000 | N | OD - 6 COMPLIANCE MON WELL |
| FLA012730 | ODESSA SUBREGIONAL WWTP | A | 0.3000 | N | OD - 5 COMPLIANCE MON WELL |
| FLA012730 | ODESSA SUBREGIONAL WWTP | A | 0.3000 | N | OD - 1 INTERMEDIATE MON WELL |
| FLA012730 | ODESSA SUBREGIONAL WWTP | A | 0.3000 | N | OD - 3 INTERMEDIATE MON WELL |
| FLA012730 | ODESSA SUBREGIONAL WWTP | A | 0.3000 | N | OD - 2 COMPLIANCE MON WELL |
| FLA013455 | CENTRAL COUNTY WRF | A | 4.0000 | N | INF- AT HEADWORKS PRIOR TO TREATMENT AND |
| FLA011038 | LA CASA DEL SOL WWTP | A | 0.0400 | N | ELAPSED TIME METERS ON INFLUENT LIFT STA |

**Table E.2: Superfund Sites, by Planning Unit**

| Name | Program | Status | Operation |
|---|---|---|---|
| **Anclote River/Coastal Pinellas County Planning Unit** | | | |
| Alaric, Inc. (aka, Concrete Equipment & Supply) | State funded | Delisted | Plastics recycling |

**Table E.3: Permitted Landfill Facilities, by planning unit**

| ID | Name | Status | Facility Type | Class |
|---|---|---|---|---|
| **Crystal River/Kings Bay Planning Unit** | | | | |
| 40459 | CITRUS SAND & DEBRIS | Active | SOLID WASTE | C&D |
| 39904 | CRYSTAL RIVER LF | Closed, monitored | SOLID WASTE | II |
| **Homosassa River Planning Unit** | | | | |
| 40118 | MATERIAL EXCHANGE CORP (C&D) | Active | SOLID WASTE | C&D |
| 39859 | CITRUS CENTRAL SLF | Active | SOLID WASTE | I |
| 40146 | MONIER RESOURCES FLY ASH LF (RIP, INC. MONEX LF) | Closed, monitored | SOLID WASTE | I |
| 39873 | HOMOSASSA SPRINGS DUMP | Closed, monitored | SOLID WASTE | II |
| 40150 | CITRON INVESTMENT GROUP C & D LF | Inactive | SOLID WASTE | C&D |
| **Chassahowitzka River Planning Unit** | | | | |
| 40063 | CITRUS SAND & DEBRIS II INC | Active | SOLID WASTE | C&D |
| 40722 | HERNANDO COUNTY NORTHWEST LF | Active | SOLID WASTE | I |
| 40777 | CEMEX CEMENT, INC. (F/K/A FM&M) | Closed, monitored | SOLID WASTE | II |
| **Middle Coastal Planning Unit** | | | | |
| 45798 | RIDGE RD LF (NEW PORT RICHEY LF) | Closed, monitored | SOLID WASTE | I |
| 46395 | COASTAL LANDFILL DISPOSAL INC(C&D) | Active | SOLID WASTE | C&D |
| 46661 | BOLTON RD C&D LF | Closed, monitored | SOLID WASTE | C&D |
| 45935 | PARKER & SONS LF (SCA SERVICES LF) | Closed, monitored | SOLID WASTE | II |
| 83627 | SUNSHINE GROVE ROAD C&D | Closed, monitored | SOLID WASTE | C&D |
| 46397 | TERESA LEE CLASS III LF | Closed, monitored | SOLID WASTE | III |
| 46396 | SUNSET SAND C & D DEBRIS DUMP | Closed, monitored | SOLID WASTE | C&D |
| 40741 | AIRPORT LF | Inactive | SOLID WASTE | II |
| 45934 | COMMUNITY DISPOSAL LF (WIMPY DUMP) | Closed, monitored | SOLID WASTE | II |
| 45931 | HATCHER'S LF (SUNSET LF AT HUDSON) | Closed, monitored | SOLID WASTE | II |
| 46394 | ASH-LEN CO. CONST/DEMOL DEBRIS DUMP | Active | SOLID WASTE | C&D |
| 45920 | WEST PASCO CLASS III LF | Active | SOLID WASTE | III |
| 45937 | ENVIR. WASTE CONTROL (MARQUIS SLF) | Closed, monitored | SOLID WASTE | I |
| 46390 | CITY & COUNTY LF (PRAHASKY DUMP) | Closed, monitored | SOLID WASTE | II |
| 40924 | SUNSHINE GROVE RD PHASE I (C & D) | Active | SOLID WASTE | C&D |
| **Anclote River/Coastal Pinellas County Planning Unit** | | | | |
| 47037 | CITY OF LARGO SLF | Closed, monitored | SOLID WASTE | I |
| 47315 | PIERCE LF | Closed, monitored | SOLID WASTE | III |
| 49646 | SANIFILL OF FLORIDA (C&D) | Closed, monitored | SOLID WASTE | C&D |
| 47035 | CITY OF TARPON SPRINGS LF | Closed, monitored | SOLID WASTE | III |

