# Draft
# Evaluation of Waters Proposed for Reclassification from Class III to Class I-Treated

**June 2016**


**Prepared by:**
**Florida Department of Environmental Protection**
**Division of Environmental Assessment and Restoration**
**Water Quality Standards Section**

2600 Blair Stone Rd.
Tallahassee, FL 32399

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# List of Acronyms and Abbreviations

| | |
|---|---|
| µg/L | Micrograms Per Liter |
| µmhos/cm | Micromhos Per Centimeter |
| AADF | Annual Average Daily Flow |
| ASR | Aquifer Storage and Recovery |
| AWT | Advanced Wastewater Treatment |
| AWWTF | Advanced Wastewater Treatment Facility |
| BMAP | Basin Management Action Plan |
| BMP | Best Management Practice |
| CAFO | Combined Animal Feeding Operation |
| CFR | Code of Federal Regulations |
| cfs | Cubic Feet Per Second |
| CGP | Construction General Permit |
| Class I | Referes to both Class I and I-Treated surface waters |
| Class I-Treated | Class I-Treated Potable surface waters |
| C&SF | Central and South Florida |
| CUP | Consumptive Use Permit |
| CWA | Clean Water Act |
| Department | Florida Department of Environmental Protection |
| DO | Dissolved Oxygen |
| DO sat | Dissolved Oxygen Saturation |
| DW | Domestic Waste |
| DWP | Drinking Water Permit |
| EPA | United States Environmental Protection Agency |
| ERP | Environmental Resource Permit |
| F.A.C. | Florida Administrative Code |
| FDA | United States Food and Drug Administration |
| FDACS | Florida Department of Agriculture and Consumer Services |
| FDOH | Florida Department of Health |
| FDOT | Florida Department of Transportation |
| FPUA | Fort Pierce Utility Authority |
| F.S. | Florida Statutes |
| FWCC | Florida Fish and Wildlife Conservation Commission |
| FWS | United States Fish and Wildlife Service |
| GPM | Gallons Per Minute |
| HUC | Hydrologic Unit Code |
| IW | Industrial Waste |
| IWF | Industrial Wastewater Facilities |
| IWR | Impaired Surface Waters Rule |
| L | Liter |
| MCL | Maximum Contaminant Level |
| MDL | Minimum Detection Limit |

| | |
|---|---|
| MDL | Method Detection Limit |
| MFLs | Minimum Flows and Levels |
| mg | Milligram |
| MGD | Million Gallons Per Day |
| mg/kg | Milligrams Per Kilogram |
| mg/L | Milligrams Per Liter |
| MHP | Mobile Home Park |
| MIT | Mechanical Integrity Testing |
| mL | Milliliter |
| MS4 | Municipal Separate Storm Sewer System |
| MSGP | Multi-Sector General Permit |
| MSP | Multi-Sector Permit |
| NGVD | National Geodetic Vertical Datum |
| NHD | National Hydrography Dataset |
| NPDES | National Pollutant Discharge Elimination System |
| NTU | Nephelometric turbidity units |
| NWFWMD | Northwest Florida Water Management District |
| NWTP | North Water Treatment Plant |
| OAWP | Office of Agricultural Water Policy |
| OFW | Outstanding Florida Water |
| ONRW | Outstanding National Resource Water |
| PQL | Practical Quantification Level |
| QA/QC | Quality Assurance/Quality Control |
| RA | Reasonable Assurance |
| RAP | Reasonable Assurance Plan |
| RIB | Rapid infiltration Basin |
| RO | Reverse Osmosis |
| RV | Recreational Vehicle |
| SJRWMD | St. Johns River Water Management District |
| SMCL | Secondary Maximum Contaminant Level |
| SOD | Sediment Oxygen Demand |
| SR | State Road |
| SSAC | Site-Specific Alternative Criterion |
| SU | Standard Unit |
| SWFWMD | Southwest Florida Water Management District |
| SWTP | South Water Treatment Plant |
| TBC | Tampa Bypass Canal |
| TDS | Total Dissolved Solids |
| TMDL | Total Maximum Daily Load |
| TN | Total Nitrogen |
| TSS | Total Suspended Solids |
| UIC | Underground Injection Control |

| | |
|---|---|
| USACOE | United States Army Corps of Engineers |
| USCG | United States Coast Guard |
| WAFR | Wastewater Facility Regulation |
| WBID | Waterbody Identification |
| WQBEL | Water Quality–Based Effluent Limitation |
| WQSP | Water Quality Standards Program |
| WRF | Water Reclamation Facility |
| WTP | Water Treatment Plant |
| WWTF | Wastewater Treatment Facility |
| WWTP | Wastewater Treatment Plant |
| WUP | Water Use Permit |

# Acknowledgements

## Project Leads

Grover (Garry) Payne, FDEP, Division Environmental Assessment and Restoration

Kaitlyn Summerfield, FDEP, Division Environmental Assessment and Restoration

Janet Klemm, FDEP, Division Environmental Assessment and Restoration

Kara Cox, Previously FDEP, Division Environmental Assessment and Restoration

## Contributors

Kenneth Weaver, FDEP, Division Environmental Assessment and Restoration

Daryll Joyner, FDEP, Division Environmental Assessment and Restoration

Stacey Cowley, FDEP, Office of General Counsel

# Executive Summary

Recent legislation (Chapter 2016—01, Laws of Florida) directed the Florida Department of Environmental Protection (department) to establish a new classification for "Treated Potable Water" ( Class I-Treated). The legislation further required the department to reclassify any existing Class III surface water currently being used as a public drinking water source to the new Class I-Treated classification.

In accordance with the requirements of the legislation, the department determined there were seven surface waters currently being used as permitted public drinking water sources (**Table I-1**) and evaluated them as potential candidates for reclassification from their current Class III designation (*i.e.,* waters for fish consumption; recreation; and propagation and maintenance of a healthy, well-balanced population of fish and wildlife) to Class I-Treated (Treated Potable Water). This report describes whether each waterbody attains the Class I-Treated water quality standards; whether the proposed use is an established, characteristic use of the area; and whether other uses may interfere with upgrading the classification. It also describes the geographic boundaries of the area to be reclassified and takes into account any permitting requirements for existing entities discharging to the waterbodies or upstream waters.

**Section I** of the report provides background information, **Section II** describes the methodology used, **Section III** discusses the individual Class III areas being proposed for reclassification to Class I-Treated; and **Section IV** summarizes the department's recommendations for each waterbody.

The department recommends reclassifying all seven of the waterbodies under consideration from Class III to Class I-Treated because a) all of the waters have an existing use for treated potable water supply, b) all of the waters achieve the Class I-Treated water quality criteria, c) there would be minimal impacts on permitted activities in the reclassified areas or permitted discharges upstream of the reclassified areas, and d) the reclassifications are consistent with the requirements of Chapter 2016—01, Laws of Florida.

# I. Introduction

## Purpose of Report

The purpose of this report is to document the results of a review of seven (7) waters that were identified as candidates for reclassification from Class III (with designated uses of fish consumption; recreation; and propagation and maintenance of a healthy, well-balanced population of fish and wildlife) to Class I-Treated (Treated Potable Water Supplies) pursuant to Chapter 2016—01, Laws of Florida. The areas identified in **Table I-1** are current Class III waters that are being used as treated potable water sources.

This report also provides an assessment of whether these areas meet the requirements for reclassification specified in Rule 62-302.400, Florida Administrative Code (F.A.C.) and the 2010 Florida Department of Environmental Protection document, *Process for Reclassifying the Designated Uses of Florida Surface Waters* (DEP-SAS-001/10), to upgrade the classification of a waterbody to match an existing use.

**Table I-1. Waterbodies evaluated for reclassification based on existing uses.**

| Existing Use | Waterbodies Evaluated for Reclassication |
|---|---|
| **Class III waters currently being used as Treated Potable Water Sources** | City of Port St. Joe Freshwater Canal<br>Tampa Bypass Canal<br>Alafia River<br>Peace River<br>Caloosahatchee River<br>Marco Lakes<br>Taylor Creek Reservoir |

## Background Information

Surface water quality standards are the foundation of the water quality–based pollution control program mandated by the federal Clean Water Act (CWA). Florida's water quality standards comprise designated uses and the corresponding waterbody classifications, water quality criteria, and antidegradation requirements. A waterbody's designated use describes the uses of the waterbody, including for public water supply; for the propagation and maintenance of fish, shellfish, and wildlife; and for recreational, agricultural, industrial, and navigational purposes. The designated uses for a waterbody are based on the physical, chemical, and biological characteristics of the waterbody, its geographical setting, aesthetic qualities, and economic considerations. Florida's waterbody classifications are assigned based on the present and future most beneficial uses of the waters of the state, as set forth in Chapter 62-302, F.A.C., pursuant to Subsection 403.061(10), Florida Statutes (F.S.), and the CWA.

To protect designated uses, states are required to adopt appropriate water quality criteria for each designated use. These criteria must be based on a sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use. Water quality criteria provide the minimum requirements necessary to protect a waterbody's designated use.

Antidegradation requirements are intended to protect waters with water quality above the minimum necessary to protect the designated use. Florida's antidegradation provisions are implemented through the permitting process. Lowering the water quality of a waterbody by a permitted discharge is not allowed unless the discharge is demonstrated to be necessary or desirable under federal standards and is clearly in the public interest. In no case is the quality of a waterbody allowed to be lowered below the minimum criteria established to protect the designated use.

## Designated Uses and Waterbody Classification System

The department has designated the present and future most beneficial uses of all waters of the state by means of the classification system provided in Subsection 62-302.400(1), F.A.C. **Table I-2** summarizes the classifications for surface waters and their corresponding designated uses. Water quality classifications are arranged from Class I to Class V, generally in order of the degree of protection required, with Class I and II waters having the most stringent water quality requirements and Class V the least.[1]

[1] There are currently no Class V waters in Florida.

Each designated use has surface water quality criteria, listed in Rule 62-302.530, F.A.C., that are designed to protect the use. The criteria for Classes I/Class I-Treated and II are also protective of Class III and lower use categories. Waters in Florida are Class III (fresh or marine) unless specified in Rule 62-302.400, F.A.C.

Legislation signed into law in early 2016 (i.e., Chapter 2016—01, Laws of Florida) directed the department to establish a new "Treated Potable Water" classification and specified that the new Class I-Treated waters "shall have the same water quality criteria protections as waters designated for fish consumption, recreation, and the propagation and maintenance of a healthy, well-balanced population of fish and wildlife, and shall be free from discharged substances at a concentration that, alone or in combination with other discharged substances, would require significant alteration of permitted treatment processes at the permitted treatment facility or that would otherwise prevent compliance with applicable state drinking water standards in the treated water."

The criteria that are currently different between Class III and Class I are for parameters for which the criteria are derived to protect against human health effects. The Class III criteria for these parameters are based on exposure primarily through fish consumption, whereas the Class I criteria must consider exposure through both fish consumption and drinking water. In deriving the criteria for the new Class I-Treated use classification, the department interprets "same water quality protections" as using the same risk target ($1 \cdot 10^{-6}$ for the average Floridian) as used for Class III waters, while accounting for additional exposure through drinking water consumption.

Class I-Treated waters will generally share the same criteria as Class I waters except for four parameters. Three parameters (chlorides, total dissolved solids, and fluoride) will have different criteria between Class I-Treated and Class I waters because the Class I criteria are based on secondary drinking water standards (i.e., aesthetic considerations, such as taste, color, and odor) rather than human health risk based calculations. The Class I-Treated classification will maintain the Class III criteria for fluoride (10 µg/L) and, like Class III freshwaters, will not have criteria for chlorides or total dissolved solids (TDS) because these are naturally occurring and typically handled in the source water by rectricting when potable water withdrals can be made. Additionally, the nitrate criterion was not inlcuded because the Class I 10 mg/L nitrate criteria (intended to prevent "blue-baby" syndome) is several times less stringent than the applicable numeric nutrient total nitrogen criteria (Chapter 62-302.531, F.A.C.) .

Existing uses are those uses actually attained in the waterbody on or after November 28, 1975, regardless of whether the use is reflected in the classification of the water. For example, drinking water consumption is considered an existing use if proper permits (both consumptive use permits and permits for public drinking water systems) have been issued for community consumption and water quality is sufficient for the use, but would not be considered an existing use in the case of incidental use by individuals consuming the water without treatment. If a waterbody has an existing use that is not protected by its current water quality classification, then reclassification to a higher class may be appropriate. Federal requirements (40 Code of Federal Regulations [CFR] 131.10[i]) also state that "[w]here existing water quality standards specify designated uses less than those which are presently being attained, the State shall revise its standards to reflect the uses actually being attained."

**Table I-2.Florida's surface water classifications and their corresponding designated uses as defined in Subsection 62-302.400(1), F.A.C.**

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

## REQUIREMENTS FOR RECLASSIFICATION TO A HIGHER CLASS

The same Legislation (i.e., Chapter 2016—01, Laws of Florida) that directed the department to establish the new "Treated Potable Water" classification (i.e., Class I-Treated) also directed the department to reclassify any existing Class III surface water currently being used as a public drinking water to Class I-Treated.

To upgrade a use, credible information showing the existence or attainability of the use is required. For instance, if a waterbody is designated as Class III, but is being used as a treated potable water source, and water quality criteria appropriate for Class I-Treated are attainable in the waterbody, an upgrade to Class I-Treated may be suitable. Information must be presented to determine whether the use is an established, characteristic use of the area and whether other uses may interfere with upgrading the designated use.

The reclassification documentation should also describe the geographic boundaries of the area within the waterbody to be reclassified and take into account any permitting requirements for existing permitted entities upstream. For the addition of a drinking water use, the boundaries should include the upstream extent necessary to protect the drinking water supply.

The requirements to upgrade the classification of a surface water are summarized in the department document *Process for Reclassifying the Designated Uses of Florida Surface Waters* (DEP-SAS-001/10) and described in Subsections 62-302.400(7) through 62-302.400(10), F.A.C., as follows:

> (7) Any person regulated by the Department or having a substantial interest in a surface waterbody may seek reclassification of waters of the State by filing a petition with the Department in accordance with Rule 28-103.006, F.A.C.
>
> (8) A petition for reclassification shall reference and be accompanied by the information necessary to support the affirmative findings required in this section, as described in the DEP document titled, *Process for Reclassifying the Designated Uses of Florida Surface Waters* (DEP-SAS-001/10), dated June 2010, incorporated by reference herein.
>
> (9) All reclassifications of waters of the State shall be adopted, after public notice (including notification to affected local and regional governments and sovereign American Indian tribes) and public hearing, only upon affirmative findings by the Environmental Regulation Commission that:

(a) The proposed reclassification will establish the present and future most beneficial use of the waters;

(b) Such a reclassification is clearly in the public interest after considering public input, including consideration of input submitted by local and regional governing bodies and sovereign American Indian tribes, who represent the public interest where the waters, and affected upstream and downstream waters, are located;

(c) The proposed reclassification will not allow for the nonattainment of water quality standards in downstream waters;

(d) The demonstrations required under subsections (10)-(12) below are met as applicable; and

(e) The requirements contained in Rule 62-302.400, F.A.C., are satisfied.

(10) Reclassification of waters of the State which establishes more stringent criteria than presently established by this chapter shall be adopted, only upon additional affirmative finding by the Environmental Regulation Commission that the proposed designated use is attainable, upon consideration of environmental, technological, social, economic, and institutional factors. The assessment of attainability shall address upstream effects of reclassification.

A key requirement of the demonstration for reclassification is whether the waterbody under consideration attains the more stringent water quality criteria associated with the higher use. Table I-3 lists all of the parameters in which the Class I-Treated criteria are more stringent than the Class III criterion. A complete listing of all water quality criteria can be found in Chapter 62-302, F.A.C. For the purposes of this evaluation, the department assumed the new and revised human health-based water quality criteria, which are being proposed as part of the same rulemaking as the reclassification, will be approved.

**Section II** describes the methodology used to assemble and evaluate the information necessary to satisfy the requirements for reclassification of the proposed waterbodies to Class I-Treated from Class III.

# Table I-3.Parameters for which the criteria are different between Class I-Treated and Class III Waters

| Parameter Alias | Class I-Treated Criteria | Class III Criteria |
|---|---|---|
| 1,1,1-Trichloroethane | 12000 µg/L | 190000 µg/L |
| 1,1,2,2-Tetrachloroethane | 0.35 µg/L | 5.9 µg/L |
| 1,1,2,2-Tetrachloroethylene | 23 /3.0 µg/L | 66 µg/L |
| 1,1,2-Trichloroethane | 1.2 µg/L | 20 µg/L |
| 1,1-Dichloroethylene | 300 µg/L | 16000 µg/L |
| 1,2,4-Trichlorobenzene | 0.14 µg/L | 0.15 µg/L |
| 1,2-Dichlorobenzene | 1400 µg/L | 3900 µg/L |
| 1,2-Dichloroethane | 22 µg/L | 1200 µg/L |
| 1,2-Dichloroethylene | 120 µg/L | 3900 µg/L |
| 1,2-Dichloropropane | 2 µg/L | 63 µg/L |
| 1,3-Dichlorobenzene | 8.3 µg/L | 18 µg/L |
| 1,3-Dichloropropene | 0.59 µg/L | 23 µg/L |
| 1,4-Dichlorobenzene | 340 µg/L | 1100 µg/L |
| 2,4,5-TP | 160 µg/L | 570 µg/L |
| 2,4,6-Trichlorophenol | 3.3 µg/L | 6.6 µg/L |
| 2,4-D | 1200 µg/L | 13000 µg/L |
| 2,4-Dichlorophenol | 16 µg/L | 65 µg/L |
| 2,4-Dimethylphenol | 120 µg/L | 2800 µg/L |
| 2,4-Dinitrophenol | 12 µg/L | 330 µg/L |
| 2,4-Dinitrotoluene | 0.11 µg/L | 3.5 µg/L |
| 2-Chloronaphthalene | 960 µg/L | 1400 µg/L |
| 2-Chlorophenol | 30 µg/L | 860 µg/L |
| 2-Methyl-4,6-Dinitrophenol | 1.8 µg/L | 29 µg/L |
| 3,3'-Dichlorobenzidine | 0.11 µg/L | 0.34 µg/L |
| Acenaphthene | 110 µg/L | 130 µg/L |
| Acrolein | 3.1 µg/L | 310 µg/L |
| Acrylonitrile | 0.13 µg/L | 11 µg/L |
| Anthracene | 460 µg/L | 540 µg/L |
| Antimony | 2.4 µg/L | 240 µg/L |
| Arsenic | 10 µg/L | 50 µg/L |
| Barium | 1000 µg/L | NA |
| Benzene | 2 µg/L | 53 µg/L |
| Benzo(a)anthracene | 0.012 µg/L | 0.014 µg/L |
| Benzo(a)pyrene | 0.0012 µg/L | 0.0014 µg/L |
| Benzo(b)fluoranthene | 0.012 µg/L | 0.014 µg/L |
| Benzo(k)fluoranthene | 0.12 µg/L | 0.14 µg/L |
| Beryllium | 11 µg/L | 65 µg/L |
| Beta-BHC | 0.018 µg/L | 0.033 µg/L |
| Bis(2-Chloroethyl) Ether | 0.066 µg/L | 4.1 µg/L |
| Bis(2-Chloroisopropyl) Ether | 240 µg/L | 4000 µg/L |
| Bis(2-Ethylhexyl) Phthalate | 1.5 µg/L | 2.1 µg/L |
| Bromoform | 15 µg/L | 260 µg/L |
| Carbon Tetrachloride | 0.95 µg/L | 10 µg/L |
| Chlorobenzene | 110 µg/L | 970 µg/L |
| Chlorodibromomethane | 1.8 µg/L | 44 µg/L |
| Chloroform | 60 µg/L | 2300 µg/L |
| Chrysene | 1.2 µg/L | 1.4 µg/L |
| Dibenzo(a,h)anthracene | 0.0012 µg/L | 0.0014 µg/L |
| Dichlorobromomethane | 2.1 µg/L | 57 µg/L |
| Dichloromethane/ Methylene Chloride | 36 µg/L | 2300 µg/L |
| Diethyl phthalate | 780 µg/L | 840 µg/L |
| Di-n-butyl phthalate | 35 µg/L | 36 µg/L |
| Ethylbenzene | 80 µg/L | 140 µg/L |
| Fluoranthene | 18 µg/L | 19 µg/L |
| Fluorene | 77 µg/L | 94 µg/L |
| Heptachlor Epoxide | 0.000098 µg/L | 0.000099 µg/L |
| Hexachlorocyclopentadiene | 4.7 µg/L | 5 µg/L |
| Hexachloroethane | 0.24 µg/L | 0.27 µg/L |

| Parameter Alias | Class I-Treated Criteria | Class III Criteria |
|---|---|---|
| Indeno(1,2,3-cd)pyrene | 0.012 µg/L | 0.014 µg/L |
| Isophorone | 76 µg/L | 3600 µg/L |
| Methyl Bromide | 120 µg/L | 10000 µg/L |
| Methyl Chloride | 5.67 µg/L | 470.8 µg/L |
| Nitrobenzene | 12 µg/L | 570 µg/L |
| Pentachlorophenol | 0.067 µg/L | 0.11 µg/L |
| Pyrene | 43 µg/L | 49 µg/L |
| Thallium | 1.7 µg/L | 6.3 µg/L |
| Toluene | 56 µg/L | 610 µg/L |
| Trichloroethylene | 1.3 /3.0 µg/L | 15 µg/L |
| Vinyl Chloride | 0.048 µg/L | 3 µg/L |

# II. Methodology

## IDENTIFYING POTENTIAL RECLASSIFICATION AREAS

To determine which surface waters warranted reclassification from Class III to Class I-Treated, drinking water sources being used for public water supply, but not classified as Class I waters were identified. This process identified seven freshwaters with a Class III classification that are currently being utilized as drinking water sources. Because these seven waters have a higher existing use (*i.e*., treated potable water source) than is captured under their current Class III designation, the department is pursuing the reclassification of these waters to Class I-Treated as directed by Chapter 2016—01, Laws of Florida paragraph 403.861(21)(b). **Figure II-1** lists these seven waters and shows their general locations.

The spatial extent of the specific areas being proposed for reclassification to Class I-Treated were generally determined based on waterbody type (*e.g.*, a reservoir/lake versus flowing water), proximity to existing Class I waters, homogeneity of water quality conditions, and location of identifying landmarks (*i.e.*, roads, tributaries, *etc*.). The individual, site-specific evaluations in **Section III** provide more detailed descriptions of the upstream extent of the individual areas being proposed for reclassification.

For each of the seven areas being proposed for reclassification to Class I-Treated, an assessment was conducted following the general methodology provided in *Process for Reclassifying the Designated Uses of Florida Surface Waters* (DEP-SAS-001/10) and Rule 62-302.400, F.A.C. The results of the reclassification assessment for individual areas are provided in **Section III**.

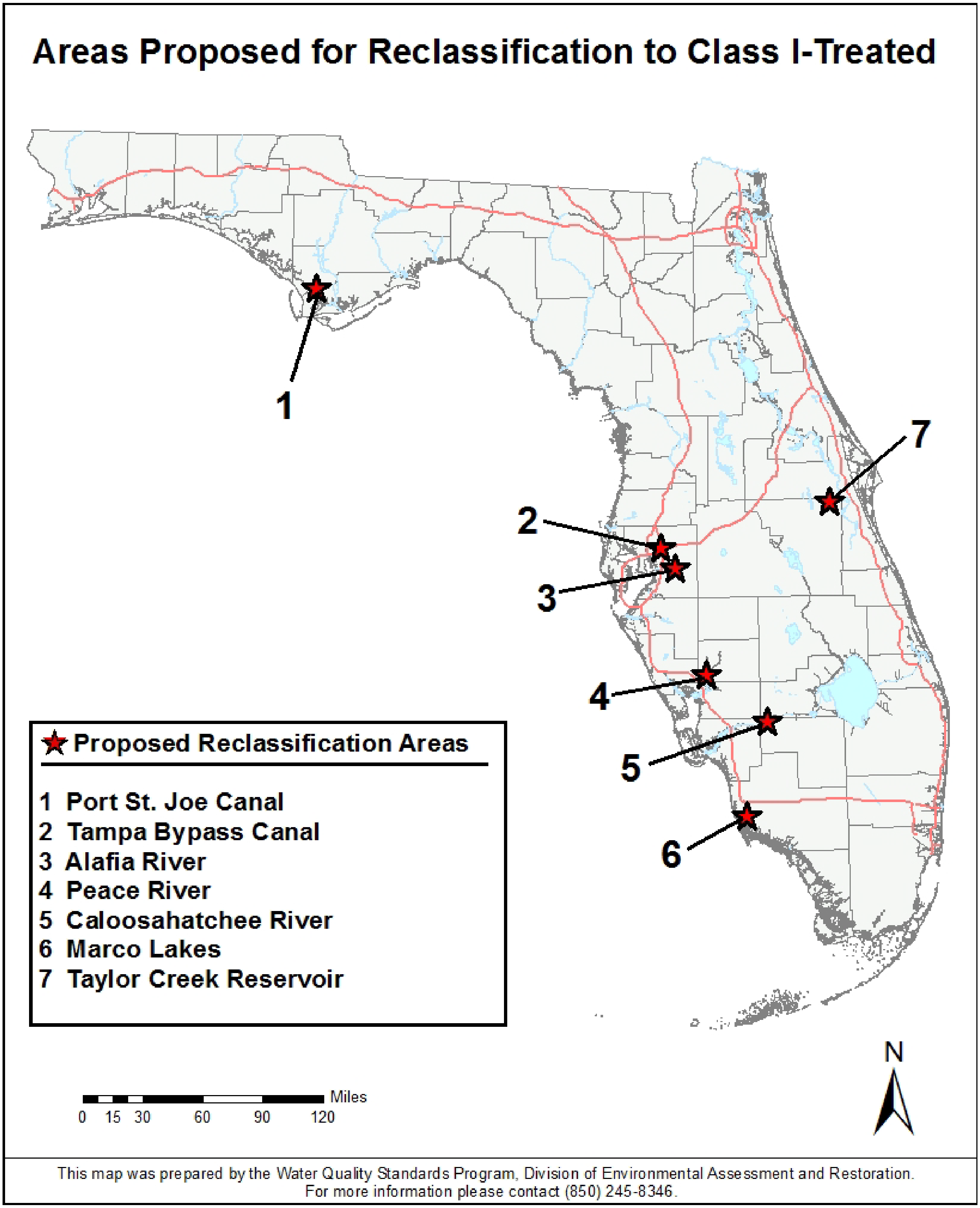


**Figure II-1. General location of areas identified for evaluation for potential reclassification from Class III to Class I-Treated.**

## Water Quality Assessment

To evaluate whether the Class III areas identified for potential reclassification to Class I-Treated achieve the water quality criteria associated with the upgraded use, a water quality assessment was conducted. Existing water quality data for each area (including both historical data and data collected specifically for the assessment) were summarized and compared with Class I-Treated criteria using the methodology outlined below. Additionally, waters in the potential reclassification areas listed as impaired according to Chapter 62-303, F.A.C. (Impaired Surface Waters Rule [IWR]) were also identified. Because there were no exceedances of the criteria for which their criteria is more stringent for Class I-Treated than for Class III waters, the reclassification of the seven proposed waters to Class I-Treated is not expected to result in any new impairment listings.

### *Collection of Water Quality Data*

The department collected additional water quality data to help ensure that at least a minimal dataset was available to assess the attainability of water quality standards if the classifications of the areas were upgraded. Sampling was carried out for a broad list of parameters, including most parameters with water quality criteria. The sampling was typically conducted at two to three sites in each area, depending on the size and uniformity of the area. Two sets of samples were collected at each site in spring and summer 2013.

All available water quality data for sites in the areas being considered for reclassification were also retrieved from the department's IWR database (Run 50) for the period from January 1, 2006, through the present. The data obtained from the IWR database were combined with the study-specific data collected by the department to form a single dataset. The resulting dataset was then screened.

### *Data Screening and Handling*

Water quality data were screened based on laboratory qualifier codes, consistent with the Department's Quality Assurance Rule (Chapter 62-160, F.A.C.). Any datum associated with a fatal qualifier (H, J, K, N, O, V, Q, Y, or ?) indicating a potential data quality problem was removed from the analysis. Values that exceeded possible physical or chemical measurement constraints (*e.g.*, pH greater than 14), had temperatures well outside seasonal norms (*e.g.*, 4° Celsius in July), or represented data transcription errors were excluded. For field parameters, measurements collected at multiple depths at the same location on the same day were considered one sample, with the arithmetic mean used to represent the vertical profile.

Additional considerations in the handling of water quality data are the accuracy and sensitivity of the laboratory method used. For the purposes of summary statistics presented in this document, data reported as less than the Method Detection Limit (MDL) were assigned a value of one-half the MDL unless otherwise noted. Additionally, any result reported as being less than the MDL was not considered an exceedance of applicable water quality criteria even if the MDL was greater than the criterion. All data presented in this report were handled consistently with regard to screening and MDL replacement.

The screened dataset was then used to summarize water quality conditions in each area under consideration for reclassification. The summary statistics calculated for each area and parameter included number of samples, mean, minimum, $25^{th}$ percentile, median, $75^{th}$ percentile, maximum, percent of samples with nondetected results (*i.e.*, below the MDL), and number and corresponding percentage of samples exceeding the water quality criteria that would be applicable if the water were reclassified. Results reported below the MDL were considered to meet the criteria even if the criterion was less than the applicable MDL.

The existing water quality data for parameters having water quality criteria is summarized in **Appendix A** along with several informative parameters.for each area being proposed for reclassification**.**

## IDENTIFICATION OF IMPAIRED WATERS

As part of the state's 303(d)/Total Maximum Daily Load Program, the department assesses waters to determine if they do not meet applicable water quality standards. This assessment, conducted using the methodology described in the IWR (Chapter 62-303, F.A.C.), identifies impaired waters for which TMDLs are developed to guide restoration actions. For the assessments, the department divided the state's surface waters into assessment units with **w**ater**b**ody **id**entification (WBID) numbers.

As part of this reclassification effort, the department evaluated the impaired waters listings for the areas being considered for reclassification, in part because the 303(d) assessments provide information on the water quality of these waterbodies. This information is also important because in reclassifying a waterbody to a higher class, a waterbody that previously met standards could potentially be found impaired (*e.g.*, due to more stringent criteria). To fully address the potential impacts of reclassification, it is essential to know if a water was previously identified as impaired.

To identify any impaired waters in the areas under consideration for reclassification, the "Verified Impaired WBIDs" layer in ArcMap was used. If any portion of a verified impaired WBID intersected an area being evaluated for reclassification, additional information on the impairment was provided in the individual, site-specific discussions in **Sections III**. In some cases, information on impairments for

WBIDs just outside the area being evaluated for reclassification is also provided because of the proximity to the area under consideration.

## POTENTIAL EFFECTS OF RECLASSIFICATION

The reclassification of the Class III areas evaluated in this document to Class I-Treated will provide additional protection for existing drinking water source uses in these areas. However, a reclassification may also affect entities that discharge to the reclassified waters or dischargers located upstream of the potential reclassification areas, as well as some activities requiring an Environmental Resource Permit (ERP), through more stringent requirements imposed on their discharges or activities. In general, activities requiring an ERP in the area to be reclassified must provide reasonable assurance that the activity will meet the more stringent water quality criteria.

Wastewater facilities discharging to a reclassified area, or to waters upstream of a reclassified area, must demonstrate that their discharges will not cause or contribute to violations of the applicable water quality criteria. Domestic wastewater facilities discharging directly to or contiguous or tributary to Class I waters must also meet a variety of technology-based requirements (*e.g.*, setback distances, Class I reliability, and meet specific disinfection requirements). For the purposesd of this evaluation, the department assumed that the requirements for facilities discharging to or contiguous or tributary to Class I waters would also be applicable to waters reclassified as Class I-Treated.

### *Rule Review*

The department reviewed its rules to determine the types of discharges or activities that could be affected by the proposed reclassification of waters from Class III to Class I-Treated (see summary in **Table B-1**). Four types of discharges/activities were identified as potentially affected by the proposed reclassification from Class III to Class I-Treated: (1) domestic wastewater discharges to surface waters, (2) the reuse of reclaimed water and land application, (3) industrial discharges to surface waters, (4) municipal separate storm sewer systems (MS4s), and (5) activities requiring an Environmental Resource Permit (ERP). The department also evaluated stormwater discharges from industrial facilities (Multi-Sector General Permits [MSGPs or MSPs]), but concluded that they are unlikely to be impacted by reclassification to Class I-Treated, and they are not discussed in the evaluation of specific areas in Section III.

### *DOMESTIC SURFACE WATER DISCHARGES*

Additional treatment and/or facility reliability requirements for discharges directly to Class I waters and for discharges within specific travel times or distances of Class I waters are outlined in Chapter 62-600, F.A.C., and Chapter 62-610, F.A.C. According to Chapter 62-600.510(3), F.A.C., “ Discharge of reclaimed water to Class I surface waters, or to waters contiguous to or tributary to Class I waters, shall meet the requirements of Rules 62-610.550 through 62-610.575, F.A.C., unless otherwise established in subsection 62-600.510 (2), F.A.C."

### *Discharges Directly to Class I Waters*

Requirements for domestic wastewater facilities discharging directly to Class I waters are outlined in Rule 62-610.554, F.A.C., which 1) requires that such discharges meet primary and secondary drinking water standards, including those for bacteriological parameters, and 2) prohibits mixing zones in Class I waters, and Rule 62-610.567, F.A.C., which requires Class I reliability (Class I reliability is described in the publication referenced in paragraph 62-600.300(4)(l), F.A.C.). In addition, under Rule 62-610.571(2), F.A.C., "outfalls for surface water discharges shall not be located within 500 feet of existing or approved (but not yet constructed) potable water intakes within Class I surface waters."

### *Discharges Contiguous or Tributary to Class I Waters*

Requirements for domestic wastewater facilities discharging contiguous or tributary to Class I waters are provided in Rule 62-610.555, F.A.C. Under Subsection 62-610.555(1)(a), " discharges to waters contiguous to or tributary to Class I waters shall be defined as a discharge located less than or equal to four hours travel time from the point of discharge to arrival at the boundary of the Class I water." Most of the same requirements that apply to domestic wastewater facilities that discharge directly to Class I waters also apply to facilities discharging contiguous or tributary to Class I waters, including the requirement for Class I reliability, the prohibition of mixing zones into Class I waters, and the requirement that outfalls for surface water discharges cannot be located within 500 feet of existing or approved (but not yet constructed) potable water intakes within Class I surface waters.

Please refer to Chapter 62-600, F.A.C. (Domestic Wastewater Facilities) and Part V (Ground Water Recharge and Indirect Potable Reuse) of Chapter 62-610, F.A.C. (Reuse of Reclaimed Water and Land Application) for a complete description of the specific requirements for domestic wastewater facilities discharging directly to or contiguous or tributary to Class I waters. Because Class I-Treated is a sub-classification of Class I, the requirements for these surface water discharges would also apply to waters classified as Class I-Treated.

### *Reuse of Reclaimed Water and Land Application*

#### *Slow- and Rapid-Rate Land Application Sites*

Chapter 62-610, F.A.C., includes specific setback distances from Class I waters for slow- and rapid-rate land application sites, as follows:

- For slow-rate land application sites, a 500-foot setback distance is required from the edge of the wetted area to Class I waters. The distance can be reduced to 200 feet if the facility can provide Class I reliability in accordance with Subsection 62-610.462(1), F.A.C., and reduced to 100 feet if high-level disinfection is also provided.
- For rapid-rate land application sites, a setback distance of 500 feet is required from the edge of the rapid infiltration basin (RIB), percolation pond, basin, or trench embankment, or from the edge of an absorption field to Class I waters. The setback distance can be reduced to 100 feet if high-level disinfection is provided.

*Tomato and Fresh Citrus Wash Water Land Application Sites*

Rule 62-660.805, F.A.C., contains a provision regarding the land application of tomato wash water that prohibits the wetted perimeter from being located within 100 feet of a Class I surface water. Rule 62-660.806, F.A.C., contains a provision regarding the sprayfield land application of fresh citrus wash water requiring that a minimum setback distance of 500 feet be maintained between the wetted perimeter and Class I and II surface waters.

*Limited Wet Weather Reuse Discharges*

According to Rule 62-610.860, F.A.C., limited wet-weather discharges from reuse projects within a 24-hour travel time to a Class I water (*i.e.*, during periods when wet-weather discharge would occur) may need Water Quality Based Effluent Limitations (WQBELs) if (1) there is insufficient dilution during the discharge, (2) the immediate discharge is to a Class I water, (3) the discharge is expected more than 91 days per year, or (4) the reuse system is a slow-rate land application system, as described in Subsection 62-610.860(3), F.A.C.

***Industrial Surface Water Discharges***

No specific additional treatments or actions are required for industrial surface water discharges (including those from the phosphate industry) to Class I waters. However, wastewater facilities must provide reasonable assurance that they will not violate applicable state water quality standards or reduce the quality of a receiving water below the criteria established for its respective classification in Chapter 62-302, F.A.C.

***MS4s***

An MS4 is a publicly owned conveyance or system of conveyances (such as ditches, curbs, catch basins, underground pipes, *etc.*) that is designed or used for collecting or conveying stormwater and that discharges to surface waters of the state. An MS4 can be operated by municipalities, counties, drainage districts, colleges, military bases, or prisons, to name a few examples.

The MS4 Program, which is implemented by the department under Chapter 62-624, F.A.C., and is an authorized component of the federal National Pollutant Discharge Elimination System (NPDES) Program, has been implemented in phases. Phase I addresses the discharges of stormwater runoff from medium and large MS4s (*i.e*., those located in areas with populations of 100,000 or greater). Municipalities designated as Phase I operate under an individual stormwater permit. Under Phase II, the program regulates discharges from certain MS4s not regulated under Phase I that meet designation criteria set forth in Chapter 62-624, F.A.C. Phase II MS4 operators must obtain coverage under a generic permit.

Both Phase I and II MS4s must implement a comprehensive stormwater management program to reduce the potential contamination of surface waters by stormwater runoff and prohibit illicit discharges to the MS4. According to Rule 62-624.300, F.A.C., any operator of a regulated Phase I or II MS4 must be covered by a permit.

The department reviewed the areas covered by MS4 permits and found that most of the areas under consideration for reclassification lie within a current regulated Phase I or II MS4. The exceptions are the Caloosahatchee River, Port St. Joe Canal, and Peace River for proposed Class I-Treated waters. While there are no Class I specific requirements for either Phase I or II MS4s, an MS4 may be required to implement restoration actions if it discharges to an impaired water once a TMDL is adopted by the department for the waterbody. However, the department determined there will be no additional listings of impaired waters due to reclassification, and as such, MS4s will not be affected.

*MSGPs*

Some operations with an MSGP for the discharge of stormwater could be affected if they are (1) located upstream of or discharging to an area under consideration for reclassification, and (2) required to monitor for a parameter that has more stringent criteria for Class I/Class I-Treated waters than Class III waters. Nitrogenous fertilizer, phosphatic fertilizer, fertilizer (mixing only), and pesticide and agricultural chemical operations could be affected because they are required to monitor fluoride. However, the department determined that none of the waters under consideration for reclassification have exceedances of fluoride or parameters that have more stringent Class I-Treated criteria and very few MSGPs currently discharge to the areas under consideration for reclassification.

### *Activities Requiring an ERP*

Another category of activities assessed through the rule review was that covered by the ERP Program. As stated in Subsection 62-330.010(2), F.A.C., the ERP Program governs the following: *"construction, alteration, operation, maintenance, repair, abandonment, and removal of stormwater management systems, dams, impoundments, reservoirs, appurtenant works, and works (including docks, piers, structures, dredging, and filling located in, on, or over wetlands or other surface waters, as defined and delineated in Chapter 62-340, F.A.C.) (any one or a combination of these may be collectively referred to throughout this chapter as 'projects' or 'systems')."*

These types of activities may qualify for a general permit (GP), an individual permit, or a conceptual approval permit under Chapter 62-330, F.A.C. The department evaluated the potential effects (*i.e.*, postadoption) of a reclassification on future ERP activities. **Appendix B** provides a full assessment of the activities listed in sections of Chapter 62-330, F.A.C., that have the potential to be affected by a reclassification[2]. If a reclassification were to occur, existing permitted activities would not be affected but future permits for an activity in or near the reclassified area could be impacted because they would need to meet the new criteria of the proposed classification.

The following ERP activities operating under individual permits might be impacted by the reclassifications: 1) non-exempt docking facilities might be required to use wrapping or non-leaching pilings instead of conventional treated pilings, 2) dredging operations might be required to provide additional treatment for effluent from dredged material disposal sites, and 3) marinas might be required to have more stringent requirements for over-the-water fueling facilities. Costs for these possible requirements cannot be determined at this time because they would be project and site-specific. Nevertheless, the department has determined that the costs would not be significant because 1) there would be few of these activities in the areas proposed for reclassification, 2) costs for wrapped or non-leaching pilings would be minimized because many permit applicants have switched to such pilings, since the pilings last longer, thereby saving money to the permittee in the long run, and 3) the department generally discourages over-the-water fueling facilities and the requirements for Class I-Treated waters would most likely be the same as for activities in Class III waters.

[2] The appendix does not address Chapter 62-312, F.A.C., because it has been repealed, however there are several mining related GPs in Chapter 62-312, F.A.C., that may still be used under the Subsections 373.414(11) – (15), F.S. These GPs were not addressed in this evaluation because ERP activities associated with mining are generally permitted under Chapter 62-330, F.A.C., and no GPs that are precluded from use in Class I waters have been issued under Chapter 62-312, F.A.C., in the last five years.

Some ERP activities may also be impacted by reclassification because they may be required to apply for an individual permit, rather than a GP, or have to meet more stringent requirements to be eligible for an exemption. Activities that could be required to apply for an individual permit rather than a GP include 1) ditch construction by FDOT and local governments, 2) installation of underground utilities, 3) contruction of aerial pipelines, cable, and conduit for conveyance of petroleum, domestic wastewater, or phosphate mining-related waters, 4) construction of subaqueous utility crossings of artificial waterways for conveyance of petroleum, domestic wastewater, or phosphate mining-related waters, 5) prospecting activities for limestone, sand and peat in wetlands, 6) prospecting activities for phosphate mines, 7) temporary dragline crossings for mining activities, and 8) low water crossings of equipment and vehicles by nonmetal ore mines. Silvicultural operations intending to use the no-fee notice exemption for silvicultural roads would be required to increase their buffer strip from 35 feet to 50 feet.

While the increased buffer strip would increase the cost of the exemption and the requirement to apply for and obtain an individual permit for the activities listed in the previous paragraph would increase costs relative to a GP, the department evaluated how many exemptions and GPs were issued within the areas proposed for reclassification in the last five years, and found that none of those issued would have been impacted by the proposed reclassification from Class III to Class I-Treated. Assuming this rate of GP and exemption use continues, the department concluded that reclassification of the proposed areas is not expected to effect future ERP activities.

### *Methods Used To Identify and Evaluate Potentially Affected Upstream Dischargers*

The department used the Wastewater Facility and Wastewater Sites from the Wastewater Facility Regulation (WAFR) database Integrated Management System (IMS) layers to identify the dischargers relevant to the areas proposed for reclassification. To identify the potential effects of a reclassification of the areas under review, the evaluations described below were conducted as if the areas were already Class I-Treated. The potential effects are detailed in the site-specific sections of this report.

#### *METHODS FOR DOMESTIC SURFACE WATER DISCHARGES*

To calculate travel times for discharges upstream of areas under consideration for reclassification, the department generally used a conservative in-stream velocity estimate of 0.5 meters per second, which equates to an upstream distance of approximately 4.5 miles for a four-hour travel time. For reclassification areas that act more like reservoirs (*e.g.,* Marco Lakes), the department gathered additional treatment information for all upstream domestic surface water discharges in the subbasin. If, based on the additional information, the closest discharge was determined to not be within a four-hour travel time, it was assumed that any domestic surface water discharges farther upstream would also not be within a four-hour travel time. In addition, some discharges are discussed in the site-specific sections of **Section III** of this report if they were nearby but not in the same subbasin as a proposed Class I-Treated reclassification area.

### *METHODS FOR REUSE OF RECLAIMED WATER AND LAND APPLICATION*

*Slow- and Rapid-Rate Domestic Wastewater Land Application Sites*

To evaluate whether land application sites met the setback requirements for Class I waters, the department reviewed the permits of any domestic wastewater land application site within 2,500 feet of a water under consideration for reclassification. The permits were reviewed to determine if they were slow- or rapid-rate land application sites. If they were any such sites, the permit language and site location in the data miner layer were evaluated to determine their distance from the reclassification area.

*Tomato and Fresh Citrus Washwater Land Application Sites*

To determine whether tomato and/or fresh citrus wash water land application sites would meet the setback requirements for Class I waters, the department reviewed a list of the tomato and citrus packinghouses in the state provided by the department's Industrial Wastewater Section. Permits were reviewed by both the Water Quality Standards Program (WQSP) and the department's Districts to determine if wash water disposal occurred on site at the packinghouse or, if not on-site, where disposal occurred, and if those identified disposal sites were within the setback distance.

*Limited Wet-Weather Reuse Discharges*

To evaluate whether limited wet-weather reuse discharges would need a WQBEL because the discharge would be within a 24-hour travel time to Class I waters, the department used a conservative velocity estimate of 0.5 meters per second, which equates to an upstream distance from the area of evaluation for reclassification of approximately 27 miles. The department then reviewed the permits of any domestic wastewater facilities within a distance of 27 miles to identify if they had a limited wet-weather discharge. For reclassification areas that acted more like reservoirs (*e.g.,* Marco Lakes), the department gathered additional treatment information for all upstream domestic surface water discharges in the subbasin to determine if they were a limited wet-weather discharge.

### *METHODS FOR INDUSTRIAL DISCHARGE FACILITIES*

Industrial wastewater facilities (including those from the phosphate industry) must ensure that, if located in or upstream of a Class I waterbody, their discharge will not violate surface water standards associated with the designated uses of these waters (Rule 62-660.400, F.A.C.). The department identified industrial surfacewater discharges in the same subbasin as a proposed Class I-Treated reclassification area. These discharges are discussed in more detail in the site-specific sections of this report. [3]

Note that combined animal feeding operations (CAFOs) are regulated as an industrial discharge. However, they are not authorized to discharge to surface waters, nor do they have specific setback distance requirements to Class I waters. Thus, they are not included in this discussion.

