DRAFT

Upper Ocklawaha River Basin Management Action Plan

Division of Environmental Assessment and Restoration
Water Quality Restoration Program
Florida Department of Environmental Protection

with participation from the
Upper Ocklawaha River Basin Stakeholders

March 2025

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Acknowledgements

This *2025 Upper Ocklawaha River Basin Management Action Plan (BMAP)* was prepared as part of a statewide watershed management approach to restore and protect Florida's water quality. It was prepared by the Florida Department of Environmental Protection (DEP) in coordination with the Upper Ocklawaha River Basin stakeholders.

Florida Department of Environmental Protection
Alexis A. Lambert, Secretary

Table ES-1. Upper Ocklawaha River Basin stakeholders

Type of Governmental or Private Entity	Participant
Responsible Entities	Agriculture City of Apopka City of Clermont City of Eustis City of Fruitland Park City of Groveland City of Leesburg City of Mascotte City of Minneola City of Mount Dora City of Ocoee City of Tavares City of Umatilla City of Wildwood City of Winter Garden Howey-in-the-Hills Lake County Marion County Orange County Polk County Town of Astatula Town of Lady Lake Town of Montverde Town of Oakland Wastewater Treatment Facilities
Responsible Agencies	County Health Departments Central Florida Expressway Authority Florida Department of Agriculture and Consumer Services Florida Department of Environmental Protection Florida Department of Transportation, District 5 Florida Fish and Wildlife Conservation Commission Florida Turnpike Enterprise St. Johns River Water Management District
Other Government Entities and Special Districts	Lake County Soil and Water Conservation District Lake County Water Authority
Other Interested Stakeholders	Andreyev Engineering Applied Sciences B&H Consulting BCI Engineering Boyle Engineering

Type of Governmental or Private Entity	Participant
	Brown and Caldwell Eustis Chamber of Commerce Green Consultants HCBassMasters Jones Edmunds Oklawaha Valley Audubon Society PEAR Professional Engineering Consultants Residents Stormwater 360 Trout Lake Nature Center

See **Appendix A** for links to resources referenced in this document. For additional information, contact:

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ACE	Agricultural Cooperative Regional Elements
ALG	Agricultural Land Geodatabase
AWT	Advanced Waste Treatment
ATU	Aerobic Treatment Unit
BEBR	Bureau of Economic and Business Research
BMAP	Basin Management Action Plan
BMP	Best Management Practice
BOCC	Board of County Commissioners
BOD	Biochemical Oxygen Demand
BWG	Basin Working Group
CAFO	Confined Animal Feeding Operation
CASTNET	Clean Air Status and Trends Network
CDS	Continuous Deflective Separation (unit)
CMAQ	Community Multiscale Air Quality
CR	County Road
CWA	Clean Water Act
DEP	Florida Department of Environmental Protection
DMR	Discharge Monthly Report
DO	Dissolved Oxygen
DWTS	Distributed Wastewater Treatment System
EFDC	Environmental Fluid Dynamics Code (model)
EMC	Event Mean Concentration
ENR	Enhanced Nutrient Reducing
EPA	Environmental Protection Agency
ESA	Environmental Science Associates
F.A.C.	Florida Administrative Code
FDACS	Florida Department of Agriculture and Consumer Services
FDOH	Florida Department of Health
FDOT	Florida Department of Transportation
FFS	Florida Forest Service
FLWMI	Florida Water Management Inventory
FNAI	Florida Natural Areas Inventory
F.S.	Florida Statutes
FSA	Florida Stormwater Association
FSAID	Florida Statewide Agricultural Irrigation Demand (geodatabase)
FWRA	Florida Watershed Restoration Act
FYN	Florida Yards and Neighborhoods
GIS	Geographic Information System
HSPF	Hydrological Simulation Program–FORTRAN (model)
IA	Implementation Assurance
IV	Implementation Verification

kg/yr	Kilograms per year
L.O.F.	Laws of Florida
lbs/yr	Pounds Per Year
LID	Low Impact Development
LVI	Linear Vegetation Index
LVS	Linear Vegetation Survey
mg/L	Milligrams Per Liter
mgd	Million Gallons Per Day
MS4	Municipal Separate Storm Sewer System
N	Nitrogen
N/A	Not Applicable
NADP	National Atmospheric Deposition Program
NARF	Nutrient Application Record Form
NELAC	National Laboratory Environmental Accreditation Conference
NELAP	National Environmental Laboratory Accreditation Program
NHD	National Hydrography Database
NMP	Nutrient Management Plan
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NSF	NSF International (formerly National Sanitation Foundation)
NTN	National Trends Network
O&M	Operations and Maintenance
OAWP	Office of Agricultural Water Policy (FDACS)
OSTDS	Onsite Sewage Treatment and Disposal System
P	Phosphorus
PBTS	Performance-based Treatment System
PLRG	Pollutant Load Reduction Goal
PSA	Public Service Announcement
QA/QC	Quality Assurance/Quality Control
RAP	Reasonable Assurance Plan
RIB	Rapid Infiltration Basin
ROC	Runoff Coefficient
RPS	Rapid Periphyton Survey
RSF	Regional Stormwater Facility
RST	Regional Stormwater Treatment
SAV	Submerged Aquatic Vegetation
SBIO	DEP Statewide Biological Database
SCI	Stream Condition Index
SJRWMD	St. Johns River Water Management District
SR	State Road
STA	Stormwater Treatment Area
STAR	Statewide Annual Report