**Notes:**

[1] C&D – construction and demolition debris

# *Appendix F: Integrated Assessment (Master List) for the Springs Coast Basin*

**Table F.1: Integrated Assessment (Master List), by Planning Unit**

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1339 | DIRECT RUNOFF TO GULF | ESTUARY | 2 | | | No Data | 3a | | | |
| 1341 | CRYSTAL RIVER | STREAM | 2 | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | VP = 2 / 2 |
| 1341 | CRYSTAL RIVER | STREAM | 2 | | Coliform (Total Coliform) | Insufficient Data | 3b | | | VP = 2 / 2 |
| 1341 | CRYSTAL RIVER | STREAM | 2 | | Dissolved Oxygen | Not impaired | 2 | | | PP = 5 / 72; VP = 1 / 49 |
| 1341 | CRYSTAL RIVER | STREAM | 2 | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 2 |
| 1341 | CRYSTAL RIVER | STREAM | 2 | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1341 | CRYSTAL RIVER | STREAM | 2 | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1341 | CRYSTAL RIVER | STREAM | 2 | | pH | Insufficient Data | 3b | | | VP = 0 / 3 |
| 1341 | CRYSTAL RIVER | STREAM | 2 | | Turbidity | Insufficient Data | 3b | | | VP = 0 / 2 |
| 1341B | CEDAR COVE SPRING | SPRING | 3F | | | No Data | 3a | | | |
| 1341C | HUNTERS BAY SPRING | SPRING | 3F | | Cadmium | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 5 |
| 1341C | HUNTERS BAY SPRING | SPRING | 3F | | Chromium3 | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 5 |
| 1341C | HUNTERS BAY SPRING | SPRING | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 9; VP = 0 / 11 |
| 1341C | HUNTERS BAY SPRING | SPRING | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 8; VP = 0 / 10 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1341C | HUNTERS BAY SPRING | SPRING | 3F | | Conductance | Not impaired | 2 | | | PP = 0 / 30; VP = 0 / 22 |
| 1341C | HUNTERS BAY SPRING | SPRING | 3F | | Dissolved Oxygen | Planning List | 3c | | | PP = 6 / 13; VP = 6 / 14 |
| 1341C | HUNTERS BAY SPRING | SPRING | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 8; VP = 0 / 10 |
| 1341C | HUNTERS BAY SPRING | SPRING | 3F | | Iron | Insufficient Data | 3b | | | PP = No data; VP = 0 / 5 |
| 1341C | HUNTERS BAY SPRING | SPRING | 3F | | Nickel | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 5 |
| 1341C | HUNTERS BAY SPRING | SPRING | 3F | | pH | Not impaired | 2 | | | PP = 0 / 29; VP = 0 / 21 |
| 1341C | HUNTERS BAY SPRING | SPRING | 3F | | Radium | Insufficient Data | 3b | | | PP = No data; VP = 0 / 1 |
| 1341C | HUNTERS BAY SPRING | SPRING | 3F | | Selenium | Insufficient Data | 3b | | | PP = No data; VP = 0 / 2 |
| 1341C | HUNTERS BAY SPRING | SPRING | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 18; VP = 0 / 22 |
| 1341C | HUNTERS BAY SPRING | SPRING | 3F | | Zinc | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 5 |
| 1341D | AMERICAN LEGION SPRING | SPRING | 3F | | | No Data | 3a | | | |
| 1341E | CRYSTAL SPRING | SPRING | 3F | | | No Data | 3a | | | |
| 1341F | IDIOTS DELIGHT SPRING | SPRING | 3F | | Conductance | Not impaired | 2 | | | PP = 0 / 13; VP = 0 / 4 |
| 1341F | IDIOTS DELIGHT SPRING | SPRING | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 1 / 1; VP = 1 / 1 |
| 1341F | IDIOTS DELIGHT SPRING | SPRING | 3F | | pH | Not impaired | 2 | | | PP = 0 / 12; VP = 0 / 4 |
| 1341F | IDIOTS DELIGHT SPRING | SPRING | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 4 |
| 1341G | TARPON SPRING | SPRING | 3F | | Alkalinity | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1341G | TARPON SPRING | SPRING | 3F | | Arsenic | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 5 |
| 1341G | TARPON SPRING | SPRING | 3F | | Cadmium | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 5 |
| 1341G | TARPON SPRING | SPRING | 3F | | Chromium3 | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 5 |
| 1341G | TARPON SPRING | SPRING | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 9; VP = 0 / 11 |
| 1341G | TARPON SPRING | SPRING | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 8; VP = 0 / 10 |
| 1341G | TARPON SPRING | SPRING | 3F | | Conductance | Planning List | 3c | | | PP = 33 / 38; VP = 21 / 22 |
| 1341G | TARPON SPRING | SPRING | 3F | | Copper | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 5 |
| 1341G | TARPON SPRING | SPRING | 3F | | Dissolved Oxygen | Planning List | 3c | | | PP = 12 / 12; VP = 13 / 13 |
| 1341G | TARPON SPRING | SPRING | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 8; VP = 0 / 10 |
| 1341G | TARPON SPRING | SPRING | 3F | | Iron | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 5 |
| 1341G | TARPON SPRING | SPRING | 3F | | Lead | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 5 |
| 1341G | TARPON SPRING | SPRING | 3F | | Nickel | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 5 |
| 1341G | TARPON SPRING | SPRING | 3F | | pH | Not impaired | 2 | | | PP = 0 / 35; VP = 0 / 21 |
| 1341G | TARPON SPRING | SPRING | 3F | | Radium | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1341G | TARPON SPRING | SPRING | 3F | | Selenium | Insufficient Data | 3b | | | VP = 0 / 2 |
| 1341G | TARPON SPRING | SPRING | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 36; VP = 0 / 22 |
| 1341G | TARPON SPRING | SPRING | 3F | | Zinc | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 5 |
| 1341H | CRESCENT DRIVE SPRING | SPRING | 3F | | | No Data | 3a | | | |
| 1341I | CRYSTAL RIVER | ESTUARY | 3M | | Aluminum | Insufficient Data | 3b | | | PP = 0 / 1; |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1341I | CRYSTAL RIVER | ESTUARY | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 2 / 211; VP = 1 / 51 |
| 1341I | CRYSTAL RIVER | ESTUARY | 3M | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 6; VP = 0 / 6 |
| 1341I | CRYSTAL RIVER | ESTUARY | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 14 / 271; VP = 1 / 96 |
| 1341I | CRYSTAL RIVER | ESTUARY | 3M | | Fluoride | Not impaired | 2 | | | PP = 0 / 12; VP = 0 / 6 |
| 1341I | CRYSTAL RIVER | ESTUARY | 3M | | Iron | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1341I | CRYSTAL RIVER | ESTUARY | 3M | Nutrients | Nutrients (chla) | Not impaired | 2 | | | Delist. PP = 17 Chl(a) samples, range 1.0 - 20.4 ug/l. VP = 25 Chl(a) samples, range 1.0 - 20.4 ug/l, annual mean minimum = 3.583 ug/l, annual mean maximum = 4.55 ug/l. Chl(a) mean value = 2.33 ug/l. This water was nominated by the SWFWMD. It is a SWIM waterbody. The SWFWMD has established an interim PLRG holding the line on nutrients. |
| 1341I | CRYSTAL RIVER | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1341I | CRYSTAL RIVER | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 12 / 179; VP = 1 / 54 |
| 1341I | CRYSTAL RIVER | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 162; VP = 0 / 42 |
| 1345 | HOMOSASSA RIVER | STREAM | 3F | | Alkalinity | Not impaired | 2 | | | PP = 0 / 39; |
| 1345 | HOMOSASSA RIVER | STREAM | 3F | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 3 / 54; |
| 1345 | HOMOSASSA RIVER | STREAM | 3F | | Coliform (Total Coliform) | Not impaired | 2 | | | PP = 1 / 20; |
| 1345 | HOMOSASSA RIVER | STREAM | 3F | | Conductance | Planning List | 3c | | | PP = 59 / 63; |
| 1345 | HOMOSASSA RIVER | STREAM | 3F | | Dissolved Oxygen | Not impaired | 2 | | | PP = 39 / 132; VP = 5 / 45 |
| 1345 | HOMOSASSA RIVER | STREAM | 3F | | Fluoride | Not impaired | 2 | | | PP = 0 / 45; |
| 1345 | HOMOSASSA RIVER | STREAM | 3F | | Iron | Planning List | 3c | | | PP = 4 / 6; |
| 1345 | HOMOSASSA RIVER | STREAM | 3F | | Nutrients (chla) | Impaired | 3d | | | PP = Potentially impaired; VP = Potentially impaired |
| 1345 | HOMOSASSA RIVER | STREAM | 3F | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1345 | HOMOSASSA RIVER | STREAM | 3F | | pH | Not impaired | 2 | | | PP = 0 / 65; |
| 1345 | HOMOSASSA RIVER | STREAM | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 64; |
| 1345 | HOMOSASSA RIVER | STREAM | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 0 / 57; |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 0 / 1713; VP = 0 / 416 SWIM Waterbody. Segment was placed on 1998 303(d) list based on biological sampling. |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 70 / 1698; VP = 30 / 546 SWIM Waterbody. Segment was placed on 1998 303(d) list based on biological sampling. |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired. SWIM Waterbody. Segment was placed on 1998 303(d) list based on biological sampling. |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired. SWIM Waterbody. Segment was placed on 1998 303(d) list based on biological sampling. |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 13 / 1258; VP = 0 / 397 SWIM Waterbody. Segment was placed on 1998 303(d) list based on biological sampling. |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 1107; VP = 0 / 303 SWIM Waterbody. Segment was placed on 1998 303(d) list based on biological sampling. |
| 1345B | HOMOSASSA RIVER | STREAM | 3F | | | No Data | 3a | | | |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | 1122Tetrachloroethane | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Alkalinity | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 3 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Arsenic | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 15 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Biology | Planning List | 3c | | | |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Bromoform | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Cadmium | Not impaired | 2 | | | PP = 0 / 16; VP = 0 / 15 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Carbon Tetrachloride | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Chloroform | Insufficient Data | 3b | | | PP = 0 / 1; |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Chromium3 | Not impaired | 2 | | | PP = 0 / 16; VP = 0 / 15 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 0 / 27; VP = 0 / 33 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Coliform (Total Coliform) | Not impaired | 2 | | | PP = 0 / 24; VP = 0 / 30 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Conductance | Planning List | 3c | | | PP = 106 / 119; VP = 64 / 66 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Copper | Not impaired | 2 | | | PP = 0 / 16; VP = 0 / 15 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Dichloroethylene | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Dissolved Oxygen | Impaired | 3d | | | PP = 37 / 39; VP = 40 / 42 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Fluoride | Not impaired | 2 | | | PP = 0 / 27; VP = 0 / 30 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Iron | Not impaired | 2 | | | PP = 2 / 16; VP = 2 / 15 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Lead | Not impaired | 2 | | | PP = 0 / 16; VP = 0 / 15 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Methyl Chloride | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Methylene Chloride | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Nickel | Not impaired | 2 | | | PP = 0 / 16; VP = 0 / 15 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | pH | Not impaired | 2 | | | PP = 0 / 112; VP = 0 / 66 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Radium | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 3 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Selenium | Insufficient Data | 3b | | | VP = 0 / 6 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Tetrachloroethylene | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Trichlorethylene | Insufficient Data | 3b | | | PP = 0 / 1; |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 109; VP = 0 / 66 |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1345D | HOMOSASSA SPRING | SPRING | 3F | | Zinc | Not impaired | 2 | | | PP = 0 / 16; VP = 0 / 15 |
| 1345E | MORRISON POND | LAKE | 3F | | | No Data | 3a | | | |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 3F | | Alkalinity | Insufficient Data | 3b | | | PP = 0 / 8; |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 3F | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 0 / 14; |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 3F | | Conductance | Planning List | 3c | | | PP = 19 / 21; |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 3F | | Dissolved Oxygen | Impaired | 3d | | | PP = 50 / 153; VP = 25 / 91 |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 3F | | Fluoride | Not impaired | 2 | | | PP = 0 / 14; |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 3F | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 3F | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 3F | | pH | Not impaired | 2 | | | PP = 0 / 13; |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 12; |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 0 / 10; |
| 1348B | BLIND CREEK | STREAM | 3F | | | No Data | 3a | | | |
| 1348C | CRAWFORD CREEK | STREAM | 3F | | | No Data | 3a | | | |
| 1348D | BAIRD CREEK | STREAM | 3F | | Alkalinity | Insufficient Data | 3b | | | PP = 0 / 5; |
| 1348D | BAIRD CREEK | STREAM | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 1 / 7; |
| 1348D | BAIRD CREEK | STREAM | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 1 / 7; |
| 1348D | BAIRD CREEK | STREAM | 3F | | Conductance | Planning List | 3c | | | PP = 7 / 7; |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1348D | BAIRD CREEK | STREAM | 3F | | Dissolved Oxygen | Not impaired | 2 | | | PP = 4 / 73; VP = 1 / 47 |
| 1348D | BAIRD CREEK | STREAM | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 3; |
| 1348D | BAIRD CREEK | STREAM | 3F | | Iron | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1348D | BAIRD CREEK | STREAM | 3F | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1348D | BAIRD CREEK | STREAM | 3F | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1348D | BAIRD CREEK | STREAM | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 7; |
| 1348D | BAIRD CREEK | STREAM | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 7; |
| 1348D | BAIRD CREEK | STREAM | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 7; |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Alkalinity | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Arsenic | Insufficient Data | 3b | | | VP = 0 / 10 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Cadmium | Insufficient Data | 3b | | | PP = 0 / 10; VP = 0 / 10 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Chromium3 | Insufficient Data | 3b | | | PP = 0 / 10; VP = 0 / 10 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 0 / 18; VP = 0 / 22 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Coliform (Total Coliform) | Not impaired | 2 | | | PP = 0 / 17; VP = 0 / 20 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Conductance | Planning List | 3c | | | PP = 35 / 78; VP = 23 / 44 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Copper | Insufficient Data | 3b | | | PP = 0 / 10; VP = 0 / 10 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Dissolved Oxygen | Impaired | 3d | | | PP = 23 / 26; VP = 25 / 28 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Fluoride | Not impaired | 2 | | | PP = 0 / 18; VP = 0 / 20 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Iron | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 10 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Lead | Insufficient Data | 3b | | | PP = 0 / 10; VP = 0 / 10 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Nickel | Insufficient Data | 3b | | | PP = 0 / 10; VP = 0 / 10 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | pH | Not impaired | 2 | | | PP = 0 / 74; VP = 0 / 41 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Radium | Insufficient Data | 3b | | | VP = 0 / 2 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Selenium | Insufficient Data | 3b | | | VP = 0 / 2 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 56; VP = 0 / 44 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 3F | | Zinc | Insufficient Data | 3b | | | PP = 0 / 10; VP = 0 / 10 |
| 1361 | WEEKIWACHEE RIVER | STREAM | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1361 | WEEKIWACHEE RIVER | STREAM | 3F | | Conductance | Insufficient Data | 3b | | | PP = 1 / 1; VP = 1 / 1 |
| 1361 | WEEKIWACHEE RIVER | STREAM | 3F | | Dissolved Oxygen | Impaired | 3d | | | PP = 41 / 198; VP = 38 / 142 |
| 1361 | WEEKIWACHEE RIVER | STREAM | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1361 | WEEKIWACHEE RIVER | STREAM | 3F | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1361 | WEEKIWACHEE RIVER | STREAM | 3F | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1361 | WEEKIWACHEE RIVER | STREAM | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1361 | WEEKIWACHEE RIVER | STREAM | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1361A | SKINNER LAKE - OPEN WA | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1361A | SKINNER LAKE - OPEN WA | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1361A | SKINNER LAKE - OPEN WA | LAKE | 3F | | Conductance | Not impaired | 2 | | | PP = 0 / 11; VP = 0 / 1 |
| 1361A | SKINNER LAKE - OPEN WA | LAKE | 3F | | Dissolved Oxygen | Not impaired | 2 | | | PP = 2 / 11; VP = 1 / 1 |
| 1361A | SKINNER LAKE - OPEN WA | LAKE | 3F | | Iron | Planning List | 3c | | | PP = 10 / 11; VP = 0 / 1 |
| 1361A | SKINNER LAKE - OPEN WA | LAKE | 3F | | Nutrients (chla) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1361A | SKINNER LAKE - OPEN WA | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1361A | SKINNER LAKE - OPEN WA | LAKE | 3F | | pH | Planning List | 3c | | | PP = 4 / 11; VP = 0 / 1 |
| 1361A | SKINNER LAKE - OPEN WA | LAKE | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 11; VP = 0 / 1 |
| 1361A | SKINNER LAKE - OPEN WA | LAKE | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 0 / 10; |
| 1364 | LIZZIE HEART SINK | LAKE | 3F | | | No Data | 3a | | | |
| 1364A | LIZZIE HEART SINK DRAIN | LAKE | 3F | | | No Data | 3a | | | |
| 1373 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | | | No Data | 3a | | | |
| 1380 | INTERNALLY DRAINED | STREAM | 3F | | | No Data | 3a | | | |
| 1382 | WEEKIWATCHEE RIVER | ESTUARY | 3M | | | No Data | 3a | | | |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 3F | | Alkalinity | Planning List | 3c | | | PP = 13 / 33; |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 3F | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 8 / 94; VP = 7 / 64 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 3F | | Coliform (Total Coliform) | Not impaired | 2 | | | PP = 3 / 51; VP = 3 / 29 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 3F | | Conductance | Not impaired | 2 | | | PP = 5 / 159; VP = 4 / 101 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1382A | WEEKIWATCHEE RIVER | STREAM | 3F | | Dissolved Oxygen | Impaired | 3d | | | PP = 47 / 286; VP = 30 / 193 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 3F | | Fluoride | Not impaired | 2 | | | PP = 0 / 76; VP = 0 / 96 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 3F | | Iron | Planning List | 3c | | | PP = 12 / 17; VP = 0 / 5 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 3F | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 3F | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 3F | | pH | Not impaired | 2 | | | PP = 9 / 160; VP = 0 / 101 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 147; VP = 0 / 98 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 0 / 54; |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | 1122Tetrachloroethane | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Alkalinity | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Arsenic | Insufficient Data | 3b | | | VP = 0 / 5 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Bromoform | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Cadmium | Insufficient Data | 3b | | | PP = 0 / 6; VP = 0 / 5 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Carbon Tetrachloride | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Chloroform | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Chromium3 | Insufficient Data | 3b | | | PP = 0 / 6; VP = 0 / 5 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 9; VP = 0 / 11 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 8; VP = 0 / 10 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Conductance | Not impaired | 2 | | | PP = 0 / 73; VP = 0 / 27 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Copper | Insufficient Data | 3b | | | PP = 0 / 6; VP = 0 / 5 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Dichloroethylene | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Dissolved Oxygen | Impaired | 3d | | | PP = 104 / 109; VP = 64 / 64 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 9; VP = 0 / 10 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Iron | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 5 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Lead | Insufficient Data | 3b | | | PP = 0 / 6; VP = 0 / 5 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Methyl Chloride | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Methylene Chloride | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Nickel | Insufficient Data | 3b | | | PP = 0 / 6; VP = 0 / 5 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | pH | Not impaired | 2 | | | PP = 0 / 70; VP = 0 / 27 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Radium | Insufficient Data | 3b | | | VP = 0 / 1 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Selenium | Insufficient Data | 3b | | | VP = 0 / 2 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Tetrachloroethylene | Insufficient Data | 3b | | | PP = 0 / 1; |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Trichlorethylene | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 24; VP = 0 / 22 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 3F | | Zinc | Insufficient Data | 3b | | | PP = 0 / 6; VP = 0 / 5 |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 3F | | Alkalinity | Planning List | 3c | | | PP = 4 / 4; VP = 3 / 3 |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 3F | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 4 / 63; VP = 4 / 63 |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 3F | | Coliform (Total Coliform) | Not impaired | 2 | | | PP = 0 / 34; VP = 0 / 30 |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 3F | | Conductance | Not impaired | 2 | | | PP = 0 / 66; VP = 0 / 65 |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 3F | | Dissolved Oxygen | Not impaired | 2 | | | PP = 0 / 67; VP = 0 / 65 |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 3F | | Fluoride | Not impaired | 2 | | | PP = 0 / 28; VP = 0 / 63 |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 2; |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 3F | | Nutrients (Historic TSI) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 3F | | Nutrients (TSI) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 3F | | pH | Not impaired | 2 | | | PP = 0 / 67; VP = 0 / 65 |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 67; VP = 0 / 65 |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1382D | DOUBLE CYPRESS POND - | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1382D | DOUBLE CYPRESS POND - | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1382D | DOUBLE CYPRESS POND - | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 1 |
| 1382D | DOUBLE CYPRESS POND - | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 1 |
| 1382D | DOUBLE CYPRESS POND - | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 3; VP = 0 / 1 |
| 1382D | DOUBLE CYPRESS POND - | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1382D | DOUBLE CYPRESS POND - | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 1 |
| 1382D | DOUBLE CYPRESS POND - | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 1 / 3; VP = 0 / 1 |
| 1382E | HIGHLAND LAKE - OPEN W | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 1382E | HIGHLAND LAKE - OPEN W | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1382E | HIGHLAND LAKE - OPEN W | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1382E | HIGHLAND LAKE - OPEN W | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 2 / 4; VP = 2 / 2 |
| 1382E | HIGHLAND LAKE - OPEN W | LAKE | 3F | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 1 |
| 1382E | HIGHLAND LAKE - OPEN W | LAKE | 3F | | Iron | Planning List | 3c | | | PP = 3 / 4; VP = 0 / 1 |
| 1382E | HIGHLAND LAKE - OPEN W | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1382E | HIGHLAND LAKE - OPEN W | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 2 |
| 1382E | HIGHLAND LAKE - OPEN W | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 2 |
| 1384 | PECKS SINK | LAKE | 3F | | | No Data | 3a | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1384A | BONNETT POND - OPEN WA | LAKE | 3F | | Conductance | Not impaired | 2 | | | PP = 0 / 11; VP = 0 / 1 |
| 1384A | BONNETT POND - OPEN WA | LAKE | 3F | | Dissolved Oxygen | Not impaired | 2 | | | PP = 0 / 11; VP = 0 / 1 |
| 1384A | BONNETT POND - OPEN WA | LAKE | 3F | | Iron | Planning List | 3c | | | PP = 10 / 11; VP = 0 / 1 |
| 1384A | BONNETT POND - OPEN WA | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1384A | BONNETT POND - OPEN WA | LAKE | 3F | | pH | Not impaired | 2 | | | PP = 0 / 11; VP = 0 / 1 |
| 1384A | BONNETT POND - OPEN WA | LAKE | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 11; VP = 0 / 1 |
| 1384A | BONNETT POND - OPEN WA | LAKE | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 0 / 10; |
| 1387 | PECKS SINK OVERFLOW | STREAM | 3F | | | No Data | 3a | | | |
| 1389 | JENKINS SPRING | STREAM | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1389 | JENKINS SPRING | STREAM | 3F | | Conductance | Planning List | 3c | | | PP = 10 / 11; VP = 10 / 11 |
| 1389 | JENKINS SPRING | STREAM | 3F | | Dissolved Oxygen | Planning List | 3c | | | PP = 4 / 5; VP = 4 / 5 |
| 1389 | JENKINS SPRING | STREAM | 3F | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 1 |
| 1389 | JENKINS SPRING | STREAM | 3F | | Nutrients (chla) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1389 | JENKINS SPRING | STREAM | 3F | | pH | Not impaired | 2 | | | PP = 0 / 11; VP = 0 / 11 |
| 1389 | JENKINS SPRING | STREAM | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 10; VP = 0 / 11 |
| 1391 | HUNTER LAKE | LAKE | 3F | | Alkalinity | Not impaired | 2 | | | PP = 0 / 10; |
| 1391 | HUNTER LAKE | LAKE | 3F | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 1 / 14; VP = 1 / 3 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1391 | HUNTER LAKE | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 1 / 9; VP = 1 / 3 |
| 1391 | HUNTER LAKE | LAKE | 3F | | Conductance | Not impaired | 2 | | | PP = 0 / 33; VP = 0 / 4 |
| 1391 | HUNTER LAKE | LAKE | 3F | | Dissolved Oxygen | Not impaired | 2 | | | PP = 2 / 33; VP = 1 / 4 |
| 1391 | HUNTER LAKE | LAKE | 3F | | Fluoride | Not impaired | 2 | | | PP = 0 / 10; |
| 1391 | HUNTER LAKE | LAKE | 3F | | Iron | Planning List | 3c | | | PP = 13 / 15; VP = 1 / 3 |
| 1391 | HUNTER LAKE | LAKE | 3F | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 1391 | HUNTER LAKE | LAKE | 3F | | Nutrients (Historic TSI) | Not impaired | 2 | | | PP = Not impaired; VP = No Data |
| 1391 | HUNTER LAKE | LAKE | 3F | | Nutrients (TSI) | Not impaired | 2 | | | PP = Not impaired; VP = Insufficient data |
| 1391 | HUNTER LAKE | LAKE | 3F | | pH | Not impaired | 2 | | | PP = 1 / 33; VP = 0 / 4 |
| 1391 | HUNTER LAKE | LAKE | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 32; VP = 0 / 4 |
| 1391 | HUNTER LAKE | LAKE | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 0 / 26; |
| 1391A | HUNTER LAKE OUTLET | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 3 |
| 1391A | HUNTER LAKE OUTLET | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 3 |
| 1391A | HUNTER LAKE OUTLET | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 2 / 3; VP = 2 / 3 |
| 1391A | HUNTER LAKE OUTLET | LAKE | 3F | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 3 |
| 1391A | HUNTER LAKE OUTLET | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1391A | HUNTER LAKE OUTLET | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 1 / 3; VP = 1 / 3 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1391A | HUNTER LAKE OUTLET | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 3 |
| 1392 | CREWS LAKE | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 4 |
| 1392 | CREWS LAKE | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 4 |
| 1392 | CREWS LAKE | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 8; VP = 0 / 6 |
| 1392 | CREWS LAKE | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 6; VP = 0 / 4 |
| 1392 | CREWS LAKE | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 6; VP = 0 / 4 |
| 1392 | CREWS LAKE | LAKE | 3F | | Nutrients (TSI) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1392 | CREWS LAKE | LAKE | 3F | | Nutrients (TSI) | Not Impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1392 | CREWS LAKE | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 1 / 6; VP = 1 / 4 |
| 1392 | CREWS LAKE | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 6; VP = 0 / 4 |
| 1392 | CREWS LAKE | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1392A | LAKE IOLA | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 1 / 1; VP = 1 / 2 |
| 1392A | LAKE IOLA | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 1392A | LAKE IOLA | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1392A | LAKE IOLA | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 1 |
| 1392A | LAKE IOLA | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 2; VP = 0 / 2 |
| 1392A | LAKE IOLA | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1392A | LAKE IOLA | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1392A | LAKE IOLA | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1392A | LAKE IOLA | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1392A1 | CREWS LAKE OUTLET | LAKE | 3F | | | No Data | 3a | | | |
| 1392B | LAKE HANCOCK - OPEN WA | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 4 |
| 1392B | LAKE HANCOCK - OPEN WA | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 4 |
| 1392B | LAKE HANCOCK - OPEN WA | LAKE | 3F | | Conductance | Not impaired | 2 | | | PP = 0 / 16; VP = 0 / 4 |
| 1392B | LAKE HANCOCK - OPEN WA | LAKE | 3F | | Dissolved Oxygen | Not impaired | 2 | | | PP = 1 / 14; VP = 1 / 3 |
| 1392B | LAKE HANCOCK - OPEN WA | LAKE | 3F | | Iron | Planning List | 3c | | | PP = 13 / 15; VP = 1 / 4 |
| 1392B | LAKE HANCOCK - OPEN WA | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1392B | LAKE HANCOCK - OPEN WA | LAKE | 3F | | pH | Planning List | 3c | | | PP = 8 / 16; VP = 2 / 4 |
| 1392B | LAKE HANCOCK - OPEN WA | LAKE | 3F | | Turbidity | Not impaired | 2 | | | PP = 2 / 16; VP = 2 / 4 |
| 1392B | LAKE HANCOCK - OPEN WA | LAKE | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 1 / 12; |
| 1392C | MIDDLE LAKE - OPEN WAT | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 2 |
| 1392C | MIDDLE LAKE - OPEN WAT | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 1392C | MIDDLE LAKE - OPEN WAT | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1392C | MIDDLE LAKE - OPEN WAT | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1392C | MIDDLE LAKE - OPEN WAT | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 4; VP = 0 / 2 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1392C | MIDDLE LAKE - OPEN WAT | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1392C | MIDDLE LAKE - OPEN WAT | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 1 / 4; VP = 1 / 2 |
| 1392C | MIDDLE LAKE - OPEN WAT | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1392C | MIDDLE LAKE - OPEN WAT | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1392D | MOODY LAKE (WEST) - OP | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 2 |
| 1392D | MOODY LAKE (WEST) - OP | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 1392D | MOODY LAKE (WEST) - OP | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1392D | MOODY LAKE (WEST) - OP | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 1 |
| 1392D | MOODY LAKE (WEST) - OP | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 4; VP = 0 / 2 |
| 1392D | MOODY LAKE (WEST) - OP | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1392D | MOODY LAKE (WEST) - OP | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1392D | MOODY LAKE (WEST) - OP | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1392D | MOODY LAKE (WEST) - OP | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1392E | MOODY LAKE (EAST) - OP | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 3 |
| 1392E | MOODY LAKE (EAST) - OP | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 1392E | MOODY LAKE (EAST) - OP | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 3 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1392E | MOODY LAKE (EAST) - OP | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 2 / 3; VP = 1 / 2 |
| 1392E | MOODY LAKE (EAST) - OP | LAKE | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1392E | MOODY LAKE (EAST) - OP | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 4; VP = 0 / 2 |
| 1392E | MOODY LAKE (EAST) - OP | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1392E | MOODY LAKE (EAST) - OP | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 1 / 5; VP = 1 / 3 |
| 1392E | MOODY LAKE (EAST) - OP | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 3 |
| 1392E | MOODY LAKE (EAST) - OP | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1392F | JESSAMINE LAKE - OPEN | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 2 |
| 1392F | JESSAMINE LAKE - OPEN | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 1392F | JESSAMINE LAKE - OPEN | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 6; VP = 0 / 4 |
| 1392F | JESSAMINE LAKE - OPEN | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 1 / 4; VP = 0 / 2 |
| 1392F | JESSAMINE LAKE - OPEN | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 3; VP = 0 / 2 |
| 1392F | JESSAMINE LAKE - OPEN | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1392F | JESSAMINE LAKE - OPEN | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1392F | JESSAMINE LAKE - OPEN | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1392F | JESSAMINE LAKE - OPEN | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 1; |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1392Y | LAKE IOLA OUTLET | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1392Y | LAKE IOLA OUTLET | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1392Y | LAKE IOLA OUTLET | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 1 / 1; VP = 1 / 1 |
| 1392Y | LAKE IOLA OUTLET | LAKE | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1392Y | LAKE IOLA OUTLET | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1392Y | LAKE IOLA OUTLET | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1392Y | LAKE IOLA OUTLET | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1395 | INDIAN CREEK | STREAM | 3F | | | No Data | 3a | | | |
| 1397 | DIRECT RUNOFF TO GULF | STREAM | 3F | | | No Data | 3a | | | |
| 1400 | MAGNOLIA SPRING | SPRING | 3F | | | No Data | 3a | | | |
| 1401 | JUMPING GULLY | STREAM | 3F | | | No Data | 3a | | | |
| 1401A | LOYCE LAKE - OPEN WATE | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1401A | LOYCE LAKE - OPEN WATE | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1401A | LOYCE LAKE - OPEN WATE | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 1 |
| 1401A | LOYCE LAKE - OPEN WATE | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 1 / 3; VP = 0 / 1 |
| 1401A | LOYCE LAKE - OPEN WATE | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 3; VP = 0 / 1 |
| 1401A | LOYCE LAKE - OPEN WATE | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1401A | LOYCE LAKE - OPEN WATE | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 1 |
| 1401A | LOYCE LAKE - OPEN WATE | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 1 |
| 1407 | BUCKHORN CREEK | STREAM | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1407 | BUCKHORN CREEK | STREAM | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1407 | BUCKHORN CREEK | STREAM | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 1 / 1; VP = 1 / 1 |
| 1407 | BUCKHORN CREEK | STREAM | 3F | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 1 |
| 1407 | BUCKHORN CREEK | STREAM | 3F | | Nutrients (chla) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1407 | BUCKHORN CREEK | STREAM | 3F | | pH | Insufficient Data | 3b | | | PP = 1 / 1; VP = 1 / 1 |
| 1407 | BUCKHORN CREEK | STREAM | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | | Alkalinity | Not impaired | 2 | | | PP = 4 / 25; VP = 0 / 22 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | | Bacteria | Impaired | 3d | | | The waterbody segment exceeded the 21 day closure, advisories, or warnings in 2002 with 73 days, and 2003 with 199 days, as per IWR Rule 62-303.360(1)(c). |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | | Biology | Planning List | 3c | | | |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | | Chromium3 | Insufficient Data | 3b | | | PP = 0 / 1; |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | Coliform | Coliform (Fecal Coliform) | Not impaired | 2 | | | Delist PP = 3 / 26; VP = 0 / 25 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | Coliform | Coliform (Total Coliform) | Not Impaired | 2 | | | Delist PP = 0 / 25; VP = 0 / 23 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | | Conductance | Planning List | 3c | | | PP = 36 / 153; VP = 31 / 90 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | | Copper | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | Dissolved Oxygen | Dissolved Oxygen | Impaired | 3d | Low | 2011 | PP = 108 / 226; VP = 74 / 163 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | | Fluoride | Not impaired | 2 | | | PP = 0 / 2; VP = 0 / 23 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | | Iron | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | | Nickel | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | | pH | Not impaired | 2 | | | PP = 29 / 152; VP = 5 / 91 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 31; VP = 0 / 25 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 0 / 27; VP = 14 / 21 |
| 1409A | MOON LAKE | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1409A | MOON LAKE | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1409A | MOON LAKE | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 3 |
| 1409A | MOON LAKE | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 1 |
| 1409A | MOON LAKE | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 2; |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1409A | MOON LAKE | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1409A | MOON LAKE | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 1 / 3; VP = 1 / 1 |
| 1409A | MOON LAKE | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 1 |
| 1409B | OELSNER PARK BEACH | STREAM | 3F | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 7 / 124; VP = 7 / 124 |
| 1415 | CABBAGE SLOUGH | STREAM | 3F | | | No Data | 3a | | | |
| 1420 | BEAR CREEK | STREAM | 3F | | | No Data | 3a | | | |
| 1420A | WEST MOON LAKE - OPEN | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1420A | WEST MOON LAKE - OPEN | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = No data |
| 1420A | WEST MOON LAKE - OPEN | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1420A | WEST MOON LAKE - OPEN | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1420A | WEST MOON LAKE - OPEN | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1420B | HUNTERS LAKE - OPEN WA | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1420B | HUNTERS LAKE - OPEN WA | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1420B | HUNTERS LAKE - OPEN WA | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 2; |
| 1420B | HUNTERS LAKE - OPEN WA | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1420B | HUNTERS LAKE - OPEN WA | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 2; |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1420B | HUNTERS LAKE - OPEN WA | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1420B | HUNTERS LAKE - OPEN WA | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1421 | DIRECT RUNOFF TO GULF | STREAM | 3F | | | No Data | 3a | | | |
| 1422 | NONCONTRIBUTING AREA | STREAM | 3F | | | No Data | 3a | | | |
| 1423 | GOWERS CORNER SLOUGH | STREAM | 3F | | | No Data | 3a | | | |
| 1423A | PIERCE LAKE - OPEN WAT | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1423A | PIERCE LAKE - OPEN WAT | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1423A | PIERCE LAKE - OPEN WAT | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 6; VP = 0 / 4 |
| 1423A | PIERCE LAKE - OPEN WAT | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 1 / 4; VP = 1 / 2 |
| 1423A | PIERCE LAKE - OPEN WAT | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 4; VP = 0 / 2 |
| 1423A | PIERCE LAKE - OPEN WAT | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1423A | PIERCE LAKE - OPEN WAT | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 1 / 4; VP = 0 / 2 |
| 1423A | PIERCE LAKE - OPEN WAT | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1423A | PIERCE LAKE - OPEN WAT | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1423B | GREEN LAKE - OPEN WATE | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1423B | GREEN LAKE - OPEN WATE | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1423B | GREEN LAKE - OPEN WATE | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1423B | GREEN LAKE - OPEN WATE | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1423B | GREEN LAKE - OPEN WATE | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 3; VP = 0 / 2 |
| 1423B | GREEN LAKE - OPEN WATE | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1423B | GREEN LAKE - OPEN WATE | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 1 / 4; VP = 0 / 2 |
| 1423B | GREEN LAKE - OPEN WATE | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1423B | GREEN LAKE - OPEN WATE | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1432 | DOUBLE HAMMOCK CREEK | STREAM | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1432 | DOUBLE HAMMOCK CREEK | STREAM | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1432 | DOUBLE HAMMOCK CREEK | STREAM | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 1 / 1; VP = 1 / 1 |
| 1432 | DOUBLE HAMMOCK CREEK | STREAM | 3F | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 1 |
| 1432 | DOUBLE HAMMOCK CREEK | STREAM | 3F | | Nutrients (chla) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1432 | DOUBLE HAMMOCK CREEK | STREAM | 3F | | pH | Insufficient Data | 3b | | | PP = 1 / 1; VP = 1 / 1 |
| 1432 | DOUBLE HAMMOCK CREEK | STREAM | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1432A | LAKE WORRELL - OPEN WA | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1432A | LAKE WORRELL - OPEN WA | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1432A | LAKE WORRELL - OPEN WA | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1432A | LAKE WORRELL - OPEN WA | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 2 |
| 1432A | LAKE WORRELL - OPEN WA | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 4; VP = 0 / 2 |
| 1432A | LAKE WORRELL - OPEN WA | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1432A | LAKE WORRELL - OPEN WA | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1432A | LAKE WORRELL - OPEN WA | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1432A | LAKE WORRELL - OPEN WA | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1434 | FIVE MILE CREEK | STREAM | 3F | | | No Data | 3a | | | |
| 1439 | SALT SPRINGS RUN | SPRING | 3F | | | No Data | 3a | | | |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Alkalinity | Not impaired | 2 | | | PP = 3 / 37; |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Arsenic | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Biology | Not impaired | 2 | | | PP = Not impaired; VP = No data |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Chromium3 | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 15 / 187; VP = 7 / 67 |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Coliform (Total Coliform) | Not impaired | 2 | | | PP = 3 / 124; VP = 3 / 29 |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Conductance | Not impaired | 2 | | | PP = 145 / 326; VP = 2 / 114 |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Copper | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1440 | ANCLOTE RIVER | STREAM | 3F | Dissolved Oxygen | Dissolved Oxygen | Impaired | 3d | Low | 2011 | PP = 222 / 394; VP = 115 / 186 |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Fluoride | Not impaired | 2 | | | PP = 0 / 84; VP = 0 / 67 |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Iron | Insufficient Data | 3b | | | PP = 0 / 3; |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1440 | ANCLOTE RIVER | STREAM | 3F | Mercury (in Fish Tissue) | Mercury (in Fish Tissue) | Planning List | 3c | Low | 2011 | |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Nickel | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Potentially impaired; VP = Not impaired |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | pH | Not impaired | 2 | | | PP = 11 / 396; VP = 3 / 186 |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 354; VP = 0 / 181 |
| 1440 | ANCLOTE RIVER | STREAM | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 5 / 117; |
| 1440A | SPRING BAYOU | STREAM | 3F | | Alkalinity | Insufficient Data | 3b | | | VP = 0 / 5 |
| 1440A | SPRING BAYOU | STREAM | 3F | Biochemical Oxygen Demand | Biochemical Oxygen Demand | No Data | 3c | Low | 2011 | |
| 1440A | SPRING BAYOU | STREAM | 3F | Coliform | Coliform (Fecal Coliform) | Not impaired | 2 | | | Delist PP = 3 / 35; VP = 1 / 5 |
| 1440A | SPRING BAYOU | STREAM | 3F | Coliform | Coliform (Total Coliform) | Not impaired | 2 | | | Delist PP = 1 / 28; VP = 0 / 5 |
| 1440A | SPRING BAYOU | STREAM | 3F | | Conductance | Planning List | 3c | | | PP = 62 / 74; VP = 6 / 18 |
| 1440A | SPRING BAYOU | STREAM | 3F | Dissolved Oxygen | Dissolved Oxygen | Impaired | 3d | Low | 2011 | PP = 62 / 110; VP = 31 / 54 |
| 1440A | SPRING BAYOU | STREAM | 3F | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 5 |
| 1440A | SPRING BAYOU | STREAM | 3F | Nutrients | Nutrients (chla) | Not impaired | 2 | | | Delist PP = Not impaired; VP = Not impaired |
| 1440A | SPRING BAYOU | STREAM | 3F | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1440A | SPRING BAYOU | STREAM | 3F | | pH | Not impaired | 2 | | | PP = 4 / 110; VP = 2 / 54 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1440A | SPRING BAYOU | STREAM | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 110; VP = 0 / 53 |
| 1440A | SPRING BAYOU | STREAM | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 1 / 34; VP = 3 / 5 |
| 1440AB | ANCLOTE RIVER PARK BEACH | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 1 / 123; VP = 1 / 123 |
| 1440AB | ANCLOTE RIVER PARK BEACH | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 1440B | WISTARIA LAKE - OPEN W | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 3 |
| 1440B | WISTARIA LAKE - OPEN W | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 1440B | WISTARIA LAKE - OPEN W | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 6; VP = 0 / 4 |
| 1440B | WISTARIA LAKE - OPEN W | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 1 / 5; VP = 1 / 3 |
| 1440B | WISTARIA LAKE - OPEN W | LAKE | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1440B | WISTARIA LAKE - OPEN W | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 2; VP = 0 / 2 |
| 1440B | WISTARIA LAKE - OPEN W | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1440B | WISTARIA LAKE - OPEN W | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 3 |
| 1440B | WISTARIA LAKE - OPEN W | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 3 |
| 1440B | WISTARIA LAKE - OPEN W | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1441 | CROSS CYPRESS BRANCH | STREAM | 3F | | | No Data | 3a | | | |
| 1444 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | | | No Data | 3a | | | |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 3F | | Alkalinity | Not impaired | 2 | | | PP = 0 / 22; VP = 0 / 9 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 3F | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 1 / 22; VP = 1 / 9 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 3F | | Coliform (Total Coliform) | Not impaired | 2 | | | PP = 0 / 20; VP = 0 / 9 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 3F | | Conductance | Planning List | 3c | | | PP = 23 / 23; VP = 9 / 9 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 3F | | Dissolved Oxygen | Not impaired | 2 | | | PP = 5 / 59; VP = 3 / 45 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 3F | | Nutrients (TSI) | Impaired | 3d | | | PP = Potentially impaired; VP = Potentially impaired |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 3F | | pH | Not impaired | 2 | | | PP = 0 / 23; VP = 0 / 9 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 22; VP = 0 / 9 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 0 / 13; |
| 1450A | LAKE CONLEY | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = No data |
| 1450B | LAKE NASH | ESTUARY | 3M | | Nutrients (chla) | Insufficient Data | 3b | | | PP = Insufficient data; VP = No data |
| 1456 | SOUTH BRANCH | STREAM | 3F | | Alkalinity | Insufficient Data | 3b | | | VP = 0 / 8 |
| 1456 | SOUTH BRANCH | STREAM | 3F | Coliform | Coliform (Fecal Coliform) | Insufficient Data | 3c | High | 2006 | PP = 0 / 3; VP = 1 / 12 |
| 1456 | SOUTH BRANCH | STREAM | 3F | Coliform | Coliform (Total Coliform) | Insufficient Data | 3c | High | 2006 | VP = 0 / 9 |
| 1456 | SOUTH BRANCH | STREAM | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 13 |
| 1456 | SOUTH BRANCH | STREAM | 3F | Dissolved Oxygen | Dissolved Oxygen | Planning List | 3c | High | 2006 | PP = 5 / 5; VP = 8 / 13 |
| 1456 | SOUTH BRANCH | STREAM | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 11 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1456 | SOUTH BRANCH | STREAM | 3F | | Iron | Insufficient Data | 3b | | | VP = 0 / 1 |
| 1456 | SOUTH BRANCH | STREAM | 3F | Nutrients | Nutrients (chla) | Insufficient Data | 3c | High | 2006 | PP = Insufficient data; VP = Insufficient data |
| 1456 | SOUTH BRANCH | STREAM | 3F | | pH | Insufficient Data | 3b | | | PP = 2 / 5; VP = 0 / 13 |
| 1456 | SOUTH BRANCH | STREAM | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 1 / 3; VP = 1 / 11 |
| 1456 | SOUTH BRANCH | STREAM | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | VP = 7 / 8 |
| 1456A | LAKE THOMAS | LAKE | 3F | | Alkalinity | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1456A | LAKE THOMAS | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1456A | LAKE THOMAS | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1456A | LAKE THOMAS | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 5; VP = 0 / 3 |
| 1456A | LAKE THOMAS | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 1 |
| 1456A | LAKE THOMAS | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 2; |
| 1456A | LAKE THOMAS | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = No data |
| 1456A | LAKE THOMAS | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 1 / 3; VP = 0 / 1 |
| 1456A | LAKE THOMAS | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 1 |
| 1456A | LAKE THOMAS | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1456A1 | LAKE THOMAS DRAIN | LAKE | 3F | | | No Data | 3a | | | |
| 1456B | BIG LAKE VIENNA - OPEN | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | VP = 0 / 1 |
| 1456B | BIG LAKE VIENNA - OPEN | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1456B | BIG LAKE VIENNA - OPEN | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1456B | BIG LAKE VIENNA - OPEN | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1456B | BIG LAKE VIENNA - OPEN | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 2; VP = 0 / 2 |
| 1456B | BIG LAKE VIENNA - OPEN | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1456B | BIG LAKE VIENNA - OPEN | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 1 / 4; VP = 1 / 2 |
| 1456B | BIG LAKE VIENNA - OPEN | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1456B | BIG LAKE VIENNA - OPEN | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1456C | VIENNA LAKE - OPEN WAT | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | VP = 0 / 1 |
| 1456C | VIENNA LAKE - OPEN WAT | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1456C | VIENNA LAKE - OPEN WAT | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1456C | VIENNA LAKE - OPEN WAT | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1456C | VIENNA LAKE - OPEN WAT | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 3; VP = 0 / 2 |
| 1456C | VIENNA LAKE - OPEN WAT | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1456C | VIENNA LAKE - OPEN WAT | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1456C | VIENNA LAKE - OPEN WAT | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1456C | VIENNA LAKE - OPEN WAT | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 2; |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1456Y | VIENA LAKE | LAKE | 3F | | Nutrients (TSI) | Not Impaired | 2 | | | PP = Not impaired; VP = No data |
| 1456Z | TREASURE LAKE | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1456Z | TREASURE LAKE | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1456Z | TREASURE LAKE | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 1 / 1; VP = 1 / 1 |
| 1456Z | TREASURE LAKE | LAKE | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1456Z | TREASURE LAKE | LAKE | 3F | | Nutrients (TSI) | Not Impaired | 2 | | | PP = Not impaired; VP = Insufficient data |
| 1456Z | TREASURE LAKE | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1456Z | TREASURE LAKE | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1458 | SANDY BRANCH | STREAM | 3F | | | No Data | 3a | | | |
| 1461 | DUCK SLOUGH | STREAM | 3F | | Alkalinity | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1461 | DUCK SLOUGH | STREAM | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 2 |
| 1461 | DUCK SLOUGH | STREAM | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1461 | DUCK SLOUGH | STREAM | 3F | | Conductance | Insufficient Data | 3b | | | PP = 1 / 3; VP = 0 / 2 |
| 1461 | DUCK SLOUGH | STREAM | 3F | | Dissolved Oxygen | Planning List | 3c | | | PP = 3 / 3; VP = 2 / 2 |
| 1461 | DUCK SLOUGH | STREAM | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 1461 | DUCK SLOUGH | STREAM | 3F | | Nutrients (chla) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1461 | DUCK SLOUGH | STREAM | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 2 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1461 | DUCK SLOUGH | STREAM | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 2 |
| 1461 | DUCK SLOUGH | STREAM | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1464 | LAKE ANN | LAKE | 3F | | | No Data | 3a | | | |
| 1464A | BLACK LAKE - OPEN WATE | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 6; VP = 0 / 4 |
| 1464A | BLACK LAKE - OPEN WATE | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 1 / 4; VP = 1 / 2 |
| 1464A | BLACK LAKE - OPEN WATE | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 4; VP = 0 / 2 |
| 1464A | BLACK LAKE - OPEN WATE | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = No data |
| 1464A | BLACK LAKE - OPEN WATE | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1464A | BLACK LAKE - OPEN WATE | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1464A | BLACK LAKE - OPEN WATE | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 1; |
| 1464B | FISHING LAKE - OPEN WA | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1464B | FISHING LAKE - OPEN WA | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 1 / 2; |
| 1464B | FISHING LAKE - OPEN WA | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 2; |
| 1464B | FISHING LAKE - OPEN WA | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1464B | FISHING LAKE - OPEN WA | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1464B | FISHING LAKE - OPEN WA | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1464B | FISHING LAKE - OPEN WA | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 2; |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1464C | LAKE MINNIOLA | LAKE | 3F | | Nutrients (Historic TSI) | Not impaired | 2 | | | PP = Not impaired; VP = No Data |
| 1464C | LAKE MINNIOLA | LAKE | 3F | | Nutrients (TSI) | Not Impaired | 2 | | | PP = Not impaired; VP = Insufficient data |
| 1464V | LAKE HYAWATHA | LAKE | 3F | | Nutrients (Historic TSI) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1464V | LAKE HYAWATHA | LAKE | 3F | | Nutrients (TSI) | Not Impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1464W | LAKE PARKER | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1464W | LAKE PARKER | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 1 |
| 1464W | LAKE PARKER | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 1 / 3; VP = 0 / 1 |
| 1464W | LAKE PARKER | LAKE | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1464W | LAKE PARKER | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 2; |
| 1464W | LAKE PARKER | LAKE | 3F | | Nutrients (TSI) | Not Impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1464W | LAKE PARKER | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 1 |
| 1464W | LAKE PARKER | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 3; VP = 0 / 1 |
| 1464W | LAKE PARKER | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1464X | LAKE SEMINOLE | LAKE | 3F | | Nutrients (Historic TSI) | Not impaired | 2 | | | PP = Not impaired; VP = No Data |
| 1464X | LAKE SEMINOLE | LAKE | 3F | | Nutrients (TSI) | Not Impaired | 2 | | | PP = Not impaired; VP = Not impaired |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1464Y | LAKE GENEVA | LAKE | 3F | | Nutrients (Historic TSI) | Not impaired | 2 | | | PP = Not impaired; VP = No Data |
| 1464Y | LAKE GENEVA | LAKE | 3F | | Nutrients (TSI) | Not Impaired | 2 | | | PP = Not impaired; VP = Insufficient data |
| 1464Z | BASS LAKE | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = No data |
| 1475 | HOLLIN CREEK | STREAM | 3F | | Alkalinity | Insufficient Data | 3b | | | VP = 0 / 15 |
| 1475 | HOLLIN CREEK | STREAM | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | VP = 0 / 15 |
| 1475 | HOLLIN CREEK | STREAM | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | VP = 0 / 15 |
| 1475 | HOLLIN CREEK | STREAM | 3F | | Conductance | Not impaired | 2 | | | PP = 2 / 8; VP = 2 / 20 |
| 1475 | HOLLIN CREEK | STREAM | 3F | Dissolved Oxygen | Dissolved Oxygen | Planning List | 3c | Low | 2011 | PP = 4 / 4; VP = 13 / 16 |
| 1475 | HOLLIN CREEK | STREAM | 3F | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 15 |
| 1475 | HOLLIN CREEK | STREAM | 3F | Nutrients | Nutrients (chla) | Insufficient Data | 3c | Low | 2011 | PP = No data; VP = Insufficient data |
| 1475 | HOLLIN CREEK | STREAM | 3F | | pH | Not impaired | 2 | | | PP = 0 / 8; VP = 0 / 20 |
| 1475 | HOLLIN CREEK | STREAM | 3F | | Turbidity | Insufficient Data | 3b | | | VP = 0 / 15 |
| 1475 | HOLLIN CREEK | STREAM | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | VP = 15 / 15 |
| 1475 | HOLLIN CREEK | STREAM | 3F | | | No Data | 3a | | | |
| 1475A | LAKE DAN | LAKE | 3F | | | No Data | 3a | | | |
| 1475B | LAKE DAN OUTLET | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1475B | LAKE DAN OUTLET | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1479 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 4; |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1479 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 3; |
| 1479 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 2 / 7; VP = 1 / 1 |
| 1479 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | | Nutrients (chla) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1479 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = No Data |
| 1479 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | | pH | Insufficient Data | 3b | | | PP = 0 / 7; VP = 0 / 1 |
| 1479 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 7; VP = 0 / 1 |
| 1481 | SALT LAKE | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1481 | SALT LAKE | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 1 / 1; VP = 1 / 1 |
| 1481 | SALT LAKE | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 1 / 1; VP = 1 / 1 |
| 1481 | SALT LAKE | LAKE | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1481 | SALT LAKE | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1481 | SALT LAKE | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1481 | SALT LAKE | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1481A | SALT LAKE OUTLET | LAKE | 3F | | | No Data | 3a | | | |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 3M | Coliform | Coliform (Fecal Coliform) | Not impaired | 2 | | | Delist PP = 6 / 58; VP = 0 / 16 |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 3M | Coliform | Coliform (Total Coliform) | Not impaired | 2 | | | Delist PP = 1 / 45; VP = 0 / 16 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 3M | Dissolved Oxygen | Dissolved Oxygen | Impaired | 3d | High | 2006 | PP = 66 / 204; VP = 42 / 126 |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 3M | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 16 |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 3M | Nutrients | Nutrients (chla) | Impaired | 3d | High | 2006 | PP = Potentially impaired; VP = Potentially impaired |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 10 / 205; VP = 7 / 126 |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 2 / 205; VP = 2 / 126 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 3F | | Alkalinity | Insufficient Data | 3b | | | VP = 0 / 17 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 3F | | Coliform (Fecal Coliform) | Planning List | 3c | | | PP = 7 / 47; VP = 0 / 18 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 3F | | Coliform (Total Coliform) | Not impaired | 2 | | | PP = 1 / 34; VP = 0 / 17 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 3F | | Conductance | Planning List | 3c | | | PP = 65 / 96; VP = 19 / 44 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 3F | | Dissolved Oxygen | Impaired | 3d | | | PP = 96 / 168; VP = 69 / 116 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 18 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 3F | | Iron | Insufficient Data | 3b | | | VP = 0 / 2 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 3F | Nutrients | Nutrients (chla) | Not impaired | 2 | | | Delist PP = Not impaired; VP = Not impaired |
| 1512 | HEALTH SPRING DRAIN | SPRING | 3F | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1512 | HEALTH SPRING DRAIN | SPRING | 3F | | pH | Not impaired | 2 | | | PP = 8 / 168; VP = 4 / 116 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1512 | HEALTH SPRING DRAIN | SPRING | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 167; VP = 0 / 114 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 3 / 36; VP = 5 / 17 |
| 1512Z | WALL SPRING (HEALTH SPRING) | SPRING | 3F | | Arsenic | Insufficient Data | 3b | | | PP = 0 / 5; |
| 1512Z | WALL SPRING (HEALTH SPRING) | SPRING | 3F | | Chromium3 | Insufficient Data | 3b | | | PP = 0 / 3; |
| 1512Z | WALL SPRING (HEALTH SPRING) | SPRING | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 6; |
| 1512Z | WALL SPRING (HEALTH SPRING) | SPRING | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 6; |
| 1512Z | WALL SPRING (HEALTH SPRING) | SPRING | 3F | | Conductance | Planning List | 3c | | | PP = 10 / 10; VP = 4 / 4 |
| 1512Z | WALL SPRING (HEALTH SPRING) | SPRING | 3F | | Copper | Insufficient Data | 3b | | | PP = 0 / 3; |
| 1512Z | WALL SPRING (HEALTH SPRING) | SPRING | 3F | | Dissolved Oxygen | Planning List | 3c | | | PP = 4 / 4; VP = 3 / 3 |
| 1512Z | WALL SPRING (HEALTH SPRING) | SPRING | 3F | | Iron | Insufficient Data | 3b | | | PP = 0 / 3; |
| 1512Z | WALL SPRING (HEALTH SPRING) | SPRING | 3F | | Nickel | Insufficient Data | 3b | | | PP = 0 / 3; |
| 1512Z | WALL SPRING (HEALTH SPRING) | SPRING | 3F | | pH | Not impaired | 2 | | | PP = 0 / 10; VP = 0 / 4 |
| 1512Z | WALL SPRING (HEALTH SPRING) | SPRING | 3F | | Selenium | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1512Z | WALL SPRING (HEALTH SPRING) | SPRING | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 3 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1512Z | WALL SPRING (HEALTH SPRING) | SPRING | 3F | | Zinc | Insufficient Data | 3b | | | PP = 0 / 3; |
| 1527 | SUTHERLAND BAYOU | ESTUARY | 3M | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | VP = 3 / 15 |
| 1527 | SUTHERLAND BAYOU | ESTUARY | 3M | | Coliform (Total Coliform) | Insufficient Data | 3b | | | VP = 0 / 15 |
| 1527 | SUTHERLAND BAYOU | ESTUARY | 3M | Dissolved Oxygen | Dissolved Oxygen | Not impaired | 2 | | | Delist PP = 0 / 8; VP = 1 / 23 |
| 1527 | SUTHERLAND BAYOU | ESTUARY | 3M | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 15 |
| 1527 | SUTHERLAND BAYOU | ESTUARY | 3M | Nutrients | Nutrients (chla) | Not impaired | 2 | | | Delist PP = Insufficient data; VP = Not impaired |
| 1527 | SUTHERLAND BAYOU | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 0 / 8; VP = 0 / 23 |
| 1527 | SUTHERLAND BAYOU | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 9; VP = 2 / 24 |
| 1528 | DIRECT RUNOFF TO GULF (CLEARWATER HABOR) | ESTUARY | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 0 / 221; VP = 0 / 10 |
| 1528 | DIRECT RUNOFF TO GULF (CLEARWATER HABOR) | ESTUARY | 3M | | Coliform (Total Coliform) | Not impaired | 2 | | | PP = 0 / 133; VP = 0 / 10 |
| 1528 | DIRECT RUNOFF TO GULF (CLEARWATER HABOR) | ESTUARY | 3M | Dissolved Oxygen | Dissolved Oxygen | Impaired | 3d | Low | 2011 | PP = 78 / 909; VP = 58 / 472 |
| 1528 | DIRECT RUNOFF TO GULF (CLEARWATER HABOR) | ESTUARY | 3M | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 10 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1528 | DIRECT RUNOFF TO GULF (CLEARWATER HABOR) | ESTUARY | 3M | Nutrients | Nutrients (chla) | Not impaired | 2 | | | Delist PP = Potentially impaired; VP = Not impaired |
| 1528 | DIRECT RUNOFF TO GULF (CLEARWATER HABOR) | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1528 | DIRECT RUNOFF TO GULF (CLEARWATER HABOR) | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 9 / 919; VP = 2 / 475 |
| 1528 | DIRECT RUNOFF TO GULF (CLEARWATER HABOR) | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 5 / 862; VP = 4 / 465 |
| 1535 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | Coliform | Coliform (Fecal Coliform) | Not impaired | 2 | | | Delist PP = 5 / 38; VP = 0 / 8 |
| 1535 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | Coliform | Coliform (Total Coliform) | Not impaired | 2 | | | Delist PP = 0 / 29; VP = 0 / 8 |
| 1535 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | Dissolved Oxygen | Dissolved Oxygen | Impaired | 3d | Low | 2011 | PP = 59 / 110; VP = 32 / 55 |
| 1535 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 8 |
| 1535 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | Nutrients | Nutrients (chla) | Not impaired | 2 | | | Delist PP = Not impaired; VP = Not impaired |
| 1535 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1535 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 2 / 111; VP = 1 / 56 |
| 1535 | DIRECT RUNOFF TO GULF | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 111; VP = 0 / 56 |
| 1538 | CURLEW CREEK | ESTUARY | 3M | | Biology | Planning List | 3c | | | |
| 1538 | CURLEW CREEK | ESTUARY | 3M | Coliform | Coliform (Fecal Coliform) | Planning List | 3c | Low | 2011 | PP = 46 / 55; VP = 2 / 18 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1538 | CURLEW CREEK | ESTUARY | 3M | Coliform | Coliform (Total Coliform) | Planning List | 3c | Low | 2011 | PP = 20 / 47; VP = 0 / 18 |
| 1538 | CURLEW CREEK | ESTUARY | 3M | Dissolved Oxygen | Dissolved Oxygen | Impaired | 3d | Low | 2011 | PP = 47 / 258; VP = 25 / 171 |
| 1538 | CURLEW CREEK | ESTUARY | 3M | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 18 |
| 1538 | CURLEW CREEK | ESTUARY | 3M | | Iron | Insufficient Data | 3b | | | VP = 1 / 5 |
| 1538 | CURLEW CREEK | ESTUARY | 3M | Nutrients | Nutrients (chla) | Impaired | 3d | Low | 2011 | PP = Potentially impaired; VP = Potentially impaired |
| 1538 | CURLEW CREEK | ESTUARY | 3M | | Nutrients (Historic chla) | Impaired | 3d | | | PP = Potentially impaired; VP = Potentially impaired |
| 1538 | CURLEW CREEK | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 19 / 261; VP = 19 / 172 |
| 1538 | CURLEW CREEK | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 183; VP = 0 / 99 |
| 1550 | JERRY BRANCH | STREAM | 3F | | Alkalinity | Insufficient Data | 3b | | | VP = 0 / 2 |
| 1550 | JERRY BRANCH | STREAM | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 3 |
| 1550 | JERRY BRANCH | STREAM | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | VP = 0 / 2 |
| 1550 | JERRY BRANCH | STREAM | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 3 |
| 1550 | JERRY BRANCH | STREAM | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 1 / 1; VP = 1 / 3 |
| 1550 | JERRY BRANCH | STREAM | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 3 |
| 1550 | JERRY BRANCH | STREAM | 3F | | Nutrients (chla) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1550 | JERRY BRANCH | STREAM | 3F | | pH | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 3 |
| 1550 | JERRY BRANCH | STREAM | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 3 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1550 | JERRY BRANCH | STREAM | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | VP = 2 / 2 |
| 1554 | DIRECT RUNOFF TO GULF | STREAM | 3F | | | No Data | 3a | | | |
| 1556 | CEDAR CREEK | ESTUARY | 3M | Coliform | Coliform (Fecal Coliform) | Planning List | 3c | Low | 2011 | PP = 24 / 37; VP = 6 / 17 |
| 1556 | CEDAR CREEK | ESTUARY | 3M | Coliform | Coliform (Total Coliform) | Planning List | 3c | Low | 2011 | PP = 5 / 27; VP = 0 / 17 |
| 1556 | CEDAR CREEK | ESTUARY | 3M | Dissolved Oxygen | Dissolved Oxygen | Impaired | 3d | Low | 2011 | PP = 62 / 116; VP = 33 / 72 |
| 1556 | CEDAR CREEK | ESTUARY | 3M | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 17 |
| 1556 | CEDAR CREEK | ESTUARY | 3M | Nutrients | Nutrients (chla) | Impaired | 3d | Low | 2011 | PP = Potentially impaired; VP = Potentially impaired |
| 1556 | CEDAR CREEK | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1556 | CEDAR CREEK | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 2 / 119; VP = 0 / 74 |
| 1556 | CEDAR CREEK | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 119; VP = 0 / 74 |
| 1562 | DIRECT RUNOFF TO GULF | STREAM | 3F | | | No Data | 3a | | | |
| 1567 | STEVENSON CREEK | ESTUARY | 3M | Coliform | Coliform (Fecal Coliform) | Planning List | 3c | High | 2006 | PP = 50 / 77; VP = 0 / 21Need 2 additional season samples in order to delist. |
| 1567 | STEVENSON CREEK | ESTUARY | 3M | Coliform | Coliform (Total Coliform) | Planning List | 3c | High | 2006 | PP = 16 / 68; VP = 0 / 21Need 2 additional season samples in order to delist. |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1567 | STEVENSON CREEK | ESTUARY | 3M | Dissolved Oxygen | Dissolved Oxygen | Impaired | 3d | High | 2006 | PP = 139 / 236; VP = 75 / 133 |
| 1567 | STEVENSON CREEK | ESTUARY | 3M | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 21 |
| 1567 | STEVENSON CREEK | ESTUARY | 3M | | Iron | Insufficient Data | 3b | | | VP = 8 / 10 |
| 1567 | STEVENSON CREEK | ESTUARY | 3M | Nutrients | Nutrients (chla) | Impaired | 3d | High | 2006 | PP = Potentially impaired; VP = Potentially impaired |
| 1567 | STEVENSON CREEK | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1567 | STEVENSON CREEK | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 5 / 240; VP = 3 / 135 |
| 1567 | STEVENSON CREEK | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 234; VP = 0 / 134 |
| 1567A | BELLEVUE LAKE - OPEN W | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 1567A | BELLEVUE LAKE - OPEN W | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 1567A | BELLEVUE LAKE - OPEN W | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1567A | BELLEVUE LAKE - OPEN W | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1567A | BELLEVUE LAKE - OPEN W | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 2; VP = 0 / 2 |
| 1567A | BELLEVUE LAKE - OPEN W | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 1567A | BELLEVUE LAKE - OPEN W | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 1 / 4; VP = 0 / 2 |
| 1567A | BELLEVUE LAKE - OPEN W | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 2 |
| 1567A | BELLEVUE LAKE - OPEN W | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 0 / 1; |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1614 | BELLEAIR GOLFCLUB RUN | STREAM | 3F | | Coliform (Fecal Coliform) | Planning List | 3c | | | PP = 34 / 36; |
| 1614 | BELLEAIR GOLFCLUB RUN | STREAM | 3F | | Coliform (Total Coliform) | Planning List | 3c | | | PP = 15 / 26; |
| 1614 | BELLEAIR GOLFCLUB RUN | STREAM | 3F | | Conductance | Not impaired | 2 | | | PP = 1 / 88; VP = 0 / 30 |
| 1614 | BELLEAIR GOLFCLUB RUN | STREAM | 3F | | Dissolved Oxygen | Impaired | 3d | | | PP = 31 / 125; VP = 16 / 65 |
| 1614 | BELLEAIR GOLFCLUB RUN | STREAM | 3F | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1614 | BELLEAIR GOLFCLUB RUN | STREAM | 3F | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Potentially impaired; VP = Not impaired |
| 1614 | BELLEAIR GOLFCLUB RUN | STREAM | 3F | | pH | Not impaired | 2 | | | PP = 2 / 123; VP = 1 / 66 |
| 1614 | BELLEAIR GOLFCLUB RUN | STREAM | 3F | | Turbidity | Not impaired | 2 | | | PP = 3 / 123; VP = 2 / 65 |
| 1614 | BELLEAIR GOLFCLUB RUN | STREAM | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 1 / 31; |
| 1618 | LAKE SEMINOLE | LAKE | 3F | | Alkalinity | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 9 |
| 1618 | LAKE SEMINOLE | LAKE | 3F | Coliform | Coliform (Fecal Coliform) | Planning List | 3c | High | 2006 | PP = 67 / 366; VP = 0 / 11 |
| 1618 | LAKE SEMINOLE | LAKE | 3F | Coliform | Coliform (Total Coliform) | Not impaired | 2 | | | Delist PP = 8 / 337; VP = 0 / 9 |
| 1618 | LAKE SEMINOLE | LAKE | 3F | | Conductance | Not impaired | 2 | | | PP = 1 / 968; VP = 0 / 208 |
| 1618 | LAKE SEMINOLE | LAKE | 3F | | Dissolved Oxygen | Not impaired | 2 | | | PP = 105 / 1401; VP = 57 / 638 |
| 1618 | LAKE SEMINOLE | LAKE | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 10 |
| 1618 | LAKE SEMINOLE | LAKE | 3F | | Iron | Insufficient Data | 3b | | | VP = 0 / 4 |
| 1618 | LAKE SEMINOLE | LAKE | 3F | | Nutrients (Historic TSI) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1618 | LAKE SEMINOLE | LAKE | 3F | Nutrients | Nutrients (TSI) | Impaired | 3d | High | 2006 | PP = Potentially impaired; VP = Potentially impaired |
| 1618 | LAKE SEMINOLE | LAKE | 3F | | pH | Planning List | 3c | | | PP = 741 / 1422; VP = 422 / 639 |
| 1618 | LAKE SEMINOLE | LAKE | 3F | | Turbidity | Impaired | 3d | | | PP = 93 / 1056; VP = 88 / 487 |
| 1618 | LAKE SEMINOLE | LAKE | 3F | | Un-ionized Ammonia | Planning List | 3c | | | PP = 46 / 286; VP = 0 / 8 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 3F | | Alkalinity | Insufficient Data | 3b | | | VP = 0 / 2 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 3F | | Coliform (Fecal Coliform) | Insufficient Data | 3b | | | PP = 1 / 1; VP = 1 / 3 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 3F | | Coliform (Total Coliform) | Insufficient Data | 3b | | | VP = 0 / 2 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 3F | | Conductance | Not impaired | 2 | | | PP = 0 / 23; VP = 0 / 25 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 3F | | Dissolved Oxygen | Impaired | 3d | | | PP = 13 / 23; VP = 13 / 25 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 3 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 3F | | Iron | Insufficient Data | 3b | | | VP = 0 / 1 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 3F | | Nutrients (TSI) | Impaired | 3d | | | PP = Potentially impaired; VP = Potentially impaired |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 3F | | pH | Not impaired | 2 | | | PP = 1 / 23; VP = 1 / 25 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 23; VP = 0 / 25 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | VP = 1 / 2 |
| 1633 | MCKAY CREEK | ESTUARY | 3M | Coliform | Coliform (Fecal Coliform) | Planning List | 3c | Low | 2011 | PP = 34 / 36; VP = 1 / 14 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1633 | MCKAY CREEK | ESTUARY | 3M | Coliform | Coliform (Total Coliform) | Planning List | 3c | Low | 2011 | PP = 15 / 26; VP = 0 / 14 |
| 1633 | MCKAY CREEK | ESTUARY | 3M | | Coliform (Total Coliform) | Planning List | 3c | | | PP = 15 / 26; VP = 0 / 14 |
| 1633 | MCKAY CREEK | ESTUARY | 3M | Dissolved Oxygen | Dissolved Oxygen | Impaired | 3d | Low | 2011 | PP = 67 / 130; VP = 38 / 83 |
| 1633 | MCKAY CREEK | ESTUARY | 3M | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 14 |
| 1633 | MCKAY CREEK | ESTUARY | 3M | | Iron | Insufficient Data | 3b | | | VP = 0 / 6 |
| 1633 | MCKAY CREEK | ESTUARY | 3M | Nutrients | Nutrients (chla) | Impaired | 3d | Low | 2011 | PP = Potentially impaired; VP = Potentially impaired |
| 1633 | MCKAY CREEK | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1633 | MCKAY CREEK | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 1 / 129; VP = 1 / 84 |
| 1633 | MCKAY CREEK | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 1 / 127; VP = 0 / 81 |
| 1633A | TAYLOR LAKE | LAKE | 3F | | Coliform (Fecal Coliform) | Planning List | 3c | | | PP = 6 / 36; |
| 1633A | TAYLOR LAKE | LAKE | 3F | | Coliform (Total Coliform) | Not impaired | 2 | | | PP = 0 / 34; |
| 1633A | TAYLOR LAKE | LAKE | 3F | | Conductance | Not impaired | 2 | | | PP = 0 / 78; VP = 0 / 20 |
| 1633A | TAYLOR LAKE | LAKE | 3F | | Dissolved Oxygen | Impaired | 3d | | | PP = 63 / 117; VP = 36 / 55 |
| 1633A | TAYLOR LAKE | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 2; |
| 1633A | TAYLOR LAKE | LAKE | 3F | | Nutrients (Historic TSI) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1633A | TAYLOR LAKE | LAKE | 3F | | Nutrients (TSI) | Impaired | 3d | | | PP = Potentially impaired; VP = Potentially impaired |
| 1633A | TAYLOR LAKE | LAKE | 3F | | pH | Not impaired | 2 | | | PP = 1 / 116; VP = 0 / 56 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1633A | TAYLOR LAKE | LAKE | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 116; VP = 0 / 56 |
| 1633A | TAYLOR LAKE | LAKE | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 3 / 33; |
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 3M | | Coliform (Fecal Coliform) | Planning List | 3c | | | PP = 16 / 36; Segment was placed on 1998 303(d) list based on NPS survey. |
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 3M | | Coliform (Total Coliform) | Planning List | 3c | | | PP = 5 / 30; Segment was placed on 1998 303(d) list based on NPS survey. |
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 3M | | Dissolved Oxygen | Impaired | 3d | | | PP = 67 / 147; VP = 45 / 86; Segment was placed on 1998 303(d) list based on NPS survey. |
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 3M | | Nutrients (chla) | Impaired | 3d | | | PP = Potentially impaired; VP = Potentially impaired. Segment was placed on 1998 303(d) list based on NPS survey. |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired. Segment was placed on 1998 303(d) list based on NPS survey. |
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 3 / 147; VP = 3 / 87; Segment was placed on 1998 303(d) list based on NPS survey. |
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 117; VP = 0 / 56; Segment was placed on 1998 303(d) list based on NPS survey. |
| 1643 | CHURCH CREEK | STREAM | 3F | | Coliform (Fecal Coliform) | Planning List | 3c | | | PP = 12 / 13; VP = 0 / 1 |
| 1643 | CHURCH CREEK | STREAM | 3F | | Coliform (Total Coliform) | Planning List | 3c | | | PP = 10 / 10; |
| 1643 | CHURCH CREEK | STREAM | 3F | | Conductance | Not impaired | 2 | | | PP = 0 / 40; VP = 0 / 16 |
| 1643 | CHURCH CREEK | STREAM | 3F | | Dissolved Oxygen | Not impaired | 2 | | | PP = 2 / 58; VP = 2 / 33 |
| 1643 | CHURCH CREEK | STREAM | 3F | | Fluoride | Insufficient Data | 3b | | | PP = 0 / 1; VP = 0 / 1 |
| 1643 | CHURCH CREEK | STREAM | 3F | | Nutrients (chla) | Impaired | 3d | | | PP = Potentially impaired; VP = Potentially impaired |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1643 | CHURCH CREEK | STREAM | 3F | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1643 | CHURCH CREEK | STREAM | 3F | | pH | Not impaired | 2 | | | PP = 2 / 57; VP = 0 / 33 |
| 1643 | CHURCH CREEK | STREAM | 3F | | Turbidity | Not impaired | 2 | | | PP = 1 / 57; VP = 0 / 33 |
| 1643 | CHURCH CREEK | STREAM | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 0 / 16; |
| 1650 | WALSINGHAM RESERVIOR | LAKE | 3F | | | No Data | 3a | | | |
| 1662 | PINELLAS PARK DITCH | ESTUARY | 3M | Coliform | Coliform (Fecal Coliform) | Planning List | 3c | Low | 2011 | PP = 8 / 12; VP = 0 / 7 |
| 1662 | PINELLAS PARK DITCH | ESTUARY | 3M | Coliform | Coliform (Total Coliform) | Insufficient Data | 3c | Low | 2011 | PP = 2 / 8; VP = 0 / 7 |
| 1662 | PINELLAS PARK DITCH | ESTUARY | 3M | Dissolved Oxygen | Dissolved Oxygen | Planning List | 3c | Low | 2011 | PP = 3 / 12; VP = 2 / 7 |
| 1662 | PINELLAS PARK DITCH | ESTUARY | 3M | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 7 |
| 1662 | PINELLAS PARK DITCH | ESTUARY | 3M | | Iron | Insufficient Data | 3b | | | VP = 6 / 7 |
| 1662 | PINELLAS PARK DITCH | ESTUARY | 3M | Nutrients | Nutrients (chla) | Planning List | 3c | Low | 2011 | PP = Potentially impaired; VP = Insufficient data |
| 1662 | PINELLAS PARK DITCH | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = No Data |
| 1662 | PINELLAS PARK DITCH | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 0 / 12; VP = 0 / 7 |
| 1662 | PINELLAS PARK DITCH | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 11; VP = 1 / 7 |
| 1668A | ST JOE CREEK | STREAM | 3F | | Alkalinity | Insufficient Data | 3b | | | VP = 0 / 19 |
| 1668A | ST JOE CREEK | STREAM | 3F | Biochemical Oxygen Demand | Biochemical Oxygen Demand | No Data | 3c | High | 2006 | |
| 1668A | ST JOE CREEK | STREAM | 3F | Coliform | Coliform (Fecal Coliform) | Planning List | 3c | High | 2006 | PP = 41 / 66; VP = 0 / 18 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1668A | ST JOE CREEK | STREAM | 3F | Coliform | Coliform (Total Coliform) | Planning List | 3c | High | 2006 | PP = 13 / 59; VP = 0 / 18 |
| 1668A | ST JOE CREEK | STREAM | 3F | | Conductance | Not impaired | 2 | | | PP = 46 / 200; VP = 10 / 111 |
| 1668A | ST JOE CREEK | STREAM | 3F | Dissolved Oxygen | Dissolved Oxygen | Impaired | 3d | High | 2006 | PP = 114 / 286; VP = 84 / 194 |
| 1668A | ST JOE CREEK | STREAM | 3F | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 19 |
| 1668A | ST JOE CREEK | STREAM | 3F | | Iron | Insufficient Data | 3b | | | VP = 0 / 8 |
| 1668A | ST JOE CREEK | STREAM | 3F | Nutrients | Nutrients (chla) | Impaired | 3d | High | 2006 | PP = Potentially impaired; VP = Potentially impaired |
| 1668A | ST JOE CREEK | STREAM | 3F | | Nutrients (Historic chla) | Impaired | 3d | | | PP = Potentially impaired; VP = Potentially impaired |
| 1668A | ST JOE CREEK | STREAM | 3F | | pH | Not impaired | 2 | | | PP = 0 / 289; VP = 0 / 197 |
| 1668A | ST JOE CREEK | STREAM | 3F | Total Suspended Solids (TSS) | Turbidity | Not impaired | 2 | | | Delist PP = 2 / 262; VP = 1 / 168 |
| 1668A | ST JOE CREEK | STREAM | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 2 / 68; VP = 10 / 19 |
| 1668B | BONN CREEK | STREAM | 3F | Biochemical Oxygen Demand | Biochemical Oxygen Demand | No Data | 3c | High | 2006 | |
| 1668B | BONN CREEK | STREAM | 3F | Coliform | Coliform (Fecal Coliform) | Planning List | 3c | High | 2006 | PP = 31 / 48; |
| 1668B | BONN CREEK | STREAM | 3F | Coliform | Coliform (Total Coliform) | Planning List | 3c | High | 2006 | PP = 7 / 36; |
| 1668B | BONN CREEK | STREAM | 3F | | Conductance | Not impaired | 2 | | | PP = 1 / 89; VP = 0 / 12 |
| 1668B | BONN CREEK | STREAM | 3F | Dissolved Oxygen | Dissolved Oxygen | Impaired | 3d | High | 2006 | PP = 72 / 130; VP = 24 / 45 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1668B | BONN CREEK | STREAM | 3F | Nutrients | Nutrients (chla) | Impaired | 3d | High | 2006 | PP = Potentially impaired; VP = Potentially impaired |
| 1668B | BONN CREEK | STREAM | 3F | | Nutrients (Historic chla) | Impaired | 3d | | | PP = Potentially impaired; VP = Potentially impaired |
| 1668B | BONN CREEK | STREAM | 3F | | pH | Not impaired | 2 | | | PP = 0 / 129; VP = 0 / 46 |
| 1668B | BONN CREEK | STREAM | 3F | Total Suspended Solids (TSS) | Turbidity | Not impaired | 2 | | | Delist PP = 1 / 131; VP = 0 / 46 |
| 1668B | BONN CREEK | STREAM | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 2 / 50; |
| 1668C | PASADENA LAKE - OPEN W | LAKE | 3F | | Conductance | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1668C | PASADENA LAKE - OPEN W | LAKE | 3F | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 2; |
| 1668C | PASADENA LAKE - OPEN W | LAKE | 3F | | Iron | Insufficient Data | 3b | | | PP = 2 / 2; |
| 1668C | PASADENA LAKE - OPEN W | LAKE | 3F | | Nutrients (TSI) | Insufficient Data | 3b | | | PP = Insufficient data; VP = No data |
| 1668C | PASADENA LAKE - OPEN W | LAKE | 3F | | pH | Insufficient Data | 3b | | | PP = 1 / 2; |
| 1668C | PASADENA LAKE - OPEN W | LAKE | 3F | | Turbidity | Insufficient Data | 3b | | | PP = 1 / 2; |
| 1668C | PASADENA LAKE - OPEN W | LAKE | 3F | | Un-ionized Ammonia | Insufficient Data | 3b | | | PP = 1 / 1; |
| 1694A | BOCA CIEGA BAY | ESTUARY | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 0 / 96; |
| 1694A | BOCA CIEGA BAY | ESTUARY | 3M | | Coliform (Total Coliform) | Not impaired | 2 | | | PP = 0 / 35; |
| 1694A | BOCA CIEGA BAY | ESTUARY | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 19 / 763; VP = 7 / 418 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1694A | BOCA CIEGA BAY | ESTUARY | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1694A | BOCA CIEGA BAY | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1694A | BOCA CIEGA BAY | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 20 / 792; VP = 5 / 432 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 663; VP = 0 / 385 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 0 / 63; |
| 1694B | BOCA CIEGA BAY | ESTUARY | 3M | | Coliform (Total Coliform) | Not impaired | 2 | | | PP = 0 / 34; |
| 1694B | BOCA CIEGA BAY | ESTUARY | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 8 / 451; VP = 2 / 196 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1694B | BOCA CIEGA BAY | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1694B | BOCA CIEGA BAY | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 8 / 463; VP = 0 / 200 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 2 / 385; VP = 1 / 183 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 0 / 37; |
| 1694C | BOCA CIEGA BAY | ESTUARY | 3M | | Coliform (Total Coliform) | Not impaired | 2 | | | PP = 0 / 32; |
| 1694C | BOCA CIEGA BAY | ESTUARY | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 15 / 140; VP = 5 / 66 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1694C | BOCA CIEGA BAY | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1694C | BOCA CIEGA BAY | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 3 / 141; VP = 0 / 67 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1694C | BOCA CIEGA BAY | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 125; VP = 0 / 63 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 3M | | Dissolved Oxygen | Planning List | 3c | | | PP = 7 / 17; VP = 5 / 14 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1694D | BOCA CIEGA BAY | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 0 / 17; VP = 0 / 14 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 14; VP = 0 / 14 |
| 1701 | BEAR CREEK | STREAM | 3F | | Coliform (Fecal Coliform) | Planning List | 3c | | | PP = 31 / 37; |
| 1701 | BEAR CREEK | STREAM | 3F | | Coliform (Total Coliform) | Planning List | 3c | | | PP = 7 / 23; |
| 1701 | BEAR CREEK | STREAM | 3F | | Conductance | Planning List | 3c | | | PP = 76 / 97; VP = 15 / 35 |
| 1701 | BEAR CREEK | STREAM | 3F | | Dissolved Oxygen | Impaired | 3d | | | PP = 89 / 132; VP = 51 / 71 |
| 1701 | BEAR CREEK | STREAM | 3F | | Nutrients (chla) | Not impaired | 2 | | | PP = Potentially impaired; VP = Not impaired |
| 1701 | BEAR CREEK | STREAM | 3F | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1701 | BEAR CREEK | STREAM | 3F | | pH | Not impaired | 2 | | | PP = 0 / 132; VP = 0 / 71 |
| 1701 | BEAR CREEK | STREAM | 3F | | Turbidity | Not impaired | 2 | | | PP = 0 / 105; VP = 0 / 47 |
| 1701 | BEAR CREEK | STREAM | 3F | | Un-ionized Ammonia | Not impaired | 2 | | | PP = 0 / 30; |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 3M | Coliforms | Coliform (Fecal Coliform) | Planning List | 3c | Low | 2011 | PP = 44 / 77; VP = 1 / 17 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 3M | Coliform | Coliform (Total Coliform) | Not impaired | 2 | | | Delist PP = 8 / 57; VP = 0 / 17 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 3M | Dissolved Oxygen | Dissolved Oxygen | Impaired | 3d | Low | 2011 | PP = 61 / 167; VP = 28 / 67 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 3M | | Fluoride | Insufficient Data | 3b | | | VP = 0 / 12 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 3M | | Iron | Insufficient Data | 3b | | | VP = 2 / 6 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 3M | Nutrients | Nutrients (chla) | Impaired | 3d | Low | 2011 | PP = Potentially impaired; VP = Potentially impaired |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 3M | | pH | Not impaired | 2 | | | PP = 6 / 171; VP = 1 / 67 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 169; VP = 0 / 65 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 2 / 1938; VP = 1 / 556 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 72 / 2163; VP = 16 / 843 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 3M | | pH | Not impaired | 2 | | | PP = 4 / 1493; VP = 1 / 549 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 3M | | Turbidity | Not impaired | 2 | | | PP = 3 / 1329; VP = 2 / 439 |
| 8039A | FORT ISLAND GULF BEACH | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 0 / 336; VP = 0 / 180 |
| 8039A | FORT ISLAND GULF BEACH | COASTAL | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 4 / 187; VP = 3 / 48 |
| 8039A | FORT ISLAND GULF BEACH | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8039A | FORT ISLAND GULF BEACH | COASTAL | 3M | | pH | Not impaired | 2 | | | PP = 0 / 166; VP = 0 / 52 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 8039A | FORT ISLAND GULF BEACH | COASTAL | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 148; VP = 0 / 40 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 0 / 429; VP = 0 / 108 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 63 / 779; VP = 20 / 370 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 3M | | pH | Not impaired | 2 | | | PP = 6 / 322; VP = 1 / 107 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 277; VP = 0 / 74 |
| 8041 | CRYSTAL RIVER GULF 3 | COASTAL | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 13 / 466; VP = 8 / 327 |
| 8041 | CRYSTAL RIVER GULF 3 | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8041 | CRYSTAL RIVER GULF 3 | COASTAL | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8041 | CRYSTAL RIVER GULF 3 | COASTAL | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8042 | CRYSTAL RIVER GULF 4 | COASTAL | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 4 / 373; VP = 4 / 276 |
| 8042 | CRYSTAL RIVER GULF 4 | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8042 | CRYSTAL RIVER GULF 4 | COASTAL | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |

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|---|---|---|---|---|---|---|---|---|---|---|
| 8042 | CRYSTAL RIVER GULF 4 | COASTAL | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8042A | PINE ISLAND BEACH | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 2 / 108; VP = 2 / 123 |
| 8042A | PINE ISLAND BEACH | COASTAL | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 1 / 62; VP = 1 / 46 |
| 8042A | PINE ISLAND BEACH | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8042A | PINE ISLAND BEACH | COASTAL | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8042A | PINE ISLAND BEACH | COASTAL | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 0 / 431; VP = 0 / 431 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 4 / 432; VP = 4 / 432 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 8044A | CRYSTAL RIVER GULF 6 | COASTAL | 3M | | Bacteria | Impaired | 3d | | | The waterbody segment exceeded the 21 day closure, advisories, or warnings in 2002 ( 68 days), and 2003 (154 days) as per IWR Rule 62-303.360(1)(c). |
| 8044A | ROBERT J STRICKLAND BEACH | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 9 / 123; VP = 9 / 123 |
| 8044A | ROBERT J STRICKLAND BEACH | COASTAL | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 0 / 36; VP = 0 / 36 |
| 8044A | ROBERT J STRICKLAND BEACH | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8044A | ROBERT J STRICKLAND BEACH | COASTAL | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8044A | ROBERT J STRICKLAND BEACH | COASTAL | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8044B | BRASHER PARK BEACH | COASTAL | 3M | | Bacteria | Impaired | 3d | | | The waterbody segment exceeded the 21 day closure, advisories, or warnings in 2003 with 104 days as per IWR Rule 62-303.360(1)(c). |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 8044B | BRASHER PARK BEACH | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 1 / 123; VP = 1 / 123 |
| 8044B | BRASHER PARK BEACH | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8044C | ROBERT K. REES PARK BEACH | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 5 / 121; VP = 5 / 121 |
| 8044C | ROBERT K. REES PARK BEACH | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8044D | ENERGY AND MARINE CENTER | COASTAL | 3M | | Bacteria | Impaired | 3d | | | The waterbody segment exceeded the 21 day closure, advisories, or warnings in 2002, 55 days, and 2003, 188 days, as per IWR Rule 62-303.360(1)(c). |
| 8044D | ENERGY AND MARINE CENTER | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 4 / 118; VP = 4 / 119 |
| 8044D | ENERGY AND MARINE CENTER | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 8 / 441; VP = 8 / 441 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 3M | | pH | Not impaired | 2 | | | PP = 0 / 10; VP = 0 / 10 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 10; VP = 0 / 10 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 8045A | GULF HARBORS BEACH | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 3 / 125; VP = 3 / 125 |
| 8045A | GULF HARBORS BEACH | COASTAL | 3M | | Coliform (Total Coliform) | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 8045A | GULF HARBORS BEACH | COASTAL | 3M | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 8045A | GULF HARBORS BEACH | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8045A | GULF HARBORS BEACH | COASTAL | 3M | | pH | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 8045A | GULF HARBORS BEACH | COASTAL | 3M | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 8045B | FRED HOWARD BEACH | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 4 / 105; VP = 4 / 123 |
| 8045B | FRED HOWARD BEACH | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 0 / 50; |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 3M | | Coliform (Total Coliform) | Not impaired | 2 | | | PP = 0 / 26; |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 8 / 292; VP = 5 / 171 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 3M | | Nutrients (chla) | Not impaired | 2 | | | PP = Potentially impaired; VP = Not impaired |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 3M | | Nutrients (Historic chla) | Not impaired | 2 | | | PP = Not impaired; VP = Not impaired |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 3M | | pH | Not impaired | 2 | | | PP = 1 / 296; VP = 1 / 171 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 3M | | Turbidity | Not impaired | 2 | | | PP = 0 / 291; VP = 0 / 171 |
| 8046A | HONEYMOON ISLAND BEACH | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 0 / 85; VP = 0 / 123 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 8046A | HONEYMOON ISLAND BEACH | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8047 | CRYSTAL RIVER GULF 9 | COASTAL | 3M | | Dissolved Oxygen | Not impaired | 2 | | | PP = 0 / 22; VP = 0 / 18 |
| 8047 | CRYSTAL RIVER GULF 9 | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8047 | CRYSTAL RIVER GULF 9 | COASTAL | 3M | | pH | Planning List | 3c | | | PP = 5 / 22; VP = 5 / 18 |
| 8047A | SAND KEY | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 2 / 92; VP = 2 / 123 |
| 8047A | SAND KEY | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8047B | BELLEAIR SHORES INTERCOASTAL | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 4 / 107; VP = 4 / 123 |
| 8047B | BELLEAIR SHORES INTERCOASTAL | COASTAL | 3M | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 8047B | BELLEAIR SHORES INTERCOASTAL | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8047B | BELLEAIR SHORES INTERCOASTAL | COASTAL | 3M | | Nutrients (chla) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 8047B | BELLEAIR SHORES INTERCOASTAL | COASTAL | 3M | | pH | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 8047B | BELLEAIR SHORES INTERCOASTAL | COASTAL | 3M | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 2; VP = 0 / 2 |
| 8047C | INDIAN ROCKS BEACH | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 1 / 98; VP = 1 / 123 |
| 8047C | INDIAN ROCKS BEACH | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8047D | COURTNEY CAMPBELL CAUSEWAY | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 8 / 101; VP = 8 / 124 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 3M | | Dissolved Oxygen | Insufficient Data | 3b | | | PP = 0 / 8; VP = 0 / 4 |