[3] The information provided in this section is a summary and should not be used as an exact interpretation of the rule. Please see the appropriate rule chapter for official requirements.

# III. Class III Areas Proposed for Reclassification to Class I-Treated (Treated Potable Water Supplies)

As noted in **Section II**, portions of the following seven Class III fresh waters are currently being used as a treated potable water source:

A. Port St. Joe Canal (City of Port St. Joe Water Treatment Plant [WTP]—City of Port St. Joe).

B. Tampa Bypass Canal (TBC) (Tampa Bay Water—City of Tampa, Hillsborough County, city of New Port Richey, Pasco County, St. Petersburg, and Pinellas County).

C. Alafia River (Tampa Bay Water—City of Tampa, Hillsborough County, city of New Port Richey, Pasco County, St. Petersburg, and Pinellas County).

D. Peace River (Peace River Manasota Regional Water Supply Authority—Charlotte, DeSoto, Manatee, and Sarasota Counties and city of North Port)

E. Caloosahatchee River (Riverbend Recreational Vehicle [RV] Park).

F. Marco Lakes (Marco Island Utilities Public Water Supply—City of Marco Island).

G. Taylor Creek Reservoir (Claude H. Dyal WTP—City of Cocoa, Cocoa Beach, Merritt Island, Rockledge, Viera, Cape Canaveral, Patrick Air Force Base, and Cape Canaveral Air Force Station).

Each of these areas is being proposed for reclassification to Class I-Treated as required by Chapter 2016-01, Laws of Florida (paragraph 403.861(21)(b), F.S.). An evaluation was conducted to determine whether the seven waters meet the requirements for reclassification to Class I-Treated based on the document *Process for Reclassifying the Designated Uses of Florida Surface Waters* (DEP-SAS-001/10) and Subsection 62-302.400, F.A.C. The results of the reclassification assessment for each individual area are provided below.

## A. City of Port St. Joe Canal

### *Background*

The city of Port St. Joe supplies drinking water to approximately 13,000 people in the city and the surrounding area. The potable water source is a 17-mile-long freshwater canal extending from the Chipola River to the city of Port St. Joe (**Figure III A-1**). Water is pumped into the canal from the Chipola River. The Port St. Joe Canal was originally dug in the 1950s to supply fresh water to the St. Joe paper mill, which was decommissioned and closed in the 1990s. The canal has served as Port St. Joe's drinking water source since 2009 and is currently classified as a Class III water. Because the existing drinking water use in this area may not be fully protected by its current Class III designation, the Port St. Joe Canal is being considered for reclassification from a Class III to a Class I-Treated water.

The city of Port St. Joe drinking water facility treats 1 million gallons per day (MGD) of raw water from the canal using enhanced coagulation, flocculation, microfiltration with disinfection, pH control, and corrosion control addition. The withdrawal from the Chipola River is permitted under Consumptive Use Permit (CUP) # I07379, and the facility operates under Drinking Water Permit (DWP) #19830039. The facility generally provides drinking water that meets drinking water standards, but there have been sporadic exceedances of the maximum contaminant level (MCL) for disinfection byproducts in the past (prior to 2011). Disinfection byproducts typically form when disinfectants used in the water treatment process (*e.g.*, chlorine or bromine) react with organic and inorganic substances in the water. Generally, the formation of disinfection byproducts is related to the disinfection process, and they are not present in the source water.

### *Reclassification Area Description*

#### *Waterbody Description*

The Port St. Joe Canal begins at the Chipola River, where water is pumped from the river into the canal. The canal travels southwest, passing through silviculture and undeveloped land for nearly all of its length. Flow in the canal is piped as it passes under Cypress Creek about six miles downstream of the Chipola, under the Intracoastal Waterway (ICWW) about 10 miles south of the Chipola, and under a couple of county roads and unpaved dirt roads. A narrow dike road runs along the entire length used by the drinking water facility to maintain the canal. Vegetation grows in the canal and on the steep sides of the canal, and facility staff mow the area between the canal and the dike road. The canal ends at the city of Port St. Joe drinking water facility.

The department is proposing the entire 17-mile length of the canal for reclassification from Class III to Class I-Treated because (1) the canal is a man-made waterbody that is not naturally connected to any other surface waterbodies, (2) the canal primarily serves as a conveyance and was specifically designed to transport water pumped from the Chipola River to downstream users, and (3) water quality data collected at three stations along the canal show similar water quality.

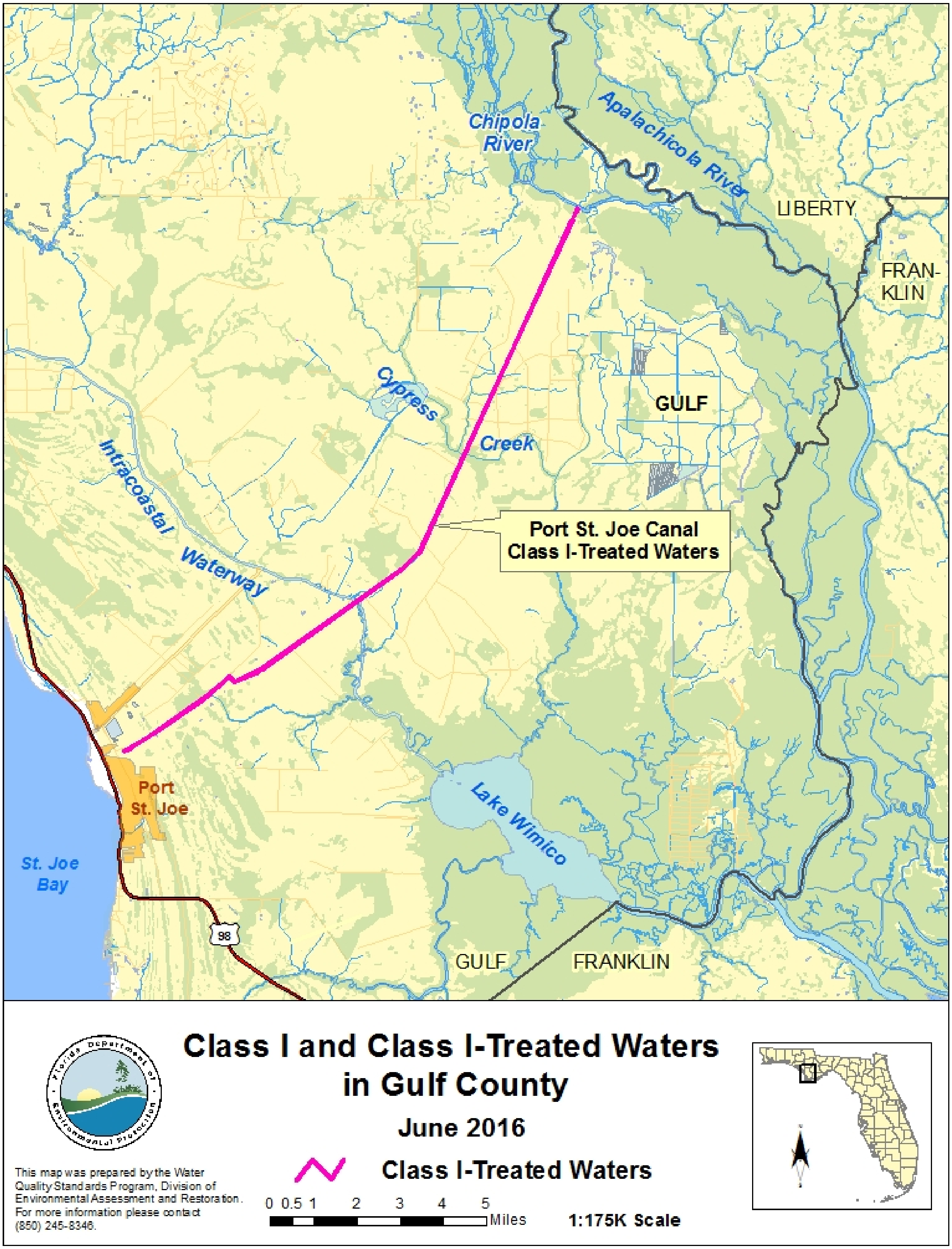


**Figure III A-1. Map depicting the proposed Port St. Joe Canal Class I-Treated waters located in Gulf County**

### *Basin/Subbasin Description*

The canal is part of the Apalachicola River Basin and is influenced by both the Chipola and Apalachicola River subbasins. The Apalachicola River is part of the Apalachicola–Chattahoochee–Flint River Basin and originates in Georgia and Alabama. The Apalachicola River is 107 miles long and discharges approximately 22,400 cubic feet per second (cfs). In the winter and spring when rainfall is typically highest, the thickly forested adjacent wetlands are flooded. The Apalachicola is an alluvial river, and its large floodplain is dominated by variable seasonal flow, substantial annual flooding, and a heavy sediment load (Department 2005). The deposition and erosion of material in the river create meanders, which widen the river valley and allow the Apalachicola to flow in the floodplain.

The Chipola River, an Outstanding Florida Water (OFW), originates in the Marianna Lowlands in southeastern Alabama from several springs and the confluence of Marshall and Cowarts Creeks. The river goes underground for a short distance at Marianna, Florida. Several spring runs and some surface drainage tributaries join the Chipola after it emerges. Several miles below Fourmile Creek, the river flows out of the limestone highlands and empties into a low, swampy area. Here, the tributary inflow is mostly black water. Old levees of the Apalachicola River naturally impound the lower Chipola, forming Dead Lake. A dam built in the 1960s to enhance the impoundment was removed in 1988 (Department 2005). At the lower end of the lakes, near the town of Wewahitchka, the Chipola cutoff, a once-natural diversion, now channels about 25% of the Apalachicola's flow westward to the Chipola River. The water rejoins the Apalachicola River about 15 miles downstream at the confluence of the Apalachicola and Chipola Rivers.

The Apalachicola–Chipola watershed's population density is relatively low, and only six municipalities in Florida could directly affect the Chipola or Apalachicola upstream of the drinking water canal: Marianna, Wewehitchka, Blountstown, Bristol, Chattahoochee, and Sneads (Department 2005). A considerable amount of land in the watershed is publicly owned. However, dredge-and-fill activities for silviculture have modified the rivers in the Apalachicola Basin. Planted pines have replaced native hardwoods along stream banks, the topography has been flattened, and stream channels have been filled due to logging roads and clear-cutting (Department 2005).

### *Land Use*

Land use statistics were generated for the area around the canal and the Chipola River (**Table III A-1**). The majority of the surrounding land is forested (57%) or wetlands (37%). Less than 5% of the surrounding area is used for urban development, agriculture, and utilities/transportation.

**Table III A-1. Land use information for the Port St. Joe reclassification area.**

| LAND USE DESCRIPTION | ACREAGE | % OF TOTAL ACREAGE |
|---|---|---|
| **Forested** | 52,232 | 57.22% |
| **Wetland** | 33,414 | 36.61% |
| **Urban** | 2,177 | 2.39% |
| **Agriculture** | 980 | 1.07% |
| **Open Water** | 947 | 1.04% |
| **Shrub/Brushland** | 933 | 1.02% |
| **Utilities/Transportation** | 558 | 0.61% |
| **Barren/Disturbed** | 33 | 0.04% |
| **SUM** | **91,276** | **100.00%** |

***Summary of Existing Water Quality Data***

The department collected data at three sites (shown in **Figure III A-1)** to evaluate existing water quality in the area evaluated for reclassification. These were combined with data from the IWR database collected from the area since January 1, 2006, to form a single dataset. The combined data were screened as described in **Section II** to omit data not meeting quality assurance/quality control (QA/QC) expectations. The remaining dataset was then used to summarize existing water quality data and determine whether the waters in the area being proposed for reclassification achieves the water quality criteria associated with the Class I-Treated designated use. Table I-3 lists all of the parameters in which the Class I-Treated criterion is more stringent than the Class III criterion. A summary of the existing water quality data for the area for all parameters having water quality criteria plus several informative parameters is provided in **Appendix A**. The vast majority of the parameters were not detected in the area evaluated for reclassification and were found to meet the water quality criteria associated with the proposed designated use.

The only parameters with exceedances of the Class I-Treated criterion are iron and lead, and the criteria for both parameters are the same as Class III waters. Two of the six (33.3%) iron samples collected during the Department project-specific sampling were above the Class I-Treated and Class III criteria s (1,000 µg/L, or 1.0 mg/L) (**Appendix A**). Iron concentrations of 1,710 and 2,220 µg/L were found at the two sites farthest upstream from the drinking water intake during the April 2013 sampling event. However, the elevated iron concentrations are probably related to the relatively high turbidity levels observed at these sites and the inclusion of iron-rich sediment in the samples. Iron is one of the most common elements naturally occurring in many rocks, soils, and sediments, and is an essential trace element required by plants and animals. Rainfall seeping through soil and minerals dissolves the iron and carries it into almost every natural waterbody. The levels present in water vary depending on the geology of the area and chemical composition of the water.

Similarly, one of the six (16.7%) lead samples collected during the Department project-specific sampling was above the criterion, which is expressed as a hardness-dependent equation (*i.e.*, $e^{(1.273[Ln(Hardness)]-4.705)}$) (**Appendix A**). A lead concentration of 0.88 µg/L was found at a site upstream from the drinking water intake during the April 2013 sampling event. The elevated concentration is also probably related to the relatively high turbidity levels observed at these sites and the inclusion of sediment, along with bound metals, in the samples.

The only data for these two metals were from the sampling conducted by the department in April and June 2013. After the exceedances for the two metals were observed in the preliminary results from the first two sampling events, the department conducted a third sampling in October 2013 to help identify the potential source of the elevated metal concentrations. During the April and June sampling, only unfiltered samples were collected even though the water was slightly turbid. During the October sampling, filtered samples were collected in addition to the unfiltered samples. The results of the October sampling event (**Table III A-3**) confirmed that the metals were associated with the suspended sediment and were not dissolved in the water column. Additionally, **Figure III A-5** shows the more turbid water at the two sites upstream of the intake structure compared with the less turbid water near the intake (**Figure III A-6**).

Additionally, the sediment was found to contain relatively high concentrations of iron (*i.e.*, 27,000 to 48,000 milligrams per kilogram [mg/kg]) and aluminum (26,900 to 45,600 mg/kg). The fact that both metals are higher is indicative of a natural condition resulting from fine clay material being transported through the basin. Because the criteria for both iron and lead are the same for Class I-Treated and III waters, the reclassification of the area to Class I-Treated will not affect future assessments for iron or lead, regardless of whether the exceedances are natural.

It should also be noted that, because the water near the intake is deeper and slower moving, much of the suspended sediment settles to the bottom before it reaches the intake (**Figure III A-6**). Additionally, since the metals are bound by the sediment and not dissolved in the water, any remaining suspended sediment and associated metals are expected to be readily removed by the drinking water treatment.

### *Impaired Waters in the Area Evaluated for Reclassification*

For assessment purposes, the Port St. Joe Canal watershed is divided into five WBIDs: Chipola River (WBID 51), Cypress Creek (WBID 1226), Searcy Creek (WBID 1259C), Horseshoe Creek (WBID 1272), and Depot Creek (WBID 1277). WBID 51 is listed as impaired based on the Florida Department of Health (FDOH) finding of elevated levels of methyl mercury in fish tissue. This widespread issue generally results from nonlocal sources and is therefore being addressed through a statewide mercury TMDL. No other waters in the proposed reclassification area are listed as impaired.

### *Potential Effects of Reclassification*

The reclassification of the Port St. Joe Canal from a Class III to a Class I-Treated water will potentially provide additional protection for the existing drinking water source but may also affect dischargers located upstream of the potential reclassification area, through more stringent requirements imposed on their discharges or activities. Wastewater facilities that discharge to the reclassified area, to waters contiguous or tributary to the reclassified area, or to waters upstream of the reclassified area would be required to demonstrate that their discharge will not cause or contribute to violations of the applicable Class I-Treated water quality criteria. **Table III A-2** lists the permitted discharges and land application sites in the potential reclassification area.

#### *DOMESTIC DISCHARGE FACILITIES*

Domestic wastewater discharges to surface waters within a four-hour travel time of the proposed reclassification area must provide Class I reliability (as discussed in **Section II**) , meet specific disinfection requirements, and comply with all other applicable regulations outlined in Chapter 62-600, F.A.C. and Part V of Chapter 62-610, F.A.C. Based on a conservative velocity estimate of 0.5 meters per second, a four-hour in-stream travel time would equate to an upstream distance from the proposed Port St. Joe Canal reclassification area of approximately 4.5 miles. There are no domestic wastewater discharges currently located within this distance of the proposed reclassification area. The closest domestic wastewater discharge is the Wewahitchka Wastewater Treatment Plant (WWTP) (**Figure III A-3**), located approximately 10 miles upstream of the proposed Class I-Treated boundary. Therefore, the proposed reclassification is not expected to affect existing domestic wastewater discharges to upstream surface waters.

#### *REUSE OF RECLAIMED WATER AND LAND APPLICATION*

The proposed reclassification of the Port St. Joe Canal to a Class I-Treated waterbody would also increase the setback requirements for slow- and rapid-rate land application systems. These range from 100 to 500 feet from the edge of the Class I water, depending on the level of treatment (disinfection) provided.

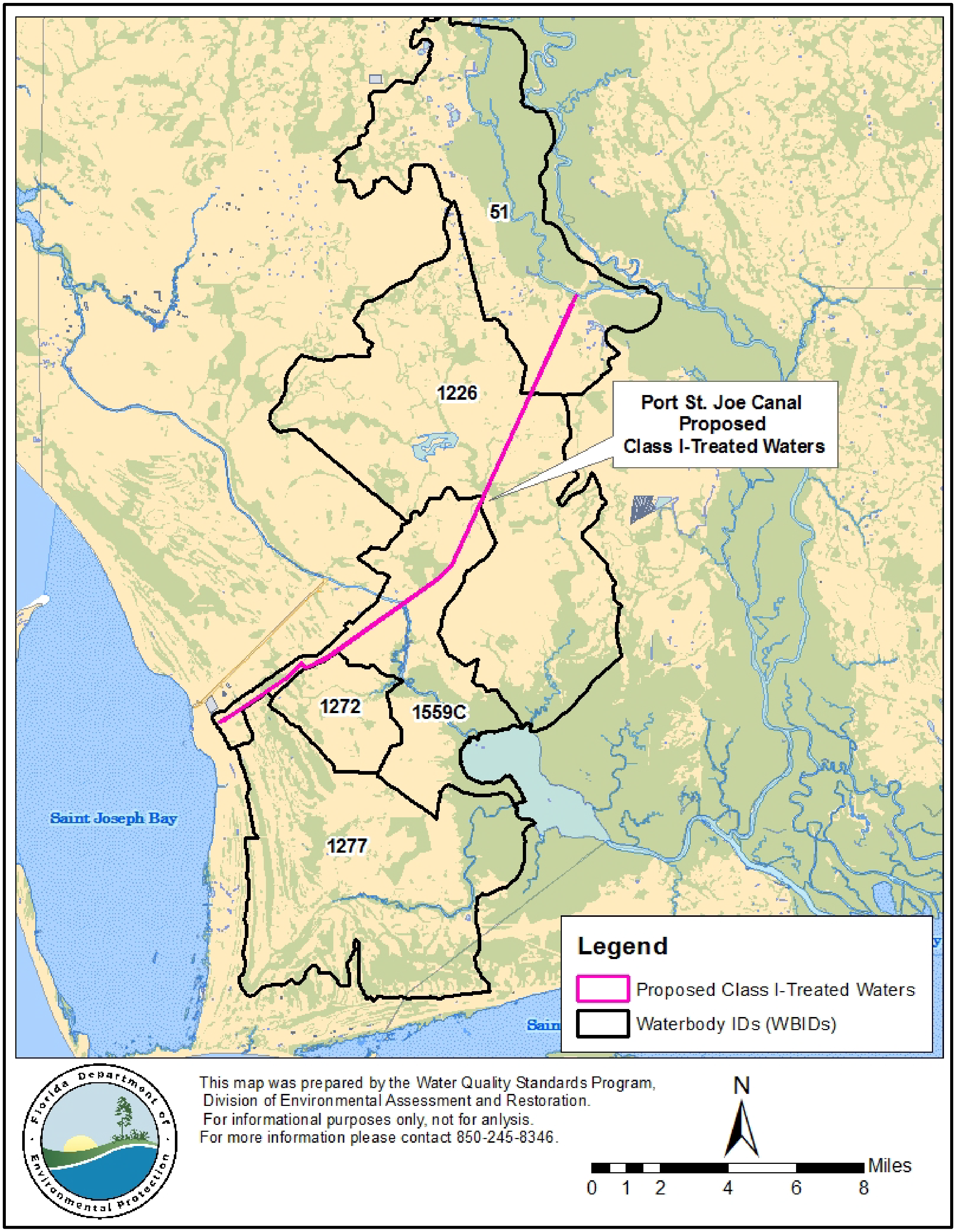


**Figure III A-2.** **Map for identifying impaired WBIDs near the Port St. Joe Canal area under consideration for reclassification.**

Several land application sites near the area of evaluation were associated with the City of Port St. Joe Wastewater Treatment Facility (WWTF) (**Figure III A-3**). The closest of these is approximately 1,500 feet from the reclassification area (**Figure III A-4**); therefore, the proposed reclassification of the Port St. Joe Canal to Class I-Treated is not expected to affect any existing domestic land application activities.

Additionally, limited wet-weather discharges from reuse projects within a 24-hour travel time to a Class I water (*i.e.*, during periods when wet-weather discharge would occur) may need WQBELs if (1) there is insufficient dilution during the discharge, (2) the immediate discharge is to a Class I water, (3) the discharge is expected more than 91 days per year, or (4) the reuse system is a slow-rate land application system, as described in Subsection 62-610.860(3), F.A.C. The reclassification will not affect existing wet-weather discharges because there are no limited wet-weather domestic wastewater discharges within a 24-hour travel time of the proposed Port St. Joe Canal reclassification area.

***INDUSTRIAL WASTEWATER FACILITIES***

No specific additional treatments or actions are required for industrial wastewater discharges located upstream of Class I waters but, as noted previously, industrial wastewater facilities discharging to or upstream of the reclassified area would have to meet the more stringent Class I-Treated water quality criteria (Table I-3). The closest industrial discharges to the Port St. Joe Canal area of evaluation are the Ready Mix USA Plant and Griffin Sand & Concrete Company, Inc. (**Figure III A-3**). Both facilities discharge to the Apalachicola River and are over 30 miles away from the reclassification area. Dolomite, Inc. also has two surface water discharges to the Chipola River, over 40 miles upstream (**Figure III A-3**). Due to the distance between the proposed reclassification area and the closest industrial discharges, and the fact that the current water quality in the reclassification area generally meets the criteria associated with the Class I-Treated designated use, the proposed reclassification is not expected to affect existing industrial discharges in the area.

***Reclassification Assessment and Recommendation***

The department recommends changing the classification for the entire 17 miles of the Port St. Joe Canal (**Figure III A-1**), which primarily serves as the conveyance for the water pumped from the Chipola River, from Class III to Class I-Treated. The reclassification will help protect the existing drinking water source for the city of Port St. Joe and the surrounding area, while having no adverse effects on upstream dischargers. Additionally, the analysis of the water quality data for the reclassification area indicates that existing water quality in the area generally achieves the water quality criteria associated with the proposed reclassification.

**Table III A-2. Permitted discharges and land application sites in the Port St. Joe Canal reclassification area.**

| FACILITY NAME | FACILITY ID | TYPE OF DISCHARGE | WILL FACILITY BE AFFECTED BY CLASS I-TREATED RECLASSIFICATION? | NOTES |
|---|---|---|---|---|
| **Wewahitchka WWTP** | FL0020125 | Domestic Surface Water Discharge | No | > Four-hour travel time from reclassification area |
| **Blountstown WWTP** | FL0026867 | Domestic Surface Water Discharge | No | >Four-hour travel time from reclassification area |
| **Ready Mix USA - Blountstown Plant** | FLG110393 | Concrete Batch Plant (CBP) | No | 30 miles from reclassification area |
| **Griffin Sand and Concrete Co. Inc.** | FLG110489 | CBP | No | 30 miles from reclassification area |
| **Dolomite Inc.** | FL0101192 | Industrial Surface Water Discharge | No | 40 miles from reclassification area |
| **City of Port St. Joe WWTF** | FLA020206 | Domestic Land Application Site | No | Land application site >500 feet from reclassification area |

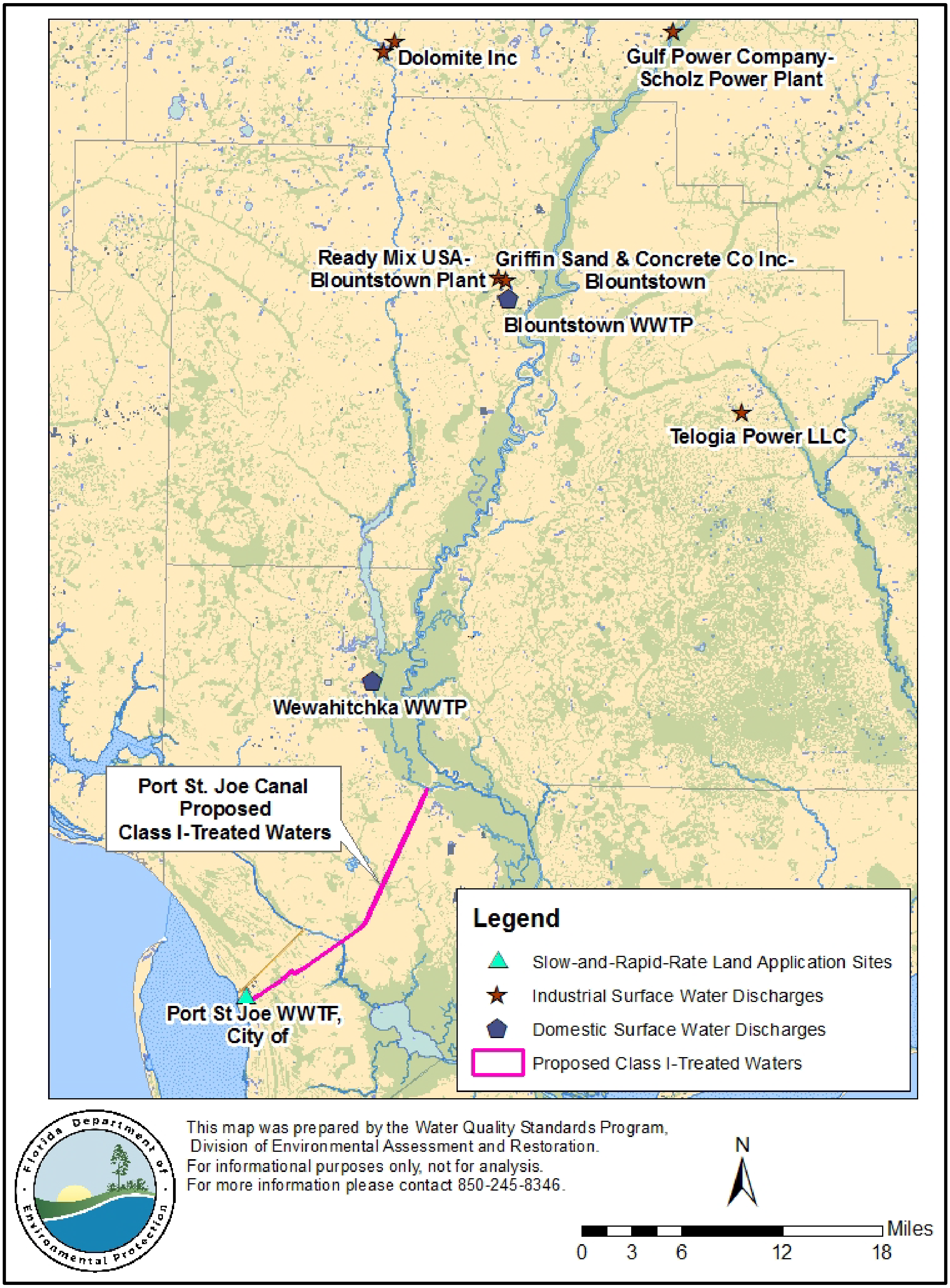


**Figure III A-3. Map showing domestic and industrial surface water discharges, as well as slow- and rapid-rate rate land application sites, that could potentially be affected by a reclassification of the Port St. Joe Canal.**

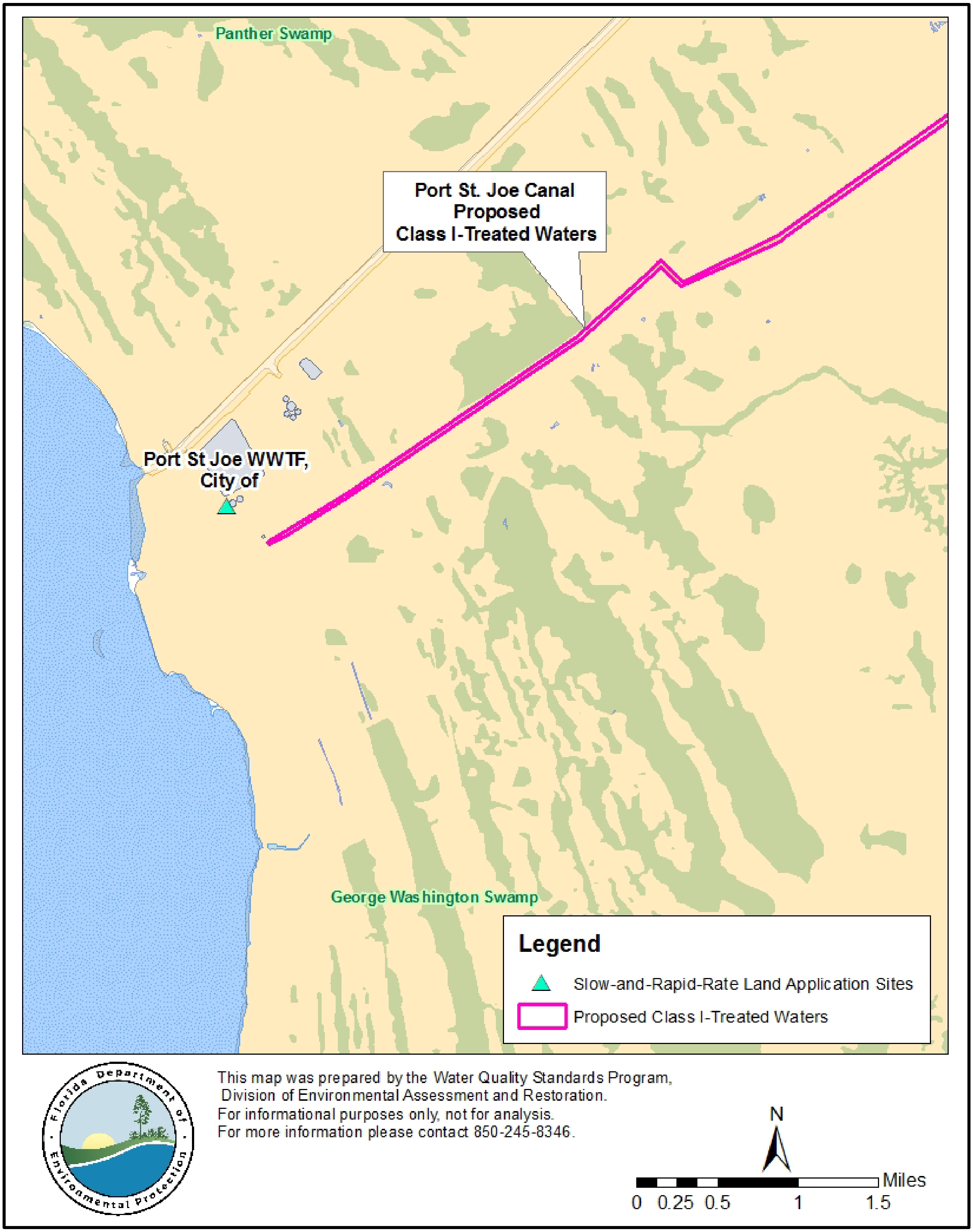


**Figure III A-4. Map showing the location of the city of Port St. Joe WWTF land application site in relation to the Port St. Joe Canal reclassification area.**

**Table III A-3. Summary of results for follow-up Port St. Joe Canal sampling event for metals conducted in October 2013.**

| Site | Unfiltered Water Beryllium (µG/L) | Unfiltered Water Lead (µG/L) | Filtered Water Beryllium (µG/L) | Filtered Water Lead (µG/L) |
|---|---|---|---|---|
| **PSJ1 (intake)** | Non-detect | Non-detect | Non-detect | Non-detect |
| **PSJ2 (middle)** | 0.049 | 0.44 | Non-detect | Non-detect |
| **PSJ2 (middle)** | (I-qualified) [1] | (I-qualified) [1] | Non-detect | Non-detect |
| **PSJ3 (most upstream)** | 0.071 | 0.94 | Non-detect | 0.29 |
| **PSJ3 (most upstream)** | (I-qualified) [1] | 0.94 | Non-detect | (I-qualified) [1] |

[1] "I qualified" = Reported value is between the minimum detection limit (MDL) and practical quantification level (PQL) and may not be accurately quantified.

**Figure III A-5. Photograph of elevated turbidity at Port St. Joe Canal Site PSJ-2 taken during October 2013 Department sampling event.**

**Figure III A-6. Photograph of low turbidity at Port St. Joe Canal Site PSJ-1 (near drinking water intake) taken during October 2013 Department sampling event.**

## B. TAMPA BYPASS CANAL

### *Background*

The Tampa Bypass Canal (TBC) (**Figure III B-1**) is a Class III waterbody constructed by the United States Army Corps of Engineers (USACOE) between the late 1960s and 1980s to provide flood control for the densely populated area of the Hillsborough River watershed near Tampa, a use that continues to the present (Tampa Bay Water 2007). The first drinking water pump facility was installed on the canal in 1985 and was temporary. A permanent pump station, the Harney Pump Station, was installed in 1992 near water control structure S-161 (**Figure III B-2**).

In 1999, Tampa Bay Water received a Water Use Permit (WUP) to collect water from either side of S-162. The pumping station, called the TBC Pumping Station, was completed in 2002. Because there are intake structures on both sides of S-162, water can be collected from both the Middle and Lower Pools of the TBC (**Figure III B-2**). The Middle Pool is meant to gather water that is diverted from the Hillsborough River via S-161, while the Lower Pool largely consists of ground water inflow and local surface water runoff.

Tampa Bay Water currently uses the TBC in combination with other water sources (*i.e.*, the Alafia River, ground water, and desalinated seawater)[4] to supply drinking water to its six member governments: Hillsborough, Pasco, and Pinellas Counties and the cities of New Port Richey, St. Petersburg, and Tampa. Through its members, Tampa Bay Water serves 2.3 million people in the tricounty area. In 2012, it supplied a total of 164.3 MGD of water. In addition to the water supplied by Tampa Bay Water, three of the member governments also rely on small isolated wells for limited self-supply of drinking water, and the city of Tampa uses the Hillsborough River for self-supply.

The TBC contributes the largest percentage of surface source water to Tampa Bay Water's drinking water system. During periods of high flow in the Hillsborough River (>100 cfs), the gate at water control structure S-161 is opened, and water from the Hillsborough Reservoir moves into the TBC. During normal periods of flow, the gate is closed. During very dry periods, the city of Tampa pumps water from the TBC into the Hillsborough Reservoir for drinking water use. Surface water from the TBC is either sent to Tampa Bay Water's Regional Reservoir for storage with other collected surface water or the Regional Treatment Facility for immediate treatment and use.

[4] The Alafia River is also under consideration for reclassification and is addressed in a separate section of this document.

Water treatment incorporates the ACTIFLO® process to remove color and particles from the water, disinfection using ozone, biologically active filtration to remove any remaining organics, and then disinfection again using chlorine and chloramines. Treated water from the desalination plant is combined with the other treated drinking water prior to distribution (Tampa Bay Water 2007). Because the existing drinking water use in this area may not be fully protected by the current Class III designation of the TBC, the canal is being proposed for reclassification from a Class III to a Class I-Treated water as directed by Chapter 2016—01, Laws of Florida.

### *Reclassification Area Description*

#### *WATERBODY DESCRIPTION*

The TBC is managed by the Southwest Florida Water Management District (SWFWMD) for flood control using four water control structures (S-159, S-160, S-161, and S-162) (**Figure III B-2**). S-161 divides the TBC from the Hillsborough River (a Class I waterbody). This western arm of the TBC is called Harney Canal. Two of the other water control structures, S-159 and S-162, are within the main body of the TBC and divide it into an Upper, Middle, and Lower Pool.

The TBC was originally called Sixmile Creek before it was channelized and elongated to the west and north. Its northern extent reaches to Cow House Creek, where the two waterbodies are connected. Cow House Creek (which is also a Class I waterbody) is slow moving and has also been described as a slough. Several heavily traveled roads (Interstate 75, Interstate 4, State Highway 41, State Highway 580, and State Highway 600) cross the TBC at various points. The TBC's southern extent is considered to be its divide from the Palm River by S-160.

The department is proposing that the segment of the TBC from the control structure S-163 at Cow House Creek (northern extent) to the control structure S-160 (north of State Road 60) including Harney Canal west to Harney Road for reclassification from Class III to Class I-Treated (**Figure** III B-1). The entire TBC was selected for evaluation for the following reasons: (1) there are drinking water intake structures located in both the Middle and Lower Pools of the canal; (2) the Hillsborough River Reservoir, Hillsborough River, Harney Canal, and TBC are all hydrologically interconnected and are operated in an integrated manner to meet both flood control and drinking water supply objectives (Tampa Bay Water 2007b); and (3) the Hillsborough River and Cow House Creek are already Class I waters.

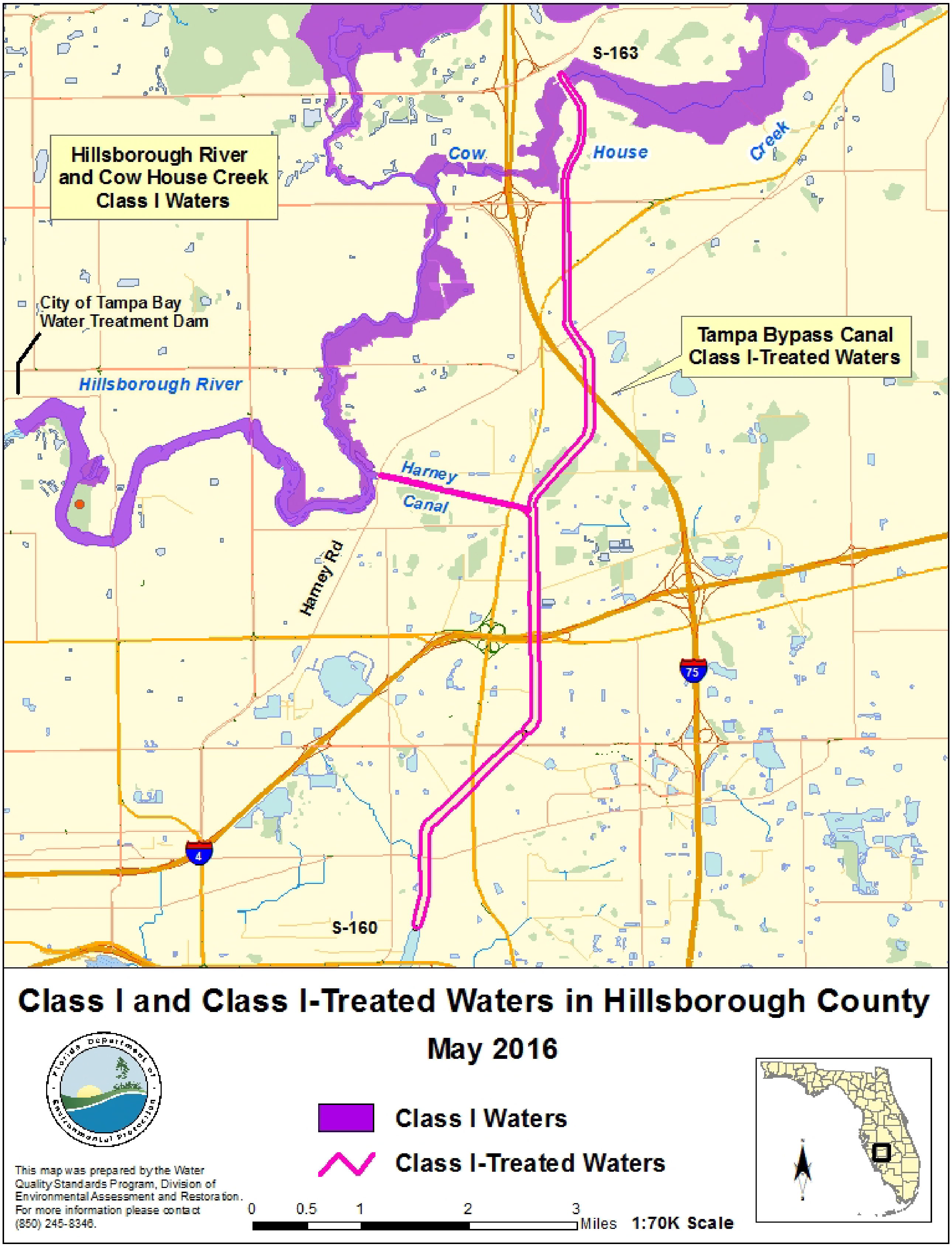


**Figure III B-1. Map depicting the proposed Tampa Bypass Canal Class I-Treated waters located in Hillsborough County**

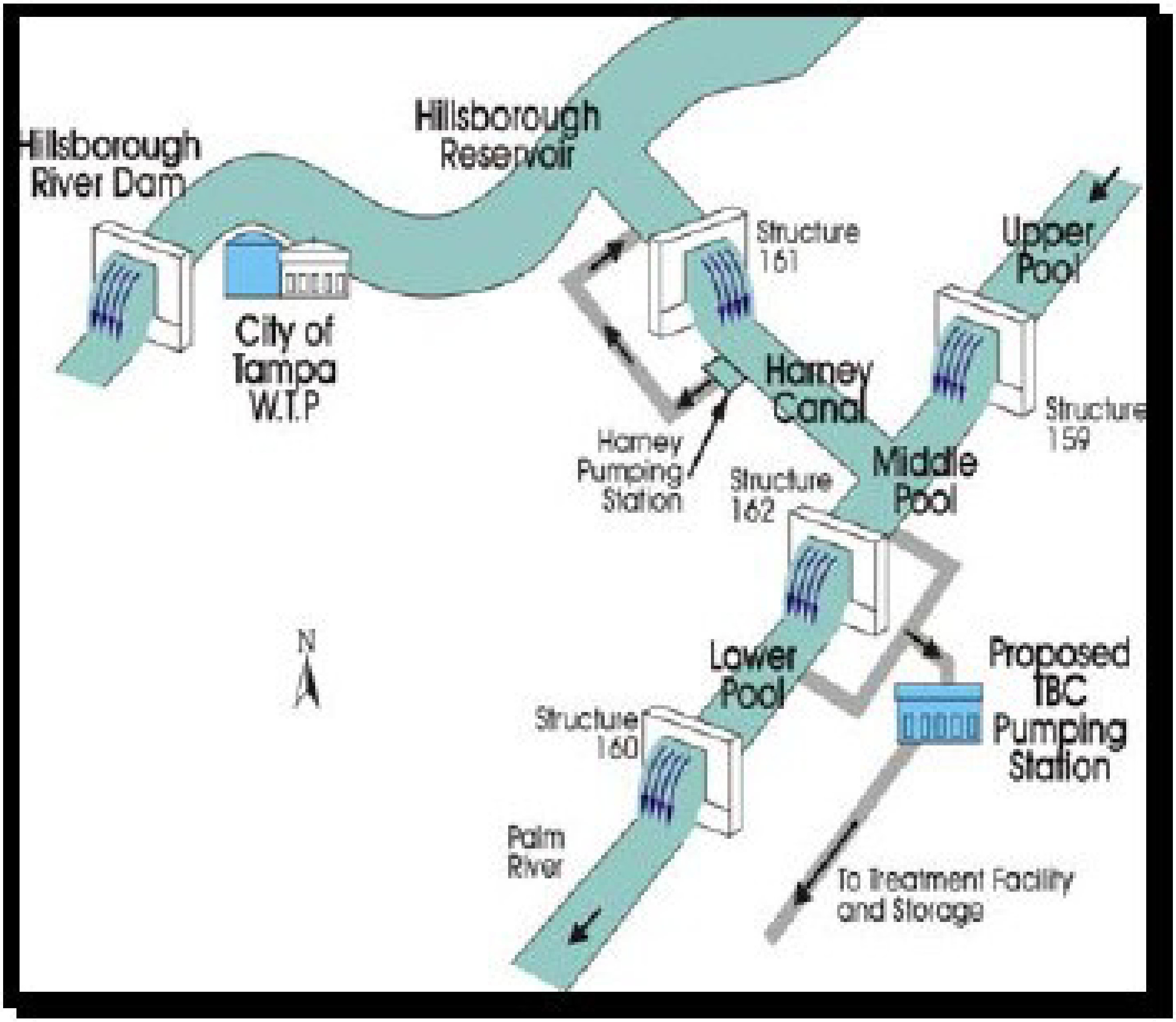


**Figure III B-2. Schematic showing location of water control structures and pools in the TBC (Tampa Bay Water 2007b).**

***BASIN/SUBBASIN DESCRIPTION***

The TBC is located in the Hillsborough River Basin, which covers more than 690 square miles and is supplied by several major tributaries, including Cypress Creek, Trout Creek, Blackwater Creek, and Crystal Springs. The Hillsborough River begins east-northeast of Zephyrhills in southeastern Pasco and northwestern Polk Counties. Its headwaters originate in the southwestern portion of the Green Swamp, where it also receives overflow from the Withlachoochee River. From the swamp, the river flows southwesterly 54 miles to upper Hillsborough Bay. Lake Thonotosassa also discharges to the Hillsborough River and is the largest lake in Hillsborough County at 819 acres. Crystal and Sulphur Springs discharge approximately 6.46 and 64.6 MGD of water, respectively, to the Hillsborough River (Department 2002).