STORET	Florida Storage and Retrieval Database
SWMP	Stormwater Management Programs
TBD	To Be Determined
TDEP	Total Deposition Science Committee
TKN	Total Kjeldahl Nitrogen
TMDL	Total Maximum Daily Load
TN	Total Nitrogen
TP	Total Phosphorus
TSI	Trophic State Index
TSS	Total Suspended Solids
UF–IFAS	University of Florida-Institute of Food and Agricultural Sciences
USGS	U.S. Geological Survey
WASP	Water Quality Analysis Simulation Program (model)
WBID	Waterbody Identification (number)
WIN	Florida Watershed Information Network Database
WMD	Water Management District
WWTF	Wastewater Treatment Facility

Executive Summary

Background

The Upper Ocklawaha River BMAP (**Figure ES-1**) was developed by the Upper Ocklawaha River Basin Working Group (BWG) over a two year period and was initially adopted in 2007 to implement the adopted total maximum daily loads (TMDLs) for total phosphorus (TP) and, where applicable, total nitrogen (TN) of 10 waterbodies across the Upper Ocklawaha River Basin (**Figure ES-1**). The Phase 2 Upper Ocklawaha River BMAP was adopted in 2014 and identified five priority waterbodies in the basin that would not meet their TMDLs without additional effort. In 2019, an amendment was adopted which presented allocations or assignment of loading reductions for the priority waterbodies and 2017 adopted TMDLs for lakes Denham, Roberts and Marshall. This 2025 Upper Ocklawaha River BMAP provides updates to legislative requirements that are in effect for the BMAP area. This document is to be used as a supplement to the 2007 and 2014 BMAPs as well as the 2019 BMAP Amendment.

The BMAP provides phased implementation under subparagraph 403.067(7)(a)1., Florida Statutes (F.S.), and this adaptive management process will continue until the TMDLs are met. The phased BMAP approach allows for incrementally reducing nutrient loadings through the implementation of projects, while simultaneously monitoring and conducting studies to better understand water quality dynamics (sources and response variables) in each impaired waterbody.

Currently, most surface waters in Florida, including those of the Upper Ocklawaha River BMAP, are categorized as Class III waters, meaning they must be suitable for recreation and support fish consumption and the propagation and maintenance of a healthy, well-balanced population of fish and wildlife. In 2003, DEP adopted TMDLs for ten of the impaired waterbodies in the Upper Ocklawaha River Basin. In 2017, DEP adopted the Lake Denham, Lake Roberts, and Marshall Lake TMDLs. A TMDL is the maximum amount of a specific pollutant that a waterbody can assimilate while maintaining its designated uses. The Upper Ocklawaha River TMDLs identified the TP and, where applicable, TN loads that the lakes and river can receive and still maintain designated uses for Class III waters.