| WBID | Water Segment Name | Waterbody Type | Waterbody Class | 1998 303(d) Parameters of Concern | Parameters Assessed Using the Impaired Waters Rule (IWR) | Assessment Status | Integrated Report Category[1] | Priority for TMDL Development[2] | Projected Year For TMDL Development[2] | Comment PP=Planning Period VP=Verified Period[3] (# Exceedances/# Samples) |
|---|---|---|---|---|---|---|---|---|---|---|
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 3M | | Nutrients (chla) | Insufficient Data | 3b | | | PP = Insufficient data; VP = Insufficient data |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 3M | | pH | Insufficient Data | 3b | | | PP = 1 / 8; VP = 0 / 4 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 3M | | Turbidity | Insufficient Data | 3b | | | PP = 0 / 4; VP = 0 / 4 |
| 8048A | INDIAN SHORES BEACH | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 25 / 205; VP = 25 / 246 |
| 8048A | INDIAN SHORES BEACH | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8048B | MADEIRA BEACH | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 0 / 99; VP = 0 / 122 |
| 8048B | MADEIRA BEACH | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |
| 8048C | TREASURE ISLAND BEACH | COASTAL | 3M | | Coliform (Fecal Coliform) | Not impaired | 2 | | | PP = 7 / 100; VP = 7 / 123 |
| 8048C | TREASURE ISLAND BEACH | COASTAL | 3M | | Mercury (in Fish Tissue) | Impaired | 3d | | | |