Large areas of undeveloped swamps and forested uplands remain along portions of the river and its tributaries. Generally, the northern and central portions of the watershed are rural, primarily comprising rangeland, pasture, and agriculture, including citrus and row crops. Urban and suburban areas in the northern part of the watershed include Zephyrhills, Wesley Chapel, and Land O'Lakes. The southern portions of the watershed, which include the suburban and urban areas of Tampa, Plant City, and Lakeland, are mainly urban and industrial. Suburban development radiating out from major urban areas such as Tampa is now spreading into rural areas. The rapid rate of population growth throughout the watershed has changed the landscape through widespread land clearing and development. Wetlands and uplands of the Hillsborough Basin, which provide essential habitat for aquatic and terrestrial species, have been permanently altered in many areas, particularly in the lower and middle reaches of the Hillsborough River (Department 2002).

A number of publicly owned lands in the watershed help protect the Hillsborough River, its associated floodplain swamps, and the headwaters. They include lands managed by the SWFWMD in the Lower and Upper Hillsborough Flood Detention Areas, Alston Tract, Green Swamp Wilderness Preserve, Hillsborough River State Park, and Cone Ranch. These areas contain natural floodplain forests and swamps as well as mature hammocks and other natural uplands, forming a diverse landscape of wetland and upland habitats. Wildlife populations supported by these areas are significant and of regional importance (Department 2002).

### ***LAND USE***

Land use statistics were generated for the area around the TBC evaluated for reclassification (**Table III B-1**). The majority of the surrounding land is urban (54%), while wetlands and forested land make up about 24% of the surrounding area. Utilities and roads make up nearly 10% and agriculture nearly 5% of nearby land use.

**Table III B-1. Land use information for the TBC reclassification area.**

| Land Use Description | Acreage | % of Total Acreage |
|---|---|---|
| **Urban** | 4,458 | 54.27% |
| **Wetland** | 1,262 | 15.36% |
| **Utilities/Transportation** | 768 | 9.35% |
| **Forested** | 703 | 8.55% |
| **Open Water** | 573 | 6.98% |
| **Agriculture** | 416 | 5.06% |
| **Shrub/Brushland** | 23 | 0.28% |
| **Barren/Disturbed** | 12 | 0.15% |
| **Sum** | **8,216** | **100.00%** |

***Summary of Existing Water Quality Data***

The department collected existing water quality data at three sites in the portion of the TBC proposed for reclassification (**Figure III B-1** shows the locations of the sampling sites). These data were combined with data from the IWR database collected from the area since January 1, 2006, to form a single dataset. The combined data were screened as described in **Section II** to omit data not meeting QA/QC expectations. The remaining dataset was then used to summarize existing water quality and determine whether the waters in the area proposed for reclassification achieve the water quality criteria associated with the proposed Class I-Treated designated use. **Table I-3** lists all of the parameters that have Class I-Treated criterion that are more stringent than the Class III criterion. A summary of the existing water quality data for the area for all parameters having water quality criteria is provided in **Appendix A,** along with several informative parameters.

A vast majority of the parameters were not detected in the area evaluated for reclassification and were found to meet the water quality criteria associated with the proposed designated use. There were exceedances for DO saturation, pH, specific conductance, turbidity, and total ammonia nitrogen (TAN) (**Appendix A**), for which the criteria are the same for both Class I-Treated and III waters.

Exceedances of the pH criteria appear to be related to spring and summer periods when flow in the canal is low. During these periods, water temperatures are high, there is little flushing and photosynthetic activity is high, resulting in increased algal growth, which elevates pH levels. Of the 336 pH measurements collected since 2006, 29 (8.6%) slightly exceeded the 8.5 S.U. upper limit of the criteria. While the pH criterion establishes a minimum of 6.5 and a maximum of 8.5 SU, it also specifies that "*if natural background is higher than 8.5 units, the pH shall not vary above natural background…*" Due to the limited information available, it is difficult to determine if the measurements are above the range of natural background conditions.

A single specific conductance measurement out of 334 samples was well above the criterion of 50% above background or 1,275 micromhos per centimeter (µmhos/cm), whichever is greater. Although the background has not been established for the TBC, the single exceedance of 29,700 µmhos/cm was so far above the threshold (4,580 µmhos/cm) between predominately fresh and predominately marine that the value can be assumed to represent an exceedance of the freshwater criterion. However, the single exceedance, which occurred in August 2005, likely reflected an extreme tidal event and a measurement collected near the bottom, and is not a typical condition for the TBC.

Over the 10-year period of record, only 4 of the 255 (1.6%) turbidity measurements were above 29 nephelometric turbidity units (NTU). The actual number of exceedances is likely lower because the criterion is expressed as less than or equal to 29 NTU above natural background conditions, and the background is not known but was assumed to be near zero for this assessment. All of the high turbidity levels were reported for a single station near the upstream end of the canal, and the increased turbidity levels were likely associated with high-flow events that re-suspended sediments.

DO levels in the TBC occasionally dropped to levels below the 38% saturation criterion for the Peninsula bioregion of Florida. Since 2006, 36 of 325 (*i.e.*, 11.1%) DO saturation measurements were below the applicable criterion, with low DO generally restricted to the summer months when high temperatures are prevalent and there is limited reaeration due to slow water movement. Low DO levels were more common at stations where vertical profile DO measurements were collected regularly, with the lowest values recorded at deeper levels. The canal is deeper than most natural streams, and DO levels naturally decrease with depth due to less photosynthesis and more respiration. DO levels can be especially low near the sediment as a result of sediment oxygen demand (SOD) and high respiration levels, especially under low-flow conditions, or if the waterbody becomes stratified, or if there is significant ground water input to the canal.

It should be noted that the criteria for all parameters with measured exceedances are the same for Class I-Treated and III waters; therefore, the proposed reclassification will not affect future IWR assessments. Also, for all parameters except DO, the exceedances were sporadic and occurred at rates well below 10%;

therefore, this portion of the TBC would not be considered impaired under the IWR (Chapter 62-303, F.A.C). Based on this water quality assessment, the TBC generally meets applicable Class I-Treated water quality criteria.

***Impaired Waters in the Area Evaluated for Reclassification***

For assessment purposes, the TBC is divided into WBIDs 1536F and 1536B, both named Sixmile Creek (**Figure III B-3**). Both WBIDs are listed as impaired for dissolved oxygen (DO) and nutrients (chlorophyll-α). However, DO and nutrient impairments are not affected by a reclassification to Class I-Treated, because the criteria are the same for both Class I-Treated and Class III waterbodies. The Hillsborough Reservoir Stream (WBID 1443I) and the Hillsborough River (WBID 1443B) are listed as impaired for mercury based on the FDOH finding of elevated levels of methyl mercury in fish tissue. This widespread issue generally results from nonlocal sources and is therefore being addressed through a statewide mercury TMDL. The Hillsborough Reservoir (WBID 1443H) is also listed as impaired for nutrients (total phosphorus). As described above nutrient criteria are the same for both Class I-Treated and Class III waterbodies, therefore, nutrient impairments will not be affected by the proposed reclassification.

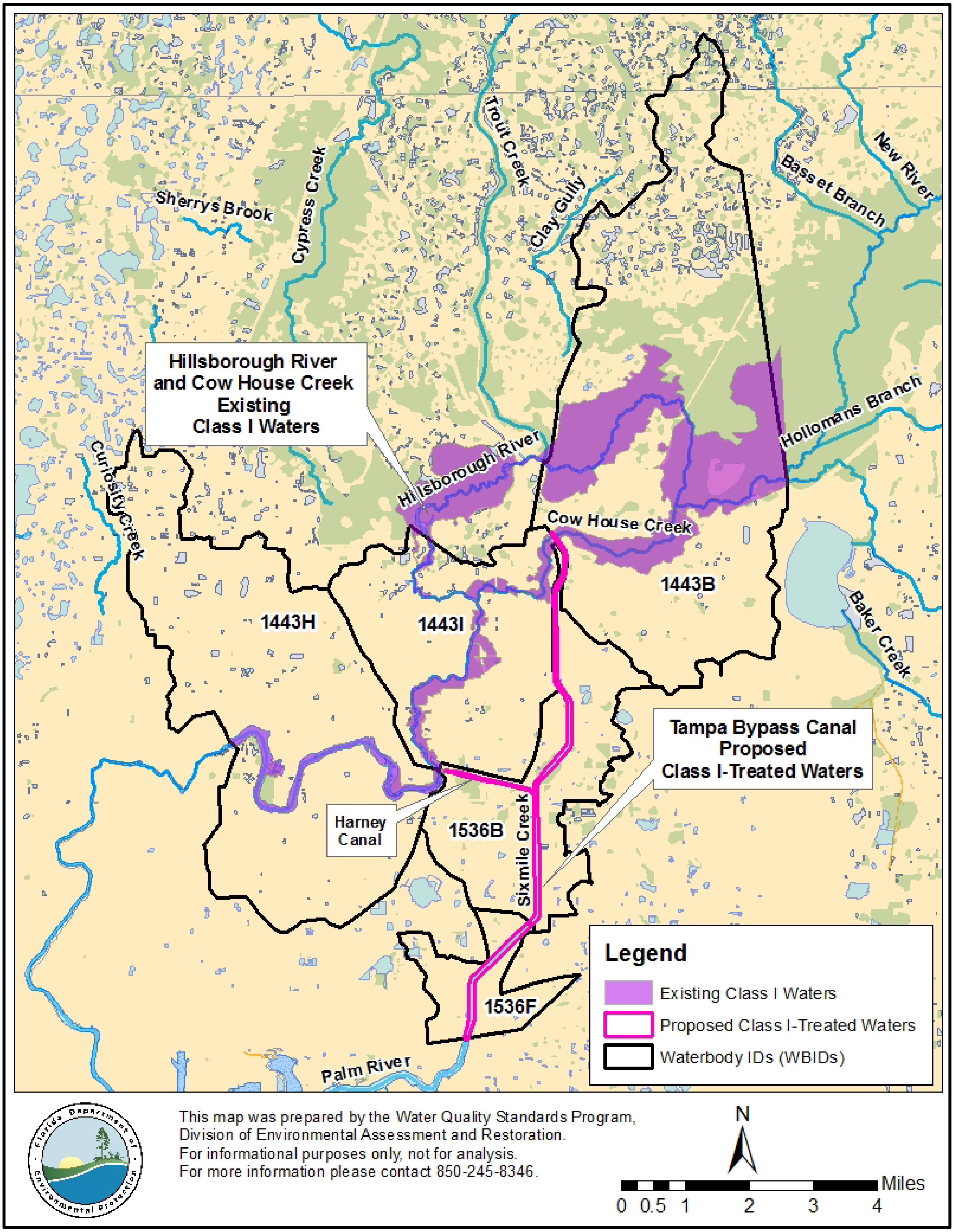


**Figure III B-3. Map identifying impaired WBIDs near the TBC reclassification area.**

### *Potential Effects of Reclassification*

Reclassification of the TBC (**Figure III B-1**) from a Class III to a Class I-Treated water will provide additional protection for the existing drinking water source, but may also affect dischargers located upstream of the potential reclassification area through more stringent requirements imposed on their discharges or activities. Wastewater facilities that discharge to the reclassified area, to waters contiguous or tributary to the reclassified area, or to waters upstream of the reclassified area would be required to demonstrate that their discharge will not cause or contribute to violations of the applicable Class I-Treated water quality criteria. **Table III B-2** lists permitted discharges in the proposed reclassification area.

#### *DOMESTIC DISCHARGE FACILITIES*

Domestic wastewater discharges to surface waters within a four-hour travel time of the proposed reclassification area must provide Class I reliability (as discussed in **Section II**) , meet specific disinfection requirements, and comply with all other applicable regulations outlined in Chapter 62-600, F.A.C., and Part V of Chapter 62-610, F.A.C. The closest domestic wastewater discharge is Hillsborough County's Falkenberg Advanced Wastewater Treatment Facility (AWWTF). The facility is located just downstream of the reclassification area and is separated from the TBC area of evaluation by S-160; thus reclassification is not expected to have any effect on the facility. Any domestic discharges located upstream of the TBC would reach the existing Class I area of the Hillsborough River before reaching the portion of the TBC being proposed for reclassification. Therefore, the proposed reclassification is not expected to affect existing domestic wastewater discharges.

#### *REUSE OF RECLAIMED WATER AND LAND APPLICATION*

The proposed reclassification of the TBC to a Class I-Treated waterbody would also increase the setback requirements for slow- and rapid-rate domestic land application systems. These range from 100 to 500 feet from the edge of the Class I water, depending on the level of treatment (disinfection) provided. Land application sites near the area of evaluation were associated with the Rainbow Forest Mobile Home Park (MHP) WWTF, Happy Traveler RV Park, and Paradise Village. The closest of these is approximately 900 feet from the reclassification area; therefore, the proposed reclassification of the TBC to Class I-Treated is not expected to affect any existing domestic land application activities.

The proposed reclassification would also increase setback distances for the land application of tomato and fresh citrus fruit wash water. These range from 100 to 500 feet from the edge of the Class I water. The closest of either a fresh citrus fruit or tomato packinghouse is approximately 16 miles from the TBC reclassification area; therefore, no effect is expected on these activities due to a reclassification.

Additionally, limited wet-weather discharges from reuse projects within a 24-hour travel time to a Class I water (*i.e.*, during periods when wet-weather discharge would occur) may need WQBELs if (1) there is insufficient dilution during the discharge, (2) the immediate discharge is to a Class I water, (3) the discharge is expected more than 91 days per year, or (4) the reuse system is a slow-rate land application system, as described in Subsection 62-610.860(3), F.A.C. The reclassification will not affect existing wet-weather discharges because any upstream wet-weather discharge would meet the existing Hillsborough River Class I area before reaching the TBC area of evaluation.

### *INDUSTRIAL WASTEWATER FACILITIES*

No specific additional treatments or actions are required for industrial wastewater discharges located upstream of Class I waters, but, as noted previously, industrial wastewater facilities discharging to or upstream of the reclassified area would have to meet the more stringent Class I-Treated water quality criteria (Table I-3), which are generally the same as Class I waters (with the exception of fluoride, chloride, nitrates, and TDS). There are several industrial discharge sites located near the TBC (**Table III B-2** and **Figure III B-4**).

Tampa Bay Regional Water Treatment Plant (WTP), a drinking water treatment facility, has a surface water outfall to discharge any water not meeting Tampa Bay Water's specification for distribution to its drinking water customers. The discharge is to a drainage canal that discharges to Sixmile Creek (TBC) and then the Palm River. The three most recent discharges occurred in July 2008 and May and November 2009. The facility is not required to monitor its discharge for any parameters for which the Class I criteria are more stringent than Class III criteria.

EnviroFocus Technologies, LLC is a battery-smelting and secondary lead-smelting operation. It ultimately produces large lead blocks that are sold. Its on-site WWTF discharges wastewater and any stormwater that falls on site to the city of Tampa's sanitary sewer system—specifically the Uceta Yard Drain, which ultimately discharges to Tampa Bay and therefore does not influence water quality in the TBC.

Cast Crete Corporation manufactures concrete construction products and has a surface water discharge to a drainage ditch that flows to the TBC. Because there were no exceedances of Class I-Treated criteria in the TBC for parameters that the facility is required to monitor in its effluent, the facility is not expected to be affected by a reclassification.

Trademark Nitrogen Corporation is a fertilizer production plant with a surface water discharge to an unnamed ditch. The ditch flows to the Palm River, which then discharges to McKay Bay and therefore does not influence the TBC.

The remaining industrial discharges are located upstream of the TBC and discharge to existing Class I portions of the Hillsborough River before the reaching the proposed reclassification area, and would therefore not be affected by a reclassification of the TBC.

***Reclassification Assessment and Recommendation***

The department recommends changing the classification from Class III to Class I-Treated for the TBC from the control structure S-163 at Cow House Creek (northern extent) to the control structure S-160 (north of State Road 60) including the Harney Canal (**Figure III B-1**). The reclassification will help protect the existing drinking water source for Tampa Bay Water and its users in the surrounding area, while having minimal adverse effects on upstream dischargers. Additionally, the data analysis described above indicates that existing water quality in the reclassification area achieves the more stringent water quality criteria associated with the drinking water use classification.

**Table III B-2. Permitted discharges and land application sites in the TBC reclassification area.**

| Facility Name | Facility ID | Type of Discharge | Will Facility Be Affected by Class I-Treated Reclassification? | Notes |
|---|---|---|---|---|
| **Hillsborough County Falkenberg AWWTF** | FL0040614 | Domestic Surface Water Discharge | No | Downstream of reclassification area and separated by water control structure |
| **Rainbow Forest MHP WWTF** | FLA012188 | Domestic Land Application Site | No | >500 feet from reclassification area |
| **Happy Traveler RV Park** | FLA012136 | Domestic Land Application Site | No | >500 feet from reclassification area |
| **Paradise Village MHP** | FLA012168 | Domestic Land Application Site | No | >500 feet from reclassification area |
| **Paradise Village** | FLA012189 | Domestic Land Application Site | No | >500 feet from reclassification area |
| **Tampa Bay Regional WTP** | FL0187691 | Industrial Surface Water Discharge | No | Discharge rarely used; not required to monitor for any parameters for which Class I criteria are more stringent than Class III criteria |
| **Trademark Nitrogen Corporation** | FL0000647 | Industrial Surface Water Discharge | No | Discharge not hydrologically connected to TBC |
| **Enviro Focus Technologies LLC** | FL0687138 | Industrial Surface Water Discharge | No | Discharge not hydrologically connected to TBC |
| **Cast Crete Corp.** | FL0167363 | Industrial Surface Water Discharge | No | TDS is only parameter facility is required to monitor for which Class I criteria are more stringent than Class II criteria; no exceedances of TDS criterion observed |

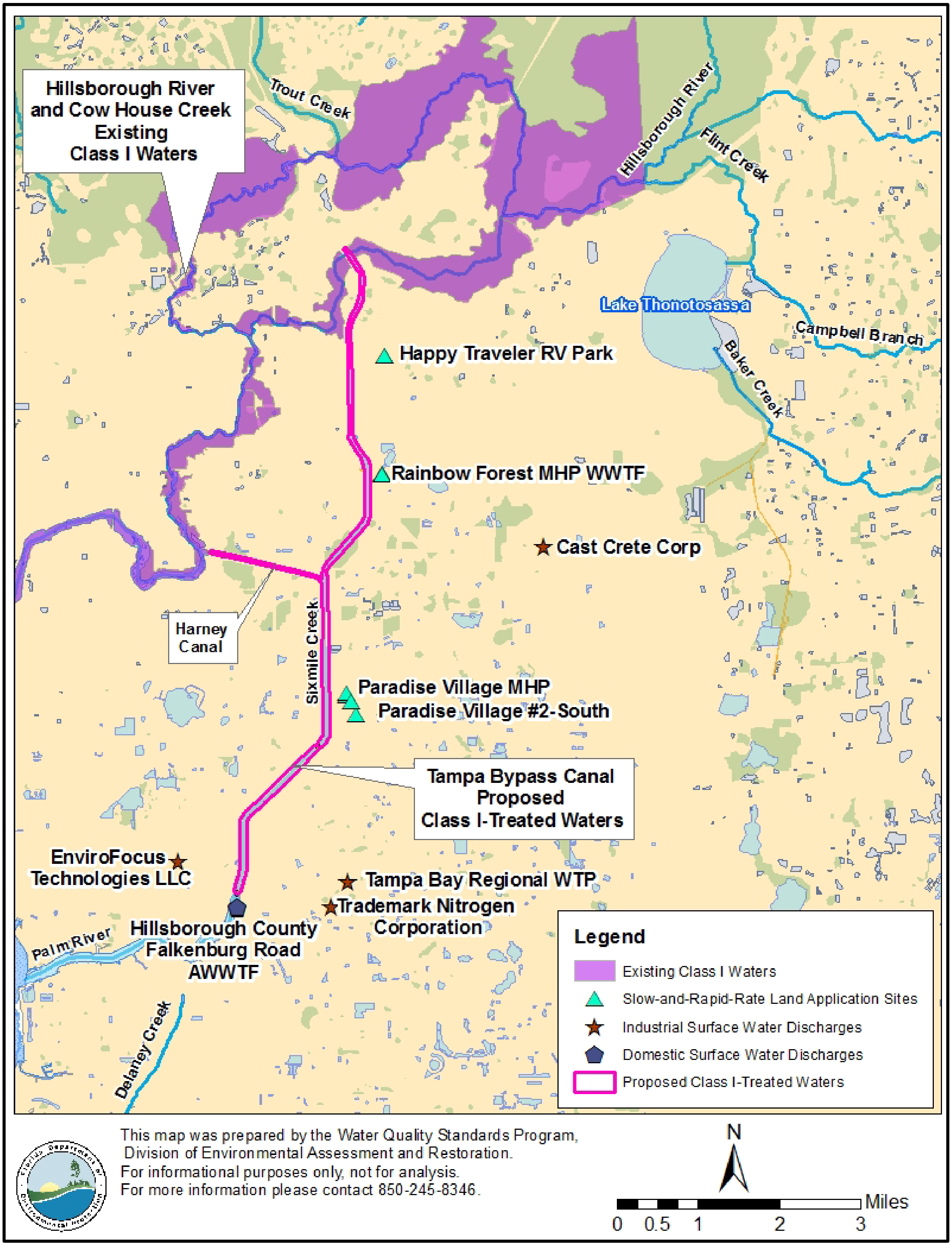


**Figure III B-4. Map showing location of domestic and industrial surface water discharges, as well as slow- and rapid-rate land application sites, that could potentially be affected by reclassification of the TBC.**

## C. Alafia River

### *Background*

The Alafia River (**Figure III C-1**) is a Class III waterbody used by Tampa Bay Water, in combination with other water sources (*i.e*., the TBC, ground water, and desalinated seawater)[5] to supply potable water to its six member governments: Hillsborough, Pasco, and Pinellas Counties and the cities of New Port Richey, St. Petersburg, and Tampa. Through these governments, Tampa Bay Water serves 2.3 million people in the tricounty area. In 2012, it supplied a total of 164.3 MGD.

In addition to the water supplied by Tampa Bay Water, three of the member governments also rely on small isolated wells for a limited self-supply of drinking water, and the city of Tampa uses the Hillsborough River for self-supply. Because the existing drinking water use of the Alafia Rivermay not be fully protected by its current Class III designation, this portion of the Alafia River is being proposed for reclassification from a Class III to a Class I-Treated water as directed by Chapter 2016—01, Laws of Florida (paragraph 403.861(21)(b), F.S.).

The amount of water used from the Alafia is based on a withdrawal schedule in Tampa Bay Water's CUP, which is linked to river flow. Based on historical river flows, the annual average amount projected to be used under the CUP is 18.7 MGD. However, no water withdrawals are allowed when river flow is at or below 83 MGD. The maximum permitted withdrawal is 10% of the flow of the river, up to 60 MGD, when the total flow of the river is above 93 MGD.

Surface water from the Alafia, which has been used as a water source by Tampa Bay Water since 2002, is either sent to the C.W. Bill Young Regional Reservoir for storage with other collected surface water or the Regional Treatment Facility for immediate use. Water treatment incorporates the ACTIFLO® process to remove color and particles from the water, disinfection using ozone, biologically active filtration to remove any remaining organics, and then disinfection again using chlorine and chloramines.

### *Reclassification Area Description*

#### *Waterbody Description*

The Alafia River is a free-flowing system originating from the convergence of several creeks that coalesce to form a centralized riverine system that flows west from Polk County through Hillsborough County. Two creeks feed the Alafia: the North Prong, which originates west of Plant City and south of Lakeland,

[5] The TBC is also under consideration for reclassification and is addressed in a separate section of this document.

and the South Prong, which originates in southeast Hillsborough County. The three major tributaries of the Alafia River are Turkey Creek, Fishhawk Creek, and Bell Creek (Tampa Bay Water 2007). The Alafia River flows for approximately 24 miles before ultimately discharging into Hillsborough Bay (SWFWMD 2001). Lithia Springs and Buckhorn Springs, both ground water–fed spring systems, contribute to the flow of the Alafia River system (Tampa Bay Water 2007). The department is proposing that the main stem of the Alafia River from Lithia Pinecrest Road (County Road 640) westward to Bell Shoals Road (**Figure III C-1**) be reclassified from Class III to Class I-Treated.

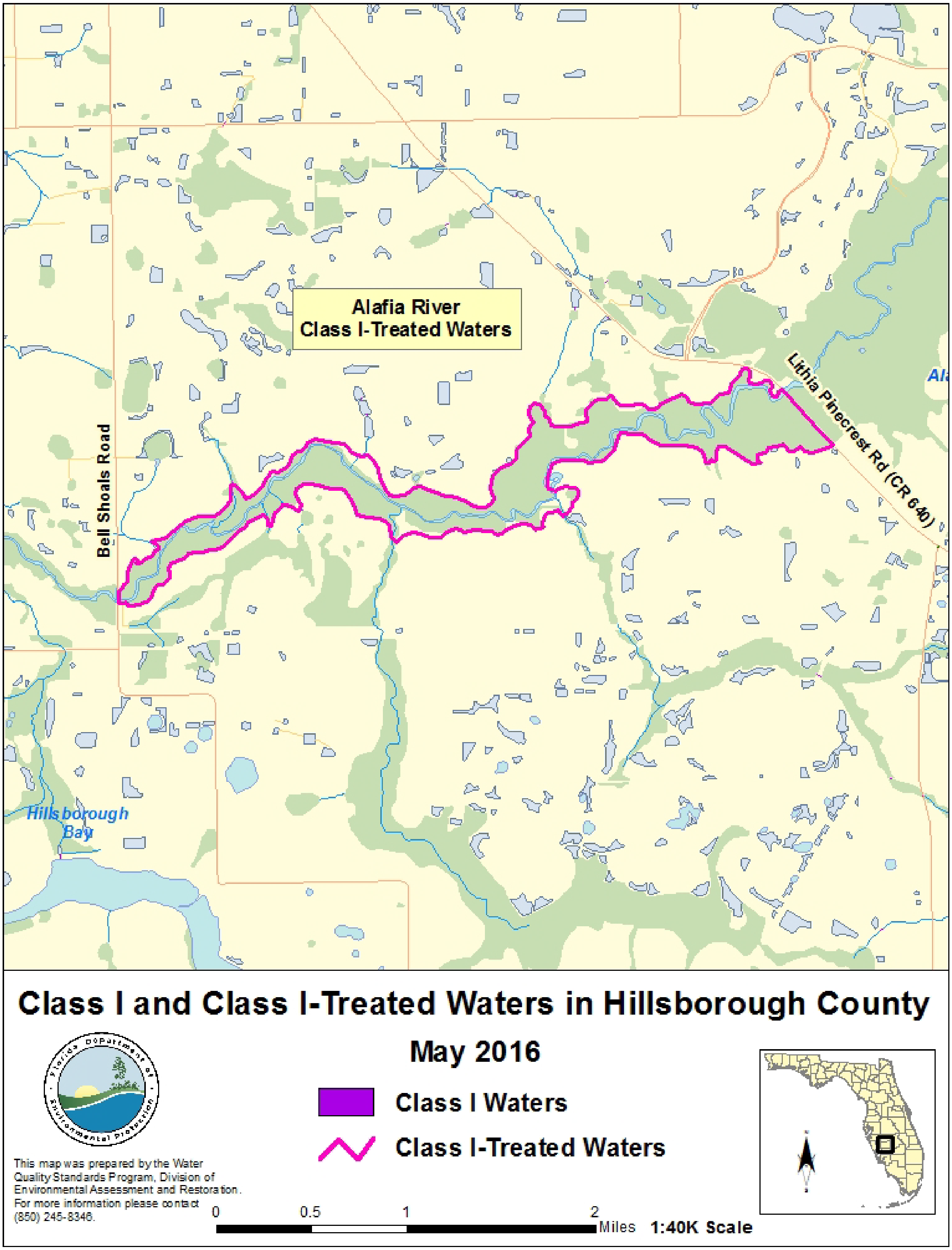


**Figure III C-1.** **Map depicting the proposed Alafia River Class I-Treated waters located in Hillsborough County.**

### *BASIN/SUBBASIN DESCRIPTION*

The Alafia River is located in the Tampa Bay Basin and more specifically in the Alafia subbasin. The total area of the Alafia River watershed is 269,986 acres (422 square miles) (SWFWMD 2005). The Alafia River, which flows through Hillsborough and Polk Counties south of the Hillsborough River Basin, contributes significant outflows to Tampa Bay. The watershed contains 97 named lakes and ponds and 35 named rivers, streams, and canals. It incorporates parts of Lakeland, Plant City, the community of Brandon, and large expanses of rural or underdeveloped farm and phosphate mining lands (SWFWMD 2001).

The landscape in the Alafia River subbasin has been transformed by mining, agriculture, and urban uses. The Alafia River originates in the Bone Valley Formation, which is rich in phosphatic rock deposits. Mining, primarily for the excavation of phosphate, takes place mainly in the eastern half of the subbasin. Agricultural land use in the watershed—which includes the cultivation of citrus, strawberries, other row crops, and the production of poultry and dairy products (SWFWMD 2001)—is found north of the North Prong and in the center of the subbasin.

The flow of the Alafia River has been significantly influenced by anthropogenic ground water withdrawals and mining-based water uses. The SWFWMD proposed minimum flows and levels (MFLs) for the river in 2005.

### *LAND USE*

Land use statistics (**Table III C-1**) were calculated for the area around the Alafia River area under evaluation. The majority of the nearby land use is urban (64%). Wetlands, forested areas, and shrub/brushland, together, make up approximately 27% of the nearby land. Agriculture uses make up nearly 6%. Open-water areas included in the statistics represent a small portion of the potential reclassification area (1.7%). Lastly, land used for utilities and transportation make up a little over 1% of the area. Note that there is extensive agriculture in the eastern part of the basin; however, the land use information presented here focuses on the immediate watersheds surrounding the reclassification area and only captures a small portion of the agricultural activity.

**Table III C-1. Land use information for the Alafia River reclassification area.**

| Land Use Description | Acreage | % of Total Acreage |
|---|---|---|
| **Urban** | 8,179 | 64.26% |
| **Wetland** | 2,062 | 16.20% |
| **Forested** | 1,343 | 10.55% |
| **Agriculture** | 740 | 5.82% |
| **Open Water** | 217 | 1.71% |
| **Utilities/Transportation** | 165 | 1.29% |
| **Shrub/Brushland** | 22 | 0.17% |
| **Sum** | **12,729** | **100.00%** |

***Summary of Existing Water Quality Data***

The department collected data at two sites to evaluate existing water quality in the portion of the Alafia River proposed for reclassification (**Figure III C-1** shows the locations of the sampling sites). These data were combined with data obtained from the IWR database collected from the area since January 1, 2006, to form a single dataset. The combined data were screened as described in **Section II** to omit data not meeting QA/QC expectations. The remaining dataset was then used to summarize existing water quality and determine whether the waters in the area evaluated for reclassification would achieve the water quality criteria associated with the proposed Class I-Treated designated use. **Table I-3** lists all of the parameters that have a Class I-Treated criterion that is more stringent than the Class III criterion. A summary of the existing water quality data for the area for all parameters having water quality criteria plus several informative parameters is provided in **Appendix A**.

A vast majority of the parameters were not detected in the area evaluated for reclassification and were found to meet the water quality criteria associated with the proposed designated use. There were exceedances for DO saturation, pH, and turbidity (**Appendix A**), for which the criteria are the same for both Class I-Treated and III waters.

Single exceedances of the applicable criteria Class I-Treated for DO and pH and two exceedances of the turbidity criterion were observed in the portion of the Alafia River being proposed for reclassification to Class I-Treated (**Appendix A**). These rare exceedances are likely associated with unusual events and are therefore not characteristic of typical water quality conditions in the Alafia River. Because the exceedance rates for all three parameters are less than 1%, the area would not be considered impaired for these parameters under the IWR (*i.e.*, Chapter 62-303, F.A.C.). The actual number of turbidity exceedances may be lower because the criterion is expressed as less than or equal to 29 NTU above natural background conditions, and the background is not known but was assumed to be near zero for this assessment.

***Impaired Waters in the Area Evaluated for Reclassification***

For assessment purposes, the Alafia River is divided into three primary segments: Alafia River above Hillsborough Bay (WBID 1621A), Alafia River above Fishhawk Creek (WBID 1621B), and Lithia Springs Group Run (1621H) (**Figure III C-2**). WBID 1621A is impaired for fecal coliforms, which are primarily attributable to the agricultural (cattle farming) land use in the eastern portion of the watershed. No other waters in the proposed reclassification area are listed as impaired.

***Potential Effects of Reclassification***

The reclassification of this portion of the Alafia River (**Figure III C-1**) from a Class III to a Class I-Treated water will provide additional protection for the existing drinking water source, but may also affect dischargers located upstream of the potential reclassification area through more stringent requirements imposed on their discharges or activities. Wastewater facilities that discharge to the reclassified area, to waters contiguous or tributary to the reclassified area, or to waters upstream of the reclassified area would be required to demonstrate that their discharge will not cause or contribute to violations of the applicable Class I-Treated water quality criteria. **Table III C-2** lists permitted discharges in the proposed reclassification area.

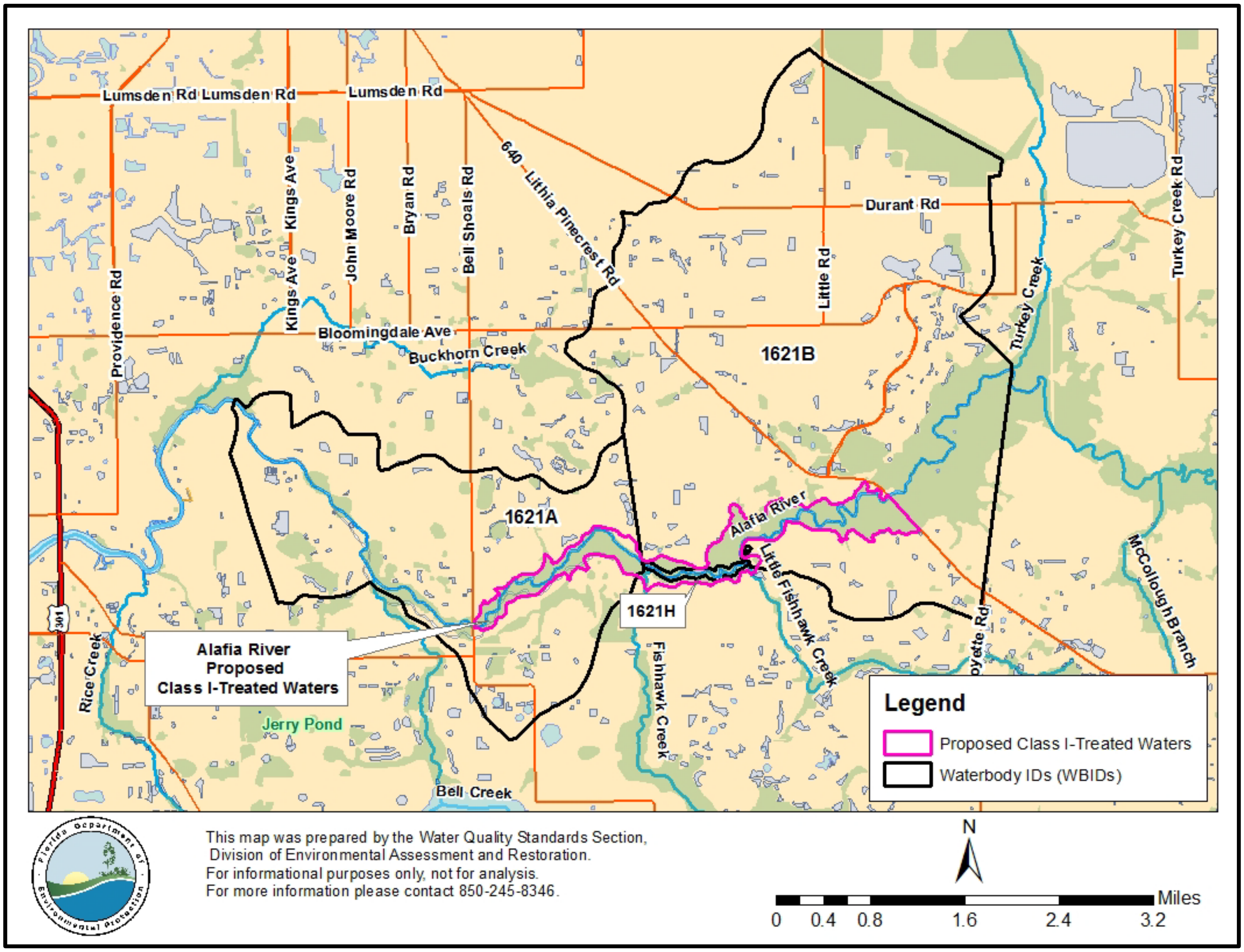


**Figure III C-2. Map identifying impaired WBIDs near the Alafia River area under consideration for reclassification.**

***DOMESTIC DISCHARGE FACILITIES***

Domestic wastewater discharges to surface waters within a four-hour travel time of the proposed reclassification area must provide Class I reliability (as discussed in **Section II**) , meet specific disinfection requirements, and comply with all other applicable regulations outlined in Chapter 62-600, F.A.C. and Part V of Chapter 62-610, F.A.C. Based on a conservative velocity estimate of 0.5 meters per second, a four-hour in-stream travel time would equate to an upstream distance from the Alafia reclassification area of approximately 4.5 miles. There are no domestic wastewater discharges currently located within this distance of the proposed reclassification area. The closest domestic wastewater discharge is Hillsborough County Valrico AWWTF, which is approximately eight miles upstream of the area of evaluation.

The South County Regional AWWTP has a surface water discharge of reclaimed water to a stormwater storage lake system that intermittently discharges to the Alafia River. The lake system is approximately 1.5 miles from the reclassification area; however, the travel time from the discharge to the lake to the discharge from the lake is expected to be much greater, as the operation ensures that when the storage pond reaches a predetermined elevation, discharge of reclaimed water into the system is stopped. Because the continued introduction of stormwater into the system controls the eventual discharge from the storage ponds, the discharge from the storage ponds is considered a stormwater discharge. Therefore, the proposed reclassification is not expected to affect the existing domestic wastewater discharges.

***REUSE OF RECLAIMED WATER AND LAND APPLICATION***

The proposed reclassification of this portion of the Alafia River to a Class I-Treated waterbody would also increase the setback requirements for slow- and rapid-rate domestic land application systems. These range from 100 to 500 feet from the edge of the Class I water, depending on the level of treatment (disinfection) provided. The closest domestic land application site is approximately 3 miles northeast of the Alafia reclassification area; therefore, the proposed reclassification of this portion of the Alafia River to Class I-Treated is not expected to affect existing domestic land application activities.

A reclassification would also increase setback distances for the land application of tomato and fresh citrus fruit wash water. These range from 100 to 500 feet from the edge of the Class I water. The closest of either a fresh citrus fruit or tomato packinghouse is approximately 10.5 miles from the Alafia River reclassification area; thus no effect is expected on these activities due to a reclassification.

Additionally, limited wet-weather discharges from reuse projects within a 24-hour travel time to a Class I water (*i.e.,* during periods when wet-weather discharge would occur) may need WQBELs if (1) there is insufficient dilution during the discharge, (2) the immediate discharge is to a Class I water, (3) the discharge is expected more than 91 days per year, or (4) the reuse system is a slow-rate land application system, as described in Subsection 62-610.860(3), F.A.C. The reclassification will not affect existing wet-weather discharges because there are no limited wet-weather domestic wastewater discharges within a 24-hour travel time of the proposed Alafia River reclassification area.

#### *INDUSTRIAL WASTEWATER FACILITIES*

No specific additional treatments or actions are required for industrial wastewater discharges located upstream of Class I waters, but, as noted previously, industrial wastewater facilities discharging to or upstream of the reclassified area would have to meet the Class I-Treated water quality criteria. Coronet Industries, Inc. has three surface water discharges in the upper reaches of the Alafia subbasin located approximately 14 miles from the Alafia reclassification area. Kerry I & F Contracting Company has a surface water discharge to Westside Canal approximately 12 miles north of the proposed reclassification area. Additionally, Mosaic also has numerous industrial discharges associated with phosphate mining activities located well upstream of the area proposed for reclassification. Due to their distance from the area, none of these discharges are expected to be affected by the proposed reclassification.

### *Reclassification Assessment and Recommendation*

The department recommends changing the classification of the segment of the Alafia River from Lithia Pinecrest Road (County Road 640) westward to the Bell Shoals Road, from Class III to Class I-Treated (**Figure III C-1**). The reclassification will help protect the existing drinking water source for Tampa Bay Water and its users, while having minimal adverse effects on upstream dischargers. The data analysis indicates that the existing water quality in the reclassification area achieves the Class I-Treated water quality criteria.

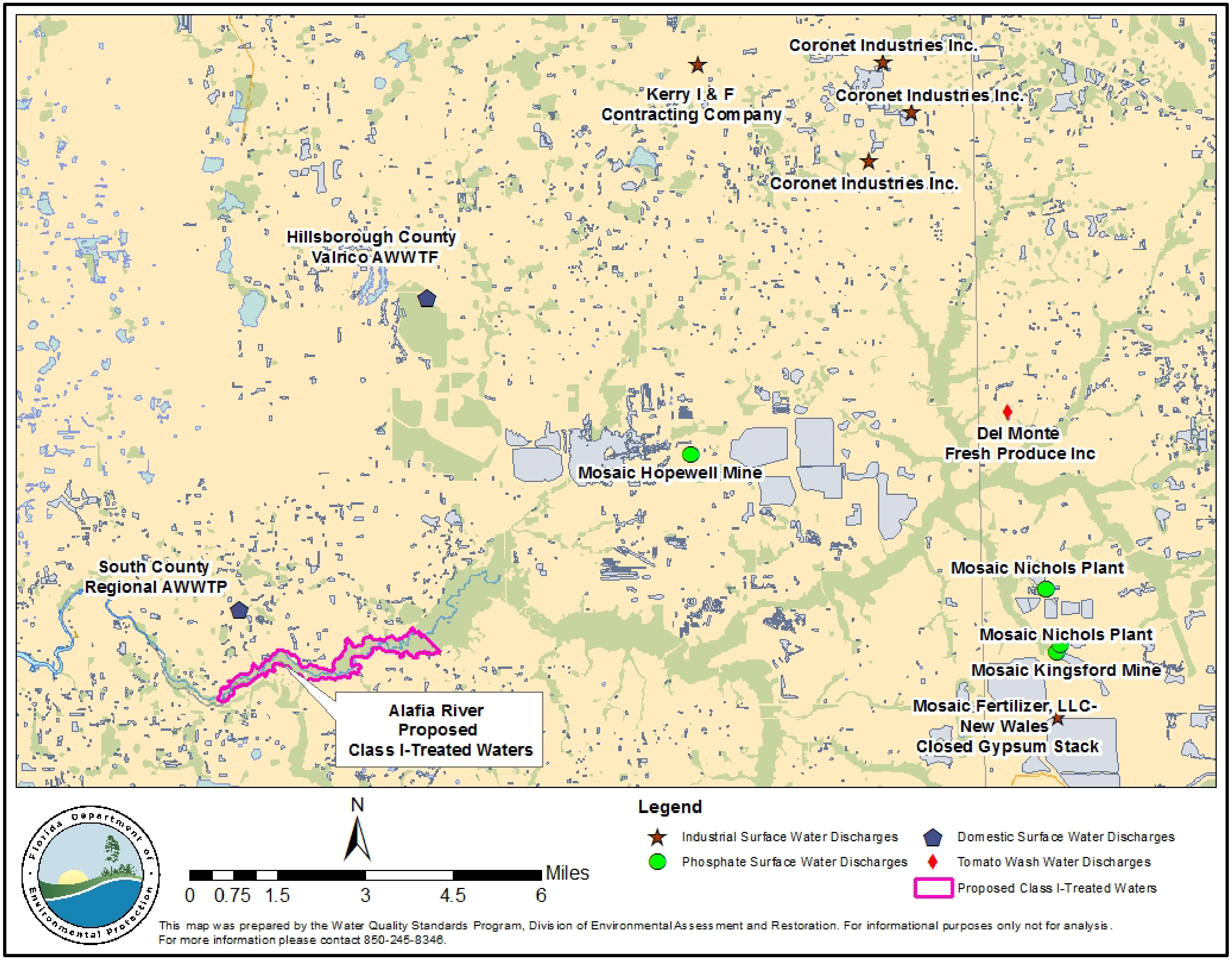


**Figure III C-3. Map showing domestic and industrial surface water discharges, as well as phosphate surface water discharges and tomato wash water sites, that could potentially be affected by a reclassification of the Alafia River.**

**Table III C-2. Permitted discharges in the Alafia River reclassification area.**

| FACILITY NAME | FACILITY ID | TYPE OF DISCHARGE | WILL FACILITY BE AFFECTED BY CLASS I-TREATED RECLASSIFICATION? | NOTES |
|---|---|---|---|---|
| **South County Regional AWWTP** | FL0028061 | - | No | - |
| **Hillsborough County Valrico AWWTF** | FL0040983 | Domestic Surface Water Discharge | No | >Four-hour travel time from reclassification area |
| **Coronet Industries, Inc.** | FL0034657 | Industrial Surface Water Discharge | No | Approximately 14 miles from reclassification area |
| **Kerry I & F Contracting Company** | FL0037389 | Industrial Surface Water Discharge | No | Approximately 12 miles from the reclassification area |
| **Mosaic Surface Water Discharges (numerous)** | FL0032590, Hopwell FL00330139, Nichols FL0000256, Kinsford FL0178527, New Wales | Industrial Surface Water Discharge | No | Potential fluoride source well upstream of reclassification area |

- = Empty cell/no data

## D. Peace River

### *Background*

The Peace River is used as a potable water supply by the Peace River–Manasota Regional Water Supply Authority, which supplies drinking water to Charlotte, DeSoto, and Sarasota Counties, as well as the city of North Port (**Figure III D-1**). The authority, which has been in service since 1980 (Department 2006), also plans to provide water to Manatee County in the future. The authority serves approximately 355,000 people and provides a total volume of approximately 25.5 MGD. Because the existing drinking water use in this area may not be fully protected by its current Class III designation, a portion of the Peace River (**Figure III D-1**) is being proposed for reclassification from a Class III to a Class I-Treated water as directed by Chapter 2016—01, Laws of Florida (paragraph 403.861(21)(b), F.S.).

The authority's WUP only allows withdrawals during times of high flow to ensure minimum freshwater flows to the downstream Charlotte Harbor estuary. Once pumped from the Peace River, the water is directed to a holding reservoir and then pumped from the reservoir for treatment, which includes the addition of powdered activated carbon, coagulation, sedimentation, disinfection, filtration, and adjustment of pH at specific points during the treatment process. Treated water is stored in above-ground storage tanks and then pumped to meet public demand. If surplus treated water is available and not needed to meet demand, it is injected into on-site Aquifer Storage and Recovery (ASR) wells for use during the dry season.

In 2007, the facility received an exemption from the secondary maximum contaminant level (SMCL) standard for TDS for 36 months while construction associated with a regional expansion program was in process.

### *Reclassification Area Description*

#### *Waterbody Description*

The Peace River begins at the junction of Saddle Creek and the Peace Creek Drainage Canal near Bartow in northern Polk County and travels southward approximately 75 miles through the remaining portion of Polk County and Hardee, DeSoto, and Charlotte Counties (Department 2006). The headwaters of the Peace River are formed by an extensive marsh/lake system, and the river itself is characterized by a meandering, primarily free-flowing main channel with wide floodplains. The main channel discharges into the northeastern portion of Charlotte Harbor.

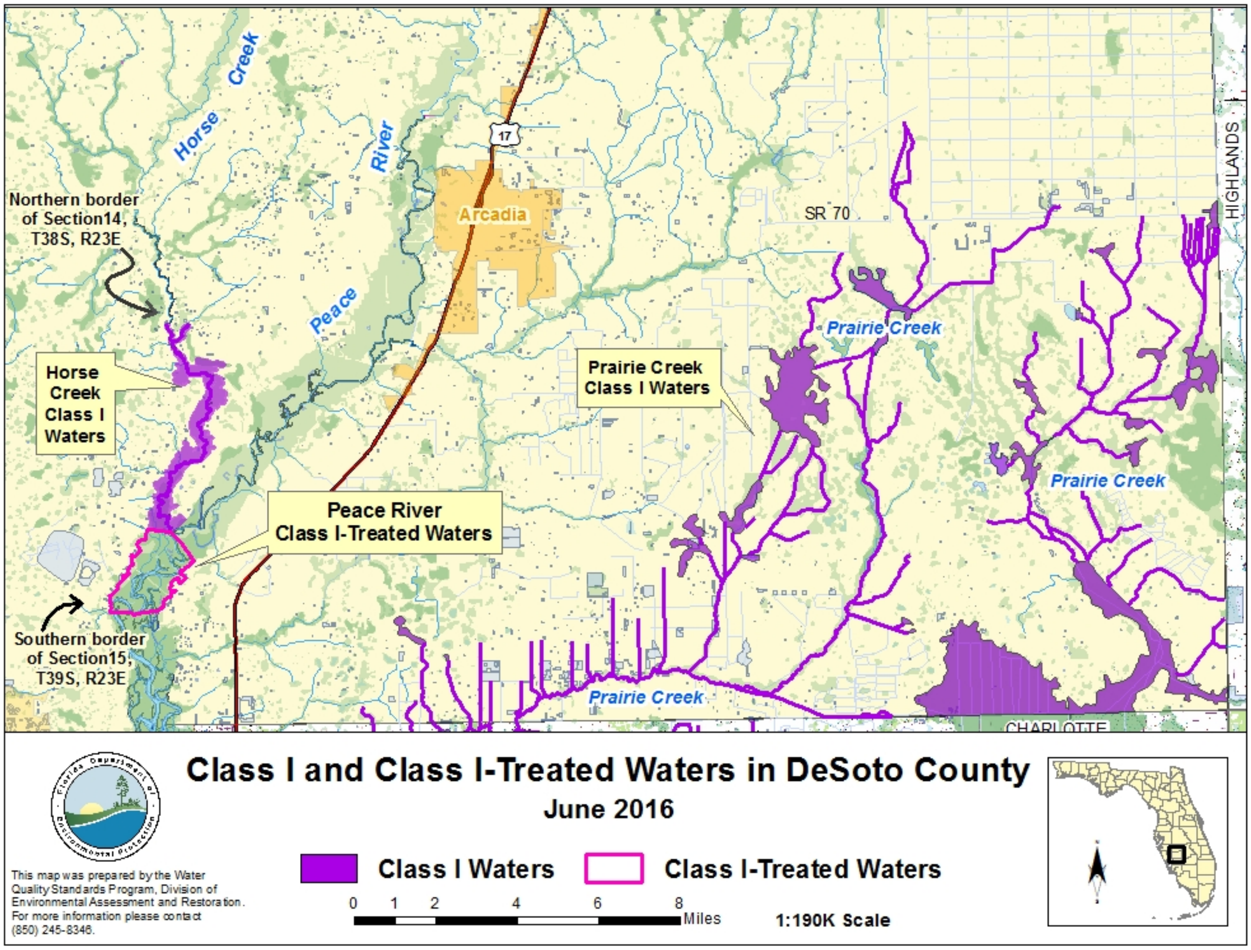


**Figure III D-1. Map depicting the proposed Peace River Class I-Treated waters located in DeSoto County**

The department is proposing that the portion of the lower Peace River from the confluence with Horse Creek southward approximately 2.7 miles to the southern line of Section 15, Township 39 South, Range 23 East, (**Figure III D--1**) be reclassified from Class III to Class I-Treated. Much of the swamp/marsh buffering the main channel of the Peace River was also included in the area being proposed for reclassification because the wetlands are contiguous to the main stem. The upstream boundary was chosen as the confluence with Horse Creek because the creek is already a Class I waterbody.

### *BASIN/SUBBASIN DESCRIPTION*

The Peace River is located in the Sarasota Bay–Peace–Myakka River Basin and more specifically in the Peace River subbasin. The Peace River watershed has a surface area of 2,350 square miles (Department 2006). Although the majority of the watershed is concentrated in Polk, Hardee, DeSoto, and Charlotte Counties, it also extends to smaller portions of Lee, Highlands, Manatee, Hillsborough, Glades, and Sarasota Counties. The Green Swamp marks the beginning of this extensive watershed, with the headwater tributary streams of the Peace River occurring in northern Polk County (Department 2006).

The primary ecosystems found in the watershed are pine flatwoods, herbaceous wetlands, and dry prairie. Mangroves and salt marshes are more commonly seen near the estuarine portion of the Peace River, which is situated downstream of U.S. Highway 41 in the lower watershed (downstream of the area under consideration for reclassification). This downstream portion of the Peace River is designated as an OFW due to its location in the Charlotte Harbor Aquatic Preserve (Department 2006). The flow of the Peace River system ultimately affects the tidal influence in the lower reaches of the watershed. During times of low flow, tidal influence can extend from the mouth of the Peace River to Fort Ogden, and tidal flooding can also occur in this area and along the coast (Department 2006).

The Peace River is primarily a rain-fed, free-flowing system. Historically, the major uses of water in the watershed were agricultural irrigation, public supply, and mining and processing phosphate ore (Department 2006). In recent years, river flows have decreased due to the drawdown of the surficial aquifer and a decrease in rainfall. Phosphate mining has played a significant role in influencing the water quality and health of habitats in the Peace River watershed. Agriculture (citrus and pastureland) is also prominent.

### *LAND USE*

Land use statistics were generated for the area around the portion of the Peace River under consideration for reclassification (**Table III D-1**). The majority of the surrounding land is wetlands (37%) and agricultural lands (33%). Urban areas make up about 9% of the nearby area, while forest and shrub/brushland make up about 13%, combined. Additionally, utilities and roads, as well as barren/disturbed land, together make up about 4.5% of the surrounding land use. About 4% of the area consists of open water.

**Table III D-1. Land use information for the Peace River reclassification area.**

| LAND USE DESCRIPTION | ACREAGE | % OF TOTAL ACREAGE |
|---|---|---|
| **Wetland** | 8,644 | 37.26% |
| **Agriculture** | 7,680 | 33.11% |
| **Urban** | 2,010 | 8.66% |
| **Forested** | 1,504 | 6.48% |
| **Shrub/Brushland** | 1,488 | 6.41% |
| **Open Water** | 845 | 3.64% |
| **Barren/Disturbed** | 777 | 3.35% |
| **Utilities/Transportation** | 250 | 1.08% |
| **SUM** | **23,198** | **100.00%** |

***Summary of Existing Water Quality Data***

The department collected data at two sites to evaluate existing water quality in the portion of the Peace River being evaluated for reclassification as shown in **Figure III D-1.** These data were combined with data from the IWR database collected from the area since January 1, 2003, to form a single dataset. The combined data were screened as described in **Section II** to omit data not meeting QA/QC expectations. The remaining dataset was then used to summarize existing water quality and determine whether the waters in the area evaluated for reclassification would achieve the water quality criteria associated with the proposed Class I-Treated designated use. Table I-3 lists all of the parameters that have a Class I-Treated criterion that is more stringent than the Class III criterion. **Appendix A** provides a summary of the existing water quality data for the area for parameters having water quality criteria plus several informative parameters.

A vast majority of the parameters were not detected in the area evaluated for reclassification and were found to meet the water quality criteria associated with the proposed designated use. The parameters with exceedances of the Class I-Treated criteria are DO, iron, specific conductance, and pH, all of which have have the same criteria for both Class I-Treated and III waters (**Appendix A**).

Because the Peace River near the drinking water intake can be tidally influenced during periods of low freshwater flow and high tides, the WUP for the drinking water intake restricts the withdrawal of water to periods when upstream freshwater flows exceed the levels necessary to minimize tidal influence. The relatively high level of exceedances observed for specific conductance (*i.e.*, 24.9%, respectively) are associated with periods of tidal influence in this portion of the river when potable water withdrawls are restricted. During periods of tidal influence, the levels of specific conductance increase to levels above the freshwater criteria in response to increased salt water input. Because the exceedances result from natural phenomena during dry periods when freshwater flows are low, and are recognized in the WUP through restrictions placed on drinking water withdrawals, they are not thought to be a significant concern in reclassifying the area to Class I-Treated. It should be noted that the specific conductance criterion specifically allows conductance to be increased more than 50% above background, or to 1,275 µmhos/cm, whichever is greater. The exceedances noted here may reflect the fact that background conditions were not established as a part of this analysis.

Within the portion of the Peace River being proposed for reclassification, there were sporadic exceedances of the applicable criteria for DO saturation, pH, and iron. However, because the criteria for all three parameters are the same for both Class I-Treated and Class III waters, reclassifying the area to Class I-Treated would not influence future assessments. Additionally, since the exceedance rate for all the parameters is well less than 10%, the area would not be considered impaired under the IWR (*i.e.,* Chapter 62-303, F.A.C.).

Of the 287 DO measurements collected from the portion of the Peace River being proposed for reclassification to Class I-Treated, only 5 (*i.e*., 1.7%) were below the minimum criterion (**Appendix A**). The sporadic DO levels below the criterion were typically restricted to the summer months during high-flow events and when temperatures were high.

Exceedances above the 8.5 SU upper limit of the pH criterion occurred in 4.3% of the samples (*i.e*., 12 of 279) and are likely related to periods when freshwater flow to the river is low. During these periods, there is little flushing and photosynthetic activity is high, resulting in increased pH levels. It should be noted that the pH criterion for both Class I-Treated and Class III waters establishes a minimum of 6.5 and a maximum of 8.5 SU but also specifies that "*if natural background is higher than 8.5 units, the pH shall not vary above natural background…*" Due to the limited amount of information available, it is difficult to determine if the measurements are above the range of natural background conditions.

Only one out of 128 (0.8%) iron samples collected over the 10-year period of record was above the iron criterion of 1 mg/L (**Appendix A**). The exceedance was only slightly above the criterion (1,020 µg/L) and was measured during an September 2006 sampling event. The high iron concentration is probably related to high-flow conditions when iron-rich sediments were resuspended and additional sediments were transported to the river in runoff. The single iron exceedance does not pose a risk and is not relevant to the potential reclassification of the area.

***Impaired Waters in the Area Evaluated for Reclassification***

The portion of the Peace River under consideration for reclassification is in the Peace River above Thornton Branch (WBID 1623A) segment (**Figure III D-2**). WBID 1623A is listed as impaired for mercury based on the FDOH finding of elevated levels of methyl mercury in fish tissue. This widespread issue generally results from nonlocal sources and is therefore being addressed through a statewide mercury TMDL.

WBID 1623A is also verified as impaired for nutrients (chlorophyll-α). The nutrient impairment is not affected by a reclassification to Class I-Treated because the nutrient criteria are the same for both Class I-Treated and Class III waterbodies.

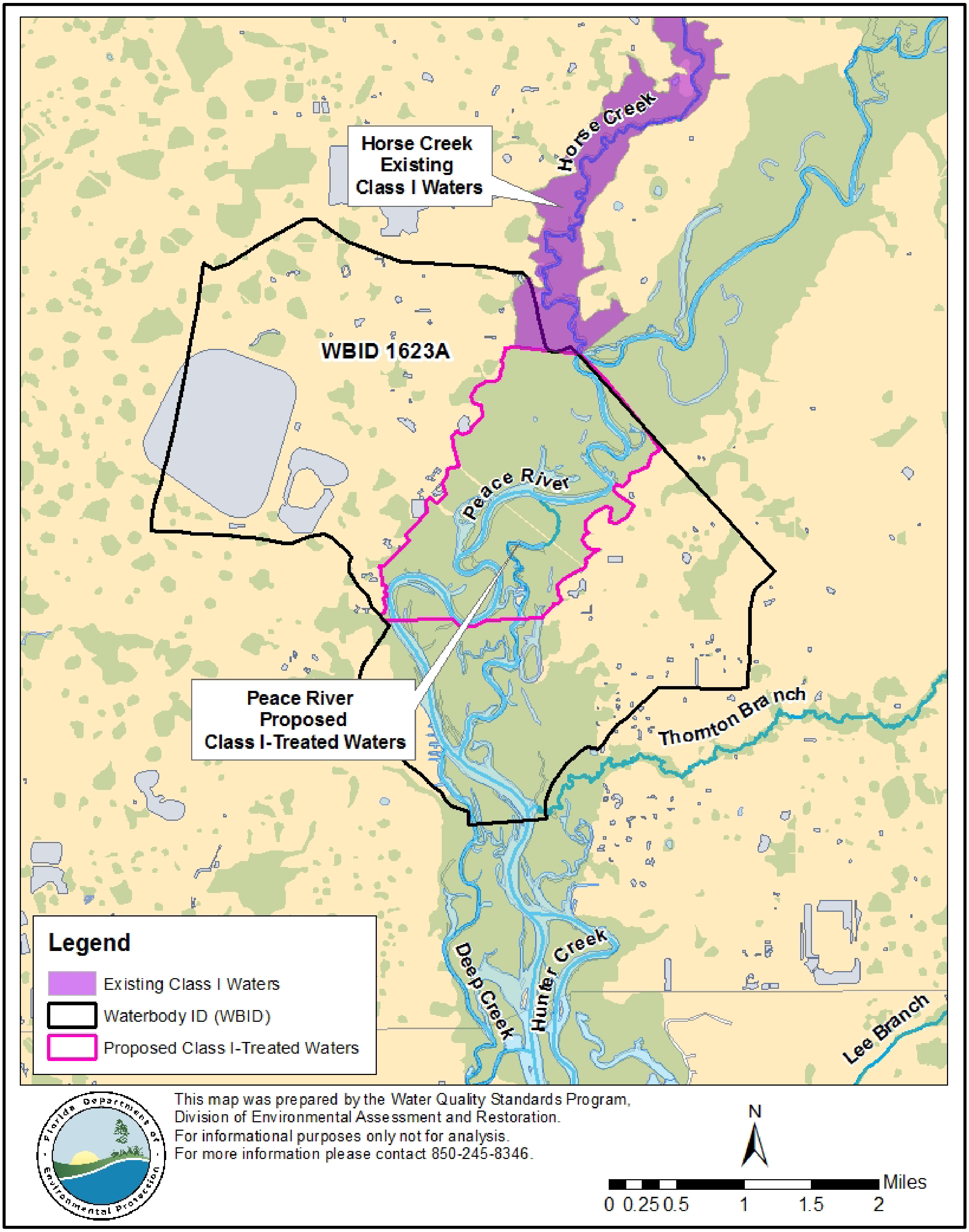


**Figure III D-2. Map showing impaired WBIDs near the Peace River area under consideration for reclassification.**

### *Potential Effects of Reclassification*

Reclassifying this portion of the Peace River (**Figure III D-1**) from a Class III to a Class I-Treated water will provide additional protection for the existing drinking water source, but may also affect dischargers located upstream of the potential reclassification area through more stringent requirements imposed on their discharges or activities. Wastewater facilities that discharge to the reclassified area, to waters contiguous or tributary to the reclassified area, or to waters upstream of the reclassified area would be required to demonstrate that their discharge will not cause or contribute to violations of the applicable Class I-Treated water quality criteria. **Table III D-2** lists permitted discharges and land application sites in the watershed of the proposed reclassification area.

#### *DOMESTIC DISCHARGE FACILITIES*

Domestic wastewater discharges to surface waters within a four-hour travel time of the proposed reclassification area must provide Class I reliability (as discussed in **Section II**) , meet specific disinfection requirements, and comply with all other applicable regulations outlined in Chapter 62-600, F.A.C., and Part V of Chapter 62-610, F.A.C. Based on a conservative velocity estimate of 0.5 meters per second, a four-hour in-stream travel time would equate to an upstream distance from the proposed Peace River reclassification area of approximately 4.5 miles. No domestic wastewater discharges are currently located within this distance of the proposed reclassification area. The closest domestic wastewater discharge is the City of Arcadia–William Tyson WWTF, approximately 16.5 miles upstream of the proposed Class I-Treated boundary. Therefore, the proposed reclassification is not expected to affect existing domestic wastewater discharges.

**Table III D-2. Permitted discharges and land application sites in the Peace River reclassification area.**

| FACILITY NAME | FACILITY ID | TYPE OF DISCHARGE | WILL FACILITY BE AFFECTED BY CLASS I RECLASSIFICATION? | NOTES |
|---|---|---|---|---|
| **City of Arcadia–William Tyson WWTF** | FL0027511 | Domestic Surface Water Discharge | No | >Four-hour travel time from reclassification area |
| **Lettuce Lake Campground** | FLA011954 | Domestic Land Application Site | No | >500 feet from reclassification area |

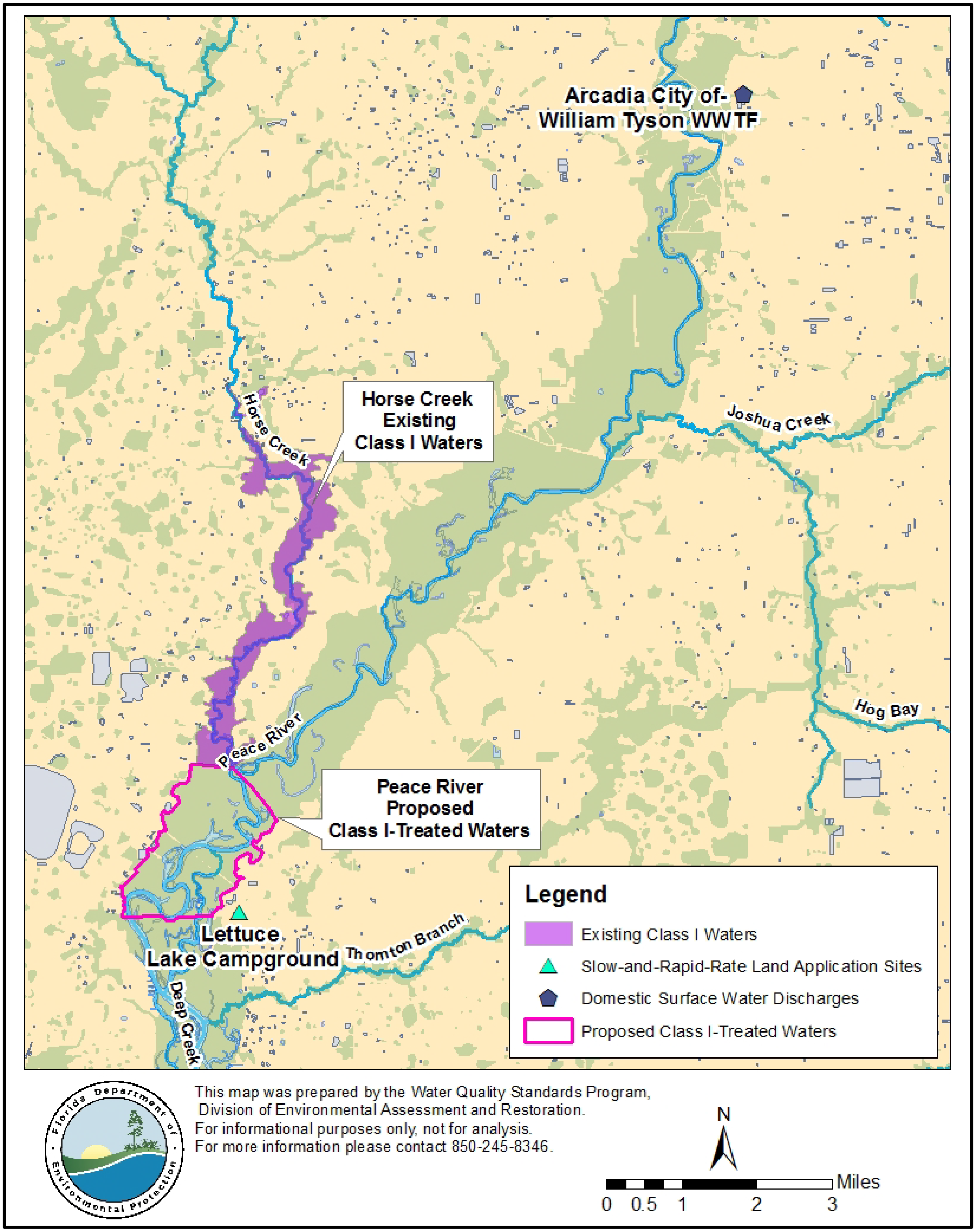


**Figure III D-3. Map showing domestic surface water discharge sites, as well as slow- and rapid-rate rate land application sites, that could potentially be affected by a reclassification of a portion of the Peace River.**

### *REUSE OF RECLAIMED WATER AND LAND APPLICATION*

The proposed reclassification of this lower portion of the Peace River to a Class I-Treated waterbody would also increase setback requirements for slow- and rapid-rate domestic land application systems. These range from 100 to 500 feet from the edge of the Class I water, depending on the level of treatment (disinfection) provided. The closest land application site is associated with the Lettuce Lake Campground. However, it is approximately 1,700 feet away; therefore, the proposed reclassification of this lower portion of the Peace River to Class I-Treated is not expected to affect any existing domestic land application activities.

A reclassification would also increase setback distances for the land application of tomato and fresh citrus fruit wash water. These requirements range from 100 to 500 feet from the edge of the Class I water. The closest of either a fresh citrus fruit or tomato packinghouse is approximately 11 miles from the proposed Peace River reclassification area; therefore, no effect is expected on these activities due to a reclassification.

Additionally, limited wet-weather discharges from reuse projects within a 24-hour travel time to a Class I water *(i.e.*, during periods when wet-weather discharge would occur) may need WQBELs if (1) there is insufficient dilution during the discharge, (2) the immediate discharge is to a Class I water, (3) the discharge is expected more than 91 days per year, or (4) the reuse system is a slow-rate land application system, as described in Subsection 62-610.860(3), F.A.C. The only domestic surface discharge within a 24-hour travel time is for the City of Arcadia–William Tyson WWTF; however, it is not a limited wet-weather discharge. Therefore, the reclassification of this portion of the Peace River will not affect any existing limited wet-weather discharges.

### *INDUSTRIAL WASTEWATER FACILITIES*

No specific additional treatments or actions are required for industrial wastewater discharges located upstream of Class I waters, but, as noted previously, industrial wastewater facilities discharging to or upstream of the reclassified area would have to meet the applicable Class I-Treated water quality criteria. The closest industrial surface water discharge is located approximately 80 miles from the reclassification area near Payne Creek, a tributary of the Peace River. However, it appears that this discharges to holding ponds and not to Payne Creek directly. Also, any industrial discharges in the upper reaches of the basin are not expected to be affected by the reclassification due to their distance from the reclassification area.

In addition to the industrial surface water discharges mentioned above, there are also numerous industrial discharges associated with phosphate mining activities located in the Peace River subbasin. The closest of these discharges is also in the Payne Creek area (approximately 80 miles from the reclassification area). Due to their distance from the portion of the Peace River being considered for reclassification and the fact that the water quality in the reclassification area is meeting the water quality standards set to protect Class I-Treated use, these discharges are not expected to be affected by a reclassification. It is also worth noting that there are phosphate surface water discharges to Horse Creek (a tributary that joins the Peace River immediately above the reclassification area), which is currently protected as a Class I waterbody.

***Reclassification Assessment and Recommendation***

The department recommends changing the classification of the lower Peace River (and contiguous wetlands) from the confluence with Horse Creek southward to the southern line of Section 15, Township 39 South, Range 23 East (**Figure III D-1**) from Class III to Class I-Treated. The reclassification will help protect the existing drinking water source for the Peace River-Manasota Regional Water Supply Authority and its users while having minimal adverse effects on upstream dischargers. The data analysis described above indicates that the existing water quality in the proposed reclassification area achieves the Class I-Treated water quality criteria associated with the upgraded use.

## E. CALOOSAHATCHEE RIVER

### *Background*

The Caloosahatchee River is a Class III waterbody used by RiverBend Motorcoach Resort as a potable water supply (**Figure III E-1**). The resort is located in the city of LaBelle in Hendry County and houses 315 private RV sites. It has used water from the Caloosahatchee for drinking water since 2001. The WUP grants the resort an annual withdrawal allocation of 28.47 million gallons, with a maximum monthly withdrawal allocation of 2.964 million gallons from the Caloosahatchee River. Water treatment is provided through the use of a reverse osmosis (RO) system incorporating an ultrafiltration pretreatment process. While the facility has 315 service connections, water withdrawal and use are seasonal. Because the existing drinking water use in this area of the Caloosahatchee River may not be fully protected by its current Class III designation, it is being proposed for reclassification from a Class III to a Class I-Treated water as directed by Chapter 2016—01, Laws of Florida (paragraph 403.861(21)(b), F.S.).

A number of drinking water quality standard exceedances have been detected in the finished drinking water of the RiverBend Motorcoach Resort, including water treatment–related disinfection byproducts during two periods in 2006 and two periods in 2010; coliforms in 2006, 2008, and 2009; and turbidity during two periods in 2009. Disinfection byproducts typically form when disinfectants used in the water treatment process (*e.g.*, chlorine or bromine) react with naturally occurring organic and inorganic substances in the water. Generally, the formation of disinfection byproducts is related to the disinfection process and is not a reflection of source water quality. Fecal coliforms and turbidity are usually easily removed through conventional drinking water treatment processes. The observed exceedances are most likely due to an error in treatment, such as a faulty filter membrane.

### *Reclassification Area Description*

#### *WATERBODY DESCRIPTION*

The Caloosahatchee River begins at the western edge of Lake Okeechobee and terminates in San Carlos Bay near the city of Fort Myers. The river was originally a shallow, meandering watercourse; however, significant dredging and channel straightening has occurred over almost the entire course of the river. According to the department (2005), the Caloosahatchee River historically originated as overland flow from Lake Okeechobee through marshlands and swamp forest before it was channelized and connected to Lake Okeechobee. Thus, the hydrology of this system no longer reflects natural conditions.

Three water control structures—S-77, S-78, and S-79—regulate the flow of the river. S-77 separates the Caloosahatchee from Lake Okeechoobee. S-78, also called Ortona Lock, is located about 16 miles west of Lake Okeechobee. Finally, S-79, also called Franklin Lock, is located in the downstream reaches near San Carlos Bay and separates the freshwater portion of the river from the estuarine portion.

Agricultural land use is prevalent in this region and has significantly affected water diversion from the main stem of the channelized Caloosahatchee River. Additional canals were constructed along the banks of the Caloosahatchee to provide water for the agricultural communities that heavily populate this region (Department 2005). Urbanization is limited mainly to the coastal regions of Fort Myers and Cape Coral, although the cities of LaBelle and Belle Glade lie to the east, closer to Lake Okeechobee.

The portion of the Caloosahatchee proposed for reclassification extends approximately 7.6 miles from State Road 29 (Bridge Street) westward to the Hendry/Lee County line (**Figure III E-1)**. The department chose to extend the proposed reclassification area downstream of the RiverBend Motorcoach intake to meet an existing Class I area, making a single, continuous Class I/ Class I-Treated extent. The existing Class I area is classified as such to protect the potable water supply for Lee County and the city of Fort Myers.

***BASIN/SUBBASIN DESCRIPTION***

The Caloosahatchee Basin is located primarily in the Caloosahatchee River Valley and encompasses 70 miles stretching from the western edge of Lake Okeechobee to San Carlos Bay (Department 2005). The original shape and flow patterns of the Caloosahatchee River have been significantly modified. The freshwater portion of this river now exists as the C-43 Canal and has been channelized for flood control and navigation purposes. The flow of the Caloosahatchee River is controlled through a series of drainage structures and locks.

The Franklin Lock is particularly significant because it separates the fresh water of the Caloosahatchee River from the estuarine portion of the Caloosahatchee. The tidal Caloosahatchee River has been recognized as an estuary of national significance and is now a part of the Charlotte Harbor National Estuary Program (NEP) (Department 2005). The flow of this system is often highly irregular and variable, which in turn influences salinity levels in the downstream Caloosahatchee/San Carlos Bay Estuary.

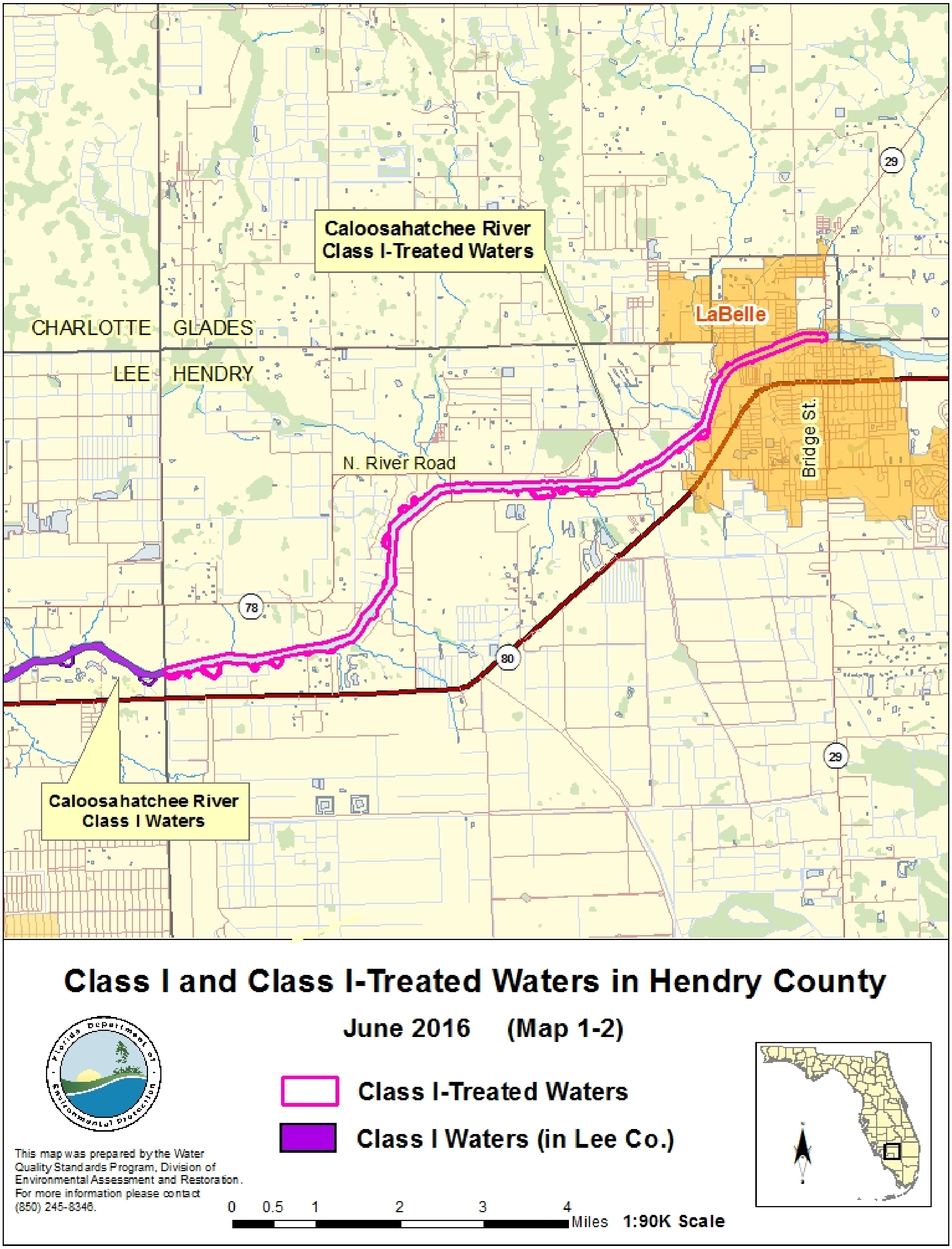


**Figure III E-1.** **Map depicting the proposed Caloosahatchee River Class I-Treated waters located in Hendry County**

Hydrologic modifications have incorporated the Caloosahatchee River as a component of the Okeechobee waterway, which acts as a linkage between the Gulf of Mexico and the Atlantic Ocean via Lake Okeechobee and the St. Lucie Canal and River (Department 2005). Before channelization and modification, the natural watershed of the Caloosahatchee River was diversely vegetated, containing communities such as pine flatwoods and saw palmetto prairies, sand pine and xerophytic oak, hardwood swamp forests, prairie grasslands, mangrove swamps, and coastal marshes (Department 2005). Examples of natural communities still found in the Caloosahatchee Basin are dry prairie, pinelands, freshwater marsh, and hardwood hammock.

The city of LaBelle, where the RiverBend Motorcoach Resort is located, is within the West Caloosahatchee Planning Unit, as defined by the department for water quality assessment purposes. Other population centers in the basin include Fort Myers, Cape Coral, North Fort Myers, Lehigh Acres, Moore Haven, and Clewiston. The area also includes public lands such as the Caloosahatchee Regional Park, Greenbriar Swamp Preserve, and Moya Sanctuary (Department 2005).

***LAND USE***

Land use statistics were calculated for the area around the portion of the Caloosahatchee River proposed for reclassification (**Table III E-1**). Agriculture and urban development make up nearly 70% of the surrounding land use, at 35% and 34%, respectively. Forested areas, wetlands, and shrub/brushland, together, make up about 19% of the nearby land use. Open-water portions of the Caloosahatchee make up a little over 7% of the area. Lastly, almost 5% of the nearby area comprises land used for utilities and roads, as well as barren or disturbed land.

**Table III E-1. Land use information for the Caloosahatchee River reclassification area.**

| LAND USE DESCRIPTION | ACREAGE | % OF TOTAL ACREAGE |
|---|---|---|
| **Agriculture** | 5,921 | 35.07% |
| **Urban** | 5,804 | 34.38% |
| **Forested** | 1,500 | 8.89% |
| **Open Water** | 1,199 | 7.10% |
| **Wetland** | 941 | 5.57% |
| **Shrub/Brushland** | 727 | 4.30% |
| **Barren/Disturbed** | 435 | 2.57% |
| **Utilities/Transportation** | 357 | 2.11% |
| **SUM** | **16,883** | **100.00%** |

***Summary of Existing Water Quality Data***

The department collected data at three sites to evaluate existing water quality in the portion of the Caloosahatchee being proposed for reclassification as shown in **Figure III E-1.** These data were combined with data from the IWR database collected since January 1, 2006, to form a single dataset. The combined data were screened as described in **Section II** to omit data not meeting QA/QC expectations. The remaining dataset was then used to summarize existing water quality and determine whether the waters in the area evaluated for reclassification would achieve the water quality criteria associated with the proposed Class I-Treated designated use. **Table I-3** lists all of the parameters that have a Class I-Treated criterion that is more stringent than the Class III criterion. **Appendix A** provides a summary of the existing water quality data for the area for parameters having water quality criteria plus several informative parameters.

A vast majority of the parameters were not detected in the area evaluated for reclassification and were found to meet the water quality criteria associated with the proposed designated use. DO saturation is the only parameter exhibiting exceedances of the Class I-Treated criteria (**Appendix A**). Sporadic exceedances (*i.e.*, 5 of 119 measurements, or 4.2%) of the applicable DO criterion were observed in the portion of the Caloosahatchee River proposed for reclassification to Class I-Treated (**Appendix A)**. Most of the DO exceedances occurred near the mouths of small tributaries to the Caloosahatchee River. During dry periods when the flow in these small tributaries is low or stagnant, DO levels can be depressed as temperatures and respiration levels increase and there is a lack of reaeration. Because the exceedance rate for DO is less than 10%, the area would not be considered impaired according to the IWR (*i.e.,* Chapter 62-303, F.A.C.). Additionally, the DO saturation criterion is the same for both Class I-Treated and Class III waters, therefore reclassifying the area to Class I-Treated would not influence future assessments.

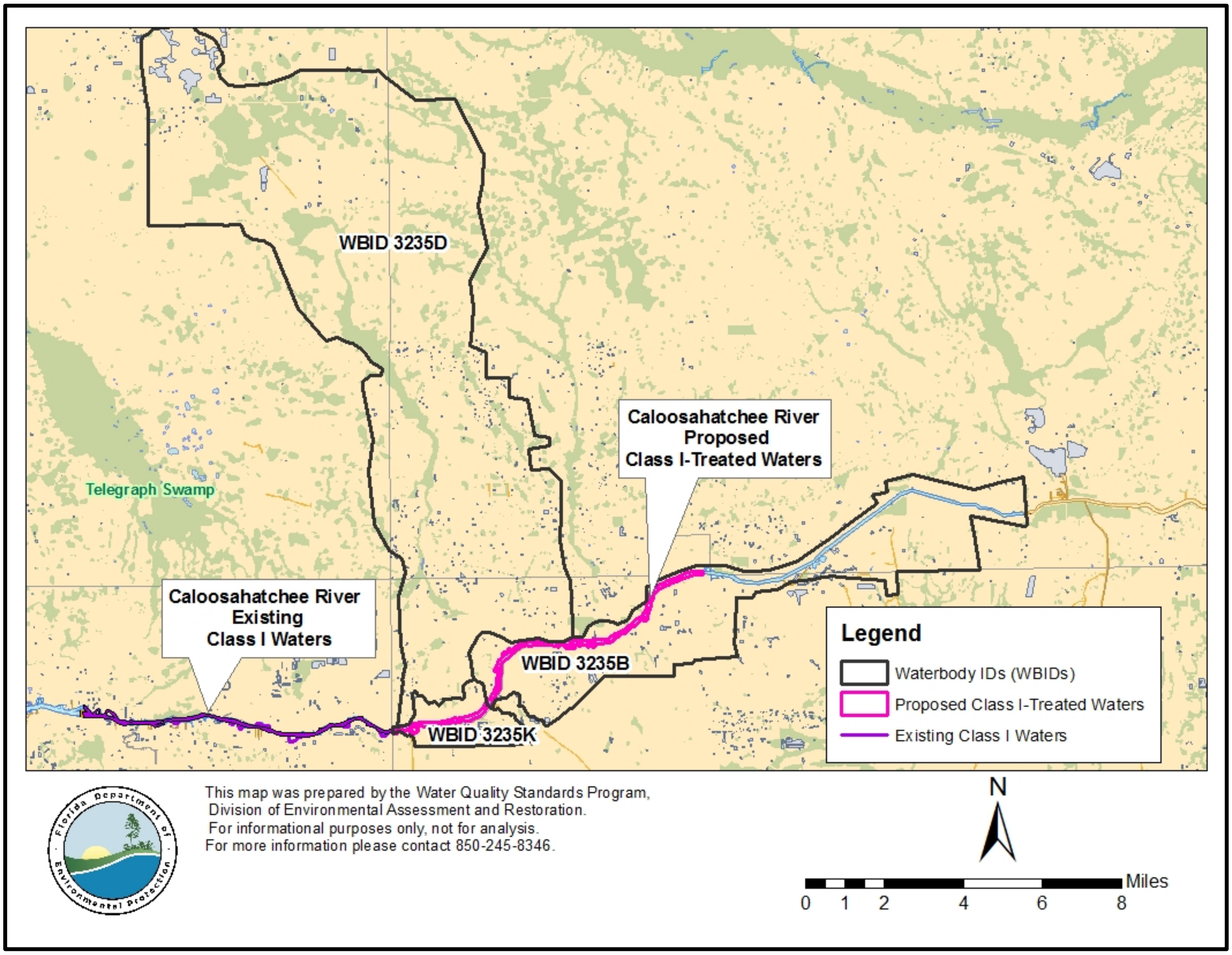


**Figure III E-2. Map showing location of impaired WBIDs near the Caloosahatchee River area under consideration for reclassification.**

***Impaired Waters in the Area Evaluated for Reclassification***

For assessment purposes, the Caloosahatchee River area under evaluation for reclassification is within Fort Simmons Branch (WBID 3235K) and Caloosahatchee River between S-79 and S-78 (WBID 3235B) (**Figure III E-2**). WBID 3235B is listed as impaired for nutrients (chlorophyll-α). Because the same nutrient criterion applies to both Class I-Treated and Class III waterbodies, nutrient impairments are not affected by the proposed reclassification. It is also worth noting that Jacks Branch (WBID 3235D), located just north of the proposed reclassification area, is listed as impaired for fecal coliforms. However, because the fecal coliform criteria has been replaced by a *E. Coli.* Criteria, which is the same for both Class I-Treated and Class III waterbodies, the fecal coliform impairment will not be affected by a reclassification to Class I-Treated. The waterbody will be reassessed as sufficient *E. Coli.* data become available. There are no impairments in Fort Simmons Branch (WBID 3235K).

***Potential Effects of Reclassification***

The reclassification of this portion of the Caloosahatchee River (**Figure III C-1**) from a Class III to a Class I-Treated water will provide additional protection for the existing drinking water source, but may also affect dischargers located upstream of the potential reclassification area through more stringent requirements imposed on their discharges or activities (*e.g.*, setback distances and requirements for additional disinfection). Additionally, wastewater facilities that discharge to the reclassified area or to waters upstream of the reclassified area would be required to demonstrate that their discharge will not cause or contribute to violations of the applicable water quality criteria established to protect Class I-Treated designated use. **Table III E-2** lists permitted discharges and land application sites in the watershed of the proposed reclassification area. **Figure III E-3** shows the locations of permitted land application sites that could potentially be affected, and **Figure III E-4** shows the locations of these sites in relation to the reclassification area.

***DOMESTIC DISCHARGE FACILITIES***

Domestic wastewater discharges to surface waters within a four-hour travel time of the proposed reclassification area must provide Class I reliability (as discussed in **Section II**) , meet specific disinfection requirements, and comply with all other applicable regulations outlined in Chapter 62-600, F.A.C., and Part V of Chapter 62-610, F.A.C. Based on a conservative velocity estimate of 0.5 meters per second, a four-hour in-stream travel time would equate to an upstream distance from the Caloosahatchee reclassification area of approximately 4.5 miles. There are no domestic wastewater discharges currently located within this distance of the proposed reclassification area. The closest domestic wastewater discharge is the city of Clewiston Wastewater Treatment Facility, approximately 30 miles upstream of the area of evaluation. Due to its distance from the reclassification area, the proposed reclassification is not expected to affect existing domestic wastewater discharges.

### *Reuse of Reclaimed Water and Land Application*

The proposed reclassification of this portion of the Caloosahatchee River to a Class I-Treated waterbody would also increase setback requirements for slow- and rapid-rate domestic land application systems. These range from 100 to 500 feet from the edge of the Class I water, depending on the level of treatment (disinfection) provided. There were several domestic land application sites near the Caloosahatchee area of evaluation: Riverside Retreat, RiverBend Motorcoach Resort, and Grandma's Grove RV Park. The closest site, associated with Grandma's Grove RV Park, is approximately 1,800 feet from the reclassification area; therefore, the proposed reclassification of this portion of the Caloosahatchee River to Class I-Treated is not expected to affect existing domestic land application activities.

The proposed reclassification would also increase setback distances for the land application of tomato and fresh citrus fruit wash water. These range from 100 to 500 feet from the edge of the Class I water. The closest of either a fresh citrus fruit or tomato packinghouse is approximately 31.5 miles from the Caloosahatchee River reclassification area; therefore, no effect is expected on these activities due to a reclassification.

Additionally, limited wet-weather discharges from reuse projects within a 24-hour travel time to a Class I water (*i.e.*, during periods when wet-weather discharge would occur) may need WQBELs if (1) there is insufficient dilution during the discharge, (2) the immediate discharge is to a Class I water, (3) the discharge is expected more than 91 days per year, or (4) the reuse system is a slow-rate land application system, as described in Subsection 62-610.860(3), F.A.C. The proposed reclassification will not affect existing wet-weather discharges because there are no limited wet-weather domestic wastewater discharges within a 24-hour travel time of the proposed Caloosahatchee River reclassification area.

### *Industrial Wastewater Facilities*

No specific additional treatments or actions are required for industrial wastewater discharges located upstream of Class I waters, but, as noted previously, industrial wastewater facilities discharging to or upstream of the reclassified area would have to meet Class I-Treated water quality criteria. E.R. Jahna Ind. – Ortona Mine has an intermittent surface water discharge to the Caloosahatchee River from a sand-mining pit located approximately 11 miles from the area under consideration for reclassification. While reclassification would reduce the distance between the discharge and Class I waters (the mine discharge is currently 21 miles upstream from the current Class I area of the Caloosahatchee)**,** the distance is still great enough that no effect is expected on the discharge due to a reclassification of this portion of the Caloosahatchee River.

### *Reclassification Assessment and Recommendation*

The department recommends reclassifying an approximately 7.6 mile segment of the Caloosahatchee River extending from From State Road 29 (Bridge Street) westward to the Hendry/Lee County line, from Class III to Class I-Treated (**Figure III E-1**). The reclassification will help protect the existing drinking water source for the RiverBend Motorcoach Resort and its users, while having minimal adverse effects on upstream dischargers. The data analysis described above indicates that existing water quality in the reclassification area achieves the more stringent water quality criteria associated with the upgraded treated potable water use classification.