**Table F.2: Water Quality Monitoring Stations, by Planning Unit**

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| **Anclote River / Coastal Pinellas County Planning Unit** | | | | | | | |
| 1440 | ANCLOTE RIVER | STREAM | 112WRD 02309980 | ANCLOTE RIVER NR ODESSA,FL | 1994 | 1994 | 60 |
| 1440 | ANCLOTE RIVER | STREAM | 112WRD 02310000 | ANCLOTE RIVER NR ELFERS, FLA. | 1994 | 1999 | 635 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLA 24040007 | CRYSTAL R. BASIN/ELFERS/FRESHWATER SITE | 1994 | 1995 | 146 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLA 24040008 | CRYSTAL R. BASIN/TARPON SPRINGS/MARINE SITE | 1994 | 1995 | 134 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLA 24040070 | CRYSTAL R. BASIN/ELFERS/FRESHWATER SITE | 1997 | 1997 | 22 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLA 24040071 | CRYSTAL R. BASIN/ELFERS/FRESHWATER SITE | 1997 | 1997 | 22 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLA 24040072 | CRYSTAL R. BASIN/ELFERS/FRESHWATER SITE | 1997 | 1997 | 22 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLA 24040073 | CRYSTAL R. BASIN/ELFERS/FRESHWATER SITE | 1997 | 1997 | 22 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLGW 17951 | SWA-LR-1009 | 2003 | 2003 | 27 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLGW 17954 | SWA-LR-1015 | 2003 | 2003 | 30 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLGW 17955 | SWA-LR-1016 | 2003 | 2003 | 26 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLGW 17963 | SWA-LR-1026 | 2003 | 2003 | 26 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLGW 18880 | SWA-SL-1038 | 2003 | 2003 | 30 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLGW 20061 | SWA-SS-1026 | 2003 | 2003 | 26 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLGW 3509 | FLO 58 471 0 | 1998 | 2003 | 1779 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLGW FLO0094 | ANCLOTE RIVER MOUTH | 1997 | 1998 | 266 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLGW FLO0096 | ANCLOTE RIVER MOUTH @ SR 54 | 1997 | 1998 | 184 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLPDEM01-01 | ANCLOTE R AT US19A NE SIDE BRIDGE | 1994 | 2003 | 2276 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLPDEM01-03 | ANCLOTE R PASCO CO S END OF LOADSTAR RD AT SEAWL | 1994 | 2003 | 895 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLPDEM01-06 | ANCLOTE R KREAMER BYU W BAYSHORE BRDG | 1994 | 1998 | 898 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLPDEMAMB 01-1 | Anclote River | 1999 | 2002 | 1246 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLPDEMAMB 01-3 | Anclote River | 1999 | 2002 | 461 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLPDEMAMB 01-6 | Anclote River, Kreamer Bayou | 1999 | 2002 | 578 |
| 1440 | ANCLOTE RIVER | STREAM | 21FLSWFDFLO0094 | ANCLOTE RIVER MOUTH | 1995 | 1997 | 297 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1440 | ANCLOTE RIVER | STREAM | 21FLSWFDFLO0096 | ANCLOTE RIVER MOUTH @ SR 54 | 1995 | 1997 | 303 |
| 1440A | SPRING BAYOU | STREAM | 21FLPDEM01-04 | ANCLOTE R SPRNG BYU OFF WALL N OF BATH ST | 1994 | 1998 | 827 |
| 1440A | SPRING BAYOU | STREAM | 21FLPDEM01-05 | ANCLOTE R WHITCOMB BYU E WHITCOMB BLVD BRDG | 1994 | 1998 | 953 |
| 1440A | SPRING BAYOU | STREAM | 21FLPDEMAMB 01-4 | Anclote River, Spring Bayou | 1999 | 2002 | 540 |
| 1440A | SPRING BAYOU | STREAM | 21FLPDEMAMB 01-5 | Anclote River, Whitcomb Bayou | 1999 | 2002 | 596 |
| 1440AB | ANCLOTE RIVER PARK BEACH | COASTAL | 21FLDOH PASCO225 | ANCLOTE RIVER PARK BEACH | 2000 | 2003 | 127 |
| 1440B | WISTARIA LAKE - OPEN W | LAKE | 112WRD 281504082283900 | WISTARIA LAKE NEAR DREXEL FL | 1999 | 2000 | 5 |
| 1440B | WISTARIA LAKE - OPEN W | LAKE | 21FLGW 18872 | SWA-SL-1027 | 2003 | 2003 | 30 |
| 1440B | WISTARIA LAKE - OPEN W | LAKE | 21FLSWFDSTA0528 | WISTARIA LAKE - OPEN WATER | 1996 | 1997 | 79 |
| 1440B | WISTARIA LAKE - OPEN W | LAKE | 21FLSWFDWISTARIA | | 1999 | 2000 | 59 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 21FLA 24040006 | CRYSTAL R. BASIN/PORT RICHEY/MARINE | 1994 | 1997 | 254 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 21FLPCSWSTA 1144 4237 0 | PASCO - Pithlachascotee - Station 9 | 2000 | 2002 | 276 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 21FLTPA 24040006 | TP22 - GULF OF MEXICO | 1998 | 1998 | 12 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 21FLTPA 24040158 | GH2-Gulf Harbor Canal | 2000 | 2000 | 12 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 21FLTPA 24040159 | GH3 - Gulf Harbor Canal | 2000 | 2000 | 11 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 21FLTPA 24040160 | GH4 - Gulf Harbor Canal | 2000 | 2000 | 11 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 21FLTPA 24040161 | GH5 - Gulf Harbor Canal | 2000 | 2000 | 11 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 21FLTPA 24040162 | GH6-Gulf Harbor Canal | 2000 | 2000 | 11 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 21FLTPA 24040163 | GH7 - Gulf Harbor Canal | 2000 | 2000 | 11 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 21FLTPA 24040164 | Gh8 - Gulf Harbor Canal | 2000 | 2000 | 11 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 21FLTPA 24040165 | GH9 - Gulf Harbor Canal | 2000 | 2000 | 11 |
| 1450 | DIRECT RUNOFF TO GULF | LAKE | 21FLTPA 24040166 | GH10 - Gulf Harbor Canal | 2000 | 2000 | 11 |
| 1450A | LAKE CONLEY | LAKE | 21FLKWATPAS-CONLEY-1 | Pasco-Conley-1 | 1996 | 1997 | 32 |
| 1450A | LAKE CONLEY | LAKE | 21FLKWATPAS-CONLEY-2 | Pasco-Conley-2 | 1996 | 1997 | 32 |
| 1450A | LAKE CONLEY | LAKE | 21FLKWATPAS-CONLEY-3 | Pasco-Conley-3 | 1996 | 1997 | 32 |
| 1450B | LAKE NASH | ESTUARY | 21FLKWATPAS-NASH-1 | Pasco-Nash-1 | 1996 | 1997 | 40 |
| 1450B | LAKE NASH | ESTUARY | 21FLKWATPAS-NASH-2 | Pasco-Nash-2 | 1996 | 1997 | 40 |
| 1450B | LAKE NASH | ESTUARY | 21FLKWATPAS-NASH-3 | Pasco-Nash-3 | 1996 | 1997 | 40 |
| 1456 | SOUTH BRANCH | STREAM | 112WRD 02309848 | SOUTH BRANCH ANCLOTE RIVER NR ODESSA, FLA. | 1994 | 1994 | 33 |
| 1456 | SOUTH BRANCH | STREAM | 21FLGW 17948 | SWA-LR-1006 | 2003 | 2003 | 26 |
| 1456 | SOUTH BRANCH | STREAM | 21FLGW 17952 | SWA-LR-1010 | 2003 | 2003 | 26 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1456 | SOUTH BRANCH | STREAM | 21FLGW 20063 | SWA-SS-1028 | 2003 | 2003 | 26 |
| 1456A | LAKE THOMAS | LAKE | 112WRD 02309584 | LAKE THOMAS AT DREXEL, FLA. | 1999 | 2000 | 6 |
| 1456A | LAKE THOMAS | LAKE | 21FLKWATPAS-THOMAS-1 | Pasco-Thomas-1 | 1996 | 1997 | 10 |
| 1456A | LAKE THOMAS | LAKE | 21FLKWATPAS-THOMAS-2 | Pasco-Thomas-2 | 1996 | 1997 | 11 |
| 1456A | LAKE THOMAS | LAKE | 21FLKWATPAS-THOMAS-3 | Pasco-Thomas-3 | 1996 | 1997 | 11 |
| 1456A | LAKE THOMAS | LAKE | 21FLSWFDSTA0048 | LAKE THOMAS - OPEN WATER | 1994 | 1995 | 61 |
| 1456A | LAKE THOMAS | LAKE | 21FLTPA 24040132 | L49P - Lake Thomas | 1999 | 1999 | 12 |
| 1456B | BIG LAKE VIENNA - OPEN | LAKE | 21FLSWFDBIG VIENNA | | 2000 | 2001 | 56 |
| 1456B | BIG LAKE VIENNA - OPEN | LAKE | 21FLSWFDSTA0150 | BIG LAKE VIENNA - OPEN WATER | 1994 | 1995 | 61 |
| 1456C | VIENNA LAKE - OPEN WAT | LAKE | 21FLSWFDSTA1054 | VIENNA LAKE - OPEN WATER | 1994 | 1995 | 60 |
| 1456C | VIENNA LAKE - OPEN WAT | LAKE | 21FLSWFDVIENNA | | 2000 | 2001 | 56 |
| 1456Y | VIENA LAKE | LAKE | 21FLKWATPAS-LITTLEVI-1 | Pasco-Little Vienna-1 | 1994 | 1996 | 66 |
| 1456Y | VIENA LAKE | LAKE | 21FLKWATPAS-LITTLEVI-2 | Pasco-Little Vienna-2 | 1994 | 1996 | 67 |
| 1456Y | VIENA LAKE | LAKE | 21FLKWATPAS-LITTLEVI-3 | Pasco-Little Vienna-3 | 1994 | 1996 | 66 |
| 1456Z | TREASURE LAKE | LAKE | 21FLGW 18865 | SWA-SL-1018 | 2003 | 2003 | 30 |
| 1456Z | TREASURE LAKE | LAKE | 21FLKWATPAS-TREASUR1-1 | Pasco-Treasure-1 | 1994 | 1996 | 110 |
| 1456Z | TREASURE LAKE | LAKE | 21FLKWATPAS-TREASUR1-2 | Pasco-Treasure-2 | 1994 | 1996 | 86 |
| 1456Z | TREASURE LAKE | LAKE | 21FLKWATPAS-TREASUR1-3 | Pasco-Treasure-3 | 1994 | 1996 | 84 |
| 1461 | DUCK SLOUGH | STREAM | 21FLA 24040074 | CRYSTAL R. BASIN/ELFERS/BRACKISH SITE | 1997 | 1997 | 22 |
| 1461 | DUCK SLOUGH | STREAM | 21FLGW 20050 | SWA-SS-1014 | 2003 | 2003 | 26 |
| 1461 | DUCK SLOUGH | STREAM | 21FLGW 20056 | SWA-SS-1020 | 2003 | 2003 | 26 |
| 1475 | HOLLIN CREEK | STREAM | 112WRD 02310147 | HOLLIN CREEK NEAR TARPON SPRINGS, FL | 1994 | 1997 | 33 |
| 1475 | HOLLIN CREEK | STREAM | 112WRD 280859082405301 | ELDRIDGE WILDE 201M NEAR TARPON SPRINGS FL | 1999 | 1999 | 10 |
| 1475 | HOLLIN CREEK | STREAM | 112WRD 280948082415001 | ELDRIDGE WILDE SWI-6D NR TARPON SPRINGS FL | 1999 | 1999 | 21 |
| 1475 | HOLLIN CREEK | STREAM | 112WRD 281019082405401 | ELDRIDGE WILDE SWI-11D NR TARPON SPRINGS FL | 1999 | 1999 | 10 |
| 1475 | HOLLIN CREEK | STREAM | 112WRD 281020082405401 | ELDRIDGE WILDE 202M NR TARPON SPRINGS FL | 1999 | 1999 | 10 |
| 1475B | LAKE DAN OUTLET | LAKE | 112WRD 280928082391701 | ELD WILDE 113B SWFWMD REG W. NR TARPON SPRINGS FL | 2000 | 2000 | 10 |
| 1479 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEM01-02 | ANCLOTE R PRK PASCO CO S END DOCK | 1994 | 1994 | 196 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1479 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW1-B-03-04 | | 2003 | 2003 | 28 |
| 1481 | SALT LAKE | LAKE | 21FLGW 20085 | SWA-LL-1017 | 2003 | 2003 | 26 |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 21FLPDEM02-01 | INNISBROOK CNL S OF DRIFTWOOD DR OFF DOCK | 1994 | 1998 | 1813 |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 21FLPDEM02-02 | CNL E SIDE ALT US19 1/2MI S KLOSTERMAN RD | 1994 | 1998 | 671 |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 21FLPDEM02-07 | | 2003 | 2003 | 161 |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 21FLPDEMAMB 02-1 | Klosterman Bayou | 1999 | 2002 | 1120 |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 21FLPDEMAMB 02-2 | Innisbrook Canal | 1999 | 2002 | 820 |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 21FLPDEMAMB 02-5 | Klosterman Bayou | 1999 | 1999 | 21 |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 21FLPDEMAMB 02-6 | Klosterman Bayou | 1999 | 1999 | 21 |
| 1508 | KLOSTERMAN BAYOU RUN | ESTUARY | 21FLPDEMAMB 02-7 | Klosterman Bayou | 1999 | 1999 | 16 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 21FLGW 18858 | SWA-SL-1009 | 2003 | 2003 | 30 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 21FLPDEM07-01 | SUTHERLAND BYU OFF DOCK AT 2119 ALT US19 | 1994 | 1998 | 1942 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 21FLPDEM07-03 | NE CORNER OF HIDDEN LK W OF HIDDEN LK DR | 1994 | 1994 | 125 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 21FLPDEMAMB 07-1 | Sutherland Bayou | 1999 | 2002 | 1206 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 21FLPDEMAMB 07-4 | Boggy Bayou | 1999 | 2002 | 1163 |
| 1512 | HEALTH SPRING DRAIN | SPRING | 21FLTPA 24040125 | TP117 - HEALTH(WALL) SPRINGS | 1998 | 1998 | 8 |
| 1512Z | WALL SPRING (Health Sp | SPRING | 112WRD 02309494 | HEALTH SPRING NR OZONA, FLA. | 1994 | 2000 | 140 |
| 1512Z | WALL SPRING (Health Sp | SPRING | 21FLSWFD28.106368 82.77 | HEALTH SPRING | 2001 | 2001 | 57 |
| 1527 | SUTHERLAND BAYOU | ESTUARY | 21FLPDEM08-03 | | 2003 | 2003 | 157 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM960012 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM960013 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM960208 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM960209 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM960421 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM960503 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM960643 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM960644 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM960645 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM960744 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM960787 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM960960 | | 1996 | 1996 | 5 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM960961 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM961032 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM961130 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM961131 | | 1996 | 1996 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM970092 | | 1997 | 1997 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM970153 | | 1997 | 1997 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM970331 | | 1997 | 1997 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM970563 | | 1997 | 1997 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM970677 | | 1997 | 1997 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM970678 | | 1997 | 1997 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM970709 | | 1997 | 1997 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM970710 | | 1997 | 1997 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM970822 | | 1997 | 1997 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM970990 | | 1997 | 1997 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLGFWFTBM971018 | | 1997 | 1997 | 5 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL00BCB4033 | | 2000 | 2000 | 30 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL00BCB4038 | | 2000 | 2000 | 25 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL00BCB4100 | | 2000 | 2000 | 15 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL01BCB57/1 | | 2001 | 2001 | 10 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL01BCB6230 | | 2001 | 2001 | 20 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL95BCB12 | | 1995 | 1995 | 8 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL95BCB15 | | 1995 | 1995 | 8 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL96BCB02 | | 1996 | 1996 | 8 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL96BCB04 | | 1996 | 1996 | 8 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL96BCB07 | | 1996 | 1996 | 8 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL97BCB02 | | 1997 | 1997 | 10 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL97BCB57-1 | | 1997 | 1997 | 8 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL98BCB12 | | 1998 | 1998 | 4 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL98BCB57/1 | | 1998 | 1998 | 8 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL99BCB2070 | | 1999 | 1999 | 20 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLHILL99BCB57/1 | | 1999 | 1999 | 15 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEM54-02 | N CLWTR HRBR 200 YDS W OF SEMINOLE LNDG | 1994 | 1998 | 1043 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEM54-03 | N CLWTR HRBR 200 YDS W STEVENSON'S CR MOUTH | 1994 | 1998 | 1024 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEM54-04 | N CLWTR HRBR 200' W OF MOONSHINE ISLAND | 1994 | 1998 | 2047 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEM55-01 | S CLWTR HRBR 100' E OF ICWW N BELLEAIR BRDG | 1994 | 1998 | 2083 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEM55-02 | S CLWTR HRBR 200' W OF BELLEVIEW ISLAND | 1994 | 1998 | 1039 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEM55-03 | S CLWTR HRBR 200' W MCKAY CR MOUTH | 1994 | 1998 | 1042 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEM56-01 | THE NARROWS 200' S PARK BLVD W OF ICWW | 1994 | 1998 | 2127 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEM56-02 | THE NARROWS S OF WALSINGHAM BDG E OF ICWW | 1994 | 1998 | 1036 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEM57-01 | N BOCA CIEGA BAY N TOM STUART CSWY BDG MKR14 | 1994 | 1998 | 2059 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEM96-01 | THE NARROWS INTRACOASTAL | 1997 | 1997 | 329 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEM96-02 | N BOCA CIEGA BAY | 1997 | 1997 | 296 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMAMB 00-34 | | 2001 | 2001 | 324 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMAMB 01-18 | EMAP carry over station from 2001 | 2002 | 2002 | 318 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMAMB 01-263 | EMAP carry over station from 2001 | 2002 | 2002 | 371 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMAMB 01-30 | EMAP carry over station from 2001 | 2002 | 2002 | 313 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMAMB 17-2 | Coastal Zone 1 | 1999 | 2002 | 789 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMAMB 54-2 | Clearwater Harbor | 1999 | 2002 | 645 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMAMB 54-4 | Clearwater Harbor | 1999 | 2002 | 1297 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMAMB 55-1 | Clearwater Harbor | 1999 | 2002 | 1298 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMAMB 55-2 | Clearwater Harbor | 1999 | 2002 | 642 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMAMB 55-3 | The Narrows | 1999 | 2002 | 645 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMAMB 56-1 | The Narrows | 1999 | 2002 | 1251 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMAMB 56-2 | The Narrows | 1999 | 2002 | 645 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMAMB 57-1 | Boca Ciega Bay North | 1999 | 2002 | 1296 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEME6-A-03-05 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW1-B-03-01 | | 2003 | 2003 | 30 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW2-A-03-02 | | 2003 | 2003 | 23 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW2-A-03-03 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW2-B-03-01 | | 2003 | 2003 | 30 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW2-D-03-04 | | 2003 | 2003 | 28 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW2-D-03-07 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-A-03-01 | | 2003 | 2003 | 30 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-A-03-02 | | 2003 | 2003 | 18 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-A-03-03 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-A-03-04 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-A-03-05 | | 2003 | 2003 | 18 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-A-03-06 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-A-03-08 | | 2003 | 2003 | 23 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-A-03-09 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-B-03-01 | | 2003 | 2003 | 30 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-B-03-02 | | 2003 | 2003 | 23 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-B-03-03 | | 2003 | 2003 | 23 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-B-03-04 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-B-03-05 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-B-03-06 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-B-03-08 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-B-03-09 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-C-03-01 | | 2003 | 2003 | 30 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-C-03-02 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-C-03-03 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-C-03-04 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-C-03-05 | | 2003 | 2003 | 23 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-C-03-06 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-C-03-07 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-C-03-09 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-C1-03-08 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-D-03-01 | | 2003 | 2003 | 30 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-D-03-02 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-D-03-03 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-D-03-04 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-D-03-05 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-D-03-06 | | 2003 | 2003 | 23 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-D-03-07 | | 2003 | 2003 | 28 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-D-03-08 | | 2003 | 2003 | 23 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW3-D-03-09 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-A-03-01 | | 2003 | 2003 | 29 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-A-03-02 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-A-03-04 | | 2003 | 2003 | 18 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-A-03-05 | | 2003 | 2003 | 18 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-A-03-06 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-A-03-07 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-A-03-08 | | 2003 | 2003 | 18 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-A-03-09 | | 2003 | 2003 | 23 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-B-03-01 | | 2003 | 2003 | 30 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-B-03-02 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-B-03-04 | | 2003 | 2003 | 18 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-B-03-05 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-B-03-07 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-B-03-08 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-B-03-09 | | 2003 | 2003 | 23 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-C-03-02 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-C-03-04 | | 2003 | 2003 | 18 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-C-03-05 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-C-03-06 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-C-03-07 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-C-03-08 | | 2003 | 2003 | 18 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-C-03-09 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-C1-03-01 | | 2003 | 2003 | 30 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-D-03-01 | | 2003 | 2003 | 30 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-D-03-02 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-D-03-03 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-D-03-04 | | 2003 | 2003 | 18 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-D-03-05 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-D-03-06 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-D-03-07 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-D-03-08 | | 2003 | 2003 | 28 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW4-D-03-09 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW6-A-03-01 | | 2003 | 2003 | 30 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW6-A-03-03 | | 2003 | 2003 | 28 |
| 1528 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMW6-A-03-04 | | 2003 | 2003 | 18 |
| 1535 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLKWATPIN-COUNTRYW-1 | Pinellas-Country Woods-1 | 2001 | 2001 | 7 |
| 1535 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLKWATPIN-COUNTRYW-2 | Pinellas-Country Woods-2 | 2001 | 2001 | 7 |
| 1535 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLKWATPIN-COUNTRYW-3 | Pinellas-Country Woods-3 | 2001 | 2001 | 7 |
| 1535 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEM08-01 | MINNOW CR OFF N CWALL E OF ORANGE ST | 1994 | 1998 | 1477 |
| 1535 | DIRECT RUNOFF TO GULF | ESTUARY | 21FLPDEMAMB 08-1 | Minnow Creek | 1999 | 2002 | 932 |
| 1538 | CURLEW CREEK | ESTUARY | 112WRD 02309415 | CURLEW CREEK AT EVANS ROAD NEAR DUNEDIN FL | 1999 | 2003 | 574 |
| 1538 | CURLEW CREEK | ESTUARY | 112WRD 02309421 | CURLEW CREEK NR OZONA, FLA. | 2001 | 2002 | 37 |
| 1538 | CURLEW CREEK | ESTUARY | 112WRD 02309425 | CURLEW CREEK AT COUNTY ROAD 1 NEAR OZONA FL | 1999 | 2003 | 572 |
| 1538 | CURLEW CREEK | ESTUARY | 21FLPDEM10-01 | CURLEW CR W SIDE TRAIL BRDG S OF 586 | 1994 | 1998 | 1540 |
| 1538 | CURLEW CREEK | ESTUARY | 21FLPDEM10-02 | CURLEW CR W SIDE CR1 BRDG S OF 586 | 1994 | 2003 | 748 |
| 1538 | CURLEW CREEK | ESTUARY | 21FLPDEM97-02 | THE NARROWS INTRACOASTAL | 1997 | 1998 | 490 |
| 1538 | CURLEW CREEK | ESTUARY | 21FLPDEMAMB 10-1 | Curlew Creek | 1999 | 2002 | 1001 |
| 1538 | CURLEW CREEK | ESTUARY | 21FLPDEMAMB 10-2 | Curlew Creek | 1999 | 2002 | 375 |
| 1550 | JERRY BRANCH | STREAM | 21FLGW 18853 | SWA-SL-1002 | 2003 | 2003 | 30 |
| 1556 | CEDAR CREEK | ESTUARY | 21FLPDEM09-01 | CEDAR CR E SIDE ALT US19 BRDG S OF MICH BLVD | 1994 | 1998 | 1583 |
| 1556 | CEDAR CREEK | ESTUARY | 21FLPDEM09-02 | | 2003 | 2003 | 167 |
| 1556 | CEDAR CREEK | ESTUARY | 21FLPDEMAMB 09-1 | Cedar Creek | 1999 | 2002 | 1026 |
| 1567 | STEVENSON CREEK | ESTUARY | 21FLPDEM15-01 | SPRING BRNCH STEVENSON'S CR AT OVERBROOK ST | 1994 | 1998 | 1609 |
| 1567 | STEVENSON CREEK | ESTUARY | 21FLPDEM15-04 | | 2003 | 2003 | 158 |
| 1567 | STEVENSON CREEK | ESTUARY | 21FLPDEM18-01 | STEVENSON'S CR SE SIDE DOUGLAS AVE BRDG | 1994 | 1998 | 1473 |
| 1567 | STEVENSON CREEK | ESTUARY | 21FLPDEM18-03 | | 2003 | 2003 | 158 |
| 1567 | STEVENSON CREEK | ESTUARY | 21FLPDEMAMB 15-1 | Spring Branch Creek | 1999 | 2002 | 1066 |
| 1567 | STEVENSON CREEK | ESTUARY | 21FLPDEMAMB 18-1 | Stevenson's Creek | 1999 | 2002 | 941 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1567 | STEVENSON CREEK | ESTUARY | 21FLTPA 24020113 | TP105 - STEVENSON CREEK | 1998 | 1998 | 12 |
| 1567A | BELLEVUE LAKE - OPEN W | LAKE | 21FLSWFDBELLEVUE | | 1999 | 2000 | 58 |
| 1567A | BELLEVUE LAKE - OPEN W | LAKE | 21FLSWFDSTA0833 | BELLEVUE LAKE - OPEN WATER | 1996 | 1997 | 68 |
| 1614 | BELLEAIR GOLFCLUB RUN | STREAM | 21FLPDEM17-01 | RATTLESNAKE CR 100FT E BELLEVIEW BLVD BRDG | 1994 | 2003 | 1370 |
| 1614 | BELLEAIR GOLFCLUB RUN | STREAM | 21FLPDEM17-03 | | 2003 | 2003 | 153 |
| 1614 | BELLEAIR GOLFCLUB RUN | STREAM | 21FLPDEMAMB 17-1 | Rattlesnake Creek | 1999 | 2002 | 755 |
| 1618 | LAKE SEMINOLE | LAKE | 112WRD 02308888 | SEMINOLE LAKE NR LARGO, FLA. | 1994 | 1994 | 18 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLGFWFTBM960167 | | 1996 | 1996 | 5 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLGFWFTBM970296 | | 1997 | 1997 | 5 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLGFWFTBM970330 | | 1997 | 1997 | 5 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLGW 20077 | SWA-LL-1008 | 2003 | 2003 | 26 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLGW 20089 | SWA-LL-1021 | 2003 | 2003 | 30 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLKWATPIN-SEMINOLE-1 | Pinellas-Seminole-1 | 2003 | 2003 | 8 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLKWATPIN-SEMINOLE-2 | Pinellas-Seminole-2 | 2003 | 2003 | 8 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLKWATPIN-SEMINOLE-3 | Pinellas-Seminole-3 | 2003 | 2003 | 8 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEM25-02 | LK SEMINOLE BYPASS CNL ON S SIDE SR 688 BRDG | 1994 | 2003 | 1197 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEM25-06 | LK SEMINOLE BYPASS CNL N PRK BLVD ABOVE DAM | 1994 | 1998 | 1870 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEM26-01B | S LK SEMINOLE 75' N OF DAM @ PARK BLVD | 1994 | 1998 | 2529 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEM26-02 | SW LK SEMINOLE 15' E SKIPPER DR CNL MOUTH | 1994 | 1998 | 2218 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEM26-03B | LK SEMINOLE MID LK DUE E OF 86TH AVE N | 1994 | 1998 | 1304 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEM26-04B | LK SEMINOLE MID LK E OF 94TH PLACE | 1994 | 1998 | 1298 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEM26-05B | LK SEMINOLE MOUTH OF COVE N OF 98TH TERR | 1994 | 1998 | 2534 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEM26-06 | LK SEMINOLE S OF N LK DR MID OF CNL | 1994 | 1998 | 2535 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEM26-07B | LK SEMINOLE MID LK DUE E OF 114TH AV | 1994 | 1998 | 1279 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEM26-08 | LK SEMINOLE 20' E OF 117TH TERR CNL OPNG | 1994 | 1998 | 2476 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEM26-09B | LK SEMINOLE MID LK DUE E OF 121ST AVE | 1994 | 1998 | 2522 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEM26-10 | LK SEMINOLE 20' S OF NW CNL W OF BYPASS CNL | 1994 | 1998 | 2423 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMAMB 25-2 | Seminole Bypass Canal | 1999 | 2002 | 580 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMAMB 25-6 | Seminole Bypass Canal | 1999 | 2002 | 924 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMAMB 26-10 | Lake Seminole | 1999 | 2002 | 1276 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMAMB 26-1B | Lake Seminole | 1999 | 2002 | 1393 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMAMB 26-2 | Lake Seminole | 1999 | 2002 | 1286 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMAMB 26-3B | Lake Seminole | 1999 | 2002 | 713 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMAMB 26-4B | Lake Seminole | 1999 | 2002 | 708 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMAMB 26-5B | Lake Seminole | 1999 | 2002 | 1372 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMAMB 26-6 | Lake Seminole | 1999 | 2002 | 1398 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMAMB 26-7B | Lake Seminole | 1999 | 2002 | 691 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMAMB 26-8 | Lake Seminole | 1999 | 2002 | 1359 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMAMB 26-9B | Lake Seminole | 1999 | 2002 | 1344 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-A-03-01 | | 2003 | 2003 | 31 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-A-03-02 | | 2003 | 2003 | 19 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-A-03-04 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-A-03-05 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-A-03-06 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-A-03-07 | | 2003 | 2003 | 28 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-A-03-08 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-A-03-09 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-A1-03-03 | | 2003 | 2003 | 28 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-B-03-01 | | 2003 | 2003 | 31 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-B-03-02 | | 2003 | 2003 | 19 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-B-03-03 | | 2003 | 2003 | 28 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-B-03-04 | | 2003 | 2003 | 24 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-B-03-05 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-B-03-06 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-B-03-07 | | 2003 | 2003 | 28 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSA-B-03-09 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-A-03-01 | | 2003 | 2003 | 31 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-A-03-02 | | 2003 | 2003 | 19 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-A-03-03 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-A-03-06 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-A-03-07 | | 2003 | 2003 | 28 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-A-03-08 | | 2003 | 2003 | 29 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-A-03-09 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-A1-03-05 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-B-03-01 | | 2003 | 2003 | 25 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-B-03-02 | | 2003 | 2003 | 19 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-B-03-03 | | 2003 | 2003 | 19 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-B-03-04 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-B-03-05 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-B-03-06 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-B-03-07 | | 2003 | 2003 | 28 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-B-03-08 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMSB-B-03-09 | | 2003 | 2003 | 29 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMW5-A-03-04 | | 2003 | 2003 | 18 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMW5-A-03-07 | | 2003 | 2003 | 23 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMW5-B-03-02 | | 2003 | 2003 | 18 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMW5-B-03-03 | | 2003 | 2003 | 18 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMW5-C-03-01 | | 2003 | 2003 | 18 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMW5-C-03-06 | | 2003 | 2003 | 23 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLPDEMW5-D-03-03 | | 2003 | 2003 | 18 |
| 1618 | LAKE SEMINOLE | LAKE | 21FLTPA 24040131 | L48P - Lake Seminole | 1999 | 1999 | 12 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLGW 20040 | SWA-SS-1001 | 2003 | 2003 | 30 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEM25-07 | | 2003 | 2003 | 233 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMEAST POND | East Storm Water Treatment Pond | 2003 | 2003 | 137 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMSA-B-03-08 | | 2003 | 2003 | 19 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMSB-A-03-04 | | 2003 | 2003 | 29 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMW5-A-03-05 | | 2003 | 2003 | 18 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMW5-A-03-09 | | 2003 | 2003 | 18 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMW5-B-03-01 | | 2003 | 2003 | 18 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMW5-B-03-05 | | 2003 | 2003 | 23 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMW5-B-03-07 | | 2003 | 2003 | 23 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMW5-C-03-03 | | 2003 | 2003 | 18 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMW5-C-03-08 | | 2003 | 2003 | 23 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMW5-D-03-01 | | 2003 | 2003 | 18 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMW5-D-03-06 | | 2003 | 2003 | 28 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMW5-D-03-07 | | 2003 | 2003 | 23 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMW5-D-03-08 | | 2003 | 2003 | 23 |
| 1618A | LAKE SEMINOLE OUTLET | LAKE | 21FLPDEMWEST POND | West Storm Water Treatment Pond | 2003 | 2003 | 137 |
| 1633 | MCKAY CREEK | ESTUARY | 112WRD 275331082491201 | MCKAY CREEK OFFSITE MONITOR OS-1 AT LARGO FL | 1999 | 1999 | 11 |
| 1633 | MCKAY CREEK | ESTUARY | 112WRD 275331082491202 | MCKAY CREEK OFFSITE MONITOR OS-2 AT LARGO FL | 1999 | 1999 | 11 |
| 1633 | MCKAY CREEK | ESTUARY | 112WRD 275331082491203 | MCKAY CREEK OFFSITE MONITOR OS-3 AT LARGO FL | 1999 | 1999 | 11 |
| 1633 | MCKAY CREEK | ESTUARY | 21FLPDEM27-01 | MCKAY CR E SIDE ALT US19 BRDG N OF N CIRCLE | 1994 | 1998 | 1718 |
| 1633 | MCKAY CREEK | ESTUARY | 21FLPDEM27-09 | | 2003 | 2003 | 153 |
| 1633 | MCKAY CREEK | ESTUARY | 21FLPDEM27-10 | | 2003 | 2003 | 158 |
| 1633 | MCKAY CREEK | ESTUARY | 21FLPDEMAMB 27-1 | McKay Creek | 1999 | 2002 | 1172 |
| 1633A | TAYLOR LAKE | LAKE | 21FLKWATPIN-TAYLOR-1 | Pinellas-Taylor-1 | 2003 | 2003 | 18 |
| 1633A | TAYLOR LAKE | LAKE | 21FLKWATPIN-TAYLOR-2 | Pinellas-Taylor-2 | 2003 | 2003 | 20 |
| 1633A | TAYLOR LAKE | LAKE | 21FLKWATPIN-TAYLOR-3 | Pinellas-Taylor-3 | 2003 | 2003 | 20 |
| 1633A | TAYLOR LAKE | LAKE | 21FLPDEM27-02 | TAYLOR LK OFF N SIDE OF S CONTROL STRC | 1994 | 1998 | 860 |
| 1633A | TAYLOR LAKE | LAKE | 21FLPDEM27-03 | MCKAY CR AT RIDGECREST PRK N CTRL STRC | 1994 | 2003 | 1217 |
| 1633A | TAYLOR LAKE | LAKE | 21FLPDEMAMB 27-2 | McKay Creek | 1999 | 2002 | 490 |
| 1633A | TAYLOR LAKE | LAKE | 21FLPDEMAMB 27-3 | McKay Creek at Ridgecrest Park | 1999 | 2002 | 545 |
| 1633A | TAYLOR LAKE | LAKE | 21FLSWFDSTA0891 | TAYLOR LAKE - OPEN WATER | 1996 | 1997 | 71 |
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 112WRD 02308862 | CROSS BAYOU CN AT GROVER PLACE AT PINELLAS PARK FL | 1999 | 2002 | 334 |
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 21FLPDEM24-01 | CROSS BYU CNL N SIDE PARK BLVD BRDG | 1994 | 2003 | 2173 |
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 21FLPDEMAMB 24-1 | Cross Bayou Canal | 1999 | 2002 | 1201 |
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 21FLTPA 24040108 | TP143 - Cross Canal South | 1999 | 1999 | 5 |
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 21FLTPA 24040113 | TP144 - Cross Canal South | 1999 | 1999 | 5 |
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 21FLTPA 24040127 | TP145 - Cross Canal South | 1999 | 1999 | 5 |
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 21FLTPA 24040128 | TP146 - Cross Canal South | 1999 | 1999 | 5 |
| 1641 | CROSS CANAL (SOUTH) | ESTUARY | 21FLTPA 24040129 | TP147 - Cross Canal South | 1999 | 1999 | 5 |
| 1643 | CHURCH CREEK | STREAM | 21FLGW 18866 | SWA-SL-1019 | 2003 | 2003 | 30 |
| 1643 | CHURCH CREEK | STREAM | 21FLPDEM27-08 | CHURCH CR OFF N SIDE OF WILCOX RD BRIDGE | 1995 | 2003 | 667 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1643 | CHURCH CREEK | STREAM | 21FLPDEMAMB 27-8 | Church Creek | 1999 | 2002 | 355 |
| 1662 | PINELLAS PARK DITCH | ESTUARY | 21FLPDEM29-01 | PINELLAS DTCH 1 W BELCHER BRDG N OF 84TH AVE | 1994 | 1994 | 326 |
| 1668A | ST JOE CREEK | STREAM | 112WRD 02308935 | ST. JOES CREEK AT PINELLAS PARK, FL | 2000 | 2003 | 415 |
| 1668A | ST JOE CREEK | STREAM | 21FLHILL01BCB6018 | | 2001 | 2001 | 15 |
| 1668A | ST JOE CREEK | STREAM | 21FLPDEM35-02 | JOE'S CR N OF 54TH AVE W OF 74TH ST OFF DOCK | 1994 | 1998 | 1570 |
| 1668A | ST JOE CREEK | STREAM | 21FLPDEM35-03 | JOE'S CR OFF W SIDE 49TH ST BRDG S OF 41ST AVE | 1994 | 1998 | 660 |
| 1668A | ST JOE CREEK | STREAM | 21FLPDEM35-06 | JOE'S CREEK E SIDE OF US19 AND 45TH AVE NORTH | 1995 | 1998 | 556 |
| 1668A | ST JOE CREEK | STREAM | 21FLPDEM35-09 | | 2003 | 2003 | 173 |
| 1668A | ST JOE CREEK | STREAM | 21FLPDEM35-10 | | 2003 | 2003 | 158 |
| 1668A | ST JOE CREEK | STREAM | 21FLPDEM35-11 | | 2003 | 2003 | 188 |
| 1668A | ST JOE CREEK | STREAM | 21FLPDEM35-12 | | 2003 | 2003 | 146 |
| 1668A | ST JOE CREEK | STREAM | 21FLPDEMAMB 35-2 | Joe's Creek | 1999 | 2002 | 973 |
| 1668A | ST JOE CREEK | STREAM | 21FLPDEMAMB 35-3 | Joe's Creek | 1999 | 2002 | 358 |
| 1668A | ST JOE CREEK | STREAM | 21FLPDEMAMB 35-6 | Joe's Creek | 1999 | 2002 | 392 |
| 1668A | ST JOE CREEK | STREAM | 21FLPDEMAMB 35-9 | Joe's Creek | 1999 | 2002 | 396 |
| 1668B | BONN CREEK | STREAM | 21FLPDEM35-01 | JOE'S CR FTBDG AT PARK BLVD & 66TH ST N | 1994 | 1998 | 1361 |
| 1668B | BONN CREEK | STREAM | 21FLPDEM35-07 | JOE'S CREEK W SIDE OF 66TH ST AND 62ND AVE | 1995 | 1998 | 509 |
| 1668B | BONN CREEK | STREAM | 21FLPDEMAMB 35-8 | Joe's Creek | 1999 | 2002 | 817 |
| 1668C | PASADENA LAKE - OPEN W | LAKE | 21FLSWFDSTA0895 | PASADENA LAKE - OPEN WATER | 1996 | 1997 | 68 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLFMRISTT200017 | StateTrend - Boca Ciega Bay | 2000 | 2000 | 7 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLFMRISTT200127 | StateTrend - Boca Ciega Bay | 2001 | 2001 | 20 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLFMRISTT200204 | StateTrend - Boca Ciega Bay | 2000 | 2002 | 18 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBA970038 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBA970320 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBA970362 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM000026 | | 2000 | 2000 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM000027 | | 2000 | 2000 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM000153 | | 2000 | 2000 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM000257 | | 2000 | 2000 | 2 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM000403 | | 2000 | 2000 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM000518 | | 2000 | 2000 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM000519 | | 2000 | 2000 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM000733 | | 2000 | 2000 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM000753 | | 2000 | 2000 | 2 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM000901 | | 2000 | 2000 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM001253 | | 2000 | 2000 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM001270 | | 2000 | 2000 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM001364 | | 2000 | 2000 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960009 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960017 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960165 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960169 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960205 | | 1996 | 1996 | 3 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960380 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960381 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960382 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960383 | | 1996 | 1996 | 4 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960384 | | 1996 | 1996 | 4 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960420 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960426 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960500 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960501 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960502 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960641 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960741 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960743 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960792 | | 1996 | 1996 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960956 | | 1996 | 1996 | 2 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960957 | | 1996 | 1996 | 2 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970086 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970087 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970099 | | 1997 | 1997 | 5 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970152 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970327 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970328 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970564 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970565 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970674 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970675 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970676 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970703 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970704 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970705 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970816 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970817 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970818 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970819 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970820 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970985 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM971017 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM971155 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM980128 | | 1998 | 1998 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM980252 | | 1998 | 1998 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM980328 | | 1998 | 1998 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM980329 | | 1998 | 1998 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM980425 | | 1998 | 1998 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM980426 | | 1998 | 1998 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM980489 | | 1998 | 1998 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM980710 | | 1998 | 1998 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM980711 | | 1998 | 1998 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM980745 | | 1998 | 1998 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM980746 | | 1998 | 1998 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM980994 | | 1998 | 1998 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM980995S | | 1998 | 1998 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM981117 | | 1998 | 1998 | 5 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM990055 | | 1999 | 1999 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM990112 | | 1999 | 1999 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM990312 | | 1999 | 1999 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM990313 | | 1999 | 1999 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM990314 | | 1999 | 1999 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM990453 | | 1999 | 1999 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM990464 | | 1999 | 1999 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM990755 | | 1999 | 1999 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM990756 | | 1999 | 1999 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM990757 | | 1999 | 1999 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM990864 | | 1999 | 1999 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM991088 | | 1999 | 1999 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM991206 | | 1999 | 1999 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL00BCB4000 | | 2000 | 2000 | 15 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL00BCB59/1 | | 2000 | 2000 | 15 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL00BCB59/2 | | 2000 | 2000 | 25 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL00BCB60/2 | | 2000 | 2000 | 15 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL00BCB60/4 | | 2000 | 2000 | 25 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL01BCB59/2 | | 2001 | 2001 | 10 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL01BCB60/2 | | 2001 | 2001 | 20 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL01BCB60/4 | | 2001 | 2001 | 10 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL01BCB6263 | | 2001 | 2001 | 10 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL95BCB02 | | 1995 | 1995 | 8 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL95BCB03 | | 1995 | 1995 | 8 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL95BCB04 | | 1995 | 1995 | 8 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL95BCB20 | | 1995 | 1995 | 8 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL95BCB21 | | 1995 | 1995 | 4 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL96BCB26 | | 1996 | 1996 | 10 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL96BCB27 | | 1996 | 1996 | 10 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL96BCB30 | | 1996 | 1996 | 10 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL97BCB27 | | 1997 | 1997 | 10 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL97BCB30 | | 1997 | 1997 | 10 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL97BCB59-2 | | 1997 | 1997 | 10 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL97BCB60-2 | | 1997 | 1997 | 10 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL97BCB60-4 | | 1997 | 1997 | 5 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL98BCB17 | | 1998 | 1998 | 8 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL98BCB32 | | 1998 | 1998 | 8 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL98BCB38 | | 1998 | 1998 | 8 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL98BCB59/2 | | 1998 | 1998 | 8 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL98BCB60/2 | | 1998 | 1998 | 8 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL98BCB60/4 | | 1998 | 1998 | 8 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL99BCB2041 | | 1999 | 1999 | 20 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL99BCB2086 | | 1999 | 1999 | 20 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL99BCB2115 | | 1999 | 1999 | 10 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL99BCB59/2 | | 1999 | 1999 | 15 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL99BCB60/2 | | 1999 | 1999 | 10 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLHILL99BCB60/4 | | 1999 | 1999 | 15 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEM59-02 | S BOCA CIEGA BAY 200' SW CLAM BYU MOUTH | 1994 | 1998 | 1319 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEM59-03 | SE BOCA CIEGA BAY 25' W OF CNL N OF SEABREEZE | 1994 | 1998 | 1045 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEM60-01 | SW BOCA CIEGA BAY IN MACPHERSON BAYOU | 1994 | 1998 | 1995 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEM60-02 | SW BOCA CIEGA BAY NE OF DOLPHIN VILLAGE | 1994 | 1998 | 1431 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEM60-04 | S BOCA CIEGA BAY S OF GULFPORT MIDDLE GRND ISLD | 1994 | 1998 | 2055 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEM96-06 | BOCA CIEGA BAY | 1997 | 1997 | 212 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEM96-07 | BOCA CIEGA BAY | 1997 | 1997 | 229 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEM96-08 | BOCA CIEGA BAY | 1997 | 1997 | 216 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEM97-27 | BOCA CIEGA BAY | 1997 | 1998 | 465 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEM97-30 | BOCA CIEGA BAY | 1997 | 1998 | 465 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 00-0 | | 2001 | 2001 | 319 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 00-7 | | 2001 | 2001 | 304 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 00-79 | | 2001 | 2001 | 300 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 00-99 | | 2001 | 2001 | 309 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 01-009 | EMAP carry over station from 2001 | 2002 | 2002 | 303 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 59-2 | Boca Ciega Bay | 1999 | 2002 | 1313 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 59-3 | Boca Ciega Bay | 1999 | 2002 | 642 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 60-1 | MacPherson Bayou | 1999 | 2002 | 1332 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 60-2 | Boca Ciega Bay | 1999 | 2002 | 1386 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 60-4 | Boca Ciega Bay | 1999 | 2002 | 1336 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 98-17 | Boca Ciega Bay | 1999 | 1999 | 338 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 98-32 | Boca Ciega Bay | 1999 | 1999 | 319 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 98-38 | Boca Ciega Bay | 1999 | 1999 | 334 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 99-23 | | 2000 | 2000 | 321 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 99-41 | | 2000 | 2000 | 378 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 99-86 | | 2000 | 2000 | 297 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-A-03-01 | | 2003 | 2003 | 30 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-A-03-02 | | 2003 | 2003 | 18 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-A-03-03 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-A-03-04 | | 2003 | 2003 | 23 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-A-03-05 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-A-03-06 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-A-03-07 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-A-03-09 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-B-03-01 | | 2003 | 2003 | 30 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-B-03-02 | | 2003 | 2003 | 18 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-B-03-03 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-B-03-04 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-B-03-05 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-B-03-06 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-B-03-07 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-B-03-08 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-B-03-09 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-C-03-01 | | 2003 | 2003 | 30 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-C-03-02 | | 2003 | 2003 | 18 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-C-03-03 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-C-03-05 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-C-03-07 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-C-03-08 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-D-03-01 | | 2003 | 2003 | 24 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-D-03-03 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-D-03-04 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-D-03-05 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-D-03-06 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-D-03-07 | | 2003 | 2003 | 28 |