**Table III E-2. Permitted discharges and land application sites in the Caloosahatchee River reclassification area.**

| Facility Name | Facility ID | Type of Discharge | Will Facility be Affected by Class I-Treated Reclassification? | Notes |
|---|---|---|---|---|
| **City of Clewiston WWTP** | FL0040665 | Domestic Surface Water Discharge | No | >Four-hour travel time from reclassification area |
| **Grandma's Grove RV Park** | FLA014287 | Domestic Land Application Site | No | >500 feet from reclassification area |
| **RiverBend Motorcoach Resort** | FLA269913 | Domestic Land Application Site | No | >500 feet from reclassification area |
| **Riverside Retreat** | FLA014294 | Domestic Land Application Site | No | >500 feet from reclassification area |
| **E R Jahna Ind. – Ortona Mine** | FL0037541 | Industrial Surface Water Discharge | No | Approximately 10 miles from reclassification area |

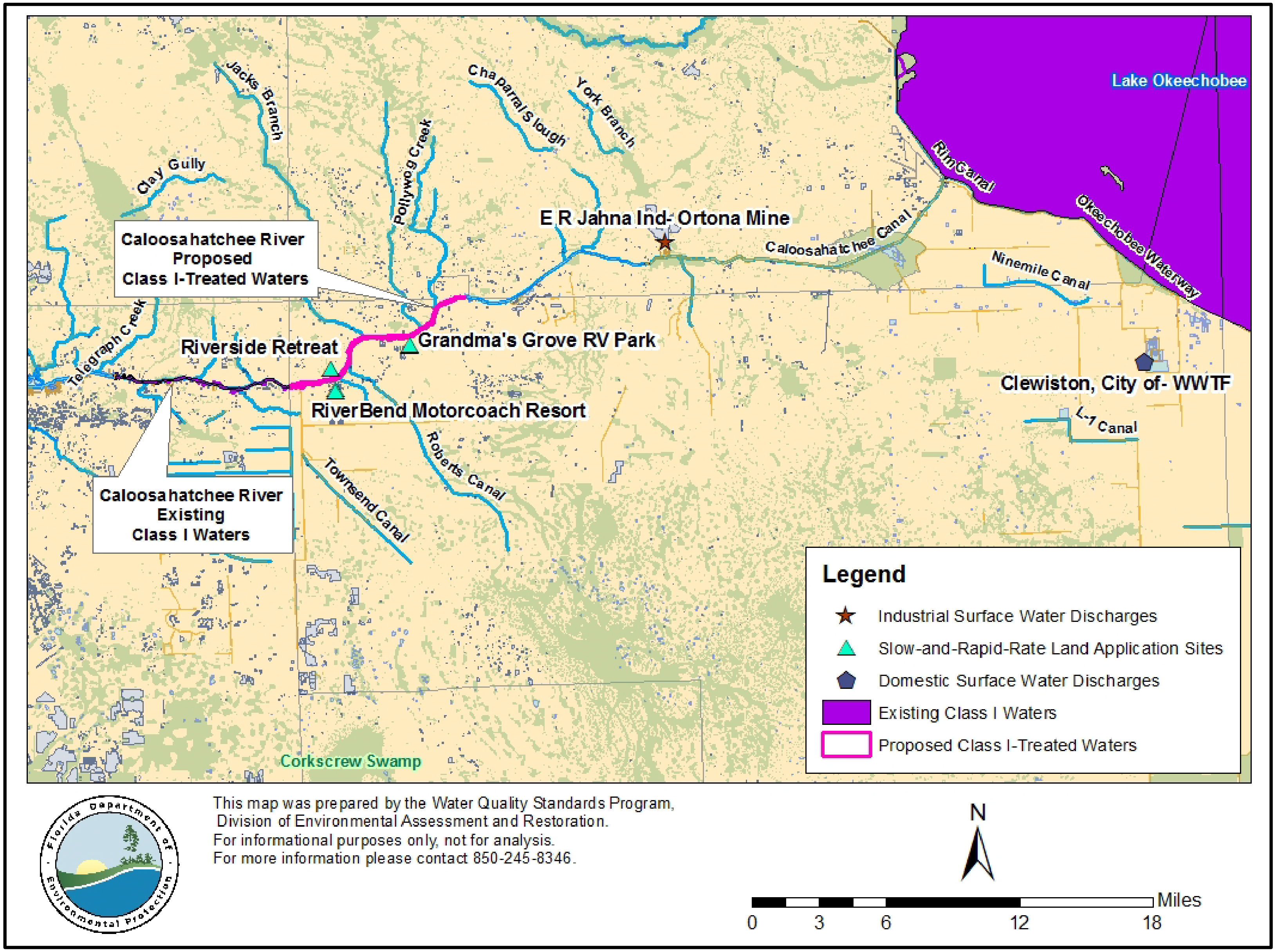


**Figure III E-3. Map showing domestic and industrial surface water discharges, as well as slow- and rapid-rate land application sites, that could potentially be affected by a reclassification of a portion of the Caloosahatchee River.**

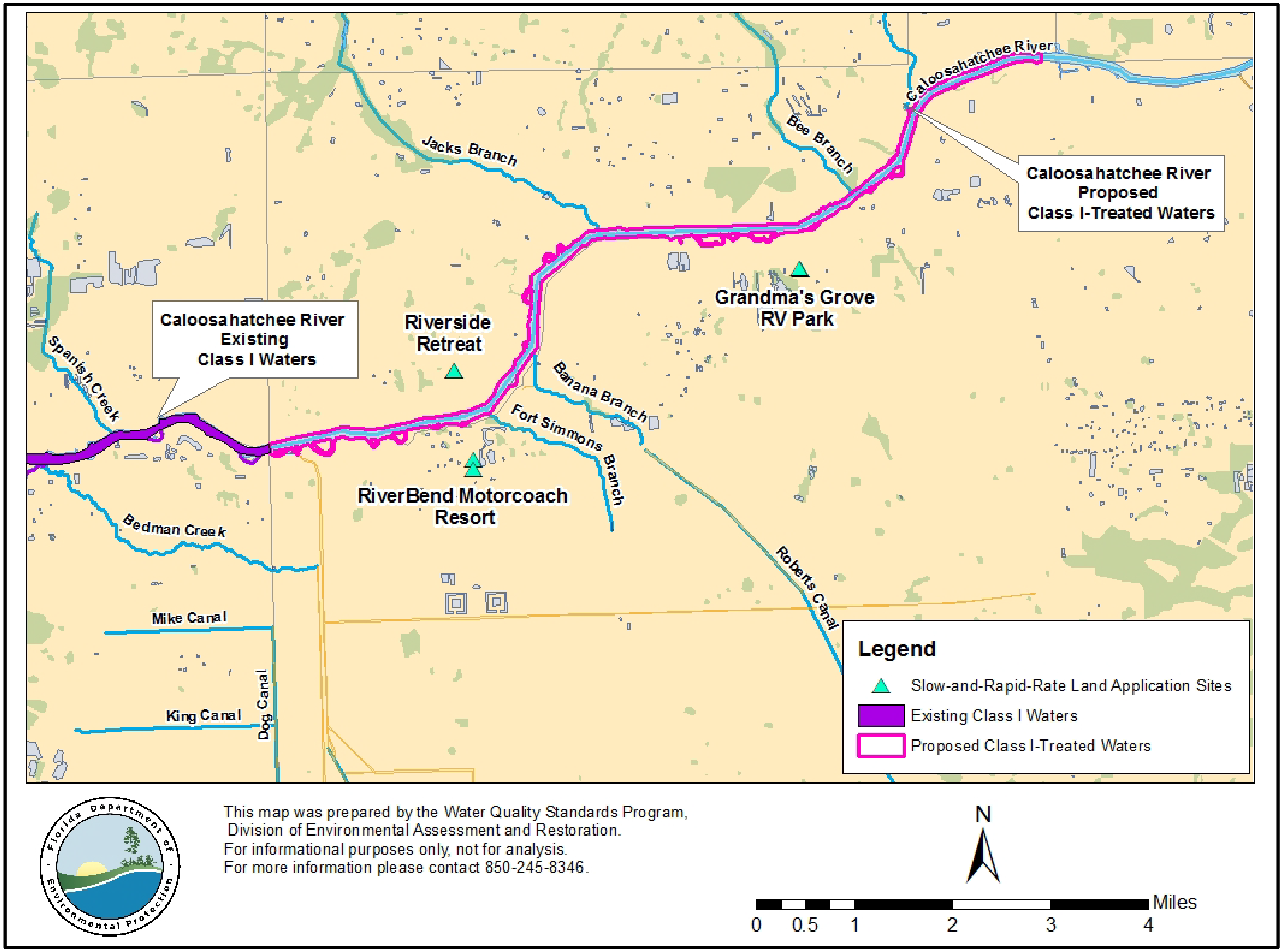


**Figure III E-4. Map showing location of slow- and rapid-rate land application sites in relation to the Caloosahatchee River reclassification area.**

## F. MARCO LAKES

### *Background*

Marco Lakes is a Class III waterbody used as a potable water supply by Marco Island Utilities, which provides drinking water to the city of Marco Island (**Figure III F-1**). The utility draws its raw source water from Marco Lakes and a wellfield on Marco Island. During peak season, Marco Island Utilities supplies finished drinking water to a population of approximately 38,000. During the off season, which typically occurs from August through September, approximately 15,000 people are served. The WUP for Marco Island identifies surface water from Marco Lakes, recovered water from ASR wells next to Marco Lakes, and brackish ground water from the wellfield on Marco Island as the raw source waters that supply the North Water Treatment Plant (NWTP) and the South Water Treatment Plant (SWTP) (Public Works Department 2008).

Marco Island Utilities extracts water from Marco Lakes throughout the year. The withdrawal of water from Marco Lakes started between 1962 and 1963, and a second pumphouse for withdrawal of water started operation in 1965 (Bruce Weinstein, Marco Island Utilities, personal communication). Because the existing drinking water use in this area may not be fully protected by its current Class III designation, Marco Lakes is being proposed for reclassification from Class III to Class I-Treated as directed by Chapter 2016—01, Laws of Florida (paragraph 403.861(21)(b), F.S.).

The NWTP, a lime-softening and filtration facility (Public Works Department 2008), frequently blends surface water from Marco Lakes with water from the ASR wells. Typically, the blending starts with recovery of water from the ASR wells at approximately 2 MGD, but as the season progresses, the lake level typically drops, the withdrawals from Marco Lakes decrease, and the flow rate from the ASR wells increases. The raw water is treated in a lime reactor in which overflow is separated from settled lime material and then progresses through a series of disinfection and filtration processes. The NWTP sends 2,000 to 2,100 gallons per minute (GPM) to the SWTP on a 24-hour, 7-day basis (Bruce Weinstein, Marco Island Utilities, personal communication).

The Marco Island Utility NWTP had two turbidity exceedances in September 2006. Turbidity is generally easy to treat for drinking water purposes. The past exceedances are most likely an anomaly in the drinking water treatment and not a reflection of source water quality.

***Reclassification Area Description***

***WATERBODY DESCRIPTION***

Marco Lakes is located approximately nine miles north of Marco Island. While there are two lakes, situated north-south of each other (**Figure III F-1**), they are directly connected by a large pipe built into the berm that separates them. About 80% of the water in Marco Lakes is from Henderson Creek Canal, which flows north to south and is located east of the northern lake (**Figure III F-1**). Water from the canal enters the north lake through the porous rock berm separating the canal and the northern lake and the two 30-inch pipes that directly connect the northern lake to Henderson Creek Canal. However, water cannot enter through the two 30-inch pipes unless Henderson Creek Canal is above 3.5 feet National Geodetic Vertical Datum (NGVD). There is also a gate to control water flow into the lake.

Additionally, water enters Marco Lakes through surface water runoff and ground water input. There is no outflow from Marco Lakes. Just downstream of the connection to Marco Lakes, there is a weir on Henderson Creek Canal. South of the weir, Henderson Creek Canal is called Henderson Creek and provides fresh water to Rookery Bay.

The department is proposing that both lakes (north and south) be reclassified from Class III to Class I-Treated (**Figure III F-1**). Both lakes were chosen because water is able to move through the limestone berm that separates them. The department chose not to include a portion of Henderson Creek Canal.

***BASIN/SUBBASIN DESCRIPTION***

Marco Lakes is located in the Everglades West Coast Basin and more specifically in the Big Cypress Swamp subbasin. The western coastline of the Everglades West Coast Basin is dominated by mangrove-based estuaries, while inland areas are characterized by mangrove swamps, salt marsh, and remnants of pine-palmetto flatwoods. The land surface of the basin is relatively flat, except for a sandy ridge formation named the Immokalee Rise in the northeastern region of the basin that provides a hydrologic separation between the drainage of the Caloosahatchee River and the Big Cypress Swamp.

The Everglades West Coast Basin is home to a number of ecologically unique protected natural areas interspersed with urbanized and hydrologically modified areas containing highly populated residential developments. Important conservation areas such as the Big Cypress National Preserve, Cape Ramano–Ten Thousand Islands Aquatic Preserve, Corkscrew Swamp Sanctuary, and Fakahatchee Strand Preserve State Park are located in the basin.

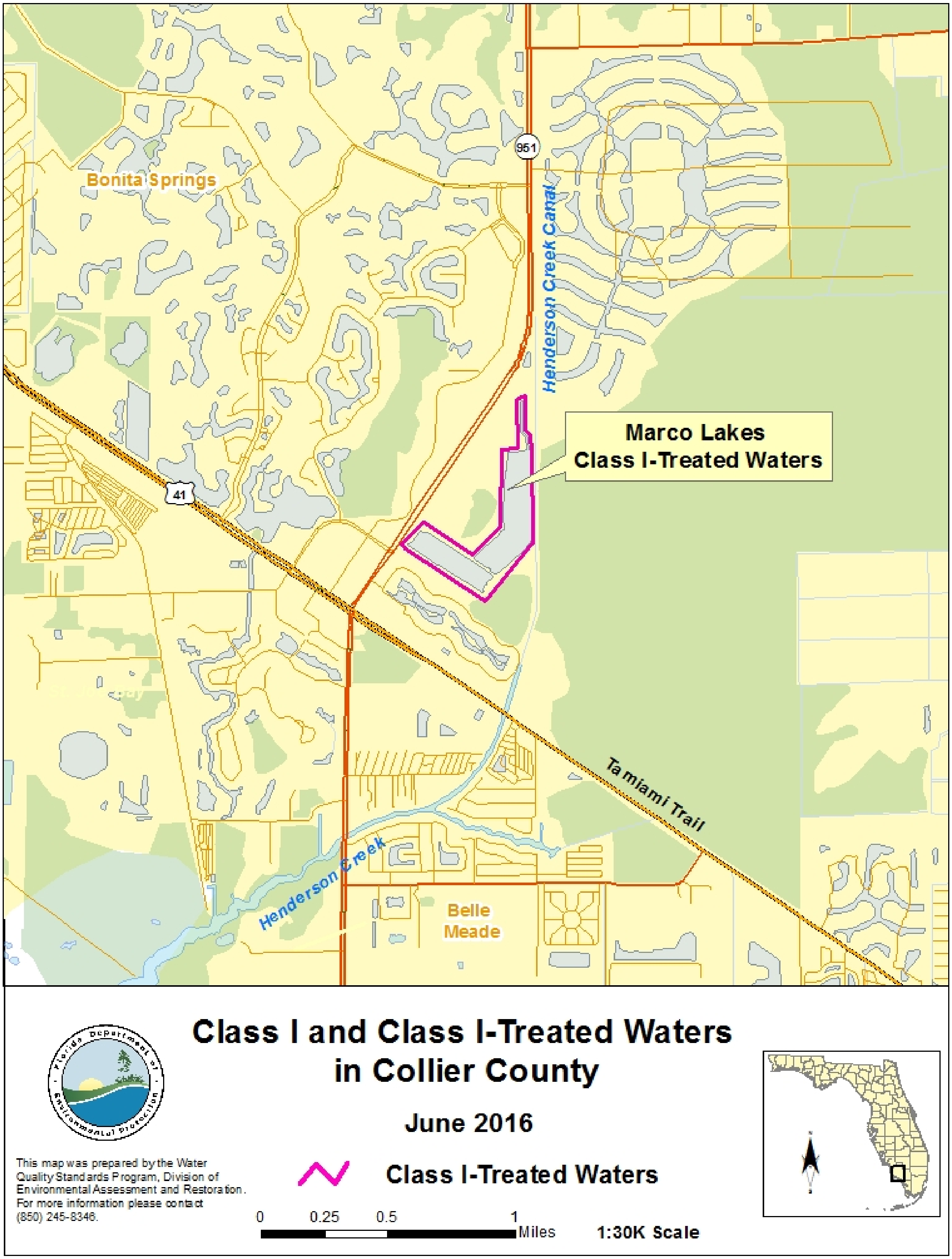


**Figure III F-1. Map depicting the proposed Marco Lakes Class I-Treated waters located in Collier County**

Much of the original sheetflow associated with the historical Everglades ecosystem that once influenced the basin has been diverted for flood control and drainage purposes, resulting in more fragmented ecosystems and hydrologic patterns. The department established three distinct drainage planning units in the basin for water quality assessment purposes: Estero Bay, Southwest Coast, and Inner Drainage Area (Department 2003). The Southwest Coast (West Collier) Planning Unit contains Henderson Creek Canal, which is connected to Marco Lakes.

Population centers in the area include Naples, Marco Island, Golden Gate, and Goodland (Department 2003). The basin is primarily impacted by agricultural land use and urbanization/development. According to the Department (2003), it has one of the state's highest rates of land conversion to agriculture, primarily to citrus.

### *LAND USE*

Land use statistics were generated for the area around Marco Lakes (**Table III F-1**). The majority of the surrounding land is wetlands (approximately 56%), with forested areas making up an additional 15% of the nearby area, shrub/brushland making up about 4.5%, and open-water areas (which were included in the statistics) making up only about 1% (Marco Lakes and Henderson Creek Canal). Agricultural and urban areas together comprise nearly 23% of the nearby land. Finally, land used for utilities or transportation, as well as barren (disturbed) land makes up only about 1% of the area near Marco Lakes.

**Table III F-1. Land use information for the Marco Lakes reclassification area.**

| LAND USE DESCRIPTION | ACREAGE | % OF TOTAL ACREAGE |
|---|---|---|
| **Wetlands** | 30,171 | 55.88% |
| **Forested** | 7,945 | 14.72% |
| **Agriculture** | 7,629 | 14.13% |
| **Urban** | 4,477 | 8.29% |
| **Shrub/Brushland** | 2,382 | 4.41% |
| **Open Water** | 707 | 1.31% |
| **Utilities/Transportation** | 480 | 0.89% |
| **Barren/Disturbed** | 201 | 0.37% |
| **SUM** | **53,993** | **100.00%** |

### *Summary of Existing Water Quality Data*

The department collected data at two sites to evaluate existing water quality in the area being proposed for reclassification as shown in **Figure III F-1**. These data were combined with data from the IWR database collected since January 1, 2006, to form a single dataset. The combined data were screened as described in **Section II** to omit data not meeting QA/QC expectations. The remaining dataset was then used to summarize existing water quality and determine whether the waters in the area evaluated for reclassification would achieve the water quality criteria associated with the proposed Class I-Treated designated use. **Table I-3** lists all of the parameters that havea Class I-Treated criterion that is more stringent than the Class III criterion. **Appendix A** provides a summary of the existing water quality data for the area for parameters having water quality criteria plus several informative parameters.

Based on the analysis of the existing water quality data collected since 2006, a vast majority of the parameters were not detected in the area proposed for reclassification. Further, there were no exceedances of the applicable Class I-Treated criteria found within the proposed reclassification area.

### *Impaired Waters in the Area Evaluated for Reclassification*

For assessment purposes, the Marco Lakes area of evaluation is included in the Rookery Bay (Inland East) segment (WBID 3278V) (**Figure III-F-2**). WBID 3278V is not impaired for any parameter.

### *Potential Effects of Reclassification*

The reclassification of Marco Lakes (**Figure** ) from Class III to Class I-Treated will provide additional protection for the existing drinking water source, but may also affect dischargers located upstream of the potential reclassification area through more stringent requirements imposed on their discharges or activities (*e.g.*, setback distances and requirements for additional disinfection). Additionally, wastewater facilities that discharge to the reclassified area or to waters upstream of the reclassified area would be required to demonstrate that their discharge will not cause or contribute to violations of the applicable water quality criteria established to protect Class I-Treated designated use. **Table III F-2** lists permitted discharges and land application sites in the watershed of the proposed reclassification area, and **Figure III F-3** shows the locations of permitted discharges and land application sites that could potentially be affected by a reclassification.

#### *DOMESTIC DISCHARGE FACILITIES*

Domestic wastewater discharges to surface waters within a four-hour travel time of the proposed reclassification area must provide Class I reliability (as discussed in **Section II**) , meet specific disinfection requirements, and comply with all other applicable regulations outlined in Chapter 62-600, F.A.C., and

Part V of Chapter 62-610, F.A.C. The closest domestic surface water discharge is associated with the Collier County South Regional Water Reclamation Facility (WRF). The facility discharges to golf course stormwater ponds that are not connected to other surface waters, and therefore are not within a four-hour surface water travel time of Marco Lakes. The city of Naples also has several surface water discharges to the west of Marco Lakes; however, they are not upstream of Marco Lakes, as they flow to Naples Bay. The proposed reclassification is not expected to affect any existing domestic wastewater discharges.

***REUSE OF RECLAIMED WATER AND LAND APPLICATION***

The proposed reclassification of Marco Lakes to a Class I-Treated waterbody would also increase setback requirements for slow- and rapid-rate domestic land application systems. These range from 100 to 500 feet from the edge of the Class I water, depending on the level of treatment (disinfection) provided. There are no domestic land application sites near Marco Lakes; therefore, the proposed reclassification to Class I-Treated is not expected to affect any existing domestic land application activities.

A reclassification would also increase the setback distances for the land application of tomato and fresh citrus fruit wash water. These range from 100 to 500 feet from the edge of the Class I water. The closest of either a fresh citrus fruit or tomato packinghouse is approximately 18 miles from the Marco Lakes reclassification area; therefore, no effect is expected on these activities due to a reclassification.

Additionally, limited wet-weather discharges from reuse projects within a 24-hour travel time to a Class I water (*i.e.*, during periods when wet-weather discharge would occur) may need WQBELs if (1) there is insufficient dilution during the discharge, (2) the immediate discharge is to a Class I water, (3) the discharge is expected more than 91 days per year, or (4) the reuse system is a slow-rate land application system, as described in Subsection 62-610.860(3), F.A.C. The reclassification of Marco Lakes will not affect existing wet-weather discharges because there are no limited wet-weather domestic wastewater discharges within a 24-hour travel time of the proposed reclassification area.

***INDUSTRIAL WASTEWATER FACILITIES***

No specific additional treatments or actions are required for industrial wastewater discharges located upstream of Class I waters, but, as noted previously, industrial wastewater facilities discharging to or upstream of the reclassified area would have to meet the more stringent Class I-Treated water quality criteria. There are no industrial surface water discharges in the Big Cypress Swamp subbasin (where Marco Lakes is located). The closest industrial surface water discharge is over 40 miles away in the Caloosahatchee subbasin. The proposed reclassification of Marco Lakes to Class I-Treated is not expected to affect any existing industrial surface water discharges.

***Reclassification Assessment and Recommendation***

The department recommends changing the classification of Marco Lakes (**Figure III F-1**) from Class III to Class I-Treated. The reclassification will help protect the existing drinking water source for Marco Island Utilities and the city of Marco Island, while having minimal adverse effects on upstream dischargers. The data analysis indicates that the existing water quality in the reclassification area achieves the Class I-Treated water quality criteria associated with the upgraded treated potable water use classification.

**Table III F-2. Permitted discharges in the Marco Lakes reclassification area.**

| FACILITY NAME | FACILITY ID | TYPE OF DISCHARGE | WILL FACILITY BE AFFECTED BY CLASS I-TREATED RECLASSIFICATION? | NOTES |
|---|---|---|---|---|
| **Collier County South Regional WRF** | FL0141356 | Domestic Surface Water Discharge | No | Not within four-hour travel time; discharges to isolated golf course stormwater ponds |
| **City of Naples WWTP I** | FL0026271 | Domestic Surface Water Discharge | No | Not within four-hour travel time; discharge flows to Naples Bay |

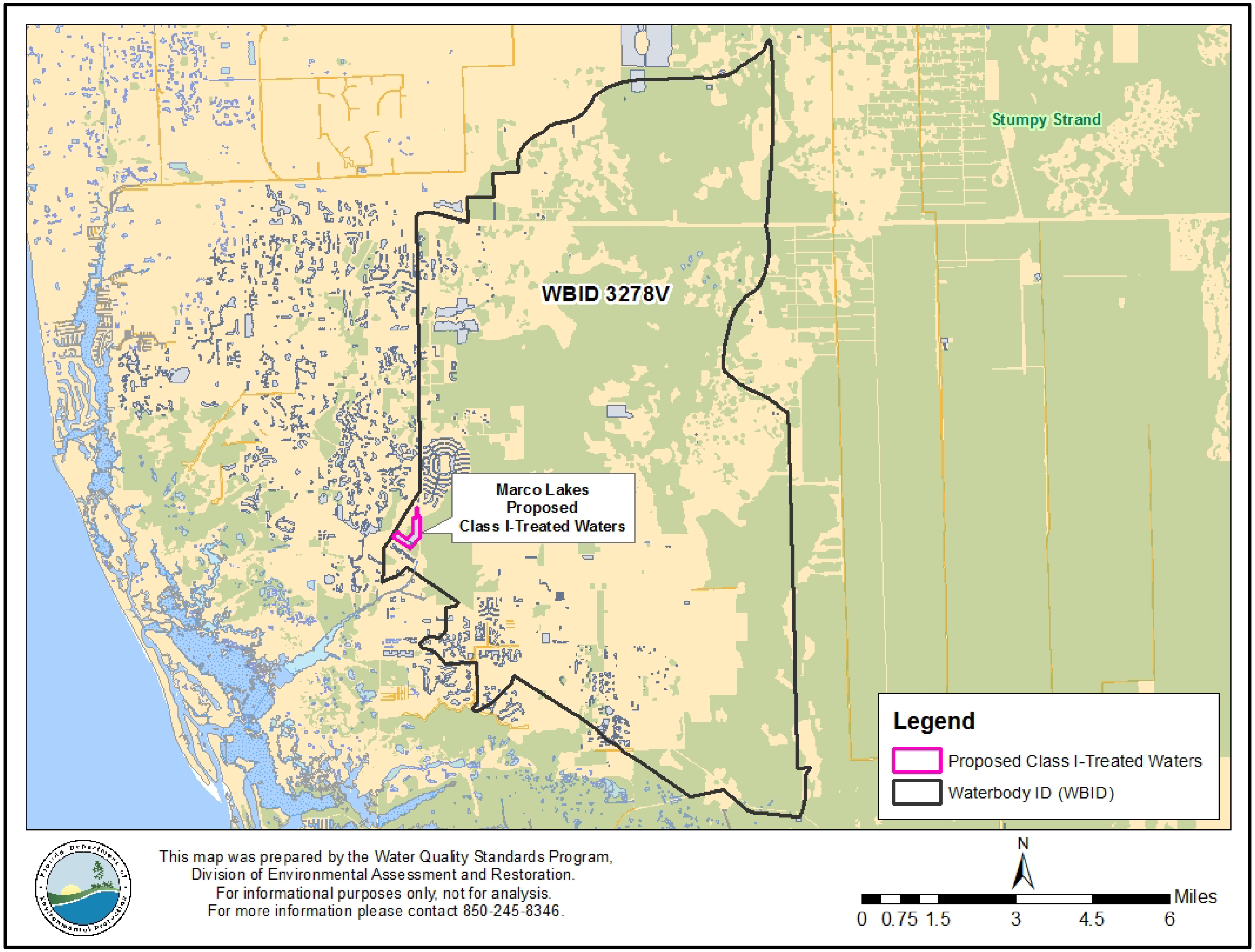


**Figure III F-2. Map showing location of WBIDs near the Marco Lakes area being proposed for reclassification.**

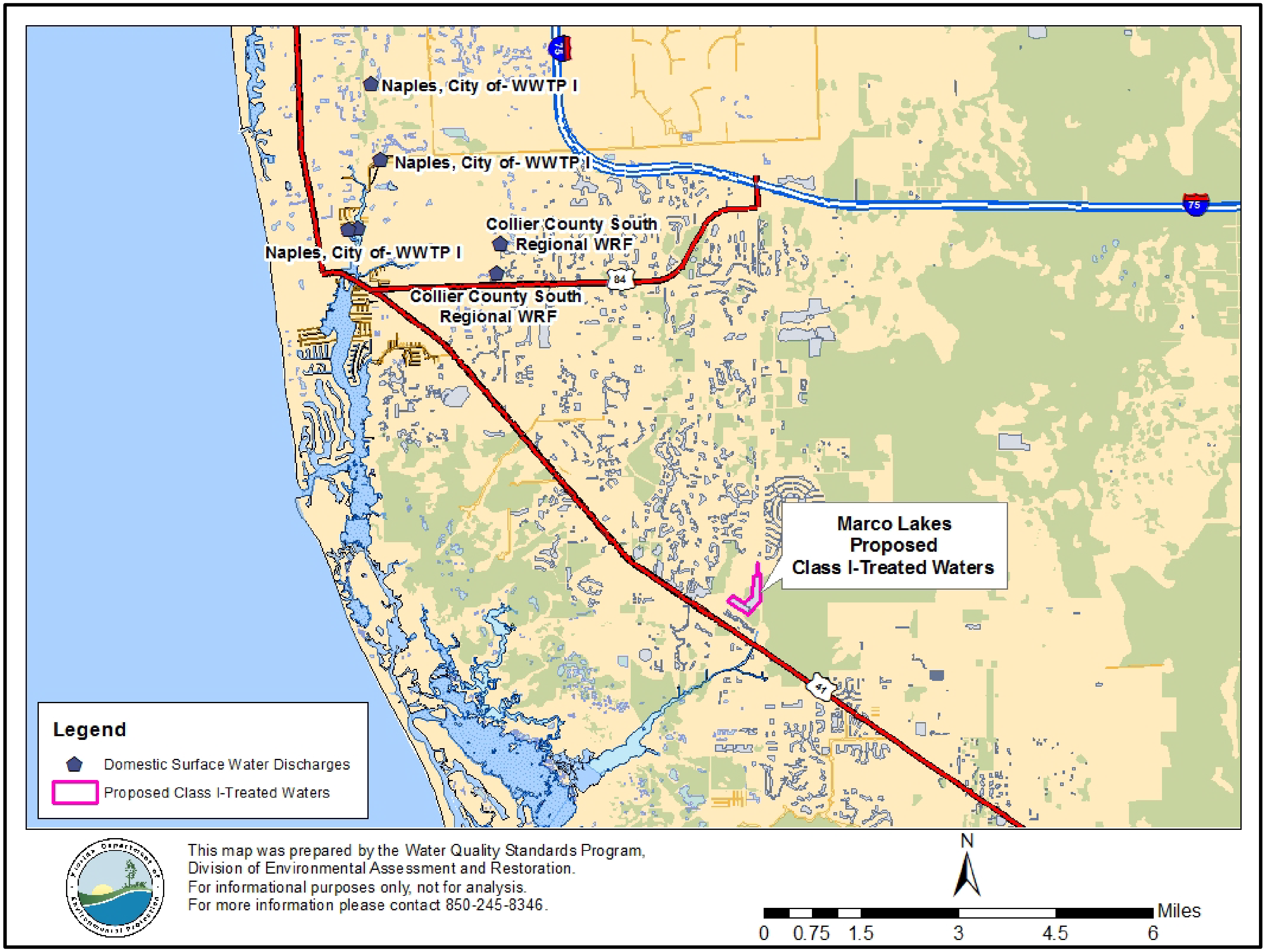


**Figure III F-3. Map showing domestic and industrial surface water discharges, as well as slow- and rapid-rate land application sites, that could potentially be affected by a reclassification of Marco Lakes.**

## G. Taylor Creek Reservoir

### *Background*

Taylor Creek Reservoir (**Figure III G-1**) is currently a Class III waterbody used as a potable water supply by the city of Cocoa to provide water to the city of Cocoa, Merritt Island, Rockledge, Viera, Cocoa Beach, Cape Canaveral, Patrick Air Force Base, and Cape Canaveral Air Force Station (Troy Howell, Superintendent of Claude H. Dyal WTP, personal communication). In addition, the city of Cocoa sells water to the city of Titusville and The Great Outdoors (a seasonal RV park). The city of Cocoa began withdrawing water from the Taylor Creek Reservoir in 1999. Approximately 280,000 people are served through this drinking water distribution system.

Taylor Creek Reservoir is not a natural waterbody. It is the result of a berm placed on Taylor Creek about four miles upstream of its confluence with the St. Johns River, which occurs just north of Lake Poinsett. The reservoir was designed to provide flood control and water supply benefits to the area. It is located in both Orange and Osceola Counties, although a much smaller portion lies in Osceola County. Because the existing drinking water use in the area may not be fully protected by its current Class III designation, Taylor Creek Reservoir is being proposed for reclassification from a Class III to a Class I-Treated water as directed by Chapter 2016—01, Laws of Florida (paragraph 403.861(21)(b), F.S.).

Surface water from Taylor Creek Reservoir is pumped to the Claude H. Dyal WTP for treatment. The St. Johns River Water Management District (SJRWMD) permits Cocoa to withdraw an average of 8.8 MGD and a maximum of 12 MGD from Taylor Creek Reservoir. This surface water is treated by adding ferric sulfate, hydrated lime, and a polymer. Ozone is then added for disinfection, taste, odor removal, and control of disinfection byproducts. Hydrated lime is added again, along with carbon dioxide, chlorine, and ammonia before passing through sand and anthracite coal filters. The city of Cocoa also treats ground water for drinking water. After the ground water and surface water from Taylor Creek Reservoir are treated, they are blended and put in storage tanks before distribution to users. Depending on rainfall in the watershed, the potential water supply from the reservoir is approximately 15 MGD (Central Florida Water Initiative 2014).

### *Reclassification Area Description*

#### ***WATERBODY DESCRIPTION***

Taylor Creek Reservoir is a man-made reservoir created in the 1960s as part of the Central and South Florida (C&SF) Project for flood control. Currently, the reservoir encompasses a 10,400-acre area. This area of the state is marked by many water features, as shown in **Figure III G-1**. Orange Branch, the North and South Forks of Taylor Creek, Bull Branch, Bonnet Gully, Gator Branch, and Beef Camp Branch are the named tributaries flowing into Taylor Creek Reservoir. They, along with other unnamed tributaries, drain 60 square miles of the surrounding area, which mainly consists of pastureland. Control structures regulate the reservoir's outflow to the St. Johns River. An MFL has been adopted for Taylor Creek 1.7 miles downstream of S-164, which is the main structure responsible for outflow from the Taylor Creek Reservoir (SJRWMD, Chapter 40C-8, F.A.C., adopted by the Department, effective August 1, 2010).

The department is proposing that the entire Taylor Creek Reservoir (**Figure III G-1**) be reclassified from Class III to Class I-Treated. Additionally, because the swamp/marsh buffering the reservoir these areas are contiguous to the open-water portions of the reservoir, they are also included in the reclassification.

#### ***BASIN/SUBBASIN DESCRIPTION***

Taylor Creek Reservoir is located in the Upper St. Johns Basin, which covers approximately 1,888 square miles of south-central Florida, including the St. Johns River and the land that drains to it from the headwater marshes north and through Puzzle Lake (Department 2006). The Upper St. Johns Basin is an ecologically diverse area, primarily composed of wetlands such as freshwater marshes, cypress swamps, hardwood swamps, fresh marsh and wet prairie, mixed hardwood swamps, and shrub swamps. Additional community types such as dry prairie grasslands, pinelands, sandpine scrub, hardwood hammock and forest, mixed pine-hardwood forests, and xeric oak scrub are also found in the basin.

The Puzzle Lake region is influenced by saline-based ground water and exhibits plant communities (such as shrub-type vegetation) more tolerant of these saltmarsh conditions. The diverse array of ecosystem types in the Upper St. Johns Basin provides habitat for a great array of species, including 19 animal and 14 plant species with federal or state protected status (Department 2006). Taylor Creek is a major tributary of the St. Johns River. The primary source of water influencing water levels in the Taylor Creek Reservoir is stormwater and surface water runoff from within the watershed (Central Florida Water Initiative 2014).

### *LAND USE*

Land use statistics were calculated for the area around Taylor Creek Reservoir (**Table III G-1**). The majority of the surrounding land (approximately 66%) is used for agriculture. Wetlands make up a significant portion (approximately 22%) of the nearby area. The open-water portions of Taylor Creek Reservoir make up nearly 7% of the area. Just over 5% consists of shrub/brushland or forested areas. Finally, utilities/transportation, urban areas, and barren (disturbed) land together only make up 0.06% of the surrounding land.

**Table III G-1.Land use information for the Caloosahatchee River reclassification area.**

| LAND USE DESCRIPTION | ACREAGE | % OF TOTAL ACREAGE |
|---|---|---|
| **Agriculture** | 17,477 | 65.65% |
| **Wetland** | 5,950 | 22.35% |
| **Open Water** | 1,799 | 6.76% |
| **Shrub/Brushland** | 1,191 | 4.47% |
| **Forested** | 190 | 0.71% |
| **Utilities/Transportation** | 8 | 0.03% |
| **Urban** | 5 | 0.02% |
| **Barren/Disturbed** | 3 | 0.01% |
| **SUM** | **26,622** | **100.00%** |

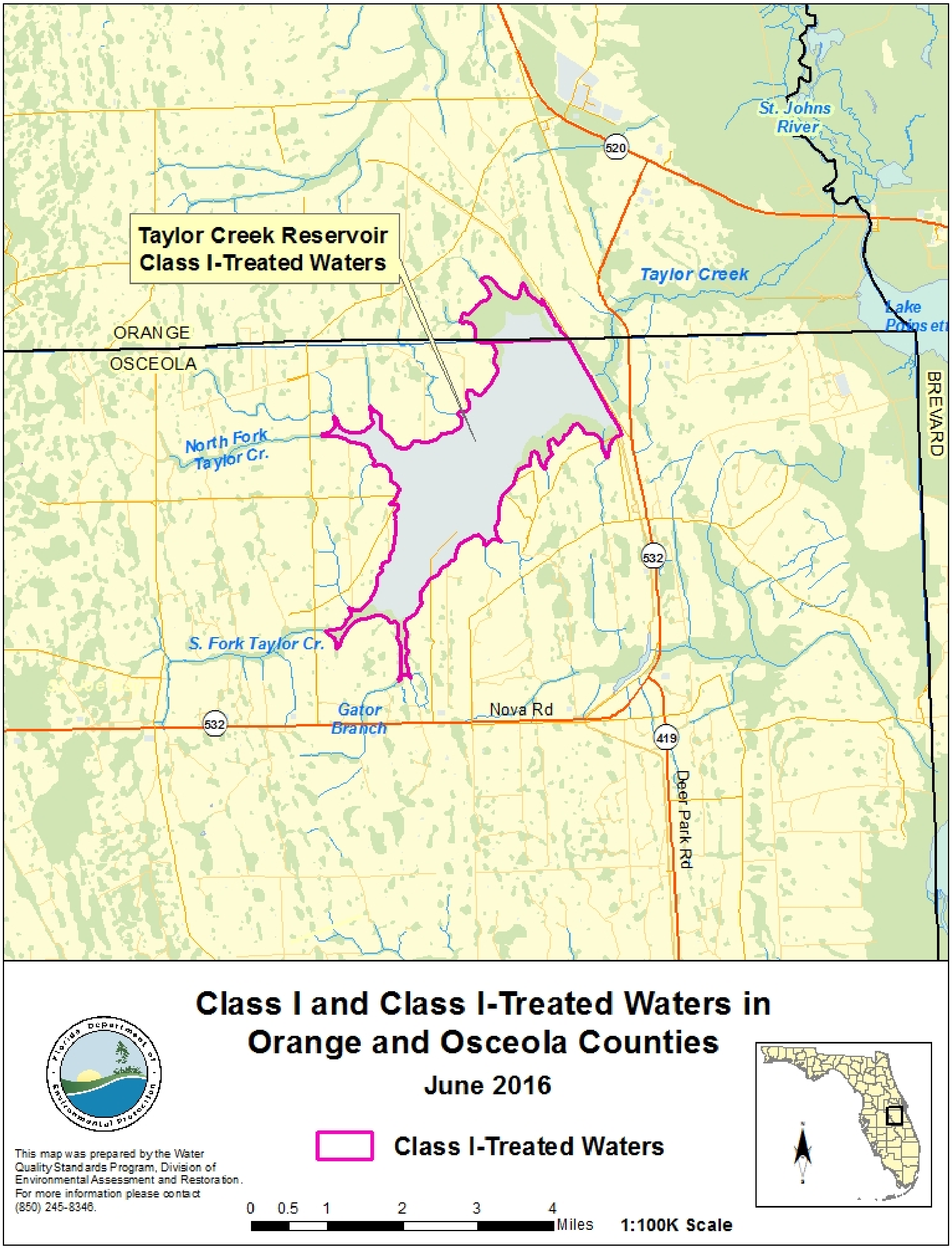


**Figure III G-1.** **Map depicting the proposed Taylor Creek Reservoir Class I-Treated waters located in Orange and Osceola Counties.**

***Summary of Existing Water Quality Data***

The department collected data at two sites to evaluate existing water quality in the area being evaluated for reclassification as shown in **Figure III G-1**. These data were combined with data obtained from the IWR database collected since January 1, 2006, to form a single dataset. The combined data were screened as described in **Section II** to omit data not meeting QA/QC expectations. The remaining dataset was then used to summarize existing water quality and determine whether the waters in the area evaluated for reclassification would achieve the water quality criteria associated with the proposed Class I-Treated designated use. **Table I-3** lists all of the parameters that have a Class I-Treated criterion that is more stringent than the Class III criterion. **Appendix A** provides a summary of the existing water quality data for the area for parameters having water quality criteria plus several informative parameters.

Based on the analysis of the existing water quality data collected since 2006, a vast majority of the parameters were not detected in the area proposed for reclassification and were found to meet the water quality criteria associated with the proposed Class I-Treated designated use. The only parameter found to occasionally exceed the applicable Class I-Treated criteria was DO saturation. The 38% saturation minimum criteria is the same for both Class I-Treated and III waters (**Appendix A**), therefore reclassifying the area to Class I-Treated will not influence future assessments for DO saturation.

The results of the analysis of the available water quality data indicated that DO levels in the Taylor Creek Reservoir may occasionally drop to levels below the 38% saturation criterion for the Peninsula bioregion of Florida. Since 2006, four of 47 (*i.e.*, 8.5%) DO measurements were below the applicable criterion, with low DO levels typically occurring during the summer months when high temperatures are prevalent and there is limited reaeration due to slow water movement. Additionally, DO levels in lakes and reservoirs naturally decrease with depth due to less photosynthesis and greater respiration. DO levels can be especially low near the sediment as a result of SOD and high respiration levels, especially under low-flow conditions, or if the waterbody becomes stratified, or if there is significant ground water input. Due to this natural decline in DO levels with depth, Rule 62-302.533, F.A.C., specifies that compliance with the DO saturation criterion in lakes should be based on measurements collected in the upper two meters of the water column.

It should be noted that, for many of the DO measurements obtained from the IWR database, including all of the measurements below the DO criterion, the depth at which the measurement was taken was not reported. The water quality analysis conducted as part of this reclassification evaluation included all of the available DO measurements; however, it was impossible to accurately determine if many of the samples were appropriate for use in assessing achievement of the DO criterion. Regardless of the lack of information on sampling depth, the exceedance rate for DO is below 10% (*i.e*., 8.5%) and therefore the waterbody would not be considered impaired under the IWR (Chapter 62-303, F.A.C). The analysis of the available data indicates that Taylor Creek Reservoir is currently meeting the Class I-Treated water quality criteria intended to protect the treated potable water use.

***Impaired Waters in the Area Evaluated for Reclassification***

For assessment purposes, the majority of Taylor Creek Reservoir is located in the Taylor Creek Reservoir segment (WBID 3068). Portions of the reservoir are also included in Bull Branch (WBID 3067), Gator Branch (WBID 3069), Beef Camp Branch (WBID 3065), Taylor Creek (North Fork) (WBID 3063), and Bonnet Gully (WBID 3061) (**Figure III G-2**). None of these WBIDs are identified as impaired under the IWR (Chapter 62-303, F.A.C.).

***Potential Effects of Reclassification***

Reclassifying Taylor Creek Reservoir (**Figure III G-1**) from a Class III to a Class I-Treated water will provide additional protection for the existing drinking water source, but may also affect dischargers located upstream of the potential reclassification area through more stringent requirements imposed on their discharges or activities (*e.g.,* setback distances and requirements for additional disinfection). Additionally, wastewater facilities that discharge to the reclassified area or to waters upstream of the reclassified area would be required to demonstrate that their discharge will not cause or contribute to violations of the applicable water quality criteria established to protect Class I-Treated designated use. **Table III G-2** lists permitted discharges and land application sites in the watershed of the proposed reclassification area, and **Figure III G-3** and **Figure III G-4** show the locations of these discharges and application sites, respectively, that could be affected.

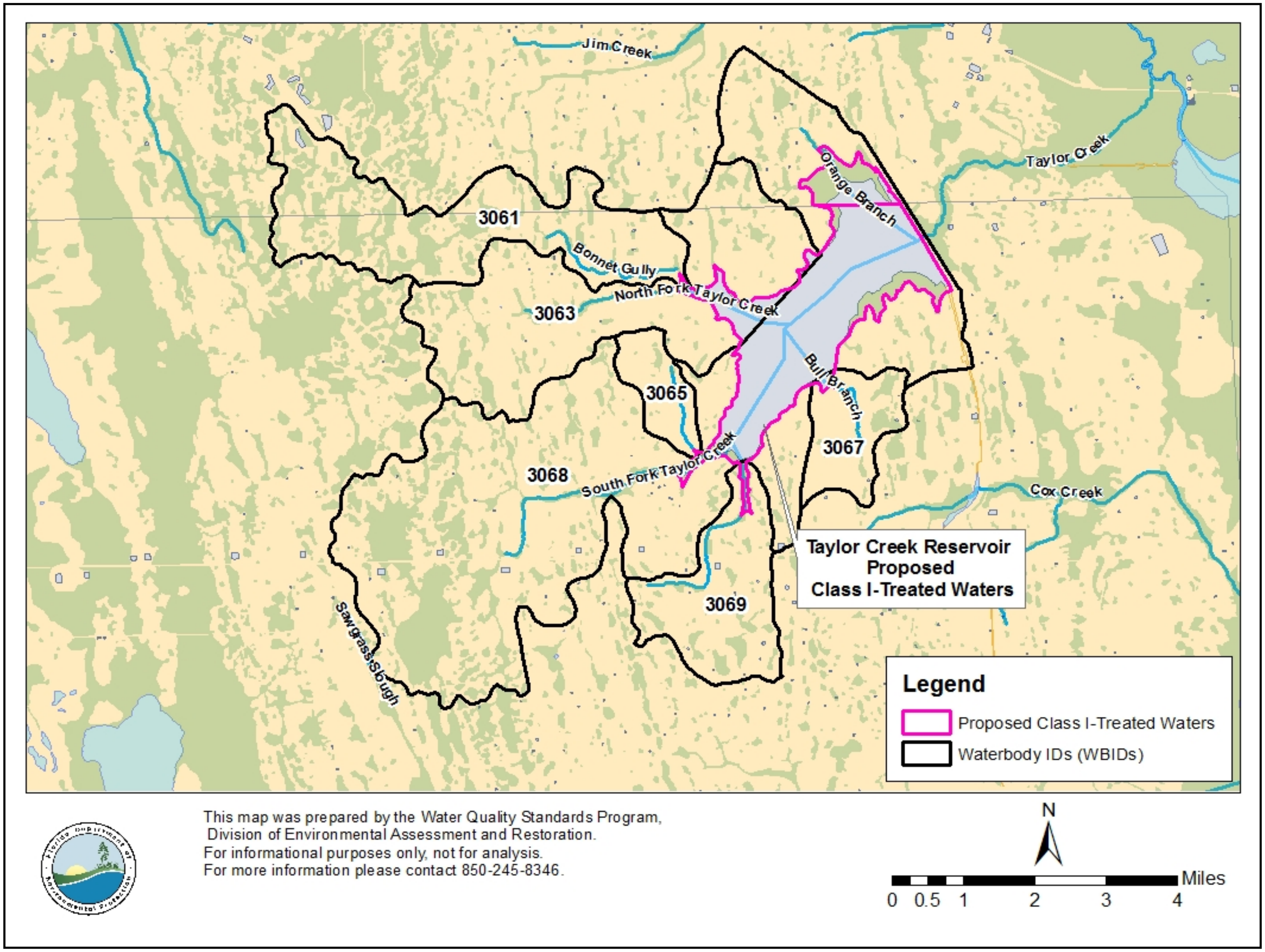


**Figure III G-2.** **Map showing location of WBIDs near the Taylor Creek Reservoir area being proposed for reclassification**

***DOMESTIC DISCHARGE FACILITIES***

Domestic wastewater discharges to surface waters within a four-hour travel time of the proposed reclassification area must provide Class I reliability (as discussed in **Section II**), meet specific disinfection requirements, and comply with all other applicable regulations outlined in Chapter 62-600, F.A.C., and Part V of Chapter 62-610, F.A.C. Based on a conservative velocity estimate of 0.5 meters per second, a four-hour in-stream travel time would equate to an upstream distance from the reclassification area of approximately 4.5 miles. No domestic wastewater discharges are currently located within this distance of the proposed reclassification area. The closest domestic wastewater discharge is the Eastern WRF, located approximately 16 miles from the area of evaluation and also in a different watershed. Thus, the proposed reclassification of the Taylor Creek Reservoir is not expected to affect any existing domestic wastewater discharges.

***REUSE OF RECLAIMED WATER AND LAND APPLICATION***

The proposed reclassification of Taylor Creek Reservoir to a Class I-Treated waterbody would also increase setback requirements for slow- and rapid-rate domestic land application systems. These range from 100 to 500 feet from the edge of the Class I water, depending on the level of treatment (disinfection) provided. There are no domestic land application sites near the Taylor Creek Reservoir area of evaluation. The closest land application site is associated with the Central Florida Youth and Family Camp, located approximately eight miles from the area of evaluation; therefore, the proposed reclassification of Taylor Creek Reservoir to Class I-Treated is not expected to affect any existing domestic land application activities.

A reclassification would also increase setback distances for the land application of tomato and fresh citrus fruit wash water. These range from 100 to 500 feet from the edge of the Class I water. The closest of either a fresh citrus fruit or tomato packinghouse is approximately 42 miles from the Taylor Creek Reservoir reclassification area; therefore, no effect is expected on these activities due to a reclassification.

Additionally, limited wet-weather discharges from reuse projects that are within a 24-hour travel time to a Class I water (*i.e.*, during periods when wet-weather discharge would occur) may need WQBELs if (1) there is insufficient dilution during the discharge, (2) the immediate discharge is to a Class I water, (3) the discharge is expected more than 91 days per year, or (4) the reuse system is a slow-rate land application system, as described in Subsection 62-610.860(3), F.A.C. The reclassification will not affect existing wet-weather discharges because there are no limited wet-weather domestic wastewater discharges within a 24-hour travel time of the proposed Taylor Creek Reservoir reclassification area.

***INDUSTRIAL WASTEWATER FACILITIES***

No specific additional treatments or actions are required for industrial wastewater discharges located upstream of Class I waters, but, as noted previously, industrial wastewater facilities discharging to or upstream of the reclassified area would have to meet the applicable Class I-Treated water quality criteria. The Curtis H. Stanton Energy Center has four surface water discharges in the Upper St. Johns River subbasin; however, they are located in a different watershed, do not appear to be hydrologically connected to Taylor Creek Reservoir, and are approximately 25 miles from the reclassification area. These discharges are not expected to be affected by the proposed reclassification.

***Reclassification Assessment and Recommendation***

The department recommends changing the designated use classification of Taylor Creek Reservoir (**Figure III G-1**) from Class III to Class I-Treated (Treated Potable water). The reclassification will protect the existing drinking water source for the city of Cocoa and its users, while having minimal adverse effects on upstream dischargers. Additionally, the data analysis described above indicates that existing water quality in the proposed reclassification area achieves the applicable Class I-Treated water quality criteria associated with the upgraded treated potable water use classification.

**Table III G-2.Permitted discharges and land application sites in the Taylor Creek Reservoir reclassification area.**

| FACILITY NAME | FACILITY ID | TYPE OF DISCHARGE | WILL FACILITY BE AFFECTED BY CLASS I –TREATED RECLASSIFICATION? | NOTES |
|---|---|---|---|---|
| **Eastern Water Reclamation** | FL0038849 | Domestic Surface Water Discharge | No | Not within four-hour travel time; approximately 16 miles away; located in different watershed |
| **Central Florida Youth and Family Camp** | FLA349739 | Land Application | No | >500 feet away from reclassification area |
| **Curtis H. Stanton Energy Center** | FL0681661 | Industrial Surface Water Discharge | No | Approximately 25 miles from reclassification area; located in different watershed |

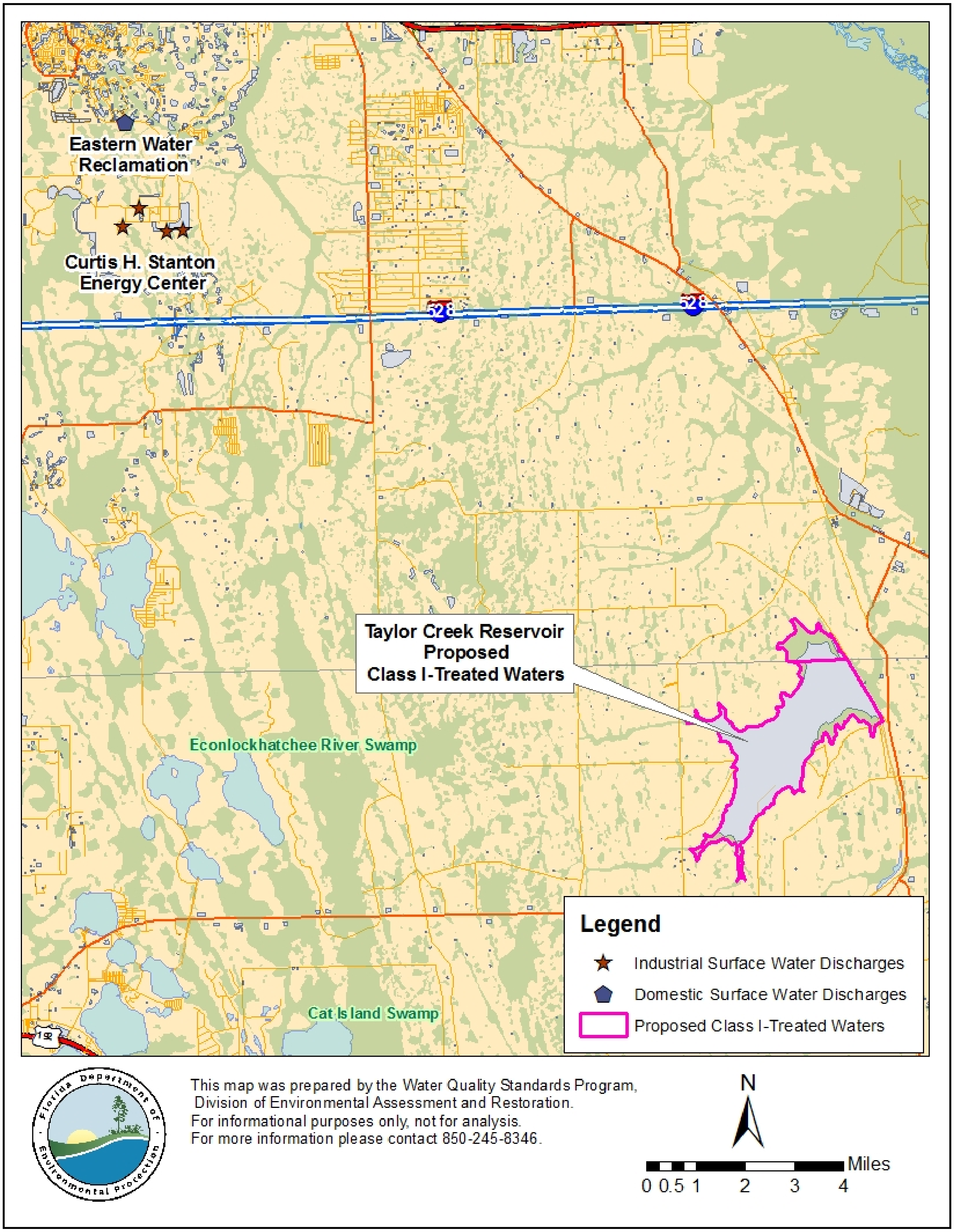


**Figure III G-3. Map showing domestic and industrial surface water discharges that could potentially be affected by a reclassification of Taylor Creek Reservoir.**

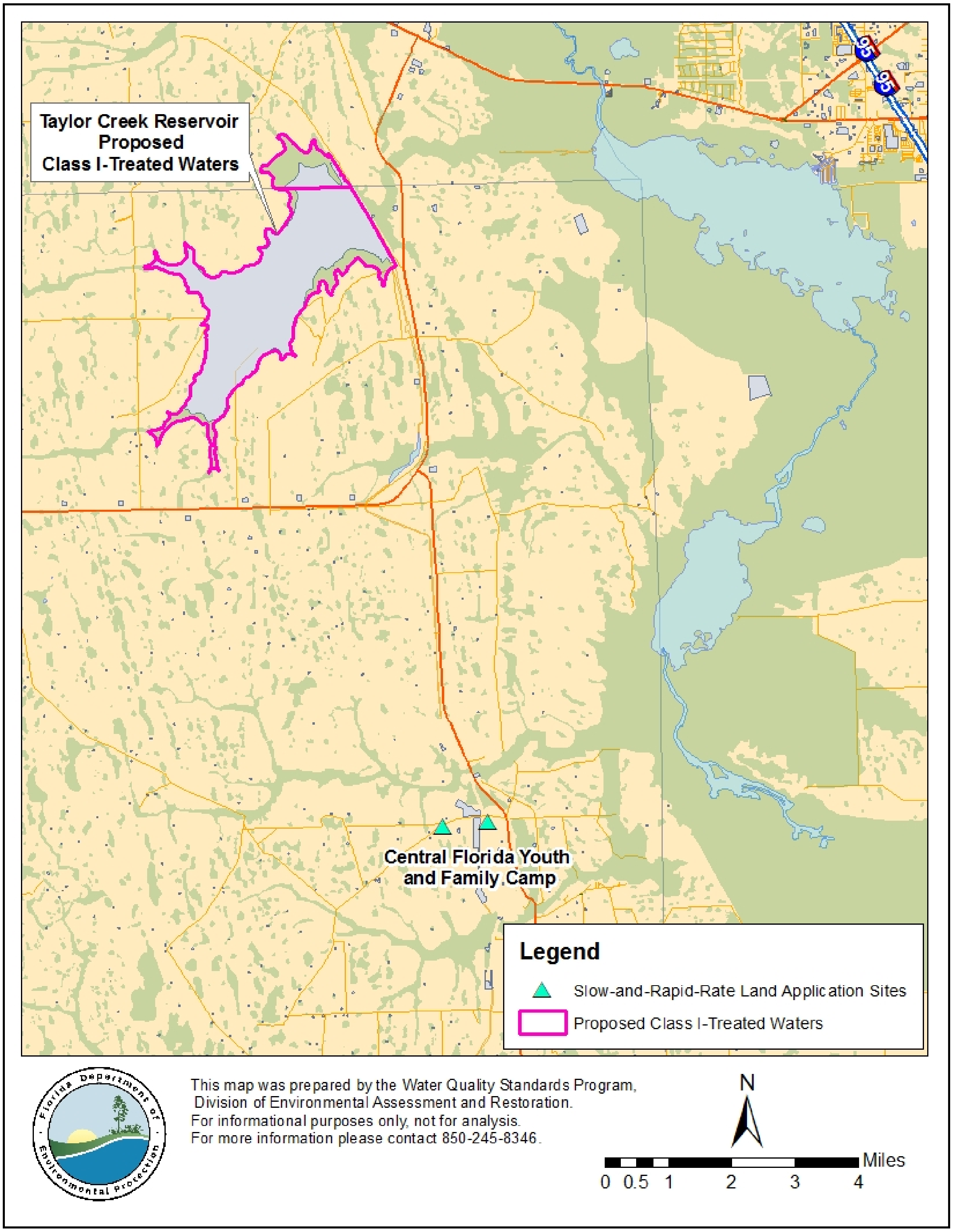


**Figure III G-4. Map showing slow- and rapid-rate land application sites that could potentially be affected by a reclassification of Taylor Creek Reservoir.**

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# Appendix A:
## Summary of water quality data collected within the areas being proposed for Reclassification to Class I-Treated.

**Table A-1. Summary of water quality data collected within the areas being proposed for Reclassification to Class I-Treated since January 1, 2006 for all available parameters with water quality criteria and additional informative parameters.**