| 1694A | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-D-03-08 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLA 24040004 | CRYSTAL R. BASIN/SEMINOLE/MARINE SITE | 1994 | 1997 | 269 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLFMRITAM200016 | Tampa Bay - Boca Ciega Bay | 2000 | 2000 | 12 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960014 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960016 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960166 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960206 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960378 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960379 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960422 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960423 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960424 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960425 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960646 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960647 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960648 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960740 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960788 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960958 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960959 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM961031 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM961033 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM961128 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM961129 | | 1996 | 1996 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970088 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970089 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970090 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970093 | | 1997 | 1997 | 5 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970295 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970329 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970332 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970407 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970560 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970561 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970706 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970707 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970708 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970821 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970823 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970986 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970988 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970989 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM971019 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM971156 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM971157 | | 1997 | 1997 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM980578 | | 1998 | 1998 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM990113 | | 1999 | 1999 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM990515 | | 1999 | 1999 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM990619 | | 1999 | 1999 | 5 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL00BCB4037 | | 2000 | 2000 | 25 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL00BCB4124 | | 2000 | 2000 | 25 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL00BCB4174 | | 2000 | 2000 | 15 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL00BCB4268 | | 2000 | 2000 | 15 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL00BCB58/2 | | 2000 | 2000 | 15 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL01BCB58/2 | | 2001 | 2001 | 10 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL01BCB59/1 | | 2001 | 2001 | 20 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL01BCB6001 | | 2001 | 2001 | 15 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL01BCB6009 | | 2001 | 2001 | 10 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL95BCB17 | | 1995 | 1995 | 12 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL95BCB18 | | 1995 | 1995 | 8 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL95BCB19 | | 1995 | 1995 | 8 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL96BCB08 | | 1996 | 1996 | 8 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL96BCB12 | | 1996 | 1996 | 8 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL96BCB13 | | 1996 | 1996 | 10 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL96BCB15 | | 1996 | 1996 | 10 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL96BCB19 | | 1996 | 1996 | 10 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL97BCB08 | | 1997 | 1997 | 10 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL97BCB13 | | 1997 | 1997 | 10 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL97BCB17 | | 1997 | 1997 | 10 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL97BCB18 | | 1997 | 1997 | 10 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL97BCB58-2 | | 1997 | 1997 | 10 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL97BCB59-1 | | 1997 | 1997 | 10 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL98BCB11 | | 1998 | 1998 | 8 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL98BCB40 | | 1998 | 1998 | 8 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL98BCB58/2 | | 1998 | 1998 | 8 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL98BCB59/1 | | 1998 | 1998 | 8 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL99BCB2423 | | 1999 | 1999 | 20 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL99BCB58/2 | | 1999 | 1999 | 15 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLHILL99BCB59/1 | | 1999 | 1999 | 15 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEM58-02 | BOCA CIEGA BAY 1/8 MILE S OF VETERAN'S PRK | 1994 | 1998 | 1463 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEM59-01 | BOCA CIEGA BAY IN S PASADENA N OF SUN ISLD DR | 1994 | 1998 | 2026 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEM96-03 | N BOCA CIEGA BAY | 1997 | 1997 | 295 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEM96-04 | N BOCA CIEGA BAY | 1997 | 1997 | 323 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEM96-05 | N BOCA CIEGA BAY | 1997 | 1997 | 230 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEM97-08 | N BOCA CIEGA BAY | 1997 | 1998 | 505 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEM97-13 | N BOCA CIEGA BAY | 1997 | 1998 | 505 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEM97-17 | N BOCA CIEGA BAY | 1997 | 1998 | 467 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEM97-18 | BOCA CIEGA BAY | 1997 | 1998 | 460 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 00-38 | | 2001 | 2001 | 311 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 01-01 | EMAP carry over from 2001 | 2002 | 2002 | 347 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 58-2 | Boca Ciega Bay | 1999 | 2002 | 1280 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 59-1 | Boca Ciega Bay | 1999 | 2002 | 1296 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 98-11 | Boca Ciega Bay | 1999 | 1999 | 308 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 98-40 | Boca Ciega Bay | 1999 | 1999 | 310 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 99-70 | | 2000 | 2000 | 312 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-A-03-05 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-A-03-06 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-A-03-09 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-B-03-02 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-B-03-03 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-B-03-04 | | 2003 | 2003 | 18 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-B-03-05 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-B-03-06 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-B-03-08 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-C-03-02 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-C-03-03 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-C-03-04 | | 2003 | 2003 | 18 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-C-03-05 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-C-03-08 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-C-03-09 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-D-03-01 | | 2003 | 2003 | 24 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-D-03-02 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-D-03-06 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-D-03-07 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-D2-03-08 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-A-03-08 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-C-03-04 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-C-03-06 | | 2003 | 2003 | 23 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-C-03-09 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-D-03-02 | | 2003 | 2003 | 18 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW7-D1-03-09 | | 2003 | 2003 | 28 |
| 1694B | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW8-D-03-02 | | 2003 | 2003 | 18 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960015 | | 1996 | 1996 | 5 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960168 | | 1996 | 1996 | 5 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960207 | | 1996 | 1996 | 5 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960504 | | 1996 | 1996 | 5 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960505 | | 1996 | 1996 | 5 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960789 | | 1996 | 1996 | 5 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM960790 | | 1996 | 1996 | 5 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970154 | | 1997 | 1997 | 5 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970406 | | 1997 | 1997 | 5 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970562 | | 1997 | 1997 | 5 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLHILL00BCB58/1 | | 2000 | 2000 | 15 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLHILL01BCB58/1 | | 2001 | 2001 | 10 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLHILL95BCB16 | | 1995 | 1995 | 8 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLHILL97BCB58-1 | | 1997 | 1997 | 10 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLHILL98BCB58/1 | | 1998 | 1998 | 8 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLHILL99BCB58/1 | | 1999 | 1999 | 15 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEM58-01 | BOCA CIEGA BAY 200' S SEMINOLE BDG E VETS PRK | 1994 | 1998 | 2113 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMAMB 58-1 | Long & Cross Bayou Junction | 1999 | 2002 | 1279 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-A-03-03 | | 2003 | 2003 | 23 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-C-03-02 | | 2003 | 2003 | 23 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-C-03-07 | | 2003 | 2003 | 23 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-D-03-04 | | 2003 | 2003 | 28 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-A-03-07 | | 2003 | 2003 | 28 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-A-03-08 | | 2003 | 2003 | 18 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-A1-03-02 | | 2003 | 2003 | 28 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-B-03-01 | | 2003 | 2003 | 30 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-B-03-07 | | 2003 | 2003 | 28 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-B-03-09 | | 2003 | 2003 | 23 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-C-03-01 | | 2003 | 2003 | 23 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-C-03-06 | | 2003 | 2003 | 28 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-C-03-07 | | 2003 | 2003 | 28 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-D-03-04 | | 2003 | 2003 | 18 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-D-03-05 | | 2003 | 2003 | 28 |
| 1694C | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW6-D-03-09 | | 2003 | 2003 | 28 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970091 | | 1997 | 1997 | 5 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLGFWFTBM970987 | | 1997 | 1997 | 5 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLHILL97BCB10 | | 1997 | 1997 | 10 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-A-03-01 | | 2003 | 2003 | 18 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-A-03-02 | | 2003 | 2003 | 18 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-A-03-06 | | 2003 | 2003 | 23 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-A-03-08 | | 2003 | 2003 | 23 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-B-03-04 | | 2003 | 2003 | 18 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-B-03-06 | | 2003 | 2003 | 23 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-B-03-08 | | 2003 | 2003 | 23 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-B-03-09 | | 2003 | 2003 | 23 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-C-03-04 | | 2003 | 2003 | 23 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-C-03-05 | | 2003 | 2003 | 23 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-C-03-09 | | 2003 | 2003 | 18 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-D-03-02 | | 2003 | 2003 | 18 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-D-03-05 | | 2003 | 2003 | 23 |
| 1694D | BOCA CIEGA BAY | ESTUARY | 21FLPDEMW5-D-03-09 | | 2003 | 2003 | 28 |
| 1701 | BEAR CREEK | STREAM | 112WRD 02308776 | BEAR CREEK AT MANGO AVENUE AT GULFPORT FL | 2000 | 2003 | 378 |
| 1701 | BEAR CREEK | STREAM | 21FLGFWFTBM960791 | | 1996 | 1996 | 5 |
| 1701 | BEAR CREEK | STREAM | 21FLPDEM39-01 | BEAR CR N SIDE GULFPORT BLVD BRDG | 1994 | 1998 | 1948 |
| 1701 | BEAR CREEK | STREAM | 21FLPDEMAMB 39-1 | Bear Creek | 1999 | 2002 | 1236 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 21FLGFWFTBM000404 | | 2000 | 2000 | 5 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 21FLGFWFTBM960742 | | 1996 | 1996 | 5 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 21FLGFWFTBM971015 | | 1997 | 1997 | 5 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 21FLGFWFTBM980747 | | 1998 | 1998 | 5 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 21FLPDEM45-01 | N SHORE CNL S OF 26TH AVE S AT KINGSTON ST | 1994 | 1998 | 1304 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 21FLPDEM46-01 | CNL E OF 41ST ST AND 21ST AVE N OFF CMNT DAM | 1994 | 1998 | 1250 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 21FLPDEMAMB 45-1 | Clam Bayou, East Drainage | 1999 | 2002 | 435 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 21FLPDEMAMB 46-1 | Clam Bayou, North drainage | 1999 | 2002 | 370 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 21FLTPA 27442238241064 | CLAM7-Clam Bayou | 2001 | 2001 | 6 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 21FLTPA 27443308241284 | CLAM4-Clam Bayou | 2001 | 2001 | 6 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 21FLTPA 27443328241284 | CLAM1-Clam Bayou | 2001 | 2001 | 6 |
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 21FLTPA 27444418241401 | CLAM3-Clam Bayou | 2001 | 2001 | 6 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1716 | CLAM BAYOU DRAIN | ESTUARY | 21FLTPA 27444488241064 | CLAM5-Clam Bayou | 2001 | 2001 | 6 |
| 8044C | ROBERT K. REES PARK BEACH | COASTAL | 21FLDOH PASCO223 | ROBERT K. REES PARK BEACH | 2000 | 2003 | 127 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLKWATPAS-ANC3-000 | Pasco-ANC3-000 | 2000 | 2001 | 12 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLKWATPAS-ANC4-800 | Pasco-ANC4-800 | 2000 | 2001 | 10 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLKWATPAS-ANC7-600 | Pasco-ANC7-600 | 2000 | 2001 | 12 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPCSWSTA 1144 4260 0 | PASCO - Pithlachascotee - Station 10 | 2000 | 2002 | 293 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPCSWSTA 1144 4264 0 | PASCO - Pithlachascotee - Station 8 | 2000 | 2002 | 289 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPCSWSTA 1149 4293 0 | PASCO - Anclote - Station 1 | 2000 | 2002 | 300 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPCSWSTA 1149 4294 0 | PASCO - Anclote - Station 10 | 2000 | 2002 | 291 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPCSWSTA 1149 4295 0 | PASCO - Anclote - Station 2 | 2000 | 2002 | 308 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPCSWSTA 1149 4296 0 | PASCO - Anclote - Station 3 | 2000 | 2002 | 314 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPCSWSTA 1149 4297 0 | PASCO - Anclote - Station 4 | 2000 | 2002 | 299 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPCSWSTA 1149 4298 0 | PASCO - Anclote - Station 5 | 2000 | 2002 | 288 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPCSWSTA 1149 4299 0 | PINELLAS - Anclote - Station 6 | 2000 | 2002 | 288 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPCSWSTA 1149 4300 0 | PINELLAS - Anclote - Station 7 | 2000 | 2002 | 305 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPCSWSTA 1149 4301 0 | PASCO - Anclote - Station 8 | 2000 | 2002 | 284 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPCSWSTA 1149 4302 0 | PASCO - Anclote - Station 9 | 2000 | 2002 | 286 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPDEMW1-A-03-04 | | 2003 | 2003 | 28 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPDEMW1-A-03-05 | | 2003 | 2003 | 28 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPDEMW1-A-03-07 | | 2003 | 2003 | 28 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPDEMW1-B-03-02 | | 2003 | 2003 | 28 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPDEMW1-C-03-01 | | 2003 | 2003 | 18 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPDEMW1-C-03-02 | | 2003 | 2003 | 23 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPDEMW1-C-03-08 | | 2003 | 2003 | 28 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPDEMW1-C-03-09 | | 2003 | 2003 | 28 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPDEMW1-D-03-05 | | 2003 | 2003 | 28 |
| 8045 | CRYSTAL RIVER GULF 7 | COASTAL | 21FLPDEMW1-D-03-09 | | 2003 | 2003 | 28 |
| 8045A | GULF HARBORS BEACH | COASTAL | 21FLDOH PASCO224 | GULF HARBORS BEACH | 2000 | 2003 | 127 |
| 8045A | GULF HARBORS BEACH | COASTAL | 21FLTPA 24040167 | GH11 - Gulf Harbor Canal | 2000 | 2000 | 11 |
| 8045A | GULF HARBORS BEACH | COASTAL | 21FLTPA 24040168 | GH12 - Gulf Harbor Canal | 2000 | 2000 | 12 |
| 8045B | FRED HOWARD BEACH | COASTAL | 21FLDOH PINELLAS226 | FRED HOWARD BEACH | 2000 | 2003 | 130 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEM07-02 | SUTHERLAND BYU 250' S OF MOUTH OGDEN BYU | 1994 | 1998 | 1019 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEM08-02 | SMITH BYU MIDDLE OF LUNDGREN COVE | 1994 | 1998 | 1041 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEM54-01 | N CLWTR HRBR 5' W ICWW MARKER 7 E OF CALADESI | 1994 | 1998 | 2021 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMAMB 07-2 | Sutherland Bayou / St. Joseph's Sound | 1999 | 2002 | 640 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMAMB 08-2 | Smith Bayou / St. Joseph's Sound | 1999 | 2002 | 629 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMAMB 54-1 | Clearwater Harbor North | 1999 | 2002 | 1268 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMAMB 54-3 | Clearwater Harbor | 1999 | 2002 | 633 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-A-03-01 | | 2003 | 2003 | 30 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-A-03-02 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-A-03-03 | | 2003 | 2003 | 23 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-A-03-06 | | 2003 | 2003 | 23 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-A-03-08 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-A-03-09 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-B-03-03 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-B-03-05 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-B-03-07 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-B-03-08 | | 2003 | 2003 | 18 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-B-03-09 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-B1-03-06 | | 2003 | 2003 | 23 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-C-03-03 | | 2003 | 2003 | 27 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-C-03-04 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-C-03-05 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-C-03-06 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-C-03-07 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-D-03-01 | | 2003 | 2003 | 18 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-D-03-02 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-D-03-04 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-D-03-07 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-D-03-08 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-D1-03-03 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW1-D3-03-06 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-A-03-04 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-A-03-05 | | 2003 | 2003 | 23 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-A-03-06 | | 2003 | 2003 | 28 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-A-03-07 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-A-03-08 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-A-03-09 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-B-03-02 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-B-03-03 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-B-03-04 | | 2003 | 2003 | 23 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-B-03-05 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-B-03-06 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-B-03-07 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-B-03-08 | | 2003 | 2003 | 18 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-B-03-09 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-C-03-02 | | 2003 | 2003 | 23 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-C-03-03 | | 2003 | 2003 | 23 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-C-03-04 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-C-03-05 | | 2003 | 2003 | 23 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-C-03-06 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-C-03-07 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-C-03-08 | | 2003 | 2003 | 18 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-C-03-09 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-D-03-02 | | 2003 | 2003 | 18 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-D-03-03 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-D-03-06 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-D-03-09 | | 2003 | 2003 | 28 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-D1-03-05 | | 2003 | 2003 | 23 |
| 8046 | CRYSTAL RIVER GULF 8 | COASTAL | 21FLPDEMW2-D2-03-08 | | 2003 | 2003 | 28 |
| 8046A | HONEYMOON ISLAND BEACH | COASTAL | 21FLDOH PINELLAS227 | HONEYMOON ISLAND BEACH | 2000 | 2003 | 128 |
| 8047 | CRYSTAL RIVER GULF 9 | COASTAL | 21FLA FLPHOSPHATE12 | | 1998 | 2001 | 247 |
| 8047A | SAND KEY | COASTAL | 21FLDOH PINELLAS231 | SAND KEY | 2000 | 2003 | 129 |
| 8047B | BELLEAIR SHORES INTERCOASTAL | COASTAL | 21FLDOH PINELLAS236 | BELLEAIR SHORES INTERCOASTAL | 2000 | 2003 | 132 |
| 8047B | BELLEAIR SHORES INTERCOASTAL | COASTAL | 21FLPDEMW3-A-03-07 | | 2003 | 2003 | 28 |
| 8047B | BELLEAIR SHORES INTERCOASTAL | COASTAL | 21FLPDEMW3-B-03-07 | | 2003 | 2003 | 28 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 8047C | INDIAN ROCKS BEACH | COASTAL | 21FLDOH PINELLAS235 | INDIAN ROCKS BEACH | 2000 | 2003 | 128 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLGFWFTBM960427 | | 1996 | 1996 | 5 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLGFWFTBM961034 | | 1996 | 1996 | 5 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLGFWFTBM970297 | | 1997 | 1997 | 5 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLGFWFTBM971158 | | 1997 | 1997 | 5 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLKWATPIN-PIN7-860 | Pinellas-PIN7-860 | 2000 | 2000 | 4 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLKWATPIN-PIN7-864 | Pinellas-PIN7-864 | 2001 | 2001 | 4 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLKWATPIN-PIN7-865 | Pinellas-PIN7-865 | 2001 | 2001 | 4 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLKWATPIN-PIN8-246 | Pinellas-PIN8-246 | 2001 | 2001 | 4 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLKWATPIN-PIN8-250 | Pinellas-PIN8-250 | 2000 | 2000 | 4 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLKWATPIN-PIN8-253 | Pinellas-PIN8-253 | 2001 | 2001 | 4 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLKWATPIN-PIN9-890 | Pinellas-PIN9-890 | 2000 | 2000 | 4 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLKWATPIN-PIN9-891 | Pinellas-PIN9-891 | 2001 | 2001 | 4 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLKWATPIN-PIN9-903 | Pinellas-PIN9-903 | 2001 | 2001 | 4 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLPDEMW4-A-03-03 | | 2003 | 2003 | 28 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLPDEMW4-B-03-06 | | 2003 | 2003 | 28 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLPDEMW4-C-03-03 | | 2003 | 2003 | 28 |
| 8048 | CRYSTAL RIVER GULF 10 | COASTAL | 21FLPDEMW6-D-03-03 | | 2003 | 2003 | 23 |
| 8048A | INDIAN SHORES BEACH | COASTAL | 21FLDOH PINELLAS228 | INDIAN SHORES BEACH | 2000 | 2003 | 127 |
| 8048A | INDIAN SHORES BEACH | COASTAL | 21FLDOH PINELLAS229 | NORTH SHORE BEACH | 2000 | 2003 | 151 |
| 8048B | MADEIRA BEACH | COASTAL | 21FLDOH PINELLAS232 | MADEIRA BEACH | 2000 | 2003 | 126 |
| 8048C | TREASURE ISLAND BEACH | COASTAL | 21FLDOH PINELLAS239 | TREASURE ISLAND BEACH | 2000 | 2003 | 134 |
| **Chassahowitzka Planning Unit** | | | | | | | |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 112WRD 02310650 | CHASSAHOWITZKA RIVER NEAR HOMOSASSA, FLA. | 1997 | 1998 | 93 |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 112WRD 02310652 | CRAB CREEK NR CHASSAHOWITZKA, FLA. | 1997 | 1998 | 96 |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 21FLPCSWSTA 1145 4240 0 | CITRUS - Homosassa - Station 8 | 1996 | 2002 | 527 |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 21FLPCSWSTA 1145 4242 0 | CITRUS - Homosassa - Station 10 | 1996 | 2002 | 500 |
| 1348 | CHASSAHAWITZKA RIVER | STREAM | 21FLSWFDSTA0006 | ANCLOTE CRYS R - CHASSAHOW R AB GULF OF MEXICO | 1994 | 1997 | 456 |
| 1348D | BAIRD CREEK | STREAM | 21FLA 24040010 | BAIRD CREEK/CHASSAHOWITZKA/FRESHWATER REF SIT | 1994 | 1994 | 20 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1348D | BAIRD CREEK | STREAM | 21FLGW STA0006 | ANCLOTE CRYS R-CHASSAHOW R AB GULF OF M | 1997 | 1998 | 308 |
| 1348D | BAIRD CREEK | STREAM | 21FLPCSWFLO 7 2629 0 | CITRUS - Chassahowitzka - Station 1 | 1997 | 2002 | 476 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 21FLGW 9707 | CHASSAHOWITZKA MAIN | 2001 | 2003 | 287 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 21FLGW 9708 | CHASSAHOWITZKA #1 | 2001 | 2003 | 287 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 21FLSWFD28.7154 82.57 | CHASSAHOWITZKA | 1994 | 2001 | 611 |
| 1348Z | CHASSAHAWITZKA MAIN | SPRING | 21FLSWFD28.716179 82.57 | CHASSAHOWITZKA | 1994 | 2001 | 594 |
| 1361 | WEEKIWACHEE RIVER | STREAM | 21FLGW 20068 | SWA-SS-1035 | 2003 | 2003 | 26 |
| 1361 | WEEKIWACHEE RIVER | STREAM | 21FLPCSWFLO 7 2630 0 | CITRUS - Chassahowitzka - Station 2 | 1997 | 2002 | 517 |
| 1361 | WEEKIWACHEE RIVER | STREAM | 21FLPCSWSTA 1147 4247 0 | CITRUS - Chassahowitzka - Station 3 | 1997 | 2002 | 539 |
| 1361 | WEEKIWACHEE RIVER | STREAM | 21FLPCSWSTA 1147 4248 0 | HERNANDO - Chassahowitzka - Station 4 | 1997 | 2002 | 530 |
| 1361A | SKINNER LAKE - OPEN WA | LAKE | 21FLSWFDSKINNER | | 2001 | 2001 | 28 |
| 1361A | SKINNER LAKE - OPEN WA | LAKE | 21FLSWFDSTA0583 | SKINNER LAKE - OPEN WATER | 1994 | 1995 | 350 |
| 8041 | CRYSTAL RIVER GULF 3 | COASTAL | 21FLKWATHER-CHA10-500 | Hernando-CHA10-500 | 2000 | 2001 | 9 |
| 8041 | CRYSTAL RIVER GULF 3 | COASTAL | 21FLKWATHER-CHA8-800 | Hernando-CHA8-800 | 2000 | 2001 | 9 |
| 8041 | CRYSTAL RIVER GULF 3 | COASTAL | 21FLKWATHER-CHA9-500 | Hernando-CHA9-500 | 2000 | 2001 | 9 |
| 8041 | CRYSTAL RIVER GULF 3 | COASTAL | 21FLPCSWFLO 7 2636 0 | CITRUS - Chassahowitzka - Station 10 | 1997 | 2002 | 479 |
| 8041 | CRYSTAL RIVER GULF 3 | COASTAL | 21FLPCSWSTA 1145 4239 0 | CITRUS - Homosassa - Station 9 | 1996 | 2002 | 497 |
| 8041 | CRYSTAL RIVER GULF 3 | COASTAL | 21FLPCSWSTA 1147 4313 0 | HERNANDO - Chassahowitzka - Station 5 | 1997 | 2002 | 496 |
| 8041 | CRYSTAL RIVER GULF 3 | COASTAL | 21FLPCSWSTA 1147 4314 0 | HERNANDO - Chassahowitzka - Station 6 | 1997 | 2002 | 484 |
| 8041 | CRYSTAL RIVER GULF 3 | COASTAL | 21FLPCSWSTA 1147 4315 0 | HERNANDO - Chassahowitzka - Station 7 | 1997 | 2002 | 491 |
| 8041 | CRYSTAL RIVER GULF 3 | COASTAL | 21FLPCSWSTA 1147 4316 0 | HERNANDO - Chassahowitzka - Station 8 | 1997 | 2002 | 487 |
| 8041 | CRYSTAL RIVER GULF 3 | COASTAL | 21FLPCSWSTA 1147 4317 0 | HERNANDO - Chassahowitzka - Station 9 | 1997 | 2002 | 490 |
| **Crystal River / Kings Bay Planning Unit** | | | | | | | |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL1 | Citrus-Crystal River-Kings Bay Canal 1-1 | 1996 | 1998 | 61 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL10 | Citrus-Crystal River-Kings Bay Canal 10-10 | 1996 | 1996 | 1 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL11 | Citrus-Crystal River-Kings Bay Canal 11-11 | 1996 | 1998 | 52 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL12 | Citrus-Crystal River-Kings Bay Canal 12-12 | 1996 | 1998 | 51 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL13 | Citrus-Crystal River-Kings Bay Canal 13-13 | 1996 | 1998 | 19 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL14 | Citrus-Crystal River-Kings Bay Canal 14-14 | 1996 | 1998 | 104 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL15 | Citrus-Crystal River-Kings Bay Canal 15-15 | 1997 | 1998 | 83 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL16 | Citrus-Crystal River-Kings Bay Canal 16-16 | 1997 | 1998 | 40 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL17 | Citrus-Crystal River-Kings Bay Canal 17-17 | 1996 | 1998 | 60 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL18 | Citrus-Crystal River-Kings Bay Canal 18-18 | 1996 | 1998 | 88 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL19 | Citrus-Crystal River-Kings Bay Canal 19-19 | 1996 | 1997 | 44 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL2 | Citrus-Crystal River-Kings Bay Canal 2-2 | 1996 | 1998 | 60 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL20 | Citrus-Crystal River-Kings Bay Canal 20-20 | 1996 | 1998 | 40 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL21 | Citrus-Crystal River-Kings Bay Canal 21-21 | 1996 | 1998 | 99 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL22 | Citrus-Crystal River-Kings Bay Canal 22-22 | 1996 | 1996 | 3 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL23 | Citrus-Crystal River-Kings Bay Canal 23-23 | 1996 | 1996 | 3 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL24 | Citrus-Crystal River-Kings Bay Canal 24-24 | 1996 | 1997 | 10 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL25 | Citrus-Crystal River-Kings Bay Canal 25-25 | 1996 | 1997 | 4 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL26 | Citrus-Crystal River-Kings Bay Canal 26-26 | 1996 | 1997 | 7 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL27 | Citrus-Crystal River-Kings Bay Canal 27-27 | 1996 | 1997 | 7 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL29 | Citrus-Crystal River-Kings Bay Canal 29-29 | 1996 | 1996 | 2 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL3 | Citrus-Crystal River-Kings Bay Canal 3-3 | 1996 | 1998 | 47 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL30 | Citrus-Crystal River-Kings Bay Canal 30-30 | 1996 | 1998 | 11 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL32 | Citrus-Crystal River-Kings Bay Canal 32-32 | 1998 | 1998 | 6 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL33 | Citrus-Crystal River-Kings Bay Canal 33-33 | 1997 | 1998 | 8 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL34 | Citrus-Crystal River-Kings Bay Canal 34-34 | 1997 | 1998 | 8 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL4 | Citrus-Crystal River-Kings Bay Canal 4-4 | 1996 | 1998 | 50 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL5 | Citrus-Crystal River-Kings Bay Canal 5-5 | 1996 | 1998 | 89 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL6 | Citrus-Crystal River-Kings Bay Canal 6-6 | 1996 | 1997 | 38 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL7 | Citrus-Crystal River-Kings Bay Canal 7-7 | 1996 | 1998 | 88 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-CANAL8 | Citrus-Crystal River-Kings Bay Canal 8-8 | 1996 | 1998 | 53 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-RIVER-2 | Citrus-Crystal River-2-2 | 1994 | 2003 | 394 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-RIVER-3 | Citrus-Crystal River-3-3 | 1994 | 2003 | 397 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-RIVER-4 | Citrus-Crystal River-4-4 | 1994 | 2003 | 124 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-RIVER-5 | Citrus-Crystal River-5-5 | 1994 | 2003 | 381 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-RIVER-6 | Citrus-Crystal River-6-6 | 1994 | 2003 | 345 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CR-RIVER-7 | Citrus-Crystal River-7-7 | 1994 | 2003 | 234 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLKWATCIT-CRYSTALR3-1 | Citrus-Crystal River-Kings Bay Canal 31-1 | 1997 | 1998 | 9 |
| 1341 | CRYSTAL RIVER | STREAM | 21FLPCSWFLO 55 2631 0 | CITRUS - Crystal - Station 4 | 1996 | 2002 | 535 |
| 1341C | HUNTERS BAY SPRING | SPRING | 21FLGW 9709 | HUNTER SPRING | 2001 | 2003 | 287 |
| 1341C | HUNTERS BAY SPRING | SPRING | 21FLSWFD28.894317 82.59 | HUNTERS SPRING | 1994 | 2001 | 443 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1341F | IDIOTS DELIGHT SPRING | SPRING | 21FLSWFD28.887964 82.58 | IDIOTS DELIGHT | 1994 | 2001 | 247 |
| 1341G | TARPON SPRING | SPRING | 21FLGW 9710 | TARPON HOLE SPRING | 2001 | 2003 | 286 |
| 1341G | TARPON SPRING | SPRING | 21FLSWFD28.881782 82.59 | TARPON HOLE SPR | 1994 | 2001 | 593 |
| 1341I | CRYSTAL RIVER | ESTUARY | 21FLA 37060SEAS | Salt Riv @ hwy 44 bridge | 1994 | 2003 | 1244 |
| 1341I | CRYSTAL RIVER | ESTUARY | 21FLA 37090SEAS | CM #23 Crystal River | 1994 | 2003 | 1209 |
| 1341I | CRYSTAL RIVER | ESTUARY | 21FLGW FLO0190 | A01 CRYSTAL RIVER STATION #1 | 1997 | 1998 | 184 |
| 1341I | CRYSTAL RIVER | ESTUARY | 21FLKWATCIT-CR-RIVER-1 | Citrus-Crystal River-1-1 | 1994 | 2003 | 286 |
| 1341I | CRYSTAL RIVER | ESTUARY | 21FLPCSWSTA 1146 4245 0 | CITRUS - Crystal - Station 3 | 1996 | 2002 | 534 |
| 1341I | CRYSTAL RIVER | ESTUARY | 21FLSWFDFLO0190 | A01 CRYSTAL RIVER STATION #1 | 1995 | 1997 | 300 |
| 1341I | CRYSTAL RIVER | ESTUARY | 21FLSWFDFLO0191 | A02 CRYSTAL RIVER; MILLERS CREEK STATION #2 | 1997 | 1998 | 352 |
| 1341I | CRYSTAL RIVER | ESTUARY | 21FLTPA 24040126 | TP130 - CRYSTAL RIVER | 1999 | 1999 | 5 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 34050SEAS | Withlacoochee River CM# 24 | 1994 | 2003 | 1142 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 34060SEAS | Cross Florida Barge Canal CM# 37 | 1994 | 2003 | 1033 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 34062SEAS | SW of Cross Fla Barge Can CM#37 English bar | 1995 | 2003 | 813 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 34064SEAS | NE of FPC intake canal CM# 43 | 1995 | 2003 | 803 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 34070SEAS | Cross Florida Barge Canal CM# 41 | 1994 | 2003 | 1047 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 34072SEAS | S CM# 41 and spoil Is in gap in bars | 1995 | 2003 | 797 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 34074SEAS | near Doghead Gap | 1995 | 2003 | 813 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 34076SEAS | along bars N of FPC intake canal CM# 47 and 48 | 1995 | 2003 | 816 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 34080SEAS | beach on Chambers Island | 1994 | 2003 | 784 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 34092SEAS | South of Captain Joe Is | 1995 | 2003 | 758 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 34094SEAS | West of Drum Is | 1995 | 2003 | 812 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 34096SEAS | West of spoil bank FPC discharge canal | 1995 | 2003 | 841 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 37100SEAS | CM #100 Crystal River | 1994 | 2003 | 1476 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 37650SEAS | CM #48 FPC intake canal | 1994 | 2003 | 1602 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 37651SEAS | Nergo Island West edge | 1994 | 2003 | 1426 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 37652SEAS | Tin Pan Gap | 1994 | 2003 | 1567 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 37653SEAS | Crystal River reef system west of Fort Is beach | 1994 | 2003 | 1630 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 37654SEAS | Crystal River reef system S tip | 1994 | 2003 | 1643 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 37660SEAS | CM #18 Crystal River | 1994 | 2003 | 1254 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 37665SEAS | CM #10A Crystal River | 1996 | 2003 | 1272 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 37668SEAS | gap in bar NW of Sandy Hook Is | 1996 | 2003 | 1258 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLA 37680SEAS | Black Point | 1994 | 2003 | 1242 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLKWATCIT-WIT7-500 | Citrus-WIT7-500 | 2000 | 2001 | 12 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLPCSWSTA 1142 4267 0 | CITRUS - Withlacoochee - Station 7 | 1996 | 2002 | 588 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLPCSWSTA 1142 4268 0 | CITRUS - Withlacoochee - Station 8 | 1996 | 2002 | 584 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLPCSWSTA 1142 4269 0 | CITRUS - Withlacoochee - Station 9 | 1996 | 2002 | 542 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLPCSWSTA 1142 4270 0 | CITRUS - Withlacoochee - Station 10 | 1996 | 2002 | 581 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLPCSWSTA 1146 4290 0 | CITRUS - Crystal - Station 5 | 1996 | 2002 | 554 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLPCSWSTA 1146 4291 0 | CITRUS - Crystal - Station 6 | 1996 | 2002 | 536 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLPCSWSTA 1146 4318 0 | CITRUS - Crystal - Station 1 | 1996 | 2002 | 588 |
| 8039 | CRYSTAL RIVER GULF 1 | COASTAL | 21FLTPA 24040084 | TP137 - Crystal River Bay | 1999 | 1999 | 5 |
| 8039A | FORT ISLAND GULF BEACH | COASTAL | 21FLA 37110SEAS | W of Fort Is beach | 1994 | 2003 | 1640 |
| 8039A | FORT ISLAND GULF BEACH | COASTAL | 21FLA 37112SEAS | N of boat launch at Fort Is beach | 1994 | 2003 | 1256 |
| 8039A | FORT ISLAND GULF BEACH | COASTAL | 21FLDOH CITRUS47 | FORT ISLAND GULF BEACH | 2000 | 2003 | 127 |
| **Homosassa River Planning Unit** | | | | | | | |
| 1345 | HOMOSASSA RIVER | STREAM | 21FLA 24040021 | HOMOSASSA RIVER/HOMOSASSA/FRESHWATER | 1994 | 1997 | 185 |
| 1345 | HOMOSASSA RIVER | STREAM | 21FLGW FLO0032 | HOMASASSA RIVER AB HALLS RIVER | 1997 | 1998 | 180 |
| 1345 | HOMOSASSA RIVER | STREAM | 21FLGW STA0007 | ANCLOTE CRYS R-CHAN#74 HOMOSASSA R AB G | 1997 | 1998 | 213 |
| 1345 | HOMOSASSA RIVER | STREAM | 21FLPCSWFLO 97 2632 0 | CITRUS - Homosassa - Station 5 | 1996 | 2002 | 521 |
| 1345 | HOMOSASSA RIVER | STREAM | 21FLSWFDFLO0032 | HOMOSASSA RIVER AB HALLS RIVER | 1994 | 1997 | 378 |
| 1345 | HOMOSASSA RIVER | STREAM | 21FLSWFDSTA0007 | ANCLOTE CRYS R - CHAN#74 HOMOSASSA R AB GULF/MEX | 1994 | 1997 | 446 |
| 1345 | HOMOSASSA RIVER | STREAM | 21FLSWFDSTA0052 | HALLS RIVER ABOVE HOMOSASSA RIVER | 1994 | 1997 | 575 |
| 1345 | HOMOSASSA RIVER | STREAM | 21FLTPA 24040021 | TP34 - HOMOSASSA RIVER | 1997 | 1998 | 23 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37120SEAS | Coon Gap near manatee sign | 1994 | 2003 | 1131 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37130SEAS | canal embayment to Woods-n-waters subdiv | 1994 | 2003 | 1214 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37140SEAS | N Dixie Bay @ junction with Salt Riv | 1994 | 2003 | 1199 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37630SEAS | west of Mullet Key | 1994 | 2003 | 1487 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37631SEAS | small Is with lone palm S of 631 | 1994 | 2003 | 1472 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37655SEAS | gap in bar N of Sandy Hook Is at PVC stake | 1994 | 2003 | 1609 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37656SEAS | Pirates Cove channel large PVC | 1994 | 2003 | 1560 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37670SEAS | W of Fort Is beach | 1994 | 2003 | 1644 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37690SEAS | 1st bend in Narrows | 1994 | 2003 | 1043 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37691SEAS | E Dixie Bay along seawall near canal | 1994 | 2003 | 1129 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37692SEAS | Pt W Dixie Bay near mouth spanish cut | 1994 | 2003 | 1204 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37693SEAS | confluence of Salt Riv with Salt Cr | 1994 | 2003 | 931 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37695SEAS | gap connect spanish cut with Salt Riv | 1996 | 2003 | 1123 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37710SEAS | N of Camp Is @ mouth | 1994 | 2003 | 1330 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37731SEAS | S of Camp Is @ pvc | 1994 | 2003 | 1614 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLA 37741SEAS | W of Camp Is | 1994 | 2003 | 1542 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLPCSWSTA 1145 4241 0 | CITRUS - Homosassa - Station 4 | 1996 | 2002 | 577 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLPCSWSTA 1146 4243 0 | CITRUS - Crystal - Station 9 | 1996 | 2002 | 501 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLPCSWSTA 1146 4244 0 | CITRUS - Crystal - Station 7 | 1996 | 2002 | 510 |
| 1345A | CRYSTAL RIVER BAY | ESTUARY | 21FLPCSWSTA 1146 4246 0 | CITRUS - Crystal - Station 10 | 1996 | 2002 | 537 |
| 1345D | HOMOSASSA SPRING | SPRING | 112WRD 02310688 | SE FORK HOMOSASSA SGS AT HOMOSASSA SPRINGS, FLA | 1997 | 1998 | 109 |
| 1345D | HOMOSASSA SPRING | SPRING | 21FLGW 284758082352001 | WMD SITE ID HOMOSASSA SPRING COM | 1994 | 1994 | 59 |
| 1345D | HOMOSASSA SPRING | SPRING | 21FLGW 9704 | HOMOSASSA #2 | 2001 | 2003 | 287 |
| 1345D | HOMOSASSA SPRING | SPRING | 21FLGW 9705 | HOMOSASSA #1 | 2001 | 2003 | 287 |
| 1345D | HOMOSASSA SPRING | SPRING | 21FLGW 9706 | HOMOSASSA #3 | 2001 | 2003 | 287 |
| 1345D | HOMOSASSA SPRING | SPRING | 21FLSWFD28.799209 82.58 | HOMOSASSA #2 SP | 1994 | 2001 | 572 |
| 1345D | HOMOSASSA SPRING | SPRING | 21FLSWFD28.79921 82.58 | HOMOSASSA #3 SP | 1994 | 2001 | 575 |
| 1345D | HOMOSASSA SPRING | SPRING | 21FLSWFD28.799214 82.58 | HOMOSASSA #1 SP | 1994 | 2001 | 575 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 21FLA 37657SEAS | SW of Shark Point embayment | 1994 | 2003 | 1132 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 21FLA 37720SEAS | Long Point | 1994 | 2003 | 1533 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 21FLA 37721SEAS | NW tip of Mangrove Is | 1994 | 2003 | 1381 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 21FLA 37725SEAS | Grey Mare Pass PVC marking channel | 1994 | 2003 | 1167 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 21FLKWATCIT-HOM2-500 | Citrus-HOM2-500 | 2000 | 2001 | 9 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 21FLKWATCIT-HOM6-500 | Citrus-HOM6-500 | 2000 | 2001 | 9 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 21FLKWATCIT-HOM7-500 | Citrus-HOM7-500 | 2000 | 2001 | 9 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 21FLPCSWSTA 1145 4271 0 | CITRUS - Homosassa - Station 6 | 1996 | 2002 | 525 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 21FLPCSWSTA 1145 4272 0 | CITRUS - Homosassa - Station 7 | 1996 | 2002 | 510 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 21FLPCSWSTA 1145 4273 0 | CITRUS - Homosassa - Station 2 | 1996 | 2002 | 499 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 21FLPCSWSTA 1145 4274 0 | CITRUS - Homosassa - Station 3 | 1996 | 2002 | 506 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 21FLPCSWSTA 1145 4275 0 | CITRUS - Homosassa - Station 1 | 1996 | 2002 | 503 |
| 8040 | CRYSTAL RIVER GULF 2 | COASTAL | 21FLPCSWSTA 1146 4289 0 | CITRUS - Crystal - Station 8 | 1996 | 2002 | 516 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| **Middle Coastal Planning Unit** | | | | | | | |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLA 24040012 | CRYSTAL R. BASIN/WEEKIWACHEE/FRESHWATER SITE | 1994 | 1994 | 39 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLA 24040014 | CRYSTAL R. BASIN/WEEKIWACHEE/FRESHWATER SITE | 1994 | 1994 | 39 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLA 24040015 | CRYSTAL R. BASIN/WEEKIWACHEE/FRESHWATER SITE | 1994 | 1997 | 201 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLA 24040020 | CRYSTAL R. BASIN/WEEKIWACHEE/FRESHWATER SITE | 1994 | 1994 | 40 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLGW 20069 | SWA-SS-1036 | 2003 | 2003 | 30 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLGW 3566 | FLO 50 230 0 | 1998 | 2003 | 1833 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLGW FLO0097 | WEEKI WACHEE R. UPSTREAM OF ROGERS PARK | 1997 | 1998 | 201 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLGW FLO0098 | WEEKI WACHEE RIVER AT ROGERS PARK | 1997 | 1998 | 202 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLPCSWSTA 1143 4235 0 | HERNANDO - Weeki Wachee - Station 2 | 1997 | 2002 | 484 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLPCSWSTA 1143 4236 0 | HERNANDO - Weeki Wachee - Station 3 | 1997 | 2002 | 489 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLSWFD28.532256382.62 | WEEKI WACHEE RV. @ ROGERS PARK | 2001 | 2002 | 209 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLSWFDFL0050000036400 | WEEKI WACHEE RV @ ROGERS PARK | 2000 | 2002 | 772 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLSWFDFLO0097 | WEEKI WACHEE RIVER UPSTREM | 1995 | 1997 | 295 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLSWFDFLO0098 | WEEKI WACHEE RV. @ ROGERS PARK | 1995 | 1997 | 307 |
| 1382A | WEEKIWATCHEE RIVER | STREAM | 21FLSWFDSTA0636 | UNNAMED LAKE - OPEN WATER | 1994 | 1996 | 375 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 112WRD 02310500 | WEEKIWACHEE SPRINGS NR BROOKSVILLE,FLA. | 1994 | 1999 | 416 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 21FLGW 283100082342501 | WMD SITE ID WEEKI WACHEE MAIN | 1994 | 1994 | 59 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 21FLGW 9716 | WEEKI WACHEE MAIN | 2001 | 2003 | 287 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 21FLPCSWFLO 50 2637 0 | HERNANDO - Weeki Wachee - Station 1 | 1997 | 2002 | 440 |
| 1382B | WEEKIWATCHEE SPRING | SPRING | 21FLSWFD28.517223 82.57 | WEEKI WACHEE MA | 1994 | 2001 | 609 |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 21FLGW 3510 | STA 766 633 0 | 1998 | 2003 | 1864 |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 21FLSWFDSTA0633 | TOOKE LAKE - OPEN WATER | 1995 | 1996 | 73 |
| 1382C | TOOKE LAKE - OPEN WATE | LAKE | 21FLTPA 24040015 | L2P - LAKE TOOKE | 1998 | 2003 | 62 |
| 1382D | DOUBLE CYPRESS POND - | LAKE | 21FLSWFDDOUBLE CYPRESS | | 2001 | 2001 | 28 |
| 1382D | DOUBLE CYPRESS POND - | LAKE | 21FLSWFDSTA0845 | DOUBLE CYPRESS POND - OPEN WATER | 1995 | 1996 | 67 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1382E | HIGHLAND LAKE - OPEN W | LAKE | 21FLGW 18870 | SWA-SL-1024 | 2003 | 2003 | 30 |
| 1382E | HIGHLAND LAKE - OPEN W | LAKE | 21FLSWFDHIGHLAND | | 2001 | 2001 | 28 |
| 1382E | HIGHLAND LAKE - OPEN W | LAKE | 21FLSWFDSTA0855 | HIGHLAND LAKE - OPEN WATER | 1995 | 1996 | 90 |
| 1384A | BONNETT POND - OPEN WA | LAKE | 21FLSWFDBONNETT | | 2001 | 2001 | 26 |
| 1384A | BONNETT POND - OPEN WA | LAKE | 21FLSWFDSTA0581 | BONNETT POND - OPEN WATER | 1994 | 1995 | 373 |
| 1389 | JENKINS SPRING | STREAM | 21FLGW 18856 | SWA-SL-1006 | 2003 | 2003 | 30 |
| 1389 | JENKINS SPRING | STREAM | 21FLSWFD28.522031 82.63 | JENKINS CREEK S | 1999 | 2001 | 192 |
| 1391 | HUNTER LAKE | LAKE | 21FLGW STA0053 | HUNTER LAKE | 1997 | 1998 | 261 |
| 1391 | HUNTER LAKE | LAKE | 21FLKWATHER-HUNTER-1 | Hernando-Hunter-1 | 1994 | 2002 | 227 |
| 1391 | HUNTER LAKE | LAKE | 21FLKWATHER-HUNTER-2 | Hernando-Hunter-2 | 1994 | 2002 | 225 |
| 1391 | HUNTER LAKE | LAKE | 21FLKWATHER-HUNTER-3 | Hernando-Hunter-3 | 1994 | 2002 | 211 |
| 1391 | HUNTER LAKE | LAKE | 21FLSWFDHUNTERS | | 2000 | 2001 | 84 |
| 1391 | HUNTER LAKE | LAKE | 21FLSWFDSTA0053 | HUNTERS LAKE NORTHWEST | 1995 | 1997 | 353 |
| 1391 | HUNTER LAKE | LAKE | 21FLSWFDSTA0257 | HUNTERS LAKE - OPEN WATER | 1994 | 1995 | 358 |
| 1391 | HUNTER LAKE | LAKE | 21FLSWFDSTA0888 | UNNAMED PASCO LAKE - OPEN WATER | 1995 | 1996 | 66 |
| 1391 | HUNTER LAKE | LAKE | 21FLSWFDUNNAMED PASCO | | 2000 | 2000 | 30 |
| 1391A | HUNTER LAKE OUTLET | LAKE | 21FLGW 18855 | SWA-SL-1004 | 2003 | 2003 | 30 |
| 1391A | HUNTER LAKE OUTLET | LAKE | 21FLGW 18861 | SWA-SL-1013 | 2003 | 2003 | 30 |
| 1391A | HUNTER LAKE OUTLET | LAKE | 21FLGW 18862 | SWA-SL-1014 | 2003 | 2003 | 30 |
| 1392 | CREWS LAKE | LAKE | 112WRD 02310260 | CREWS LAKE SOUTH NR LOYCE, FLA. | 1999 | 2000 | 5 |
| 1392 | CREWS LAKE | LAKE | 21FLKWATPAS-CREWS-1 | Pasco-Crews-1 | 2003 | 2003 | 44 |
| 1392 | CREWS LAKE | LAKE | 21FLKWATPAS-CREWS-2 | Pasco-Crews-2 | 2003 | 2003 | 44 |
| 1392 | CREWS LAKE | LAKE | 21FLKWATPAS-CREWS-3 | Pasco-Crews-3 | 2003 | 2003 | 44 |
| 1392 | CREWS LAKE | LAKE | 21FLSWFDCREWS | | 1999 | 2001 | 115 |
| 1392 | CREWS LAKE | LAKE | 21FLSWFDSTA0120 | CREWS LAKE - OPEN WATER | 1996 | 1997 | 58 |
| 1392A | LAKE IOLA | LAKE | 21FLSWFDIOLA | | 2000 | 2001 | 58 |
| 1392A | LAKE IOLA | LAKE | 21FLSWFDSTA0503 | LAKE IOLA - OPEN WATER | 1994 | 1995 | 67 |
| 1392B | LAKE HANCOCK - OPEN WA | LAKE | 21FLSWFDHANCOCK | | 1999 | 2001 | 116 |
| 1392B | LAKE HANCOCK - OPEN WA | LAKE | 21FLSWFDSTA0121 | LAKE HANCOCK - OPEN WATER | 1994 | 1995 | 363 |
| 1392C | MIDDLE LAKE - OPEN WAT | LAKE | 21FLSWFDMIDDLE | | 1999 | 2000 | 59 |
| 1392C | MIDDLE LAKE - OPEN WAT | LAKE | 21FLSWFDSTA0198 | MIDDLE LAKE - OPEN WATER | 1996 | 1997 | 68 |
| 1392D | MOODY LAKE (WEST) - OP | LAKE | 21FLSWFDMOODY (WEST) | | 2000 | 2001 | 59 |
| 1392D | MOODY LAKE (WEST) - OP | LAKE | 21FLSWFDSTA0889 | MOODY LAKE (WEST) - OPEN WATER | 1994 | 1995 | 66 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1392E | MOODY LAKE (EAST) - OP | LAKE | 21FLGW 20070 | SWA-LL-1001 | 2003 | 2003 | 30 |
| 1392E | MOODY LAKE (EAST) - OP | LAKE | 21FLSWFDMOODY (EAST) | | 2000 | 2001 | 58 |
| 1392E | MOODY LAKE (EAST) - OP | LAKE | 21FLSWFDSTA0478 | MOODY LAKE (EAST) - OPEN WATER | 1994 | 1995 | 65 |
| 1392F | JESSAMINE LAKE - OPEN | LAKE | 112WRD 282458082161600 | JESSAMINE LAKE NEAR SAN ANTONIO FL | 1999 | 2000 | 6 |
| 1392F | JESSAMINE LAKE - OPEN | LAKE | 21FLSWFDJESSAMINE | | 1999 | 2000 | 59 |
| 1392F | JESSAMINE LAKE - OPEN | LAKE | 21FLSWFDSTA0438 | JESSAMINE LAKE - OPEN WATER | 1996 | 1997 | 77 |
| 1392Y | LAKE IOLA OUTLET | LAKE | 21FLGW 20062 | SWA-SS-1027 | 2003 | 2003 | 26 |
| 1401A | LOYCE LAKE - OPEN WATE | LAKE | 21FLSWFDLOYCE (UNNAMED | | 2001 | 2001 | 28 |
| 1401A | LOYCE LAKE - OPEN WATE | LAKE | 21FLSWFDSTA0427 | LOYCE LAKE - OPEN WATER | 1995 | 1996 | 72 |
| 1407 | BUCKHORN CREEK | STREAM | 21FLGW 18869 | SWA-SL-1023 | 2003 | 2003 | 30 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 112WRD 02310280 | PITHLACHASCOTEE RIVER NR FIVAY JUNCTION, FLA. | 1994 | 2003 | 803 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 112WRD 02310300 | PITHLACHASCOTEE RIVER NR NEW PORT RICHEY, FLA. | 1994 | 2003 | 995 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLA 24040003 | CRYSTAL R. BASIN/FIVAY JUNCTION/FRESHWATER | 1994 | 1997 | 210 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLA 24040009 | CRYSTAL R. BASIN/PORT RICHEY/MARINE SITE | 1994 | 1997 | 266 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLGW 18864 | SWA-SL-1016 | 2003 | 2003 | 30 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLGW 20043 | SWA-SS-1004 | 2003 | 2003 | 30 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLPCSWFLO 5 2633 0 | PASCO - Pithlachascotee - Station 1 | 2000 | 2002 | 318 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLPCSWSTA 1144 4238 0 | PASCO - Pithlachascotee - Station 2 | 2000 | 2002 | 307 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLSWFDFLO0095 | PITHLACHASCOTEE RIVER | 1995 | 1998 | 63 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040003 | TP6 - PITHLACHASCOTEE RIVER | 1998 | 2003 | 58 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040009 | TP30 - PITHLACHASCOTEE RIVER | 1998 | 1998 | 12 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040133 | PR1-Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040134 | PR2- Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040135 | PR3 - Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040136 | PR4 - Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040137 | PR5 - Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040138 | PR6 - Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040139 | PR7 -Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040140 | PR8 -Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040142 | PR9 -Pithlachascotee River | 2000 | 2000 | 6 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040144 | PR10 -Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040145 | PR11 -Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040146 | PR12 -Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040147 | PR13 -Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040148 | PR14 -Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040149 | PR15 -Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040150 | PR16 -Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040152 | PR17 -Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040153 | PR18 -Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040154 | PR19 Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040155 | PR20 -Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040156 | PR21 -Pithlachascotee River | 2000 | 2000 | 6 |
| 1409 | PITHLACHASCOTEE RIVER | STREAM | 21FLTPA 24040157 | PR19 -Pithlachascotee River | 2000 | 2000 | 12 |
| 1409A | MOON LAKE | LAKE | 112WRD 02310290 | MOON LAKE NR NEW PORT RICHEY, FLA. | 1999 | 2000 | 6 |
| 1409A | MOON LAKE | LAKE | 21FLSWFDMOON | | 2001 | 2001 | 28 |
| 1409A | MOON LAKE | LAKE | 21FLSWFDSTA0420 | MOON LAKE - OPEN WATER | 1995 | 1996 | 77 |
| 1409B | OELSNER PARK BEACH | STREAM | 21FLDOH PASCO222 | OELSNER PARK BEACH | 2000 | 2003 | 130 |
| 1420A | WEST MOON LAKE - OPEN | LAKE | 21FLSWFDSTA0887 | WEST MOON LAKE - OPEN WATER | 1994 | 1994 | 28 |
| 1420B | HUNTERS LAKE - OPEN WA | LAKE | 21FLSWFDSTA0886 | HUNTERS LAKE - OPEN WATER | 1994 | 1995 | 61 |
| 1423A | PIERCE LAKE - OPEN WAT | LAKE | 112WRD 02310282 | LAKE PIERCE AT FIVAY JUNCTION, FLA | 1999 | 2000 | 12 |
| 1423A | PIERCE LAKE - OPEN WAT | LAKE | 21FLSWFDPIERCE | | 2000 | 2001 | 55 |
| 1423A | PIERCE LAKE - OPEN WAT | LAKE | 21FLSWFDSTA0522 | PIERCE LAKE - OPEN WATER | 1994 | 1995 | 61 |
| 1423B | GREEN LAKE - OPEN WATE | LAKE | 21FLSWFDGREEN | | 2000 | 2001 | 55 |
| 1423B | GREEN LAKE - OPEN WATE | LAKE | 21FLSWFDSTA0305 | GREEN LAKE - OPEN WATER | 1994 | 1995 | 61 |
| 1432 | DOUBLE HAMMOCK CREEK | STREAM | 21FLGW 18859 | SWA-SL-1010 | 2003 | 2003 | 26 |
| 1432A | LAKE WORRELL - OPEN WA | LAKE | 21FLSWFDSTA0368 | LAKE WORRELL - OPEN WATER | 1994 | 1995 | 67 |
| 1432A | LAKE WORRELL - OPEN WA | LAKE | 21FLSWFDWORRELL | | 2000 | 2001 | 56 |
| 8042 | CRYSTAL RIVER GULF 4 | COASTAL | 21FLKWATHER-WEE10-500 | Hernando-WEE10-500 | 2000 | 2001 | 9 |
| 8042 | CRYSTAL RIVER GULF 4 | COASTAL | 21FLKWATHER-WEE8-530 | Hernando-WEE8-530 | 2000 | 2001 | 9 |
| 8042 | CRYSTAL RIVER GULF 4 | COASTAL | 21FLKWATHER-WEE9-500 | Hernando-WEE9-500 | 2000 | 2001 | 9 |
| 8042 | CRYSTAL RIVER GULF 4 | COASTAL | 21FLPCSWSTA 1143 4251 0 | HERNANDO - Weeki Wachee - Station 4 | 1997 | 2002 | 494 |
| 8042 | CRYSTAL RIVER GULF 4 | COASTAL | 21FLPCSWSTA 1143 4253 0 | HERNANDO - Weeki Wachee - Station 6 | 1997 | 2002 | 485 |
| 8042 | CRYSTAL RIVER GULF 4 | COASTAL | 21FLPCSWSTA 1143 4254 0 | HERNANDO - Weeki Wachee - Station 7 | 1997 | 2002 | 480 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 8042 | CRYSTAL RIVER GULF 4 | COASTAL | 21FLPCSWSTA 1143 4255 0 | HERNANDO - Weeki Wachee - Station 8 | 1997 | 2002 | 481 |
| 8042 | CRYSTAL RIVER GULF 4 | COASTAL | 21FLPCSWSTA 1143 4256 0 | HERNANDO - Weeki Wachee - Station 9 | 1997 | 2002 | 502 |
| 8042 | CRYSTAL RIVER GULF 4 | COASTAL | 21FLPCSWSTA 1143 4259 0 | HERNANDO - Weeki Wachee - Station 10 | 1997 | 2002 | 492 |
| 8042A | PINE ISLAND BEACH | COASTAL | 21FLDOH HERNANDO118 | PINE ISLAND BEACH | 2000 | 2003 | 125 |
| 8042A | PINE ISLAND BEACH | COASTAL | 21FLPCSWSTA 1143 4252 0 | HERNANDO - Weeki Wachee - Station 5 | 1997 | 2002 | 477 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLKWATPAS-ARI4-000 | Pasco-ARI4-000 | 2001 | 2001 | 7 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLKWATPAS-ARI8-000 | Pasco-ARI8-000 | 2000 | 2001 | 6 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLKWATPAS-ARI9-000 | Pasco-ARI9-000 | 2000 | 2001 | 7 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLPCSWSTA 1148 4276 0 | PASCO - Hudson - Station 1 | 2000 | 2002 | 291 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLPCSWSTA 1148 4278 0 | PASCO - Hudson - Station 2 | 2000 | 2002 | 285 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLPCSWSTA 1150 4303 0 | HERNANDO - Aripeka - Station 8 | 2000 | 2002 | 286 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLPCSWSTA 1150 4304 0 | HERNANDO - Aripeka - Station 9 | 2000 | 2002 | 292 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLPCSWSTA 1150 4305 0 | HERNANDO - Aripeka - Station 1 | 2000 | 2002 | 288 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLPCSWSTA 1150 4306 0 | PASCO - Aripeka - Station 2 | 2000 | 2002 | 290 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLPCSWSTA 1150 4307 0 | PASCO - Aripeka - Station 3 | 2000 | 2002 | 290 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLPCSWSTA 1150 4308 0 | PASCO - Aripeka - Station 4 | 2000 | 2002 | 292 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLPCSWSTA 1150 4309 0 | PASCO - Aripeka - Station 5 | 2000 | 2002 | 279 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLPCSWSTA 1150 4310 0 | PASCO - Aripeka - Station 6 | 2000 | 2002 | 291 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLPCSWSTA 1150 4311 0 | PASCO - Aripeka - Station 7 | 2000 | 2002 | 289 |
| 8043 | CRYSTAL RIVER GULF 5 | COASTAL | 21FLPCSWSTA 1150 4312 0 | PASCO - Aripeka - Station 10 | 2000 | 2002 | 292 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLKWATPAS-HUD4-000 | Pasco-HUD4-000 | 2000 | 2001 | 9 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLKWATPAS-HUD6-000 | Pasco-HUD6-000 | 2000 | 2001 | 9 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLKWATPAS-HUD8-000 | Pasco-HUD8-000 | 2000 | 2001 | 10 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLKWATPAS-PIT4-200 | Pasco-PIT4-200 | 2000 | 2001 | 9 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLKWATPAS-PIT6-400 | Pasco-PIT6-400 | 2000 | 2001 | 9 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLKWATPAS-PIT8-000 | Pasco-PIT8-000 | 2000 | 2001 | 9 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLPCSWSTA 1144 4261 0 | PASCO - Pithlachascotee - Station 5 | 2000 | 2002 | 290 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLPCSWSTA 1144 4262 0 | PASCO - Pithlachascotee - Station 6 | 2000 | 2002 | 289 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLPCSWSTA 1144 4263 0 | PASCO - Pithlachascotee - Station 7 | 2000 | 2002 | 287 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLPCSWSTA 1144 4265 0 | PASCO - Pithlachascotee - Station 4 | 2000 | 2002 | 290 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLPCSWSTA 1144 4266 0 | PASCO - Pithlachascotee - Station 3 | 2000 | 2002 | 285 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLPCSWSTA 1148 4277 0 | PASCO - Hudson - Station 10 | 2000 | 2002 | 291 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLPCSWSTA 1148 4279 0 | PASCO - Hudson - Station 3 | 2000 | 2002 | 293 |

| WBID | Waterbody Segment | Waterbody Type | STORET Station ID | Station Description | BD | ED | # of Obs. |
|---|---|---|---|---|---|---|---|
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLPCSWSTA 1148 4280 0 | PASCO - Hudson - Station 4 | 2000 | 2002 | 289 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLPCSWSTA 1148 4282 0 | PASCO - Hudson - Station 6 | 2000 | 2002 | 291 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLPCSWSTA 1148 4283 0 | PASCO - Hudson - Station 7 | 2000 | 2002 | 284 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLPCSWSTA 1148 4284 0 | PASCO - Hudson - Station 8 | 2000 | 2002 | 294 |
| 8044 | CRYSTAL RIVER GULF 6 | COASTAL | 21FLPCSWSTA 1148 4285 0 | PASCO - Hudson - Station 9 | 2000 | 2002 | 288 |
| 8044A | ROBERT J STRICKLAND BEACH | COASTAL | 21FLDOH PASCO219 | ROBERT J STRICKLAND BEACH | 2000 | 2003 | 130 |
| 8044A | ROBERT J STRICKLAND BEACH | COASTAL | 21FLPCSWSTA 1148 4281 0 | PASCO - Hudson - Station 5 | 2000 | 2002 | 285 |
| 8044B | BRASHER PARK BEACH | COASTAL | 21FLDOH PASCO221 | BRASHER PARK BEACH | 2000 | 2003 | 126 |
| 8044D | ENERGY AND MARINE CENTER | COASTAL | 21FLDOH PASCO220 | ENERGY AND MARINE CENTER | 2000 | 2003 | 121 |