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alafia | 1,1,1-Trichloroethane | 12000 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | 1,1,2,2-Tetrachloroethane | 0.35 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | 1,1,2-Trichloroethane | 1.2 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | 1,1-Dichloroethylene | 300 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Alafia | 1,2-Dichlorobenzene | 1400 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Alafia | 1,2-Dichloroethane | 22 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | 1,2-Dichloroethylene | 120 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Alafia | 1,2-Dichloropropane | 2 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Alafia | 1,3-Dichlorobenzene | 8.3 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Alafia | 1,3-Dichloropropene | 0.59 µg/L | 4 | 0.14 | 0.1 | 0.1 | 0.14 | 0.18 | 0.18 | 200.0 | 0 | 0.0 |
| Alafia | 1,4-Dichlorobenzene | 340 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Alafia | 2,4,6-Trichlorophenol | 3.3 µg/L | 4 | 0.49 | 0.49 | 0.49 | 0.49 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Alafia | 2,4-D | 1200 µg/L | 4 | 0.034 | 0.024 | 0.026 | 0.032 | 0.045 | 0.049 | 0.0 | 0 | 0.0 |
| Alafia | 2,4-Dichlorophenol | 16 µg/L | 4 | 0.49 | 0.49 | 0.49 | 0.49 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Alafia | 2,4-Dimethylphenol | 120 µg/L | 4 | 4.9 | 4.9 | 4.9 | 4.9 | 5 | 5 | 100.0 | 0 | 0.0 |
| Alafia | 2,4-Dinitrophenol | 12 µg/L | 4 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 100.0 | 0 | 0.0 |
| Alafia | 2,4-Dinitrotoluene | 0.11 µg/L | 4 | 0.49 | 0.49 | 0.49 | 0.49 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Alafia | 2-Chlorophenol | 30 µg/L | 4 | 0.49 | 0.49 | 0.49 | 0.49 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Alafia | 3,3'-Dichlorobenzidine | 0.11 µg/L | 4 | 19.8 | 19.5 | 19.5 | 19.8 | 20 | 20 | 100.0 | 0 | 0.0 |
| Alafia | Acenaphthene | 110 µg/L | 4 | 0.099 | 0.095 | 0.096 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Acenaphthylene | NA | 4 | 0.099 | 0.095 | 0.096 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Air Temp C | NA | 249 | 27.2 | 6.7 | 24.5 | 27.6 | 31.9 | 40 | 0.0 | 0 | 0.0 |
| Alafia | Aldrin | 0.0000038 µg/L | 4 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 100.0 | 0 | 0.0 |
| Alafia | Alkalinity | 20 mg/L | 5 | 30 | 22 | 25 | 29 | 35.5 | 36 | 0.0 | 0 | 0.0 |
| Alafia | Anthracene | 460 µg/L | 4 | 0.099 | 0.095 | 0.096 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Antimony | 2.4 µg/L | 4 | 0.423 | 0.33 | 0.35 | 0.44 | 0.478 | 0.48 | 0.0 | 0 | 0.0 |
| Alafia | Arsenic | 10 µg/L | 4 | 1.53 | 1.06 | 1.14 | 1.48 | 1.98 | 2.11 | 0.0 | 0 | 0.0 |
| Alafia | Barium | 1000 µg/L | 4 | 7.42 | 5.35 | 5.65 | 7.47 | 9.15 | 9.4 | 0.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alafia | Benzene | 2 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Benzo(a)pyrene | 0.0012 µg/L | 4 | 0.099 | 0.095 | 0.096 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Benzo(b)fluoranthene | 0.012 µg/L | 4 | 0.099 | 0.095 | 0.096 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Benzo(k)fluoranthene | 0.12 µg/L | 4 | 0.099 | 0.095 | 0.096 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Beryllium | 11 µg/L | 4 | 0.0125 | 0.0125 | 0.0125 | 0.0125 | 0.0125 | 0.0125 | 100.0 | 0 | 0.0 |
| Alafia | Bis(2-Chloroisopropyl) Ether | 240 µg/L | 4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Alafia | Bis(2-Ethylhexyl) Phthalate | 1.5 µg/L | 4 | 0.99 | 0.95 | 0.96 | 1 | 1 | 1 | 100.0 | 0 | 0.0 |
| Alafia | BOD | NA | 102 | 1.04 | 0.1 | 0.5 | 0.8 | 1.3 | 6.3 | 1.0 | 0 | 0.0 |
| Alafia | Bromoform | 15 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Alafia | Cadmium | e(0.7409[lnH]-4.719) | 4 | 0.0433 | 0.025 | 0.025 | 0.0415 | 0.0633 | 0.065 | 50.0 | 0 | 0.0 |
| Alafia | Calcium | NA | 12 | 37.3 | 17.8 | 18.5 | 44.4 | 53 | 56.1 | 0.0 | 0 | 0.0 |
| Alafia | Carbon Tetrachloride | 0.95 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Chlordane | 0.001 µg/L | 4 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.011 | 100.0 | 0 | 0.0 |
| Alafia | Chloride | NA | 11 | 34.27 | 24 | 26 | 28 | 45 | 54 | 0.0 | 0 | 0.0 |
| Alafia | Chlorobenzene | 110 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Chlorodibromomethane | 1.8 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Chloroform | 60 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Chlorophyll | NA | 283 | 4.432 | 0.225 | 1.55 | 1.95 | 4.3 | 130 | 73.1 | 0 | 0.0 |
| Alafia | Chromium III | e(0.7409[lnH]-4.719) | 4 | 0.6 | 0.15 | 0.19 | 0.63 | 0.99 | 1 | 25.0 | 0 | 0.0 |
| Alafia | Chrysene | 1.2 µg/L | 4 | 0.0988 | 0.095 | 0.0963 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Color | NA | 276 | 60.5 | 12.5 | 31.3 | 41.4 | 69.8 | 430 | 0.0 | 0 | 0.0 |
| Alafia | Copper | e(0.8545[lnH]-1.702) | 4 | 0.728 | 0.53 | 0.55 | 0.72 | 0.913 | 0.94 | 0.0 | 0 | 0.0 |
| Alafia | DDT | 0.00015 µg/L | 4 | 0.002 | 0.00195 | 0.00196 | 0.002 | 0.00204 | 0.00205 | 100.0 | 0 | 0.0 |
| Alafia | Dichlorobromomethane | 2.1 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Dieldrin | 0.0000054 µg/L | 4 | 0.00101 | 0.001 | 0.001 | 0.001 | 0.00104 | 0.00105 | 100.0 | 0 | 0.0 |
| Alafia | Diethyl phthalate | 780 µg/L | 2 | 0.498 | 0.495 | 0.000 | 0.498 | 0.000 | 0.5 | 100.0 | 0 | 0.0 |
| Alafia | Dimethyl phthalate | 2400 µg/L | 3 | 0.49 | 0.49 | 0.49 | 0.5 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Alafia | DO | NA | 276 | 7.35 | 2.27 | 6.29 | 7.17 | 8.38 | 12.9 | 0.0 | 0 | 0.0 |
| Alafia | DO Sat | 38 % | 276 | 82 | 29.8 | 74.9 | 81.7 | 88.8 | 132 | 0 | **1** | **0.4** |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alafia | Endosulfan I | 0.056 µg/L | 4 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.0011 | 100.0 | 0 | 0.0 |
| Alafia | Endosulfan Sulfate | 0.056 µg/L | 4 | 0.002 | 0.00195 | 0.00196 | 0.002 | 0.00204 | 0.00205 | 100.0 | 0 | 0.0 |
| Alafia | Endrin | 0.0023 µg/L | 4 | 0.002 | 0.00195 | 0.00196 | 0.002 | 0.00204 | 0.00205 | 100.0 | 0 | 0.0 |
| Alafia | Ethylbenzene | 80 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Alafia | Fecal Coliform | NA | 252 | 475.9 | 6 | 60 | 160 | 360 | 7800 | 7.5 | 0 | 0.0 |
| Alafia | Fluoranthene | 18 µg/L | 4 | 0.099 | 0.095 | 0.096 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Fluorene | 77 µg/L | 4 | 0.0988 | 0.095 | 0.0963 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Fluoride | 10 mg/L | 12 | 0.708 | 0.14 | 0.173 | 0.59 | 1.25 | 1.7 | 0.0 | 0 | 0.0 |
| Alafia | Hardness | NA | 12 | 154 | 80.3 | 89.4 | 172 | 211 | 226 | 0.0 | 0 | 0.0 |
| Alafia | Heptachlor | 0.000025 µg/L | 4 | 0.00101 | 0.001 | 0.001 | 0.001 | 0.00104 | 0.00105 | 100.0 | 0 | 0.0 |
| Alafia | Heptachlor Epoxide | 0.000098 µg/L | 4 | 0.00101 | 0.001 | 0.001 | 0.001 | 0.00104 | 0.00105 | 100.0 | 0 | 0.0 |
| Alafia | Hexachlorobutadiene | 0.018 µg/L | 4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Alafia | Hexachlorocyclopentadiene | 4.7 µg/L | 4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Alafia | Hexachloroethane | 0.24 µg/L | 4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Alafia | Indeno(1,2,3-cd)pyrene | 0.012 µg/L | 4 | 0.099 | 0.095 | 0.096 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Iron | 1000 µg/L | 4 | 289 | 85 | 93.8 | 270 | 503 | 530 | 0.0 | 0 | 0.0 |
| Alafia | Isophorone | 76 µg/L | 4 | 0.49 | 0.49 | 0.49 | 0.49 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Alafia | Kjeldahl Nitrogen | NA | 272 | 0.74 | 0.2 | 0.5 | 0.7 | 0.97 | 2 | 0.0 | 0 | 0.0 |
| Alafia | Lead | e(0.7409[lnH]-4.719) | 4 | 0.19 | 0.1 | 0.1 | 0.17 | 0.29 | 0.31 | 50.0 | 0 | 0.0 |
| Alafia | Lindane | 0.95 µg/L | 4 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.0011 | 100.0 | 0 | 0.0 |
| Alafia | Magnesium | NA | 12 | 14.7 | 8.7 | 10.4 | 13.6 | 18.7 | 24 | 0.0 | 0 | 0.0 |
| Alafia | Methoxychlor | 0.023 µg/L | 2 | 0.005 | 0.005 | 0.00 | 0.005 | 0.00 | 0.005 | 100.0 | 0 | 0.0 |
| Alafia | Methyl Bromide | 120 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Methyl Chloride | 5.67 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Alafia | Nickel | e(0.7409[lnH]-4.719) | 4 | 1.45 | 0.87 | 0.905 | 1.37 | 2.07 | 2.18 | 0.0 | 0 | 0.0 |
| Alafia | Nitrate+Nitrite | NA | 35 | 0.675 | 0.009 | 0.17 | 0.62 | 1.1 | 1.67 | 0.0 | 0 | 0.0 |
| Alafia | Nitrate-N | NA | 4 | 0.78 | 0.45 | 0.49 | 0.73 | 1.1 | 1.2 | 0.0 | 0 | 0.0 |
| Alafia | Nitrobenzene | 12 µg/L | 4 | 0.99 | 0.95 | 0.96 | 1 | 1 | 1 | 100.0 | 0 | 0.0 |
| Alafia | N-Nitrosodimethylamine | NA | 4 | 0.99 | 0.95 | 0.96 | 1 | 1 | 1 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alafia | Pentachlorophenol | 0.067 µg/L | 4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Alafia | pH | 6.0 - 8.5 units | 279 | 7.5 | 6.2 | 7.2 | 7.5 | 7.8 | 8.8 | 0.0 | **1** | **0.4** |
| Alafia | Phenanthrene | NA | 4 | 0.099 | 0.095 | 0.096 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Phenol | 300 µg/L | 4 | 0.49 | 0.49 | 0.49 | 0.49 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Alafia | Pyrene | 43 µg/L | 3 | 0.0983 | 0.095 | 0.095 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Salinity | NA | 289 | 0.19 | 0.06 | 0.12 | 0.17 | 0.24 | 0.47 | 0.0 | 0 | 0.0 |
| Alafia | Selenium | 5 µg/L | 4 | 0.42 | 0.31 | 0.33 | 0.44 | 0.5 | 0.5 | 0.0 | 0 | 0.0 |
| Alafia | Silver | 0.07 µg/L | 4 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 100.0 | 0 | 0.0 |
| Alafia | Specific Conductance | 1275 µmhos/cm | 278 | 358 | 112 | 242 | 309 | 470 | 922 | 0.0 | 0 | 0.0 |
| Alafia | Sulfate | NA | 219 | 61.5 | 1 | 32 | 55 | 83 | 239 | 3.7 | 0 | 0.0 |
| Alafia | TDS | NA | 12 | 274 | 172 | 183 | 291 | 340 | 422 | 0.0 | 0 | 0.0 |
| Alafia | Temperature | NA | 287 | 21.4 | 8.39 | 17.9 | 21.7 | 25.5 | 28.9 | 0.0 | 0 | 0.0 |
| Alafia | Thallium | 1.7 µg/L | 4 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 100.0 | 0 | 0.0 |
| Alafia | Toluene | 56 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Alafia | Total Ammonia Nitrogen | Equation[7] | 267 | 0.039 | 0.0015 | 0.018 | 0.03 | 0.051 | 0.29 | 15.0 | 0 | 0.0 |
| Alafia | Total Nitrogen | NA | 286 | 1.14 | 0.244 | 0.68 | 1.11 | 1.53 | 3.35 | 0.0 | 0 | 0.0 |
| Alafia | Total Phosphorus | NA | 281 | 0.877 | 0.1 | 0.445 | 0.675 | 1.23 | 3.42 | 0.0 | 0 | 0.0 |
| Alafia | Total Suspended Solids (TSS) | NA | 118 | 8 | 0.285 | 1 | 3 | 7.25 | 250 | 25.4 | 0 | 0.0 |
| Alafia | Toxaphene | 0.0002 µg/L | 4 | 0.05 | 0.049 | 0.049 | 0.05 | 0.05 | 0.05 | 100.0 | 0 | 0.0 |
| Alafia | Trichloroethylene | 1.3 /3.0 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Turbidity | 29 NTU above background | 221 | 5.24 | 0.5 | 1.7 | 2.8 | 4.8 | 229 | 0.0 | **2** | **0.9** |
| Alafia | Vinyl Chloride | 0.048 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Alafia | Zinc | e(0.8473[lnH]+0.884) | 4 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 1,1,1-Trichloroethane | 12000 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 1,1,2,2-Tetrachloroethane | 0.35 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 1,1,2-Trichloroethane | 1.2 µg/L | 3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 1,1-Dichloroethylene | 300 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 1,2-Dichlorobenzene | 1400 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 1,2-Dichloroethane | 22 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Caloosahatchee | 1,2-Dichloroethylene | 120 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 1,2-Dichloropropane | 2 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 1,3-Dichlorobenzene | 8.3 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 1,3-Dichloropropene | 0.59 µg/L | 6 | 0.14 | 0.1 | 0.1 | 0.14 | 0.18 | 0.18 | 200.0 | 0 | 0.0 |
| Caloosahatchee | 1,4-Dichlorobenzene | 340 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 2,4,6-Trichlorophenol | 3.3 µg/L | 6 | 0.48 | 0.48 | 0.48 | 0.48 | 0.49 | 0.49 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 2,4-D | 1200 µg/L | 13 | 0.098 | 0.016 | 0.061 | 0.1 | 0.13 | 0.18 | 30.8 | 0 | 0.0 |
| Caloosahatchee | 2,4-Dichlorophenol | 16 µg/L | 6 | 0.48 | 0.48 | 0.48 | 0.48 | 0.49 | 0.49 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 2,4-Dimethylphenol | 120 µg/L | 6 | 4.8 | 4.8 | 4.8 | 4.8 | 4.9 | 4.9 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 2,4-Dinitrophenol | 12 µg/L | 3 | 7.3 | 7 | 7 | 7.5 | 7.5 | 7.5 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 2,4-Dinitrotoluene | 0.11 µg/L | 6 | 0.48 | 0.48 | 0.48 | 0.48 | 0.49 | 0.49 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 2-Chlorophenol | 30 µg/L | 6 | 0.48 | 0.48 | 0.48 | 0.48 | 0.49 | 0.49 | 100.0 | 0 | 0.0 |
| Caloosahatchee | 3,3'-Dichlorobenzidine | 0.11 µg/L | 6 | 19.2 | 19 | 19 | 19 | 19.5 | 19.5 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Acenaphthene | 110 µg/L | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Acenaphthylene | NA | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Aldrin | 0.0000038 µg/L | 13 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Alkalinity | 20 mg/L | 54 | 149 | 82 | 127 | 146 | 172 | 217 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Anthracene | 460 µg/L | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Antimony | 2.4 µg/L | 7 | 0.393 | 0.125 | 0.125 | 0.125 | 0.125 | 2 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Arsenic | 10 µg/L | 32 | 2.18 | 1.15 | 1.5 | 2 | 3 | 3.5 | 56.3 | 0 | 0.0 |
| Caloosahatchee | Barium | 1000 µg/L | 14 | 28.2 | 23 | 25.9 | 28 | 31.7 | 32.5 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Benzene | 2 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Benzo(a)pyrene | 0.0012 µg/L | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Benzo(b)fluoranthene | 0.012 µg/L | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Benzo(k)fluoranthene | 0.12 µg/L | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Beryllium | 11 µg/L | 18 | 0.0222 | 0.0125 | 0.0125 | 0.015 | 0.015 | 0.125 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Bis(2-Chloroisopropyl) Ether | 240 µg/L | 6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Bis(2-Ethylhexyl) Phthalate | 1.5 µg/L | 6 | 0.96 | 0.95 | 0.95 | 0.95 | 0.96 | 1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | BOD | NA | 52 | 1.48 | 0.36 | 0.848 | 1.2 | 2.08 | 3.9 | 1.9 | 0 | 0.0 |
| Caloosahatchee | Bromoform | 15 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Caloosahatchee | Cadmium | e(0.7409[lnH]-4.719) | 21 | 0.151 | 0.025 | 0.025 | 0.025 | 0.133 | 0.95 | 95.2 | 0 | 0.0 |
| Caloosahatchee | Calcium | NA | 19 | 58.8 | 37 | 44 | 56.2 | 66 | 95.3 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Carbaryl | 2.1 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Carbon Tetrachloride | 0.95 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Chlordane | 0.001 µg/L | 13 | 0.0097 | 0.0095 | 0.0095 | 0.0095 | 0.0098 | 0.011 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Chloride | NA | 65 | 64.72 | 26 | 48.5 | 61 | 73 | 150 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Chlorobenzene | 110 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Chlorodibromomethane | 1.8 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Chloroform | 60 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Chlorophyll | NA | 76 | 9.931 | 0.425 | 0.7863 | 2.9 | 10.93 | 155 | 26.3 | 0 | 0.0 |
| Caloosahatchee | Chlorpyrifos | 0.041 µg/L | 6 | 0.0027 | 0.00026 | 0.00045 | 0.0027 | 0.005 | 0.005 | 50.0 | 0 | 0.0 |
| Caloosahatchee | Chromium III | e(0.7409[lnH]-4.719) | 31 | 0.87 | 0.15 | 0.5 | 1 | 1 | 2.7 | 83.9 | 0 | 0.0 |
| Caloosahatchee | Chrysene | 1.2 µg/L | 6 | 0.0958 | 0.095 | 0.095 | 0.095 | 0.0963 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Color | NA | 63 | 103 | 40 | 66 | 83 | 100 | 270 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Copper | e(0.8545[lnH]-1.702) | 31 | 3.1 | 0.5 | 1.21 | 2.5 | 3.99 | 7.9 | 22.6 | 0 | 0.0 |
| Caloosahatchee | DDT | 0.00015 µg/L | 9 | 0.00228 | 0.0019 | 0.0019 | 0.00195 | 0.00295 | 0.0031 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Demeton | 0.1 µg/L | 3 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Diazinon | 0.17 µg/L | 3 | 0.01 | 0.0095 | 0.0095 | 0.01 | 0.011 | 0.011 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Dichlorobromomethane | 2.1 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Dieldrin | 0.0000054 µg/L | 13 | 0.000965 | 0.00095 | 0.00095 | 0.00095 | 0.000975 | 0.00105 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Diethyl phthalate | 780 µg/L | 6 | 0.48 | 0.475 | 0.475 | 0.478 | 0.486 | 0.49 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Dimethyl phthalate | 2400 µg/L | 6 | 0.48 | 0.48 | 0.48 | 0.48 | 0.49 | 0.49 | 100.0 | 0 | 0.0 |
| Caloosahatchee | DO | NA | 119 | 6.22 | 1.53 | 4.97 | 6.21 | 7.54 | 12.1 | 0.0 | 0 | 0.0 |
| Caloosahatchee | DO Sat | 38 % | 119 | 87300 | 16.2 | 60.9 | 74 | 87.4 | 8130000 | 0 | **5** | **4.2** |
| Caloosahatchee | Endosulfan I | 0.056 µg/L | 13 | 0.0012 | 0.00095 | 0.00095 | 0.00095 | 0.0015 | 0.0021 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Endosulfan Sulfate | 0.056 µg/L | 13 | 0.00202 | 0.0019 | 0.0019 | 0.0019 | 0.00213 | 0.0025 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Endrin | 0.0023 µg/L | 9 | 0.00292 | 0.0019 | 0.0019 | 0.00195 | 0.0049 | 0.005 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Ethylbenzene | 80 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Fecal Coliform | NA | 39 | 434.9 | 1 | 30 | 90 | 330 | 5000 | 2.6 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Caloosahatchee | Fluoranthene | 18 µg/L | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Fluorene | 77 µg/L | 6 | 0.0958 | 0.095 | 0.095 | 0.095 | 0.0963 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Fluoride | 10 mg/L | 62 | 0.265 | 0.13 | 0.2 | 0.265 | 0.305 | 0.42 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Hardness | NA | 19 | 5410 | 142 | 183 | 199 | 282 | 40800 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Heptachlor | 0.000025 µg/L | 13 | 0.00101 | 0.00095 | 0.00095 | 0.00095 | 0.00108 | 0.00125 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Heptachlor Epoxide | 0.000098 µg/L | 13 | 0.000965 | 0.00095 | 0.00095 | 0.00095 | 0.000975 | 0.00105 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Hexachlorobutadiene | 0.018 µg/L | 3 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Hexachlorocyclopentadiene | 4.7 µg/L | 6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Hexachloroethane | 0.24 µg/L | 6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Indeno(1,2,3-cd)pyrene | 0.012 µg/L | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Iron | 1000 µg/L | 29 | 332 | 82 | 211 | 260 | 415 | 895 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Isophorone | 76 µg/L | 6 | 0.48 | 0.48 | 0.48 | 0.48 | 0.49 | 0.49 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Kjeldahl Nitrogen | NA | 76 | 1.3 | 0.53 | 1.1 | 1.2 | 1.5 | 2.1 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Lead | e(0.7409[lnH]-4.719) | 31 | 1 | 0.035 | 0.1 | 0.19 | 2.5 | 5 | 64.5 | 0 | 0.0 |
| Caloosahatchee | Lindane | 0.95 µg/L | 13 | 0.00097 | 0.00095 | 0.00095 | 0.00095 | 0.00098 | 0.0011 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Magnesium | NA | 19 | 1280 | 8.44 | 9.1 | 11.2 | 12.5 | 9900 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Malathion | 0.1 µg/L | 4 | 0.00392 | 0.00006 | 0.00006 | 6.25E-05 | 0.0116 | 0.0155 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Manganese | NA | 3 | 13.8 | 8.4 | 8.4 | 13 | 20 | 20 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Mercury | 0.012 µg/L | 3 | 0.0018 | 0.0013 | 0.0013 | 0.0018 | 0.0023 | 0.0023 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Methoxychlor | 0.023 µg/L | 8 | 0.0048 | 0.0048 | 0.0048 | 0.0048 | 0.0049 | 0.005 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Methyl Bromide | 120 µg/L | 3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Methyl Chloride | 5.67 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Nickel | e(0.7409[lnH]-4.719) | 12 | 0.933 | 0.35 | 0.438 | 0.95 | 1.43 | 1.8 | 16.7 | 0 | 0.0 |
| Caloosahatchee | Nitrate+Nitrite | NA | 73 | 0.141 | 0.002 | 0.0245 | 0.093 | 0.18 | 0.88 | 1.4 | 0 | 0.0 |
| Caloosahatchee | Nitrate-N | NA | 7 | 0.12 | 0.025 | 0.025 | 0.14 | 0.17 | 0.31 | 42.9 | 0 | 0.0 |
| Caloosahatchee | Nitrobenzene | 12 µg/L | 6 | 0.96 | 0.95 | 0.95 | 0.95 | 0.96 | 1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | N-Nitrosodimethylamine | NA | 6 | 0.96 | 0.95 | 0.95 | 0.95 | 0.96 | 1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Pentachlorophenol | 0.067 µg/L | 6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Caloosahatchee | pH | 6.0 - 8.5 units | 122 | 7.5 | 6.8 | 7.2 | 7.4 | 7.6 | 8.5 | 0.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Caloosahatchee | Phenanthrene | NA | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Phenol | 300 µg/L | 6 | 0.48 | 0.48 | 0.48 | 0.48 | 0.49 | 0.49 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Pyrene | 43 µg/L | 6 | 0.0958 | 0.095 | 0.095 | 0.095 | 0.0963 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Radium | 5 picicuries/l | 2 | 0.45 | 0.4 | 0.00 | 0.45 | 0.00 | 0.5 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Salinity | NA | 116 | 0.29 | 0.13 | 0.23 | 0.29 | 0.33 | 0.52 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Selenium | 5 µg/L | 28 | 0.35 | 0.1 | 0.1 | 0.1 | 0.27 | 2.1 | 82.1 | 0 | 0.0 |
| Caloosahatchee | Silver | 0.07 µg/L | 12 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Specific Conductance | 1275 µmhos/cm | 122 | 579 | 289 | 485 | 560 | 678 | 981 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Sulfate | NA | 57 | 35.8 | 13 | 26 | 35 | 43.5 | 68 | 0.0 | 0 | 0.0 |
| Caloosahatchee | TDS | NA | 36 | 343 | 213 | 296 | 328 | 400 | 498 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Temperature | NA | 122 | 24.2 | 15.4 | 21 | 24.8 | 27.5 | 30.5 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Thallium | 1.7 µg/L | 6 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Toluene | 56 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Total Ammonia Nitrogen | Equation[7] | 72 | 0.052 | 0.005 | 0.019 | 0.031 | 0.056 | 0.29 | 1.4 | 0 | 0.0 |
| Caloosahatchee | Total Nitrogen | NA | 73 | 1.42 | 0.83 | 1.2 | 1.38 | 1.6 | 2.58 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Total Phosphorus | NA | 69 | 0.139 | 0.045 | 0.081 | 0.12 | 0.165 | 0.52 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Total Suspended Solids (TSS) | NA | 45 | 5.63 | 1 | 3 | 4 | 6.35 | 22 | 4.4 | 0 | 0.0 |
| Caloosahatchee | Toxaphene | 0.0002 µg/L | 13 | 0.048 | 0.048 | 0.048 | 0.048 | 0.049 | 0.05 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Trichloroethylene | 1.3 /3.0 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Turbidity | 29 NTU above background | 62 | 4.67 | 0.75 | 2.2 | 2.95 | 6.7 | 14 | 0.0 | 0 | 0.0 |
| Caloosahatchee | Vinyl Chloride | 0.048 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Caloosahatchee | Zinc | e(0.8473[lnH]+0.884) | 32 | 4.7 | 1.5 | 1.8 | 3.5 | 4.9 | 44 | 43.8 | 0 | 0.0 |
| Marco Lakes | 1,1,2,2-Tetrachloroethane | 0.35 µg/L | 2 | 0.25 | 0.25 | 0.00 | 0.25 | 0.00 | 0.25 | 100.0 | 0 | 0.0 |
| Marco Lakes | 1,1,2,2-Tetrachloroethylene | 23 /3.0 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Marco Lakes | 1,1,2-Trichloroethane | 1.2 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Marco Lakes | 1,1-Dichloroethylene | 300 µg/L | 4 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Marco Lakes | 1,2,4-Trichlorobenzene | 0.14 µg/L | 4 | 0.48 | 0.47 | 0.47 | 0.48 | 0.48 | 0.48 | 100.0 | 0 | 0.0 |
| Marco Lakes | 1,2-Dichlorobenzene | 1400 µg/L | 4 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Marco Lakes | 1,2-Dichloroethane | 22 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Marco Lakes | 1,2-Dichloroethylene | 120 µg/L | 4 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Marco Lakes | 1,2-Dichloropropane | 2 µg/L | 4 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Marco Lakes | 1,3-Dichloropropene | 0.59 µg/L | 4 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 100.0 | 0 | 0.0 |
| Marco Lakes | 2,4,5-TP | 160 µg/L | 4 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 100.0 | 0 | 0.0 |
| Marco Lakes | 2,4,6-Trichlorophenol | 3.3 µg/L | 4 | 0.48 | 0.47 | 0.47 | 0.48 | 0.48 | 0.48 | 100.0 | 0 | 0.0 |
| Marco Lakes | 2,4-D | 1200 µg/L | 4 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 100.0 | 0 | 0.0 |
| Marco Lakes | 2,4-Dichlorophenol | 16 µg/L | 4 | 0.48 | 0.47 | 0.47 | 0.48 | 0.48 | 0.48 | 100.0 | 0 | 0.0 |
| Marco Lakes | 2,4-Dimethylphenol | 120 µg/L | 4 | 4.8 | 4.7 | 4.7 | 4.8 | 4.8 | 4.8 | 100.0 | 0 | 0.0 |
| Marco Lakes | 2,4-Dinitrophenol | 12 µg/L | 2 | 7.1 | 7 | 0.00 | 7.1 | 0.00 | 7.3 | 100.0 | 0 | 0.0 |
| Marco Lakes | 2,4-Dinitrotoluene | 0.11 µg/L | 4 | 0.48 | 0.47 | 0.47 | 0.48 | 0.48 | 0.48 | 100.0 | 0 | 0.0 |
| Marco Lakes | 2-Chloronaphthalene | 960 µg/L | 4 | 0.48 | 0.47 | 0.47 | 0.48 | 0.48 | 0.48 | 100.0 | 0 | 0.0 |
| Marco Lakes | 2-Chlorophenol | 30 µg/L | 4 | 0.48 | 0.47 | 0.47 | 0.48 | 0.48 | 0.48 | 100.0 | 0 | 0.0 |
| Marco Lakes | 2-Methyl-4,6-Dinitrophenol | 1.8 µg/L | 4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Marco Lakes | Acenaphthene | 110 µg/L | 4 | 0.058 | 0.053 | 0.055 | 0.06 | 0.061 | 0.061 | 100.0 | 0 | 0.0 |
| Marco Lakes | Acenaphthylene | NA | 4 | 0.058 | 0.053 | 0.055 | 0.06 | 0.061 | 0.061 | 100.0 | 0 | 0.0 |
| Marco Lakes | Acrolein | 3 µg/L | 4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Marco Lakes | Acrylonitrile | 0.13 µg/L | 4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Marco Lakes | Aldrin | 0.0000038 µg/L | 4 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 100.0 | 0 | 0.0 |
| Marco Lakes | Anthracene | 460 µg/L | 4 | 0.058 | 0.053 | 0.055 | 0.06 | 0.061 | 0.061 | 100.0 | 0 | 0.0 |
| Marco Lakes | Antimony | 2.4 µg/L | 4 | 0.125 | 0.125 | 0.125 | 0.125 | 0.125 | 0.125 | 100.0 | 0 | 0.0 |
| Marco Lakes | Arsenic | 10 µg/L | 4 | 0.671 | 0.585 | 0.586 | 0.645 | 0.783 | 0.81 | 0.0 | 0 | 0.0 |
| Marco Lakes | Benzene | 2 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Marco Lakes | Benzo(a)anthracene | 0.012 µg/L | 4 | 0.058 | 0.053 | 0.055 | 0.06 | 0.061 | 0.061 | 100.0 | 0 | 0.0 |
| Marco Lakes | Benzo(a)pyrene | 0.0012 µg/L | 4 | 0.058 | 0.053 | 0.055 | 0.06 | 0.061 | 0.061 | 100.0 | 0 | 0.0 |
| Marco Lakes | Benzo(b)fluoranthene | 0.012 µg/L | 4 | 0.058 | 0.053 | 0.055 | 0.06 | 0.061 | 0.061 | 100.0 | 0 | 0.0 |
| Marco Lakes | Benzo(g,h,i)perylene | NA | 4 | 0.058 | 0.053 | 0.055 | 0.06 | 0.061 | 0.061 | 100.0 | 0 | 0.0 |
| Marco Lakes | Benzo(k)fluoranthene | 0.12 µg/L | 4 | 0.058 | 0.053 | 0.055 | 0.06 | 0.061 | 0.061 | 100.0 | 0 | 0.0 |
| Marco Lakes | Beryllium | 11 µg/L | 4 | 0.0125 | 0.0125 | 0.0125 | 0.0125 | 0.0125 | 0.0125 | 100.0 | 0 | 0.0 |
| Marco Lakes | Beta-BHC | 0.018 µg/L | 4 | 0.00096 | 0.00095 | 0.00095 | 0.00096 | 0.00098 | 0.00098 | 100.0 | 0 | 0.0 |
| Marco Lakes | Bis(2-Chloroethyl) Ether | 0.066 µg/L | 4 | 0.48 | 0.47 | 0.47 | 0.48 | 0.48 | 0.48 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Marco Lakes | Bis(2-Chloroisopropyl) Ether | 240 µg/L | 4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Marco Lakes | Bis(2-Ethylhexyl) Phthalate | 1.5 µg/L | 4 | 0.96 | 0.95 | 0.95 | 0.95 | 0.97 | 0.98 | 100.0 | 0 | 0.0 |
| Marco Lakes | Bromoform | 15 µg/L | 4 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Marco Lakes | Butylbenzyl Phthalate | 0.29 µg/L | 4 | 0.476 | 0.47 | 0.471 | 0.476 | 0.481 | 0.483 | 100.0 | 0 | 0.0 |
| Marco Lakes | Cadmium | e(0.7409[lnH]-4.719) | 4 | 0.025 | 0.025 | 0.025 | 0.025 | 0.025 | 0.025 | 100.0 | 0 | 0.0 |
| Marco Lakes | Carbon Tetrachloride | 0.95 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Marco Lakes | Chlordane | 0.001 µg/L | 4 | 0.0096 | 0.0095 | 0.0095 | 0.0096 | 0.0098 | 0.0098 | 100.0 | 0 | 0.0 |
| Marco Lakes | Chlorobenzene | 110 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Marco Lakes | Chlorodibromomethane | 1.8 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Marco Lakes | Chloroform | 60 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Marco Lakes | Chlorophyll | NA | 4 | 2.994 | 2.05 | 2.194 | 3.038 | 3.75 | 3.85 | 0.0 | 0 | 0.0 |
| Marco Lakes | Chromium III | e(0.7409[lnH]-4.719) | 4 | 0.2 | 0.15 | 0.15 | 0.15 | 0.29 | 0.34 | 100.0 | 0 | 0.0 |
| Marco Lakes | Chrysene | 1.2 µg/L | 4 | 0.0583 | 0.0531 | 0.0547 | 0.0596 | 0.0606 | 0.0609 | 100.0 | 0 | 0.0 |
| Marco Lakes | Copper | e(0.8545[lnH]-1.702) | 4 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Marco Lakes | DDT | 0.00015 µg/L | 4 | 0.00193 | 0.0019 | 0.0019 | 0.00191 | 0.00196 | 0.00198 | 100.0 | 0 | 0.0 |
| Marco Lakes | Dibenzo(a,h)anthracene | 0.0012 µg/L | 4 | 0.058 | 0.053 | 0.055 | 0.06 | 0.061 | 0.061 | 100.0 | 0 | 0.0 |
| Marco Lakes | Dichlorobromomethane | 2.1 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Marco Lakes | Dichloromethane | 36 µg/L | 4 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Marco Lakes | Dieldrin | 0.0000054 µg/L | 4 | 0.000963 | 0.00095 | 0.00095 | 0.000963 | 0.000975 | 0.000975 | 100.0 | 0 | 0.0 |
| Marco Lakes | Diethyl phthalate | 780 µg/L | 2 | 0.473 | 0.47 | 0.000 | 0.473 | 0.000 | 0.475 | 100.0 | 0 | 0.0 |
| Marco Lakes | Dimethyl phthalate | 2400 µg/L | 4 | 0.48 | 0.47 | 0.47 | 0.48 | 0.48 | 0.48 | 100.0 | 0 | 0.0 |
| Marco Lakes | Di-n-butyl phthalate | 35 µg/L | 4 | 0.476 | 0.47 | 0.471 | 0.476 | 0.481 | 0.483 | 100.0 | 0 | 0.0 |
| Marco Lakes | Di-n-octyl phthalate | 3 µg/L | 4 | 0.476 | 0.47 | 0.471 | 0.476 | 0.481 | 0.483 | 100.0 | 0 | 0.0 |
| Marco Lakes | DO | NA | 4 | 7.46 | 6.16 | 6.24 | 7.41 | 8.74 | 8.88 | 0.0 | 0 | 0.0 |
| Marco Lakes | Endosulfan I | 0.056 µg/L | 4 | 0.00096 | 0.00095 | 0.00095 | 0.00096 | 0.00098 | 0.00098 | 100.0 | 0 | 0.0 |
| Marco Lakes | Endosulfan II | 0.056 µg/L | 4 | 0.000963 | 0.00095 | 0.00095 | 0.000963 | 0.000975 | 0.000975 | 100.0 | 0 | 0.0 |
| Marco Lakes | Endosulfan Sulfate | 0.056 µg/L | 4 | 0.00193 | 0.0019 | 0.0019 | 0.00191 | 0.00196 | 0.00198 | 100.0 | 0 | 0.0 |
| Marco Lakes | Endrin | 0.0023 µg/L | 4 | 0.00193 | 0.0019 | 0.0019 | 0.00191 | 0.00196 | 0.00198 | 100.0 | 0 | 0.0 |
| Marco Lakes | Ethylbenzene | 80 µg/L | 4 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Marco Lakes | Fluoranthene | 18 µg/L | 4 | 0.058 | 0.053 | 0.055 | 0.06 | 0.061 | 0.061 | 100.0 | 0 | 0.0 |
| Marco Lakes | Fluorene | 77 µg/L | 4 | 0.0583 | 0.0531 | 0.0547 | 0.0596 | 0.0606 | 0.0609 | 100.0 | 0 | 0.0 |
| Marco Lakes | Fluoride | 10 mg/L | 4 | 0.106 | 0.1 | 0.1 | 0.105 | 0.114 | 0.115 | 0.0 | 0 | 0.0 |
| Marco Lakes | Heptachlor | 0.000025 µg/L | 4 | 0.000963 | 0.00095 | 0.00095 | 0.000963 | 0.000975 | 0.000975 | 100.0 | 0 | 0.0 |
| Marco Lakes | Heptachlor Epoxide | 0.000098 µg/L | 4 | 0.000963 | 0.00095 | 0.00095 | 0.000963 | 0.000975 | 0.000975 | 100.0 | 0 | 0.0 |
| Marco Lakes | Hexachlorobutadiene | 0.018 µg/L | 4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Marco Lakes | Hexachlorocyclopentadiene | 4.7 µg/L | 4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Marco Lakes | Hexachloroethane | 0.24 µg/L | 4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Marco Lakes | Indeno(1,2,3-cd)pyrene | 0.012 µg/L | 4 | 0.058 | 0.053 | 0.055 | 0.06 | 0.061 | 0.061 | 100.0 | 0 | 0.0 |
| Marco Lakes | Iron | 1000 µg/L | 1 | 15 | 15 | 0.000 | 15 | 0.000 | 15 | 100.0 | 0 | 0.0 |
| Marco Lakes | Isophorone | 76 µg/L | 4 | 0.48 | 0.47 | 0.47 | 0.48 | 0.48 | 0.48 | 100.0 | 0 | 0.0 |
| Marco Lakes | Kjeldahl Nitrogen | NA | 4 | 0.59 | 0.55 | 0.55 | 0.59 | 0.62 | 0.62 | 0.0 | 0 | 0.0 |
| Marco Lakes | Lead | e(0.7409[lnH]-4.719) | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Marco Lakes | Lindane | 0.95 µg/L | 4 | 0.00096 | 0.00095 | 0.00095 | 0.00096 | 0.00098 | 0.00098 | 100.0 | 0 | 0.0 |
| Marco Lakes | Methoxychlor | 0.023 µg/L | 2 | 0.0049 | 0.0049 | 0.00 | 0.0049 | 0.00 | 0.0049 | 100.0 | 0 | 0.0 |
| Marco Lakes | Methyl Bromide | 120 µg/L | 2 | 0.25 | 0.25 | 0.00 | 0.25 | 0.00 | 0.25 | 100.0 | 0 | 0.0 |
| Marco Lakes | Methyl Chloride | 5.67 µg/L | 3 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 166.7 | 0 | 0.0 |
| Marco Lakes | Mirex | 0.001 µg/L | 4 | 0.00193 | 0.0019 | 0.0019 | 0.00191 | 0.00196 | 0.00198 | 100.0 | 0 | 0.0 |
| Marco Lakes | Nickel | e(0.7409[lnH]-4.719) | 4 | 0.313 | 0.125 | 0.176 | 0.343 | 0.419 | 0.44 | 25.0 | 0 | 0.0 |
| Marco Lakes | Nitrate+Nitrite | NA | 4 | 0.0171 | 0.01 | 0.0108 | 0.0145 | 0.0261 | 0.0295 | 0.0 | 0 | 0.0 |
| Marco Lakes | Nitrate-N | NA | 4 | 0.029 | 0.025 | 0.025 | 0.025 | 0.037 | 0.042 | 100.0 | 0 | 0.0 |
| Marco Lakes | Nitrobenzene | 12 µg/L | 4 | 0.96 | 0.95 | 0.95 | 0.95 | 0.97 | 0.98 | 100.0 | 0 | 0.0 |
| Marco Lakes | N-Nitrosodimethylamine | NA | 4 | 0.96 | 0.95 | 0.95 | 0.95 | 0.97 | 0.98 | 100.0 | 0 | 0.0 |
| Marco Lakes | N-Nitrosodi-n-propylamine | NA | 4 | 0.96 | 0.95 | 0.95 | 0.95 | 0.97 | 0.98 | 100.0 | 0 | 0.0 |
| Marco Lakes | N-Nitrosodiphenylamine | NA | 4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Marco Lakes | PCB-1016 | 0.000098 / 0.014 µg/L | 4 | 0.00963 | 0.0095 | 0.0095 | 0.00963 | 0.00975 | 0.00975 | 100.0 | 0 | 0.0 |
| Marco Lakes | PCB-1221 | 0.000098 / 0.014 µg/L | 4 | 0.00963 | 0.0095 | 0.0095 | 0.00963 | 0.00975 | 0.00975 | 100.0 | 0 | 0.0 |
| Marco Lakes | PCB-1232 | 0.000098 / 0.014 µg/L | 4 | 0.00963 | 0.0095 | 0.0095 | 0.00963 | 0.00975 | 0.00975 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Marco Lakes | PCB-1242 | 0.000098 / 0.014 µg/L | 4 | 0.00963 | 0.0095 | 0.0095 | 0.00963 | 0.00975 | 0.00975 | 100.0 | 0 | 0.0 |
| Marco Lakes | PCB-1248 | 0.000098 / 0.014 µg/L | 4 | 0.00963 | 0.0095 | 0.0095 | 0.00963 | 0.00975 | 0.00975 | 100.0 | 0 | 0.0 |
| Marco Lakes | PCB-1254 | 0.000098 / 0.014 µg/L | 4 | 0.00963 | 0.0095 | 0.0095 | 0.00963 | 0.00975 | 0.00975 | 100.0 | 0 | 0.0 |
| Marco Lakes | PCB-1260 | 0.000098 / 0.014 µg/L | 4 | 0.00963 | 0.0095 | 0.0095 | 0.00963 | 0.00975 | 0.00975 | 100.0 | 0 | 0.0 |
| Marco Lakes | Pentachlorophenol | 0.067 µg/L | 4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Marco Lakes | pH | 6.0 - 8.5 units | 4 | 7.6 | 7.5 | 7.5 | 7.6 | 7.8 | 7.8 | 0.0 | 0 | 0.0 |
| Marco Lakes | Phenanthrene | NA | 4 | 0.058 | 0.053 | 0.055 | 0.06 | 0.061 | 0.061 | 100.0 | 0 | 0.0 |
| Marco Lakes | Phenol | 300 µg/L | 4 | 0.48 | 0.47 | 0.47 | 0.48 | 0.48 | 0.48 | 100.0 | 0 | 0.0 |
| Marco Lakes | Pyrene | 43 µg/L | 4 | 0.0583 | 0.0531 | 0.0547 | 0.0596 | 0.0606 | 0.0609 | 100.0 | 0 | 0.0 |
| Marco Lakes | Selenium | 5 µg/L | 4 | 0.13 | 0.1 | 0.1 | 0.1 | 0.18 | 0.2 | 100.0 | 0 | 0.0 |
| Marco Lakes | Silver | 0.07 µg/L | 4 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 100.0 | 0 | 0.0 |
| Marco Lakes | Thallium | 1.7 µg/L | 4 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 100.0 | 0 | 0.0 |
| Marco Lakes | Toluene | 56 µg/L | 4 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Marco Lakes | Total Ammonia Nitrogen | Equation[7] | 4 | 0.023 | 0.0075 | 0.01 | 0.023 | 0.036 | 0.039 | 0.0 | 0 | 0.0 |
| Marco Lakes | Total Phosphorus | NA | 4 | 0.00738 | 0.007 | 0.007 | 0.00725 | 0.00788 | 0.008 | 0.0 | 0 | 0.0 |
| Marco Lakes | Total Suspended Solids (TSS) | NA | 4 | 2.88 | 1 | 1.38 | 3.25 | 4 | 4 | 25.0 | 0 | 0.0 |
| Marco Lakes | Toxaphene | 0.0002 µg/L | 4 | 0.048 | 0.048 | 0.048 | 0.048 | 0.049 | 0.049 | 100.0 | 0 | 0.0 |
| Marco Lakes | Trichloroethylene | 1.3 /3.0 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Marco Lakes | Vinyl Chloride | 0.048 µg/L | 4 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Marco Lakes | Zinc | e(0.8473[lnH]+0.884) | 4 | 3.3 | 2.5 | 2.5 | 2.5 | 4.8 | 5.6 | 100.0 | 0 | 0.0 |
| Peace | 1,1,1-Trichloroethane | 12000 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | 1,1,2,2-Tetrachloroethane | 0.35 µg/L | 3 | 0.15 | 0.1 | 0.1 | 0.1 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Peace | 1,1,2-Trichloroethane | 1.2 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | 1,1-Dichloroethylene | 300 µg/L | 3 | 0.15 | 0.1 | 0.1 | 0.1 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Peace | 1,2-Dichlorobenzene | 1400 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Peace | 1,2-Dichloroethane | 22 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | 1,2-Dichloroethylene | 120 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peace | 1,2-Dichloropropane | 2 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Peace | 1,3-Dichlorobenzene | 8.3 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Peace | 1,3-Dichloropropene | 0.59 µg/L | 4 | 0.16 | 0.1 | 0.1 | 0.14 | 0.23 | 0.25 | 100.0 | 0 | 0.0 |
| Peace | 1,4-Dichlorobenzene | 340 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Peace | 2,4,6-Trichlorophenol | 3.3 µg/L | 4 | 0.49 | 0.48 | 0.48 | 0.49 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Peace | 2,4-D | 1200 µg/L | 3 | 0.049 | 0.043 | 0.043 | 0.048 | 0.056 | 0.056 | 0.0 | 0 | 0.0 |
| Peace | 2,4-Dichlorophenol | 16 µg/L | 4 | 0.49 | 0.48 | 0.48 | 0.49 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Peace | 2,4-Dimethylphenol | 120 µg/L | 4 | 4.9 | 4.8 | 4.8 | 4.9 | 5 | 5 | 100.0 | 0 | 0.0 |
| Peace | 2,4-Dinitrophenol | 12 µg/L | 1 | 7.5 | 7.5 | 0.00 | 7.5 | 0.00 | 7.5 | 100.0 | 0 | 0.0 |
| Peace | 2,4-Dinitrotoluene | 0.11 µg/L | 4 | 0.49 | 0.48 | 0.48 | 0.49 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Peace | 2-Chlorophenol | 30 µg/L | 4 | 0.49 | 0.48 | 0.48 | 0.49 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Peace | 3,3'-Dichlorobenzidine | 0.11 µg/L | 4 | 19.5 | 19 | 19.1 | 19.5 | 19.9 | 20 | 100.0 | 0 | 0.0 |
| Peace | Acenaphthene | 110 µg/L | 5 | 0.083 | 0.025 | 0.06 | 0.095 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Acenaphthylene | NA | 5 | 0.083 | 0.025 | 0.06 | 0.095 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Aldrin | 0.0000038 µg/L | 4 | 0.001 | 0.0009 | 0.0009 | 0.001 | 0.001 | 0.001 | 100.0 | 0 | 0.0 |
| Peace | Alkalinity | 20 mg/L | 13 | 76.8 | 13 | 56 | 87 | 94.5 | 100 | 0.0 | **1** | **7.7** |
| Peace | Anthracene | 460 µg/L | 5 | 0.083 | 0.025 | 0.06 | 0.095 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Antimony | 2.4 µg/L | 4 | 0.198 | 0.125 | 0.125 | 0.193 | 0.275 | 0.28 | 50.0 | 0 | 0.0 |
| Peace | Arsenic | 10 µg/L | 4 | 1.43 | 1.24 | 1.28 | 1.45 | 1.55 | 1.56 | 0.0 | 0 | 0.0 |
| Peace | Barium | 1000 µg/L | 4 | 15.3 | 11.5 | 11.6 | 14.9 | 19.3 | 19.7 | 0.0 | 0 | 0.0 |
| Peace | Benzene | 2 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Benzo(a)pyrene | 0.0012 µg/L | 5 | 0.083 | 0.025 | 0.06 | 0.095 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Benzo(b)fluoranthene | 0.012 µg/L | 5 | 0.083 | 0.025 | 0.06 | 0.095 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Benzo(k)fluoranthene | 0.12 µg/L | 5 | 0.083 | 0.025 | 0.06 | 0.095 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Beryllium | 11 µg/L | 4 | 0.0125 | 0.0125 | 0.0125 | 0.0125 | 0.0125 | 0.0125 | 100.0 | 0 | 0.0 |
| Peace | Bis(2-Chloroisopropyl) Ether | 240 µg/L | 4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Peace | Bis(2-Ethylhexyl) Phthalate | 1.5 µg/L | 4 | 0.98 | 0.95 | 0.95 | 0.98 | 1 | 1 | 100.0 | 0 | 0.0 |
| Peace | BOD | NA | 10 | 1.46 | 0.52 | 0.995 | 1.3 | 1.75 | 2.9 | 0.0 | 0 | 0.0 |
| Peace | Bromoform | 15 µg/L | 3 | 0.15 | 0.1 | 0.1 | 0.1 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Peace | Cadmium | e(0.7409[lnH]-4.719) | 4 | 0.025 | 0.025 | 0.025 | 0.025 | 0.025 | 0.025 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peace | Calcium | NA | 16 | 58.5 | 22.5 | 25.9 | 53.8 | 71.5 | 179 | 0.0 | 0 | 0.0 |
| Peace | Carbon Tetrachloride | 0.95 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Chlordane | 0.001 µg/L | 4 | 0.0096 | 0.009 | 0.0091 | 0.0098 | 0.01 | 0.01 | 100.0 | 0 | 0.0 |
| Peace | Chloride | NA | 143 | 736.5 | 0.1765 | 26.4 | 39.9 | 187 | 18010 | 0.7 | 0 | 0.0 |
| Peace | Chlorobenzene | 110 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Chlorodibromomethane | 1.8 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Chloroform | 60 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Chlorophyll | NA | 143 | 18.28 | 0.425 | 5.84 | 11 | 20.5 | 110 | 7.0 | 0 | 0.0 |
| Peace | Chromium III | e(0.7409[lnH]-4.719) | 4 | 0.7 | 0.56 | 0.58 | 0.71 | 0.8 | 0.81 | 0.0 | 0 | 0.0 |
| Peace | Chrysene | 1.2 µg/L | 5 | 0.0829 | 0.0245 | 0.0598 | 0.095 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Color | NA | 140 | 132 | 25 | 60 | 100 | 179 | 500 | 0.0 | 0 | 0.0 |
| Peace | Copper | e(0.8545[lnH]-1.702) | 4 | 1.73 | 0.85 | 0.915 | 1.76 | 2.51 | 2.54 | 0.0 | 0 | 0.0 |
| Peace | DDT | 0.00015 µg/L | 4 | 0.00194 | 0.00185 | 0.00188 | 0.00195 | 0.00199 | 0.002 | 100.0 | 0 | 0.0 |
| Peace | Dichlorobromomethane | 2.1 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Dieldrin | 0.0000054 µg/L | 4 | 0.000963 | 0.0009 | 0.000913 | 0.000975 | 0.001 | 0.001 | 100.0 | 0 | 0.0 |
| Peace | Diethyl phthalate | 780 µg/L | 4 | 0.488 | 0.475 | 0.478 | 0.488 | 0.498 | 0.5 | 100.0 | 0 | 0.0 |
| Peace | Dimethyl phthalate | 2400 µg/L | 4 | 0.49 | 0.48 | 0.48 | 0.49 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Peace | DO | NA | 287 | 7.31 | 2.19 | 4.91 | 6.77 | 8.85 | 19.1 | 0.0 | 0 | 0.0 |
| Peace | DO Sat | 38 % | 287 | 88.2 | 26.9 | 62.4 | 87.9 | 105 | 218 | 0 | **5** | **1.7** |
| Peace | Endosulfan I | 0.056 µg/L | 4 | 0.00096 | 0.0009 | 0.00091 | 0.00098 | 0.001 | 0.001 | 100.0 | 0 | 0.0 |
| Peace | Endosulfan Sulfate | 0.056 µg/L | 4 | 0.00194 | 0.00185 | 0.00188 | 0.00195 | 0.00199 | 0.002 | 100.0 | 0 | 0.0 |
| Peace | Endrin | 0.0023 µg/L | 4 | 0.00194 | 0.00185 | 0.00188 | 0.00195 | 0.00199 | 0.002 | 100.0 | 0 | 0.0 |
| Peace | Ethylbenzene | 80 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Peace | Fecal Coliform | NA | 16 | 69.75 | 11 | 21.75 | 40.5 | 117.5 | 185 | 0.0 | 0 | 0.0 |
| Peace | Fluoranthene | 18 µg/L | 5 | 0.083 | 0.025 | 0.06 | 0.095 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Fluorene | 77 µg/L | 5 | 0.0829 | 0.0245 | 0.0598 | 0.095 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Fluoride | 10 mg/L | 17 | 0.767 | 0.025 | 0.44 | 0.89 | 1 | 1.3 | 5.9 | 0 | 0.0 |
| Peace | Hardness | NA | 16 | 379 | 95.1 | 109 | 222 | 454 | 2120 | 0.0 | 0 | 0.0 |
| Peace | Heptachlor | 0.000025 µg/L | 4 | 0.000963 | 0.0009 | 0.000913 | 0.000975 | 0.001 | 0.001 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peace | Heptachlor Epoxide | 0.000098 µg/L | 4 | 0.000963 | 0.0009 | 0.000913 | 0.000975 | 0.001 | 0.001 | 100.0 | 0 | 0.0 |
| Peace | Hexachlorobutadiene | 0.018 µg/L | 2 | 1.5 | 1.5 | 0.00 | 1.5 | 0.00 | 1.5 | 100.0 | 0 | 0.0 |
| Peace | Hexachlorocyclopentadiene | 4.7 µg/L | 4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Peace | Hexachloroethane | 0.24 µg/L | 4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Peace | Indeno(1,2,3-cd)pyrene | 0.012 µg/L | 5 | 0.083 | 0.025 | 0.06 | 0.095 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Iron | 1000 µg/L | 128 | 71400 | 72.9 | 265 | 477 | 113000 | 619000 | 0.0 | **1** | **0.8** |
| Peace | Isophorone | 76 µg/L | 4 | 0.49 | 0.48 | 0.48 | 0.49 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Peace | Kjeldahl Nitrogen | NA | 143 | 1 | 0.23 | 0.76 | 0.96 | 1.2 | 2.8 | 0.0 | 0 | 0.0 |
| Peace | Lead | e(0.7409[lnH]-4.719) | 4 | 0.14 | 0.1 | 0.1 | 0.1 | 0.21 | 0.24 | 75.0 | 0 | 0.0 |
| Peace | Lindane | 0.95 µg/L | 4 | 0.00096 | 0.0009 | 0.00091 | 0.00098 | 0.001 | 0.001 | 100.0 | 0 | 0.0 |
| Peace | Magnesium | NA | 16 | 56.6 | 9.45 | 10.7 | 21.8 | 67 | 406 | 0.0 | 0 | 0.0 |
| Peace | Methoxychlor | 0.023 µg/L | 3 | 0.0048 | 0.0046 | 0.0046 | 0.0049 | 0.0049 | 0.0049 | 100.0 | 0 | 0.0 |
| Peace | Methyl Bromide | 120 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Peace | Methyl Chloride | 5.67 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Peace | Nickel | e(0.7409[lnH]-4.719) | 4 | 1.04 | 0.85 | 0.855 | 1.01 | 1.24 | 1.27 | 0.0 | 0 | 0.0 |
| Peace | Nitrate+Nitrite | NA | 143 | 0.279 | 0.002 | 0.046 | 0.224 | 0.429 | 1.29 | 11.9 | 0 | 0.0 |
| Peace | Nitrate-N | NA | 3 | 0.18 | 0.17 | 0.17 | 0.18 | 0.19 | 0.19 | 0.0 | 0 | 0.0 |
| Peace | Nitrobenzene | 12 µg/L | 4 | 0.98 | 0.95 | 0.95 | 0.98 | 1 | 1 | 100.0 | 0 | 0.0 |
| Peace | N-Nitrosodimethylamine | NA | 4 | 0.98 | 0.95 | 0.95 | 0.98 | 1 | 1 | 100.0 | 0 | 0.0 |
| Peace | Pentachlorophenol | 0.067 µg/L | 4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Peace | pH | 6.0 - 8.5 units | 279 | 7.4 | 6.2 | 7.1 | 7.4 | 7.6 | 9.1 | 0.0 | **12** | **4.3** |
| Peace | Phenanthrene | NA | 5 | 0.083 | 0.025 | 0.06 | 0.095 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Phenol | 300 µg/L | 4 | 0.49 | 0.48 | 0.48 | 0.49 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Peace | Pyrene | 43 µg/L | 5 | 0.0829 | 0.0245 | 0.0598 | 0.095 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Salinity | NA | 354 | 1.2 | 0.06 | 0.18 | 0.28 | 0.64 | 27 | 0.0 | 0 | 0.0 |
| Peace | Selenium | 5 µg/L | 4 | 0.25 | 0.21 | 0.22 | 0.26 | 0.26 | 0.26 | 0.0 | 0 | 0.0 |
| Peace | Silver | 0.07 µg/L | 4 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 100.0 | 0 | 0.0 |
| Peace | Specific Conductance | 1275 µmhos/cm | 366 | 2130 | 143 | 370 | 558 | 1260 | 42300 | 0.0 | **91** | **24.9** |
| Peace | Sulfate | NA | 13 | 262 | 35 | 83 | 220 | 355 | 980 | 0.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peace | TDS | NA | 16 | 785 | 182 | 232 | 432 | 1140 | 2940 | 0.0 | 0 | 0.0 |
| Peace | Temperature | NA | 366 | 25.4 | 11 | 22 | 26.4 | 29.2 | 33.1 | 0.0 | 0 | 0.0 |
| Peace | Thallium | 1.7 µg/L | 4 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 100.0 | 0 | 0.0 |
| Peace | Toluene | 56 µg/L | 4 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Peace | Total Ammonia Nitrogen | Equation[7] | 145 | 0.056 | 0.0023 | 0.0035 | 0.051 | 0.084 | 0.38 | 26.2 | 0 | 0.0 |
| Peace | Total Nitrogen | NA | 144 | 1.29 | 0.234 | 0.911 | 1.24 | 1.59 | 2.82 | 0.0 | 0 | 0.0 |
| Peace | Total Phosphorus | NA | 19 | 1.09 | 0.84 | 0.92 | 1.1 | 1.2 | 1.5 | 0.0 | 0 | 0.0 |
| Peace | Total Suspended Solids (TSS) | NA | 141 | 6.41 | 0.625 | 2.98 | 5 | 8.4 | 23 | 2.1 | 0 | 0.0 |
| Peace | Toxaphene | 0.0002 µg/L | 4 | 0.048 | 0.046 | 0.047 | 0.049 | 0.05 | 0.05 | 100.0 | 0 | 0.0 |
| Peace | Trichloroethylene | 1.3 /3.0 µg/L | 4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Peace | Turbidity | 29 NTU above background | 15 | 3.64 | 2.4 | 2.9 | 3.6 | 4 | 5.8 | 0.0 | 0 | 0.0 |
| Peace | Vinyl Chloride | 0.048 µg/L | 4 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Peace | Zinc | e(0.8473[lnH]+0.884) | 4 | 17 | 6.2 | 6.2 | 8.2 | 36 | 45 | 0.0 | 0 | 0.0 |
| Port St. Joe | 1,1,1-Trichloroethane | 12000 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | 1,1,2,2-Tetrachloroethane | 0.35 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Port St. Joe | 1,1,2-Trichloroethane | 1.2 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | 1,1-Dichloroethylene | 300 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Port St. Joe | 1,2-Dichlorobenzene | 1400 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Port St. Joe | 1,2-Dichloroethane | 22 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | 1,2-Dichloroethylene | 120 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Port St. Joe | 1,2-Dichloropropane | 2 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Port St. Joe | 1,3-Dichlorobenzene | 8.3 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Port St. Joe | 1,3-Dichloropropene | 0.59 µg/L | 6 | 0.14 | 0.1 | 0.1 | 0.14 | 0.18 | 0.18 | 100.0 | 0 | 0.0 |
| Port St. Joe | 1,4-Dichlorobenzene | 340 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Port St. Joe | 2,4,6-Trichlorophenol | 3.3 µg/L | 6 | 0.48 | 0.47 | 0.47 | 0.49 | 0.49 | 0.5 | 100.0 | 0 | 0.0 |
| Port St. Joe | 2,4-D | 1200 µg/L | 9 | 0.04 | 0.001 | 0.0021 | 0.014 | 0.1 | 0.11 | 55.6 | 0 | 0.0 |
| Port St. Joe | 2,4-Dichlorophenol | 16 µg/L | 6 | 0.48 | 0.47 | 0.47 | 0.49 | 0.49 | 0.5 | 100.0 | 0 | 0.0 |
| Port St. Joe | 2,4-Dimethylphenol | 120 µg/L | 6 | 4.8 | 4.7 | 4.7 | 4.9 | 4.9 | 5 | 100.0 | 0 | 0.0 |
| Port St. Joe | 2,4-Dinitrophenol | 12 µg/L | 3 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port St. Joe | 2,4-Dinitrotoluene | 0.11 µg/L | 6 | 0.48 | 0.47 | 0.47 | 0.49 | 0.49 | 0.5 | 100.0 | 0 | 0.0 |
| Port St. Joe | 2-Chlorophenol | 30 µg/L | 6 | 0.48 | 0.47 | 0.47 | 0.49 | 0.49 | 0.5 | 100.0 | 0 | 0.0 |
| Port St. Joe | 3,3'-Dichlorobenzidine | 0.11 µg/L | 6 | 19.4 | 19 | 19 | 19.5 | 19.6 | 20 | 100.0 | 0 | 0.0 |
| Port St. Joe | Acenaphthene | 110 µg/L | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Acenaphthylene | NA | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Aldrin | 0.0000038 µg/L | 6 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 100.0 | 0 | 0.0 |
| Port St. Joe | Anthracene | 460 µg/L | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Antimony | 2.4 µg/L | 6 | 0.125 | 0.125 | 0.125 | 0.125 | 0.125 | 0.125 | 100.0 | 0 | 0.0 |
| Port St. Joe | Arsenic | 10 µg/L | 6 | 0.49 | 0.36 | 0.368 | 0.515 | 0.575 | 0.62 | 0.0 | 0 | 0.0 |
| Port St. Joe | Barium | 1000 µg/L | 6 | 23.4 | 14.3 | 18.5 | 22.6 | 30.3 | 30.7 | 0.0 | 0 | 0.0 |
| Port St. Joe | Benzene | 2 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Benzo(a)pyrene | 0.0012 µg/L | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Benzo(b)fluoranthene | 0.012 µg/L | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Benzo(k)fluoranthene | 0.12 µg/L | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Beryllium | 11 µg/L | 6 | 0.0318 | 0.0125 | 0.0125 | 0.0265 | 0.0538 | 0.062 | 33.3 | 0 | 0.0 |
| Port St. Joe | Bis(2-Chloroisopropyl) Ether | 240 µg/L | 6 | 1.5 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Port St. Joe | Bis(2-Ethylhexyl) Phthalate | 1.5 µg/L | 6 | 0.96 | 0.95 | 0.95 | 0.95 | 0.96 | 1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Bromoform | 15 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Port St. Joe | Cadmium | e(0.7409[lnH]-4.719) | 6 | 0.025 | 0.025 | 0.025 | 0.025 | 0.025 | 0.025 | 100.0 | 0 | 0.0 |
| Port St. Joe | Calcium | NA | 6 | 11.2 | 5.43 | 7.55 | 11.4 | 15.1 | 16.3 | 0.0 | 0 | 0.0 |
| Port St. Joe | Carbon Tetrachloride | 0.95 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Chlordane | 0.001 µg/L | 6 | 0.0095 | 0.0095 | 0.0095 | 0.0095 | 0.0095 | 0.0095 | 100.0 | 0 | 0.0 |
| Port St. Joe | Chloride | NA | 6 | 7.2 | 4.9 | 4.975 | 5.35 | 8.95 | 16 | 0.0 | 0 | 0.0 |
| Port St. Joe | Chlorobenzene | 110 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Chlorodibromomethane | 1.8 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Chloroform | 60 µg/L | 6 | 0.15 | 0.1 | 0.1 | 0.1 | 0.18 | 0.42 | 83.3 | 0 | 0.0 |
| Port St. Joe | Chlorophyll | NA | 6 | 4.075 | 2 | 2.45 | 4.025 | 5.65 | 6.4 | 0.0 | 0 | 0.0 |
| Port St. Joe | Chromium III | e(0.7409[lnH]-4.719) | 6 | 0.95 | 0.15 | 0.33 | 0.73 | 1.7 | 2.1 | 16.7 | 0 | 0.0 |
| Port St. Joe | Chrysene | 1.2 µg/L | 6 | 0.0958 | 0.095 | 0.095 | 0.095 | 0.0963 | 0.1 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port St. Joe | Copper | e(0.8545[lnH]-1.702) | 6 | 0.718 | 0.25 | 0.483 | 0.68 | 0.95 | 1.31 | 16.7 | 0 | 0.0 |
| Port St. Joe | DDT | 0.00015 µg/L | 6 | 0.00192 | 0.0019 | 0.0019 | 0.0019 | 0.00195 | 0.00195 | 100.0 | 0 | 0.0 |
| Port St. Joe | Dichlorobromomethane | 2.1 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Dieldrin | 0.0000054 µg/L | 6 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 100.0 | 0 | 0.0 |
| Port St. Joe | Diethyl phthalate | 780 µg/L | 3 | 0.485 | 0.485 | 0.485 | 0.485 | 0.485 | 0.485 | 100.0 | 0 | 0.0 |
| Port St. Joe | Dimethyl phthalate | 2400 µg/L | 3 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 100.0 | 0 | 0.0 |
| Port St. Joe | DO | NA | 2 | 7.08 | 7.08 | 0.000 | 7.08 | 0.000 | 7.08 | 0.0 | 0 | 0.0 |
| Port St. Joe | DO Sat | 38 % | 2 | 93 | 93 | 93 | 93 | 93 | 93 | 0 | 0 | 0.0 |
| Port St. Joe | Endosulfan I | 0.056 µg/L | 6 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 100.0 | 0 | 0.0 |
| Port St. Joe | Endosulfan Sulfate | 0.056 µg/L | 6 | 0.00192 | 0.0019 | 0.0019 | 0.0019 | 0.00195 | 0.00195 | 100.0 | 0 | 0.0 |
| Port St. Joe | Endrin | 0.0023 µg/L | 6 | 0.00192 | 0.0019 | 0.0019 | 0.0019 | 0.00195 | 0.00195 | 100.0 | 0 | 0.0 |
| Port St. Joe | Ethylbenzene | 80 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Port St. Joe | Fluoranthene | 18 µg/L | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Fluorene | 77 µg/L | 6 | 0.0958 | 0.095 | 0.095 | 0.095 | 0.0963 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Fluoride | 10 mg/L | 6 | 0.0608 | 0.048 | 0.0488 | 0.0605 | 0.0718 | 0.077 | 0.0 | 0 | 0.0 |
| Port St. Joe | Hardness | NA | 6 | 36.2 | 19.9 | 25 | 37.9 | 46.3 | 50.2 | 0.0 | 0 | 0.0 |
| Port St. Joe | Heptachlor | 0.000025 µg/L | 6 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 100.0 | 0 | 0.0 |
| Port St. Joe | Heptachlor Epoxide | 0.000098 µg/L | 6 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 100.0 | 0 | 0.0 |
| Port St. Joe | Hexachlorobutadiene | 0.018 µg/L | 3 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Port St. Joe | Hexachlorocyclopentadiene | 4.7 µg/L | 6 | 1.5 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Port St. Joe | Hexachloroethane | 0.24 µg/L | 6 | 1.5 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Port St. Joe | Indeno(1,2,3-cd)pyrene | 0.012 µg/L | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Iron | 1000 µg/L | 6 | 1040 | 190 | 468 | 790 | 1840 | 2220 | 0.0 | **2** | **33.3** |
| Port St. Joe | Isophorone | 76 µg/L | 6 | 0.48 | 0.47 | 0.47 | 0.49 | 0.49 | 0.5 | 100.0 | 0 | 0.0 |
| Port St. Joe | Kjeldahl Nitrogen | NA | 6 | 0.4 | 0.31 | 0.32 | 0.38 | 0.48 | 0.52 | 0.0 | 0 | 0.0 |
| Port St. Joe | Lead | e(0.7409[lnH]-4.719) | 6 | 0.43 | 0.1 | 0.1 | 0.32 | 0.85 | 0.88 | 33.3 | **2** | **33.3** |
| Port St. Joe | Lindane | 0.95 µg/L | 6 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 0.00095 | 100.0 | 0 | 0.0 |
| Port St. Joe | Magnesium | NA | 6 | 1.99 | 1.38 | 1.5 | 1.99 | 2.41 | 2.75 | 0.0 | 0 | 0.0 |
| Port St. Joe | Methoxychlor | 0.023 µg/L | 3 | 0.0047 | 0.0047 | 0.0047 | 0.0048 | 0.0048 | 0.0048 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port St. Joe | Methyl Bromide | 120 µg/L | 3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Methyl Chloride | 5.67 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Port St. Joe | Nickel | e(0.7409[lnH]-4.719) | 6 | 0.494 | 0.125 | 0.256 | 0.445 | 0.813 | 0.85 | 16.7 | 0 | 0.0 |
| Port St. Joe | Nitrate+Nitrite | NA | 6 | 0.105 | 0.002 | 0.002 | 0.0685 | 0.243 | 0.25 | 33.3 | 0 | 0.0 |
| Port St. Joe | Nitrate-N | NA | 6 | 0.12 | 0.025 | 0.025 | 0.088 | 0.25 | 0.26 | 33.3 | 0 | 0.0 |
| Port St. Joe | Nitrobenzene | 12 µg/L | 6 | 0.96 | 0.95 | 0.95 | 0.95 | 0.96 | 1 | 100.0 | 0 | 0.0 |
| Port St. Joe | N-Nitrosodimethylamine | NA | 6 | 0.96 | 0.95 | 0.95 | 0.95 | 0.96 | 1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Pentachlorophenol | 0.067 µg/L | 6 | 1.5 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 100.0 | 0 | 0.0 |
| Port St. Joe | pH | 6.0 - 8.5 units | 3 | 6.7 | 6.5 | 6.5 | 6.8 | 6.8 | 6.8 | 0.0 | 0 | 0.0 |
| Port St. Joe | Phenanthrene | NA | 6 | 0.096 | 0.095 | 0.095 | 0.095 | 0.096 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Phenol | 300 µg/L | 6 | 0.48 | 0.47 | 0.47 | 0.49 | 0.49 | 0.5 | 100.0 | 0 | 0.0 |
| Port St. Joe | Pyrene | 43 µg/L | 3 | 0.095 | 0.095 | 0.095 | 0.095 | 0.095 | 0.095 | 100.0 | 0 | 0.0 |
| Port St. Joe | Salinity | NA | 3 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.0 | 0 | 0.0 |
| Port St. Joe | Selenium | 5 µg/L | 6 | 0.12 | 0.1 | 0.1 | 0.1 | 0.13 | 0.21 | 83.3 | 0 | 0.0 |
| Port St. Joe | Silver | 0.07 µg/L | 6 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 100.0 | 0 | 0.0 |
| Port St. Joe | Specific Conductance | 1275 µmhos/cm | 2 | 112 | 112 | 0.000 | 112 | 0.000 | 112 | 0.0 | 0 | 0.0 |
| Port St. Joe | TDS | NA | 6 | 73.3 | 59 | 62.8 | 69.5 | 89 | 89 | 0.0 | 0 | 0.0 |
| Port St. Joe | Temperature | NA | 3 | 29.8 | 29.6 | 29.6 | 29.6 | 30.3 | 30.3 | 0.0 | 0 | 0.0 |
| Port St. Joe | Thallium | 1.7 µg/L | 6 | 0.06 | 0.05 | 0.05 | 0.05 | 0.065 | 0.11 | 83.3 | 0 | 0.0 |
| Port St. Joe | Toluene | 56 µg/L | 6 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Port St. Joe | Total Ammonia Nitrogen | Equation[7] | 6 | 0.039 | 0.003 | 0.0038 | 0.027 | 0.08 | 0.1 | 0.0 | 0 | 0.0 |
| Port St. Joe | Total Nitrogen | NA | 6 | 0.503 | 0.314 | 0.386 | 0.487 | 0.628 | 0.72 | 0.0 | 0 | 0.0 |
| Port St. Joe | Total Phosphorus | NA | 6 | 0.0183 | 0.007 | 0.0085 | 0.0175 | 0.0273 | 0.034 | 0.0 | 0 | 0.0 |
| Port St. Joe | Total Suspended Solids (TSS) | NA | 6 | 6.17 | 1 | 1.75 | 6 | 10 | 13 | 16.7 | 0 | 0.0 |
| Port St. Joe | Toxaphene | 0.0002 µg/L | 6 | 0.048 | 0.047 | 0.047 | 0.048 | 0.049 | 0.049 | 100.0 | 0 | 0.0 |
| Port St. Joe | Trichloroethylene | 1.3 /3.0 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Port St. Joe | Vinyl Chloride | 0.048 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Port St. Joe | Zinc | e(0.8473[lnH]+0.884) | 6 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 1,1,1-Trichloroethane | 12000 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tampa Bypass | 1,1,2,2-Tetrachloroethane | 0.35 µg/L | 3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 1,1,2-Trichloroethane | 1.2 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 1,1-Dichloroethylene | 300 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 1,2-Dichlorobenzene | 1400 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 1,2-Dichloroethane | 22 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 1,2-Dichloroethylene | 120 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 1,2-Dichloropropane | 2 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 1,3-Dichlorobenzene | 8.3 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 1,3-Dichloropropene | 0.59 µg/L | 6 | 0.14 | 0.1 | 0.1 | 0.14 | 0.18 | 0.18 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 1,4-Dichlorobenzene | 340 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 2,4,6-Trichlorophenol | 3.3 µg/L | 5 | 0.5 | 0.49 | 0.49 | 0.5 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 2,4-D | 1200 µg/L | 5 | 0.015 | 0.001 | 0.0075 | 0.014 | 0.023 | 0.028 | 20.0 | 0 | 0.0 |
| Tampa Bypass | 2,4-Dichlorophenol | 16 µg/L | 5 | 0.5 | 0.49 | 0.49 | 0.5 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 2,4-Dimethylphenol | 120 µg/L | 5 | 5 | 4.9 | 4.9 | 5 | 5 | 5 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 2,4-Dinitrophenol | 12 µg/L | 5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 2,4-Dinitrotoluene | 0.11 µg/L | 5 | 0.5 | 0.49 | 0.49 | 0.5 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 2-Chlorophenol | 30 µg/L | 5 | 0.5 | 0.49 | 0.49 | 0.5 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Tampa Bypass | 3,3'-Dichlorobenzidine | 0.11 µg/L | 5 | 19.9 | 19.5 | 19.5 | 20 | 20.3 | 20.5 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Acenaphthene | 110 µg/L | 6 | 0.088 | 0.03 | 0.083 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Acenaphthylene | NA | 6 | 0.088 | 0.03 | 0.083 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Air Temp C | NA | 221 | 26.4 | 8.2 | 22.5 | 27.7 | 31.1 | 37.1 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Aldrin | 0.0000038 µg/L | 5 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Alkalinity | 20 mg/L | 43 | 108 | 62 | 100 | 109 | 118 | 132 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Anthracene | 460 µg/L | 6 | 0.088 | 0.03 | 0.083 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Antimony | 2.4 µg/L | 6 | 0.642 | 0.125 | 0.125 | 0.425 | 1.32 | 1.49 | 33.3 | 0 | 0.0 |
| Tampa Bypass | Arsenic | 10 µg/L | 6 | 1.21 | 0.68 | 0.853 | 1.26 | 1.53 | 1.64 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Barium | 1000 µg/L | 6 | 9.74 | 7.36 | 7.73 | 9.56 | 11.7 | 12.7 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Benzene | 2 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Benzo(a)pyrene | 0.0012 µg/L | 6 | 0.088 | 0.03 | 0.083 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Benzo(b)fluoranthene | 0.012 µg/L | 6 | 0.088 | 0.03 | 0.083 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tampa Bypass | Benzo(k)fluoranthene | 0.12 µg/L | 6 | 0.088 | 0.03 | 0.083 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Beryllium | 11 µg/L | 6 | 0.0125 | 0.0125 | 0.0125 | 0.0125 | 0.0125 | 0.0125 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Bis(2-Chloroisopropyl) Ether | 240 µg/L | 5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Bis(2-Ethylhexyl) Phthalate | 1.5 µg/L | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | BOD | NA | 119 | 2.96 | 0.6 | 1.6 | 2.5 | 3.5 | 10.7 | 5.9 | 0 | 0.0 |
| Tampa Bypass | Bromoform | 15 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Cadmium | e(0.7409[lnH]-4.719) | 6 | 0.025 | 0.025 | 0.025 | 0.025 | 0.025 | 0.025 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Calcium | NA | 52 | 70 | 35 | 63.4 | 70.1 | 76.5 | 93 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Carbon Tetrachloride | 0.95 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Chlordane | 0.001 µg/L | 5 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.011 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Chloride | NA | 52 | 31.65 | 3.3 | 19 | 23 | 34.75 | 87 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Chlorobenzene | 110 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Chlorodibromomethane | 1.8 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Chloroform | 60 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Chlorophyll | NA | 299 | 36.31 | 0.425 | 13.9 | 27.5 | 43.85 | 327.1 | 6.7 | 0 | 0.0 |
| Tampa Bypass | Chromium III | e(0.7409[lnH]-4.719) | 6 | 0.23 | 0.15 | 0.15 | 0.15 | 0.27 | 0.61 | 83.3 | 0 | 0.0 |
| Tampa Bypass | Chrysene | 1.2 µg/L | 6 | 0.0883 | 0.03 | 0.0825 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Color | NA | 291 | 41.3 | 7.9 | 16.2 | 29.3 | 54.5 | 250 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Copper | e(0.8545[lnH]-1.702) | 6 | 0.417 | 0.25 | 0.25 | 0.25 | 0.725 | 0.8 | 66.7 | 0 | 0.0 |
| Tampa Bypass | DDT | 0.00015 µg/L | 5 | 0.002 | 0.00195 | 0.00198 | 0.002 | 0.00203 | 0.00205 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Dichlorobromomethane | 2.1 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Dieldrin | 0.0000054 µg/L | 5 | 0.00101 | 0.001 | 0.001 | 0.001 | 0.00103 | 0.00105 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Diethyl phthalate | 780 µg/L | 3 | 0.493 | 0.49 | 0.49 | 0.49 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Dimethyl phthalate | 2400 µg/L | 5 | 0.5 | 0.49 | 0.49 | 0.5 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Tampa Bypass | DO | NA | 325 | 6.48 | 0.68 | 4.91 | 6.72 | 8.17 | 16.1 | 0.0 | 0 | 0.0 |
| Tampa Bypass | DO Sat | 38 % | 325 | 77 | 10.3 | 59.3 | 78 | 94.7 | 194 | 0 | **36** | **11.1** |
| Tampa Bypass | Endosulfan I | 0.056 µg/L | 5 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.0011 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Endosulfan Sulfate | 0.056 µg/L | 5 | 0.002 | 0.00195 | 0.00198 | 0.002 | 0.00203 | 0.00205 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Endrin | 0.0023 µg/L | 5 | 0.002 | 0.00195 | 0.00198 | 0.002 | 0.00203 | 0.00205 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tampa Bypass | Ethylbenzene | 80 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Fecal Coliform | NA | 267 | 112.9 | 0.5 | 10 | 30 | 80 | 2800 | 24.7 | 0 | 0.0 |
| Tampa Bypass | Fluoranthene | 18 µg/L | 6 | 0.088 | 0.03 | 0.083 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Fluorene | 77 µg/L | 6 | 0.0883 | 0.03 | 0.0825 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Fluoride | 10 mg/L | 52 | 0.211 | 0.14 | 0.21 | 0.22 | 0.22 | 0.25 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Hardness | NA | 52 | 208 | 97.3 | 187 | 211 | 230 | 273 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Heptachlor | 0.000025 µg/L | 5 | 0.00101 | 0.001 | 0.001 | 0.001 | 0.00103 | 0.00105 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Heptachlor Epoxide | 0.000098 µg/L | 5 | 0.00101 | 0.001 | 0.001 | 0.001 | 0.00103 | 0.00105 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Hexachlorobutadiene | 0.018 µg/L | 5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Hexachlorocyclopentadiene | 4.7 µg/L | 5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Hexachloroethane | 0.24 µg/L | 5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Indeno(1,2,3-cd)pyrene | 0.012 µg/L | 6 | 0.088 | 0.03 | 0.083 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Iron | 1000 µg/L | 6 | 72.7 | 15 | 29.3 | 73.5 | 110 | 140 | 16.7 | 0 | 0.0 |
| Tampa Bypass | Isophorone | 76 µg/L | 5 | 0.5 | 0.49 | 0.49 | 0.5 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Kjeldahl Nitrogen | NA | 289 | 0.79 | 0.14 | 0.54 | 0.71 | 0.95 | 3 | 0.3 | 0 | 0.0 |
| Tampa Bypass | Lead | e(0.7409[lnH]-4.719) | 6 | 0.13 | 0.1 | 0.1 | 0.1 | 0.15 | 0.3 | 83.3 | 0 | 0.0 |
| Tampa Bypass | Lindane | 0.95 µg/L | 5 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.0011 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Magnesium | NA | 52 | 8.11 | 2.4 | 6.86 | 8.45 | 9.5 | 10.8 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Methoxychlor | 0.023 µg/L | 3 | 0.005 | 0.0049 | 0.0049 | 0.005 | 0.005 | 0.005 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Methyl Bromide | 120 µg/L | 3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Methyl Chloride | 5.67 µg/L | 6 | 0.18 | 0.1 | 0.1 | 0.18 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Nickel | e(0.7409[lnH]-4.719) | 6 | 0.515 | 0.42 | 0.428 | 0.53 | 0.59 | 0.59 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Nitrate+Nitrite | NA | 73 | 0.0359 | 0.002 | 0.005 | 0.009 | 0.0415 | 0.27 | 21.9 | 0 | 0.0 |
| Tampa Bypass | Nitrate-N | NA | 6 | 0.025 | 0.025 | 0.025 | 0.025 | 0.025 | 0.025 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Nitrobenzene | 12 µg/L | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | N-Nitrosodimethylamine | NA | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Pentachlorophenol | 0.067 µg/L | 5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 100.0 | 0 | 0.0 |
| Tampa Bypass | pH | 6.0 - 8.5 units | 337 | 7.9 | 6.7 | 7.6 | 8 | 8.2 | 9.4 | 0.0 | **29** | **8.6** |
| Tampa Bypass | Phenanthrene | NA | 6 | 0.088 | 0.03 | 0.083 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tampa Bypass | Phenol | 300 µg/L | 5 | 0.5 | 0.49 | 0.49 | 0.5 | 0.5 | 0.5 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Pyrene | 43 µg/L | 6 | 0.0883 | 0.03 | 0.0825 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Salinity | NA | 342 | 0.28 | 0.08 | 0.17 | 0.22 | 0.28 | 18 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Selenium | 5 µg/L | 6 | 0.16 | 0.1 | 0.1 | 0.16 | 0.22 | 0.22 | 50.0 | 0 | 0.0 |
| Tampa Bypass | Silver | 0.07 µg/L | 6 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Specific Conductance | 1275 µmhos/cm | 334 | 547 | 177 | 349 | 455 | 563 | 29700 | 0.0 | **1** | **0.3** |
| Tampa Bypass | Sulfate | NA | 46 | 90.5 | 43 | 66 | 80.5 | 92.5 | 267 | 0.0 | 0 | 0.0 |
| Tampa Bypass | TDS | NA | 51 | 285 | 86 | 259 | 292 | 310 | 349 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Temperature | NA | 346 | 24.4 | 11.6 | 20.9 | 25.1 | 28.2 | 32.3 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Thallium | 1.7 µg/L | 6 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Toluene | 56 µg/L | 6 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Total Ammonia Nitrogen | Equation[7] | 278 | 0.034 | 0.001 | 0.007 | 0.024 | 0.044 | 0.56 | 25.5 | 0 | 0.0 |
| Tampa Bypass | Total Nitrogen | NA | 344 | 0.806 | 0.269 | 0.546 | 0.75 | 0.979 | 3.02 | 0.0 | 0 | 0.0 |
| Tampa Bypass | Total Phosphorus | NA | 346 | 0.153 | 0.01 | 0.0768 | 0.118 | 0.18 | 1.07 | 0.3 | 0 | 0.0 |
| Tampa Bypass | Total Suspended Solids (TSS) | NA | 53 | 5.32 | 1 | 2 | 4 | 8 | 20 | 41.5 | 0 | 0.0 |
| Tampa Bypass | Toxaphene | 0.0002 µg/L | 5 | 0.05 | 0.049 | 0.049 | 0.05 | 0.05 | 0.05 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Trichloroethylene | 1.3 /3.0 µg/L | 6 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Turbidity | 29 NTU above background | 255 | 6.08 | 0.8 | 2.8 | 3.9 | 5.5 | 133 | 0.0 | **4** | **1.6** |
| Tampa Bypass | Vinyl Chloride | 0.048 µg/L | 3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 0 | 0.0 |
| Tampa Bypass | Zinc | e(0.8473[lnH]+0.884) | 6 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 100.0 | 0 | 0.0 |
| Taylor Creek | 1,1,1-Trichloroethane | 12000 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | 1,1,2,2-Tetrachloroethane | 0.35 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | 1,1,2-Trichloroethane | 1.2 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | 1,1-Dichloroethylene | 300 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | 1,2-Dichlorobenzene | 1400 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | 1,2-Dichloroethane | 22 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | 1,2-Dichloroethylene | 120 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | 1,2-Dichloropropane | 2 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | 1,3-Dichlorobenzene | 8.3 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Taylor Creek | 1,3-Dichloropropene | 0.59 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 200.0 | 0 | 0.0 |
| Taylor Creek | 1,4-Dichlorobenzene | 340 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | 2,4,6-Trichlorophenol | 3.3 µg/L | 2 | 0.49 | 0.49 | 0.00 | 0.49 | 0.00 | 0.49 | 100.0 | 0 | 0.0 |
| Taylor Creek | 2,4-D | 1200 µg/L | 2 | 0.001 | 0.001 | 0.00 | 0.001 | 0.00 | 0.001 | 100.0 | 0 | 0.0 |
| Taylor Creek | 2,4-Dichlorophenol | 16 µg/L | 2 | 0.49 | 0.49 | 0.00 | 0.49 | 0.00 | 0.49 | 100.0 | 0 | 0.0 |
| Taylor Creek | 2,4-Dimethylphenol | 120 µg/L | 2 | 4.9 | 4.9 | 0.00 | 4.9 | 0.00 | 4.9 | 100.0 | 0 | 0.0 |
| Taylor Creek | 2,4-Dinitrotoluene | 0.11 µg/L | 2 | 0.49 | 0.49 | 0.00 | 0.49 | 0.00 | 0.49 | 100.0 | 0 | 0.0 |
| Taylor Creek | 2-Chlorophenol | 30 µg/L | 2 | 0.49 | 0.49 | 0.00 | 0.49 | 0.00 | 0.49 | 100.0 | 0 | 0.0 |
| Taylor Creek | 3,3'-Dichlorobenzidine | 0.11 µg/L | 2 | 19.5 | 19.5 | 0.000 | 19.5 | 0.000 | 19.5 | 100.0 | 0 | 0.0 |
| Taylor Creek | Acenaphthene | 110 µg/L | 2 | 0.095 | 0.095 | 0.00 | 0.095 | 0.00 | 0.095 | 100.0 | 0 | 0.0 |
| Taylor Creek | Acenaphthylene | NA | 2 | 0.095 | 0.095 | 0.00 | 0.095 | 0.00 | 0.095 | 100.0 | 0 | 0.0 |
| Taylor Creek | Air Temp C | NA | 10 | 26.6 | 22 | 22.8 | 28 | 29.5 | 31 | 0.0 | 0 | 0.0 |
| Taylor Creek | Aldrin | 0.0000038 µg/L | 2 | 0.001 | 0.001 | 0.0 | 0.001 | 0.0 | 0.001 | 100.0 | 0 | 0.0 |
| Taylor Creek | Alkalinity | 20 mg/L | 10 | 14.3 | 12 | 12 | 14.5 | 16 | 16 | 0.0 | 0 | 0.0 |
| Taylor Creek | Anthracene | 460 µg/L | 2 | 0.095 | 0.095 | 0.00 | 0.095 | 0.00 | 0.095 | 100.0 | 0 | 0.0 |
| Taylor Creek | Antimony | 2.4 µg/L | 2 | 0.125 | 0.125 | 0.000 | 0.125 | 0.000 | 0.125 | 100.0 | 0 | 0.0 |
| Taylor Creek | Arsenic | 10 µg/L | 2 | 0.315 | 0.29 | 0.000 | 0.315 | 0.000 | 0.34 | 0.0 | 0 | 0.0 |
| Taylor Creek | Barium | 1000 µg/L | 2 | 5.99 | 5.96 | 0.000 | 5.99 | 0.000 | 6.01 | 0.0 | 0 | 0.0 |
| Taylor Creek | Benzene | 2 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | Benzo(a)pyrene | 0.0012 µg/L | 2 | 0.095 | 0.095 | 0.00 | 0.095 | 0.00 | 0.095 | 100.0 | 0 | 0.0 |
| Taylor Creek | Benzo(b)fluoranthene | 0.012 µg/L | 2 | 0.095 | 0.095 | 0.00 | 0.095 | 0.00 | 0.095 | 100.0 | 0 | 0.0 |
| Taylor Creek | Benzo(k)fluoranthene | 0.12 µg/L | 2 | 0.095 | 0.095 | 0.00 | 0.095 | 0.00 | 0.095 | 100.0 | 0 | 0.0 |
| Taylor Creek | Beryllium | 11 µg/L | 2 | 0.0125 | 0.0125 | 0.000 | 0.0125 | 0.000 | 0.0125 | 100.0 | 0 | 0.0 |
| Taylor Creek | Bis(2-Chloroisopropyl) Ether | 240 µg/L | 2 | 1.5 | 1.5 | 0.00 | 1.5 | 0.00 | 1.5 | 100.0 | 0 | 0.0 |
| Taylor Creek | Bis(2-Ethylhexyl) Phthalate | 1.5 µg/L | 2 | 0.95 | 0.95 | 0.00 | 0.95 | 0.00 | 0.95 | 100.0 | 0 | 0.0 |
| Taylor Creek | BOD | NA | 8 | 1.04 | 0.73 | 0.771 | 0.88 | 1.21 | 2 | 0.0 | 0 | 0.0 |
| Taylor Creek | Bromoform | 15 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | Cadmium | e(0.7409[lnH]-4.719) | 2 | 0.025 | 0.025 | 0.000 | 0.025 | 0.000 | 0.025 | 100.0 | 0 | 0.0 |
| Taylor Creek | Calcium | NA | 2 | 8 | 7.83 | 0.000 | 8 | 0.000 | 8.16 | 0.0 | 0 | 0.0 |
| Taylor Creek | Carbon Tetrachloride | 0.95 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Taylor Creek | Chlordane | 0.001 µg/L | 2 | 0.0098 | 0.0095 | 0.00 | 0.0098 | 0.00 | 0.01 | 100.0 | 0 | 0.0 |
| Taylor Creek | Chloride | NA | 49 | 10.82 | 7.06 | 8.6 | 11 | 13 | 16.2 | 0.0 | 0 | 0.0 |
| Taylor Creek | Chlorobenzene | 110 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | Chlorodibromomethane | 1.8 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | Chloroform | 60 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | Chlorophyll | NA | 12 | 6.476 | 0.74 | 1.925 | 4.5 | 9.175 | 21 | 0.0 | 0 | 0.0 |
| Taylor Creek | Chromium III | e(0.7409[lnH]-4.719) | 2 | 0.15 | 0.15 | 0.00 | 0.15 | 0.00 | 0.15 | 100.0 | 0 | 0.0 |
| Taylor Creek | Chrysene | 1.2 µg/L | 2 | 0.095 | 0.095 | 0.000 | 0.095 | 0.000 | 0.095 | 100.0 | 0 | 0.0 |
| Taylor Creek | Color | NA | 10 | 216 | 150 | 188 | 218 | 250 | 290 | 0.0 | 0 | 0.0 |
| Taylor Creek | Copper | e(0.8545[lnH]-1.702) | 2 | 0.25 | 0.25 | 0.000 | 0.25 | 0.000 | 0.25 | 100.0 | 0 | 0.0 |
| Taylor Creek | Dichlorobromomethane | 2.1 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | Dieldrin | 0.0000054 µg/L | 2 | 0.000975 | 0.00095 | 0.000 | 0.000975 | 0.000 | 0.001 | 100.0 | 0 | 0.0 |
| Taylor Creek | Diethyl phthalate | 780 µg/L | 2 | 0.485 | 0.485 | 0.000 | 0.485 | 0.000 | 0.485 | 100.0 | 0 | 0.0 |
| Taylor Creek | Dimethyl phthalate | 2400 µg/L | 2 | 0.49 | 0.49 | 0.00 | 0.49 | 0.00 | 0.49 | 100.0 | 0 | 0.0 |
| Taylor Creek | DO | NA | 47 | 6.37 | 0.6 | 5 | 6.8 | 7.8 | 8.9 | 0.0 | 0 | 0.0 |
| Taylor Creek | DO Sat | 38 % | 47 | 81.1 | 7.28 | 68.3 | 84.6 | 91.8 | 271 | 0 | **4** | **8.5** |
| Taylor Creek | Endosulfan I | 0.056 µg/L | 2 | 0.00098 | 0.00095 | 0.00 | 0.00098 | 0.00 | 0.001 | 100.0 | 0 | 0.0 |
| Taylor Creek | Endosulfan Sulfate | 0.056 µg/L | 2 | 0.00195 | 0.0019 | 0.000 | 0.00195 | 0.000 | 0.002 | 100.0 | 0 | 0.0 |
| Taylor Creek | Ethylbenzene | 80 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | Fecal Coliform | NA | 2 | 1 | 1 | 0.0000 | 1 | 0.0000 | 1 | 100.0 | 0 | 0.0 |
| Taylor Creek | Fluoranthene | 18 µg/L | 2 | 0.095 | 0.095 | 0.00 | 0.095 | 0.00 | 0.095 | 100.0 | 0 | 0.0 |
| Taylor Creek | Fluorene | 77 µg/L | 2 | 0.095 | 0.095 | 0.000 | 0.095 | 0.000 | 0.095 | 100.0 | 0 | 0.0 |
| Taylor Creek | Fluoride | 10 mg/L | 12 | 0.0416 | 0.0385 | 0.0393 | 0.0405 | 0.0428 | 0.05 | 0.0 | 0 | 0.0 |
| Taylor Creek | Hardness | NA | 2 | 27.5 | 27 | 0.000 | 27.5 | 0.000 | 28 | 0.0 | 0 | 0.0 |
| Taylor Creek | Heptachlor | 0.000025 µg/L | 2 | 0.000975 | 0.00095 | 0.000 | 0.000975 | 0.000 | 0.001 | 100.0 | 0 | 0.0 |
| Taylor Creek | Heptachlor Epoxide | 0.000098 µg/L | 2 | 0.000975 | 0.00095 | 0.000 | 0.000975 | 0.000 | 0.001 | 100.0 | 0 | 0.0 |
| Taylor Creek | Hexachlorocyclopentadiene | 4.7 µg/L | 2 | 1.5 | 1.5 | 0.00 | 1.5 | 0.00 | 1.5 | 100.0 | 0 | 0.0 |
| Taylor Creek | Hexachloroethane | 0.24 µg/L | 2 | 1.5 | 1.5 | 0.00 | 1.5 | 0.00 | 1.5 | 100.0 | 0 | 0.0 |
| Taylor Creek | Indeno(1,2,3-cd)pyrene | 0.012 µg/L | 2 | 0.095 | 0.095 | 0.00 | 0.095 | 0.00 | 0.095 | 100.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Taylor Creek | Iron | 1000 µg/L | 2 | 245 | 240 | 0.000 | 245 | 0.000 | 250 | 0.0 | 0 | 0.0 |
| Taylor Creek | Isophorone | 76 µg/L | 2 | 0.49 | 0.49 | 0.00 | 0.49 | 0.00 | 0.49 | 100.0 | 0 | 0.0 |
| Taylor Creek | Kjeldahl Nitrogen | NA | 12 | 0.88 | 0.77 | 0.79 | 0.85 | 0.9 | 1.2 | 0.0 | 0 | 0.0 |
| Taylor Creek | Lead | e(0.7409[lnH]-4.719) | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | Lindane | 0.95 µg/L | 2 | 0.00098 | 0.00095 | 0.00 | 0.00098 | 0.00 | 0.001 | 100.0 | 0 | 0.0 |
| Taylor Creek | Magnesium | NA | 2 | 1.84 | 1.82 | 0.000 | 1.84 | 0.000 | 1.85 | 0.0 | 0 | 0.0 |
| Taylor Creek | Methoxychlor | 0.023 µg/L | 2 | 0.0049 | 0.0048 | 0.00 | 0.0049 | 0.00 | 0.005 | 100.0 | 0 | 0.0 |
| Taylor Creek | Methyl Chloride | 5.67 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | Nickel | e(0.7409[lnH]-4.719) | 2 | 0.313 | 0.125 | 0.000 | 0.313 | 0.000 | 0.5 | 50.0 | 0 | 0.0 |
| Taylor Creek | Nitrate+Nitrite | NA | 12 | 0.0546 | 0.002 | 0.029 | 0.057 | 0.0729 | 0.11 | 8.3 | 0 | 0.0 |
| Taylor Creek | Nitrobenzene | 12 µg/L | 2 | 0.95 | 0.95 | 0.00 | 0.95 | 0.00 | 0.95 | 100.0 | 0 | 0.0 |
| Taylor Creek | N-Nitrosodimethylamine | NA | 2 | 0.95 | 0.95 | 0.00 | 0.95 | 0.00 | 0.95 | 100.0 | 0 | 0.0 |
| Taylor Creek | Pentachlorophenol | 0.067 µg/L | 2 | 1.5 | 1.5 | 0.00 | 1.5 | 0.00 | 1.5 | 100.0 | 0 | 0.0 |
| Taylor Creek | pH | 6.0 - 8.5 units | 49 | 6.7 | 6 | 6.5 | 6.7 | 7 | 7.5 | 0.0 | 0 | 0.0 |
| Taylor Creek | Phenanthrene | NA | 2 | 0.095 | 0.095 | 0.00 | 0.095 | 0.00 | 0.095 | 100.0 | 0 | 0.0 |
| Taylor Creek | Phenol | 300 µg/L | 2 | 0.49 | 0.49 | 0.00 | 0.49 | 0.00 | 0.49 | 100.0 | 0 | 0.0 |
| Taylor Creek | Pyrene | 43 µg/L | 2 | 0.095 | 0.095 | 0.000 | 0.095 | 0.000 | 0.095 | 100.0 | 0 | 0.0 |
| Taylor Creek | Salinity | NA | 42 | 0.04 | 0.02 | 0.04 | 0.04 | 0.04 | 0.06 | 0.0 | 0 | 0.0 |
| Taylor Creek | Selenium | 5 µg/L | 2 | 0.16 | 0.1 | 0.00 | 0.16 | 0.00 | 0.22 | 50.0 | 0 | 0.0 |
| Taylor Creek | Silver | 0.07 µg/L | 2 | 0.013 | 0.013 | 0.00 | 0.013 | 0.00 | 0.013 | 100.0 | 0 | 0.0 |
| Taylor Creek | Specific Conductance | 1275 µmhos/cm | 49 | 73.5 | 34 | 63 | 79 | 85 | 118 | 0.0 | 0 | 0.0 |
| Taylor Creek | Sulfate | NA | 10 | 1.68 | 1.25 | 1.48 | 1.7 | 1.85 | 2.1 | 0.0 | 0 | 0.0 |
| Taylor Creek | TDS | NA | 49 | 75.8 | 53 | 67.5 | 74 | 85.5 | 100 | 0.0 | 0 | 0.0 |
| Taylor Creek | Temperature | NA | 49 | 26.7 | 15.7 | 21.2 | 26.6 | 28.8 | 115 | 0.0 | 0 | 0.0 |
| Taylor Creek | Thallium | 1.7 µg/L | 2 | 0.05 | 0.05 | 0.00 | 0.05 | 0.00 | 0.05 | 100.0 | 0 | 0.0 |
| Taylor Creek | Toluene | 56 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | Total Ammonia Nitrogen | Equation[7] | 12 | 0.027 | 0.004 | 0.011 | 0.018 | 0.034 | 0.085 | 0.0 | 0 | 0.0 |
| Taylor Creek | Total Nitrogen | NA | 12 | 0.936 | 0.802 | 0.877 | 0.9 | 0.928 | 1.26 | 0.0 | 0 | 0.0 |
| Taylor Creek | Total Phosphorus | NA | 12 | 0.0688 | 0.047 | 0.0483 | 0.0635 | 0.0798 | 0.11 | 0.0 | 0 | 0.0 |

| Reclassification Area | Parameter | Class I-Treated Criteria | Count | Average Result | Min Result | 25th Percentile | Median Result | 75th Percentile | Max Result | % Non-Detect | Number of Exceed Class I-Treated | % Exceed Class I-Treated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Taylor Creek | Total Suspended Solids (TSS) | NA | 12 | 3.04 | 2 | 2.13 | 3 | 4 | 4 | 0.0 | 0 | 0.0 |
| Taylor Creek | Toxaphene | 0.0002 µg/L | 2 | 0.049 | 0.048 | 0.00 | 0.049 | 0.00 | 0.05 | 100.0 | 0 | 0.0 |
| Taylor Creek | Trichloroethylene | 1.3 /3.0 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | Turbidity | 29 NTU above background | 10 | 1.51 | 0.95 | 1.1 | 1.2 | 1.33 | 4.4 | 0.0 | 0 | 0.0 |
| Taylor Creek | Vinyl Chloride | 0.048 µg/L | 2 | 0.1 | 0.1 | 0.00 | 0.1 | 0.00 | 0.1 | 100.0 | 0 | 0.0 |
| Taylor Creek | Zinc | e(0.8473[lnH]+0.884) | 2 | 2.5 | 2.5 | 0.00 | 2.5 | 0.00 | 2.5 | 100.0 | 0 | 0.0 |

[1] For complete description of all water quality criteria see Chapter 62-302, F.A.C.
[2] For parameters with 100% of values below detect, variations in the summary statistics reflect differing mdl values among samples.
[3] Assessment of criteria exceedances based on criteria applicable upon reclassification to Class II
[4] Two part criteria: annual average criteria / single sample maximum criteria.
[5] No criteria for parameter in Class III waters.
[6] Two part criteria: monthly average criteria / single sample maximum criteria.
[7] TAN Criterion = 0.8876x((0.0278/(1+10^(7.688-pH)))+(1.1994/(1+10^(pH-7.688))))x2.126x10^(0.028*(20-MAX(Temp,7)))

# Appendix B: Rule Evaluation Table.

**Table B-1. Department rule evaluation of reclassification effects.**

| Rule Chapter | Pertinent Rule Sections | Possible Sources Affected by Reclassification | Effects |
|---|---|---|---|
| **Chapter 62-4, Permits** | Rule 62-4.244, Mixing Zones: Surface Waters | Wastewater facilities | Rule 62-4.244 was evaluated, and it was determined that this section will not affect the Class III to Class I reclassification effort due to the fact that entities are already required to consider the location of drinking water intakes when establishing a mixing zone, regardless of the classification. |
| **Chapter 62-25, Regulations of Stormwater Discharge** | Rule 62-25.001, Scope | Stormwater discharge facilities | Rule 62-25.001 includes a provision stating that "the Department shall prevent pollution of waters of the state by discharges of stormwater, to ensure that the designated most beneficial use of waters, as prescribed by Chapter 62-302, are protected." Facilities that discharge stormwater have to ensure that their discharges would not violate the more stringent water quality criteria if their receiving waters were reclassified from Class III to Class I/Class I-Treated. |
| **Chapter 62-25, Regulations of Stormwater Discharge** | Rule 62-25.025, Design and Performance Standards | Stormwater discharge facilities | Rule 62-25.025 includes a provision stating that "no discharge from a stormwater discharge facility shall cause or contribute to a violation of water quality standards in waters of the state." Facilities that discharge stormwater have to ensure that their discharges would not violate the more stringent water quality criteria if their receiving waters were reclassified from Class III to Class I-Treated. |
| **Chapter 62-330, Environmental Resource Permitting** | Rule 62-330.0511, No-Fee Noticed Exemptions for Construction, Operation, Maintenance, Alteration, Abandonment, or Removal of Minor Silvicultural Surface Water Management Systems | Silvicultural operations | For above-grade, unpaved, upland silvicultural roads with an average road surface width of 28 feet within a construction corridor up to 50 feet in width, the width of the buffer strip shall be no less than 35 feet, or 50 feet when located adjacent to an OFW, an Outstanding National Resource Water, or Class I waters.<br><br>Thus, the effect of this section of Chapter 62-330 is that, to qualify for the no-fee noticed exemption for above-grade, unpaved, upland silvicultural roads with an average road surface width of 28 feet in a construction corridor up to 50 feet in width, the buffer strip adjacent must be extended from 35 to 50 feet (a 15-foot difference) if a waterbody is reclassified from Class III to Class I-Treated. |

| **RULE CHAPTER** | **PERTINENT RULE SECTIONS** | **POSSIBLE SOURCES AFFECTED BY RECLASSIFICATION** | **EFFECTS** |
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| **Chapter 62-330, Environmental Resource Permitting** | Rule 62-330.447, General Permit to the Florida Department of Transportation, Counties, and Municipalities for Minor Activities within Existing Rights- of-Way or Easements | FDOT, counties, municipalities | This general permit does not apply to ditch construction in Class I surface waters. Therefore, individuals/entities intending to utilize this permit for ditch construction in Class III waters would no longer be able to use this permit if their project fell in a Class III water that was reclassified to Class I-Treated. |
| **Chapter 62-330, Environmental Resource Permitting** | Rule 62-330.453, General Permit for Installation, Maintenance, Repair, and Removal of Utility Lines | Cities, counties, utility providers | This general permit is not available for the installation, maintenance, repair, and removal of underground utility lines, cable, conduit, or pipeline transmitting electricity, communication signals, potable water, reclaimed water, domestic wastewater, propane gas, or natural gas in Class I waters. Entities engaging in these activities would be required to get an individual permit in areas that are reclassified from Class III to Class I-Treated. |
| **Chapter 62-330, Environmental Resource Permitting** | Rule 62-330.455, General Permit for the Construction of Aerial Pipeline, Cable, and Conduit Crossings of Certain Waters | Cities, counties, developers | This general permit is not available for the construction of aerial or piling-supported pipeline, cable, or conduit crossing of a waterbody having a width no greater than 25 feet in, on, or over Class I waters if there is conveyance of petroleum, domestic wastewater, phosphate matrix slurry, phosphatic clay or sand tailings, recirculated water from beneficiation processes, or other substances which, if leaked, could contaminate drinking water supplies. Entities engaging in these activities would be required to get an individual permit in areas that are reclassified from Class III to Class I-Treated. |
| **Chapter 62-330, Environmental Resource Permitting** | Rule 62-330.457, General Permit for Subaqueous Utility Crossings of Artificial Waterways | Providers that need to cross artificial waterways | This general permit for constructing, repairing, or replacing a subaqueous utility crossing of artificial waters and canal systems is not available for crossings located in Class I waters if the utility line conveys petroleum, domestic wastewater, phosphate matrix slurry, phosphatic clay or sand tailings, recirculated water from beneficiation processes, or other substances which, if leaked, could contaminate drinking water supplies. Entities engaging in these activities would be required to get an individual permit in areas that are reclassified from Class III to Class I-Treated. |
| **Chapter 62-330, Environmental Resource Permitting** | Rule 62-330.492, General Permit for Prospecting for Limestone, Sand, and Peat | Mining industry | This general permit for prospecting for limestone, sand, and peat in wetlands is not available for Class I waters, and as such, entities engaging in these activities would be required to get an individual permit in areas that are reclassified from Class III to Class I-Treated. |
| **Chapter 62-330, Environmental Resource Permitting** | Rule 62-330.493, General Permit to Perform Prospecting Activities for Phosphate Minerals | Mining industry | This general permit for entities engaging in or proposing to engage in the mining of phosphatic ore to perform prospecting activities for phosphate minerals in wetlands and other surface waters is not available in Class I waters, and as such, entities engaging in these activities would be required to get an individual permit in areas that are reclassified from Class III to Class I-Treated. |

| RULE CHAPTER | PERTINENT RULE SECTIONS | POSSIBLE SOURCES AFFECTED BY RECLASSIFICATION | EFFECTS |
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| **Chapter 62-330, Environmental Resource Permitting** | Rule 62-330.494, General Permit for Temporary Dragline Crossings of Waterways for Mining Activities | Mining industry | This general permit for the construction of temporary dragline crossings within certain wetlands and other surface waters for entities engaging in or proposing to engage in the mining of a phosphatic ore is not available in Class I waters, and as such, entities engaging in these activities would be required to get an individual permit in areas that are reclassified from Class III to Class I-Treated. |
| **Chapter 62-330, Environmental Resource Permitting** | Rule 62-330.495, General Permit for Low Water Crossings for Mining Activities | Mining industry | This general permit to move equipment and vehicles, excluding dredges, through and across wetlands or other surface waters during periods of low water for entities engaging in or proposing to engage in the mining of a mineralized nonmetallic ore, is not available in Class I waters, and as such, entities engaging in these activities would be required to get an individual permit in areas that are reclassified from Class III to Class I-Treated. |
| **Chapter 62-600, Domestic Wastewater Facilities** | Rule 62-600.510, Discharge to Surface Waters (Excluding Ocean Outfalls) | Domestic wastewater facilities | Discharge of reclaimed water to Class I surface waters, or to waters contiguous to or tributary to Class I waters, shall meet the requirements of Rules 62-610.550 through 62-610.575 unless otherwise established in subsection 62-600.510 (2), F.A.C. Thus, facilities discharging to waters reclassified from Class III to Class I-Treated would need to comply with the facility reliability, disinfection and storage requirements outlined in Rules 62-610.550 through 62-610.575. |
| **Chapter 62-600, Domestic Wastewater Facilities** | Rule 62-600.740, Reporting, Compliance, and Enforcement | Domestic wastewater facilities | All domestic wastewater facilities must already meet the requirements of Rule 62-600.740; therefore, this section will not have an impact on reclassification efforts. |
| **Chapter 62-610, Reuse of Reclaimed Water and Land Application** | Rule 62-610.421, Setback Distances (Slow-Rate Land Application Systems; Restricted Public Access) | Domestic wastewater facilities | For slow-rate land application systems, a 500-foot setback distance must be provided from the edge of the wetted area to Class I surface waters. This distance will be reduced to 200 feet if Class I reliability is provided in accordance with Subsection 62-610.462(1). This distance will be reduced to 100 feet if Class I reliability is provided in accordance with Subsection 62-610.462(1), and if high-level disinfection is provided. Rule 62-610.421 was evaluated, and it was determined that this section will not affect any of the areas under evaluation for Class I-Treated reclassification due to the fact that no slow-rate land applications exist within 500 feet of these areas. |
| **Chapter 62-610, Reuse of Reclaimed Water and Land Application** | Rule 62-610.521, Setback Distances (Rapid Infiltration Basins and Absorption Fields) | Domestic wastewater facilities | For RIBs and absorption fields, a setback distance of 500 feet must be provided from the edge of the RIB, percolation pond, basin, or trench embankments, or from the edge of an absorption field to Class I surface waters. The setback distance to Class I surface waters will be reduced to 100 feet if high-level disinfection is provided. Rule 62-610.521 was evaluated, and it was determined that this section will not affect any of the areas under evaluation for Class I-Treated reclassification due to the fact that no RIBs or absorption fields exist within 500 feet of these areas. |

| RULE CHAPTER | PERTINENT RULE SECTIONS | POSSIBLE SOURCES AFFECTED BY RECLASSIFICATION | EFFECTS |
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| **Chapter 62-610, Reuse of Reclaimed Water and Land Application** | Part V Groundwater Recharge and Indirect Potable Reuse Chapter 62-610.550- 62-610.575 | Domestic wastewater facilities | Part V of Chapter 62-610, F.A.C., contains the specific requirements for domestic wastewater facilities that discharge to Class I or contiguous or tributary to Class I Waters associated with elements such as but not limited to Class I reliability, disinfection requirements, setback distances. Requirements for facilities discharging directly to or contiguous or tributary to Class I waters would also be applicable to waters reclassified or classified as Class I-Treated. Please see Part V of Chapter 62-610, F.A.C for all specific requirements. |
| **Chapter 62-610, Reuse of Reclaimed Water and Land Application** | Rule 62-610.860, Limited Wet Weather Discharge (permitting) | Domestic wastewater facilities | Rule 62-610.860 was evaluated, and it was determined that it will not affect areas under evaluation for reclassification due to the fact that no facilities that engage in limited wet-weather discharge are located within a 24-hour travel time from Class III areas being proposed for reclassification to Class I-Treated. |
| **Chapter 62-620, Wastewater Facility and Activities Permitting** | Rule 62-620.610, General Conditions for all Permits | Domestic and industrial wastewater facilities | Rule 62-620.610 contains a provision expressing that "unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard." Therefore, if upgraded designated uses are adopted for the areas proposed for Class III to Class I-Treated reclassification, wastewater facilities covered under this rule would be given a reasonable time to comply with new and or more stringent standards associated with the upgraded designated uses. |

| RULE CHAPTER | PERTINENT RULE SECTIONS | POSSIBLE SOURCES AFFECTED BY RECLASSIFICATION | EFFECTS |
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| **Chapter 62-624, Municipal Separate Storm Sewer Systems** | Rule 62-624.800, Regulated Phase II MS4s | MS4s, Phase II MS4s | According to Rule 62-624, the Department may designate a Phase II MS4 as a regulated Phase II MS4 if the Phase II MS4 lies outside an urbanized area, serves a jurisdiction with a population density of at least 1,000 people per square mile and a population of at least 10,000; and the MS4 discharges into Class I waters.<br><br>The department concluded that, with a few exceptions, all of the areas being proposed for reclassification to Class I-Treated lie within a current regulated Phase II or Phase I (dense urban areas such as Miami, Jacksonville) MS4. The city of LaBelle's stormwater system may potentially discharge into the Caloosahatchee River Class I-Treated reclassification area; however, the city has a population less than 10,000 (4,640 as of the 2010 Census) and therefore would not be designated as a regulated Phase II MS4. The Port St. Joe and Peace River Class I-Treated reclassification areas are located in sparsely populated areas of the state; therefore, there are no stormwater systems in these areas to be affected.<br><br>There are no Class I specific requirements for MS4s. If an MS4 discharges to an impaired water, the MS4 may be required to implement restoration actions once a TMDL is developed for the waterbody. If a TMDL is approved, a Phase II MS4 permittee must review their stormwater management program (SWMP) for consistency with the TMDL allocation However, the evaluation of existing data indicates that the proposed reclassification of the seven identified waters from Class III to Class I-Treated will not result in any additional impairments, therefore, the proposed reclassifications are not expected to impact MS4s. |
| **Chapter 62-640, Biosolids** | Rule 62-640.700, Requirements for Land Application of Class AA, A, and B Biosolids | Domestic wastewater facilities | Rule 62-640.700 requires that the biosolid land application zone for Class A or B biosolids must not be located closer than 1,000 feet to any Class I waterbody, OFW, or Outstanding National Resource Water, or 200 feet from any other surface water of the state as defined in Chapter 403.031, F.S. Rule 62-640.700 was evaluated, and it was determined that this section will not affect the reclassification effort because there are no current Class A or Class B biosolid land application sites within 1,000 feet of the proposed Class I reclassification areas. If this upgraded designated use is adopted for the proposed Class I-Treated areas, Class A or Class B biosolid land application would be prohibited within 1,000 feet of these areas. |

| RULE CHAPTER | PERTINENT RULE SECTIONS | POSSIBLE SOURCES AFFECTED BY RECLASSIFICATION | EFFECTS |
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| **Chapter 62-660, Industrial Wastewater Facilities** | Rule 62-660.400, Effluent Limitations | Industrial wastewater facilities | Rule 62-660.400 states that *"pursuant to Sections 403.087 and 403.088, F.S., no wastes shall be discharged into waters of the state which will violate applicable state water quality standards or reduce the quality of the receiving waters below the criteria established for its respective classification contained in Chapter 62-302, F.A.C."* Therefore, industrial wastewater facilities must ensure that, if located in or upstream of areas being proposed for reclassification from Class III to Class I-Treated, their discharges will not violate the surface water standards associated with the upgraded designated uses of these waters. |
| **Chapter 62-660, Industrial Wastewater Facilities** | Rule 62-660.805, General Permit for Disposal of Tomato Wash Water | Industrial wastewater facilities | Rule 62-660.805 contains a provision regarding the land application of tomato wash water stating that the wetted perimeter must not be located within 100 feet of shallow water supply wells or Class I surface waters. Rule 62-660.805 was evaluated, and it was determined that this section and determined that there will be no effect because there were no tomato wash water application sites within 100 feet of the areas proposed for reclassification to Class I-Treated. |
| **Chapter 62-660, Industrial Wastewater Facilities** | Rule 62-660.806, General Permit for Disposal of Fresh Citrus Wash Water | Industrial wastewater facilities | Rule 62-660.806 contains a provision regarding sprayfield land application of fresh citrus wash water stating that a minimum setback distance of 500 feet shall be maintained between the wetted perimeter and Class I surface waters. Rule 62-660.806 was evaluated, and it was determined that this section will not affect the proposed Class III to Class I-Treated reclassifications. The application of fresh citrus fruit wash water did not exist within 500 feet of the areas being proposed for reclassification. |

| RULE CHAPTER | PERTINENT RULE SECTIONS | POSSIBLE SOURCES AFFECTED BY RECLASSIFICATION | EFFECTS |
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| **Chapter 62-673, Phosphogypsum Management** | Rule 62-673.340, Phosphogypsum Stack System General Criteria | Phosphate mining industry | The following provisions are contained in Section 62-673.340:<br><br>**Performance standards:** *"A phosphogypsum stack system shall be designed, constructed, operated, maintained, closed, and monitored throughout its design period to control the movement of waste and waste constituents into the environment so that ground water and surface water quality standards and criteria of Chapters 62-302 and 62-520, F.A.C., will not be violated beyond the applicable zone of discharge specified for the system."*<br><br>**Surface water management:** *"Phosphogypsum stack systems shall be operated to provide for the collection, control, recycling, and treatment of surface runoff from the site as necessary to meet the applicable water quality standards of Chapters 62-520 and 62-302, F.A.C."*<br><br>**Leachate management:** *"Any leachate emanating from a phosphogypsum stack system shall be collected and routed to a cooling pond or surge pond, contained and treated as necessary to meet the applicable water quality standards of Chapters 62-302, 62-520, and 62-660, F.A.C."*<br><br>Entities are required to ensure that water quality standards associated with the above-mentioned rules are met. Phosphate-related discharges were assessed and do not occur in close proximity to the potential reclassification areas. Water quality criteria associated with the upgraded designated use classifications (Class I-Treated) are generally being met. Thus, there is no expected effect of this section of Chapter 62-673 as a result of the proposed reclassifications. |
| **Chapter 62-673, Phosphogypsum Management** | Rule 62-673.610, Closure Plan Requirements | Phosphate mining industry | The following provision is contained in Rule 62-673.610:<br>The proposed method of stormwater control: *"This shall include control of stormwater occurring on the phosphogypsum stack system. Stormwater or other surface water which mixes with leachate shall be considered to be leachate and shall be treated to meet the applicable water quality standards of Chapter 62-302, F.A.C., at the point of discharge."*<br><br>Phosphogypsum-based discharges were assessed and do not occur in close proximity to the potential reclassification areas. Water quality criteria associated with the upgraded designated use classifications (Class I-Treated) are generally being met. Thus, there is no expected effect of this section of Chapter 62-673 as a result of the proposed reclassification areas. |

| RULE CHAPTER | PERTINENT RULE SECTIONS | POSSIBLE SOURCES AFFECTED BY RECLASSIFICATION | EFFECTS |
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| **Chapter 62-701, Solid Waste Management Facilities** | Rule 62-701.300, Prohibitions | Solid waste management facilities | Construction permits for a landfill cannot be issued within 3,000 feet of Class I surface waters. Thus, the effect of this section of Chapter 62-701 is that construction permits for the construction of landfills could no longer be issued within 3,000 feet of the areas being proposed for reclassification to Class I-Treated. |
| **Chapter 62C-16, Mandatory Phosphate Mine Reclamation** | Rule 62C-16.0051, Reclamation and Restoration Standards | Phosphate mining industry | Rule 62C-16.0051 contains provisions stating that all waters of the state on or leaving the property under control of the operator must meet applicable water quality standards of the Department and that water in all wetlands and waterbodies must be of sufficient quality to maintain their designated use as defined in Rule 62-302.200. Multiply-owned mining lands must meet the standards, while wholly owned mining lands may not if they are not waters of the state. |

* Rule language was used as an aid in the construction of this evaluation. Select language in quotations represents direct rule language as written in the rule. For all official rule language and official rule requirements, see the appropriate rule chapters of interest. This table represents a detailed review of applicable rules to summarize the effects of the reclassification effort.