# *Appendix G: Level 1 Land Use by Planning Unit for the Springs Coast Basin, by Planning Unit*

| | Crystal River/KingsBay | | Homosassa River | | Chassahowitzka River | |
|---|---|---|---|---|---|---|
| **Land Use Category** | **Area (square miles)** | **Percentage of Land Area** | **Area (square miles)** | **Percentage of Land Area** | **Area (square miles)** | **Percentage of Land Area** |
| Urban and Built-Up | 28.1 | 35.9 | 19.4 | 21.7 | 36.1 | 20.5 |
| Agriculture | 5.9 | 7.5 | 4.5 | 5.0 | 22.3 | 12.6 |
| Rangeland | 0.6 | 0.8 | 0.3 | 0.4 | 5.2 | 2.9 |
| Upland Forests | 20.6 | 26.3 | 20.2 | 22.5 | 71.3 | 40.4 |
| Water | 0.6 | 0.7 | 0.7 | 0.8 | 0.7 | 0.4 |
| Wetlands | 19.3 | 24.7 | 43.5 | 48.4 | 38.6 | 21.9 |
| Barren Land | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | 0.3 |
| Transportation, Communications, and Utilities | 2.9 | 3.7 | 0.8 | 0.9 | 1.8 | 1.0 |
| **Totals** | **78.4** | **100.0** | **89.8** | **100.0** | **176.4** | **100.0** |

| | Middle Coastal | | Anclote River/Coastal Pinellas County | |
|---|---|---|---|---|
| **Land Use Category** | **Area (square miles)** | **Percentage of Land Area** | **Area (square miles)** | **Percentage of Land Area** |
| Urban and Built-Up | 153.8 | 33.0 | 144.3 | 57.3 |
| Agriculture | 61.6 | 13.2 | 29.7 | 11.8 |
| Rangeland | 8.5 | 1.8 | 4.9 | 1.9 |
| Upland Forests | 116.9 | 25.1 | 23.4 | 9.3 |
| Water | 11.2 | 2.4 | 7.9 | 3.1 |
| Wetlands | 102.7 | 22.0 | 34.1 | 13.6 |
| Barren Land | 3.6 | 0.8 | 1.8 | 0.7 |
| Transportation, Communications, and Utilities | 7.7 | 1.6 | 5.6 | 2.2 |
| **Totals** | **466.1** | **100.0** | **251.7** | **100.0** |

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**Division of Water Resource Management**
**Bureau of Watershed Management**
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**(850) 245-8561**
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