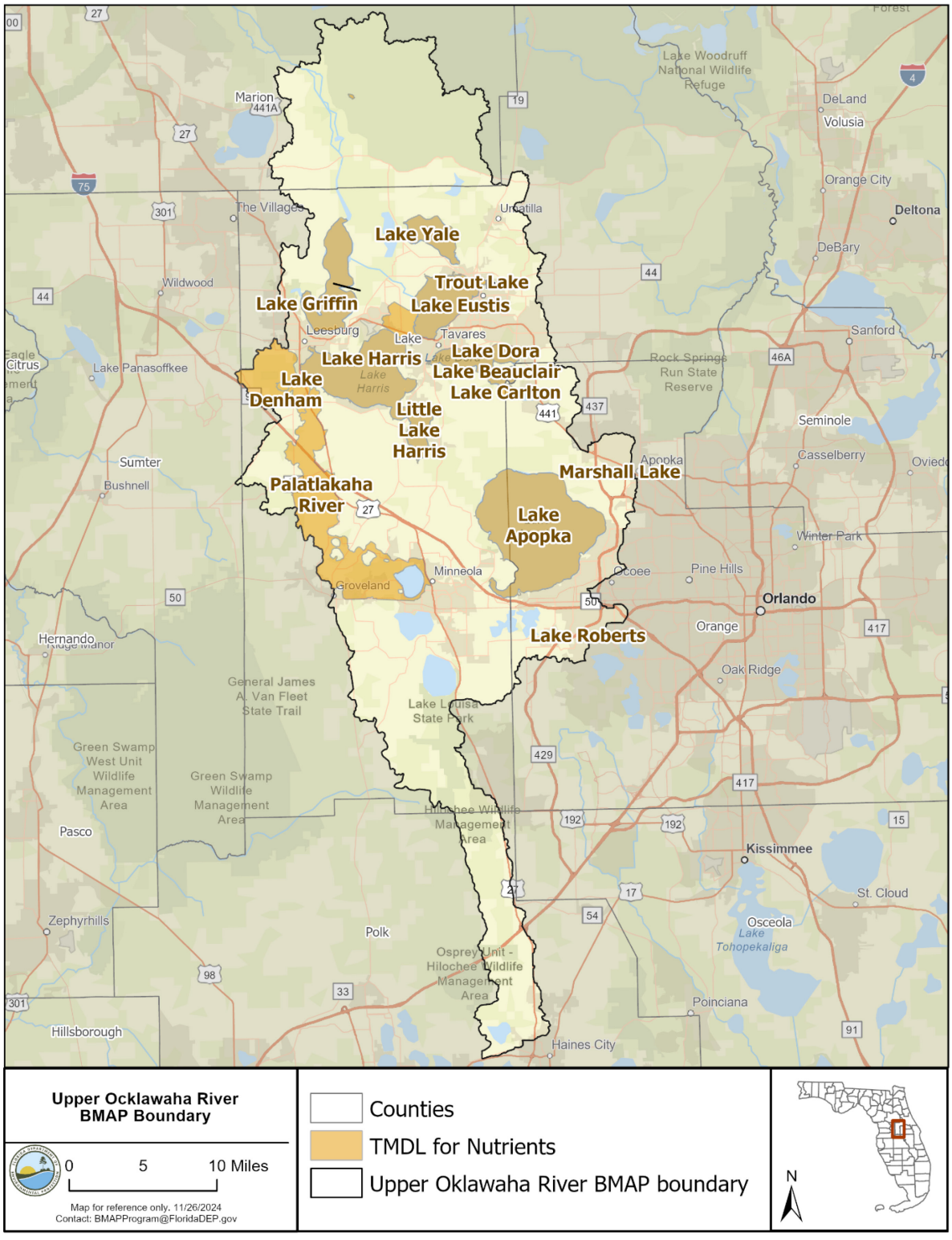

Figure ES-1. Upper Ocklawaha River Basin BMAP boundary and location of impaired waterbodies

A BMAP is a framework for water quality restoration that contains a comprehensive set of solutions to achieve the pollutant reductions established by a TMDL. Examples include permit limits on regulated facilities, urban and agricultural best management practices (BMPs), wastewater and stormwater infrastructure, regional projects and conservation programs designed to achieve pollutant reductions established by a TMDL. A BMAP is developed with local stakeholders and relies on local input and commitment for successful implementation. BMAPs are adopted by Secretarial Order and are legally enforceable. BMAPs use an adaptive management approach that allows for incremental load reductions through the implementation of projects and management strategies, while simultaneously monitoring and conducting studies to better understand the water quality and hydrologic dynamics. Progress is tracked by assessing project implementation and water quality analyses.

The Florida Watershed Restoration Act (FWRA), section 403.067, F.S., establishes an adaptive management process for BMAPs that continues until the TMDLs are achieved and maintained. This approach allows for incrementally reducing nutrient loads through the implementation of projects and programs, while simultaneously monitoring and conducting studies to better understand water quality dynamics (sources and response variables) in each impaired waterbody. The Upper Ocklawaha River BMAP was first adopted in August 2007, followed by Phase 2 in 2014, and then the Upper Ocklawaha River BMAP Amendment was adopted June 2019.

Required Reductions and Options to Achieve Reductions

TMDLs for the Upper Ocklawaha Basin were adopted in 2003 and for Trout Lake in 2006. With exceptions for Trout Lake, Lake Carlton, and the Palatlakaha River, these TMDLs were based on pollutant load reduction goals (PLRGs) developed by St. Johns River Water Management District (SJRWMD)(Fulton et al. 2004). DEP developed the Trout Lake TMDL using a similar modeling approach, and in 2016 revised the watershed loading calculation using the same methodology as for PLRG development. The Lake Carlton TMDL was developed using the same loading methodology and target concentrations that SJRWMD used for Lake Beauclair. Loading numbers as determined by TMDLs were used for allocations, but the distribution of loading categories was based on 2009 land use patterns and the jurisdictional boundaries at the time.

This 2025 BMAP update does not update the modeling information presented in the previous Upper Ocklawaha documents; the existing load estimates and allocations of load reductions to the responsible stakeholders will remain in effect. These estimates and allocations remain in effect while a multi-year effort is underway to model the entire St. Johns River Basin and to provide updates to the existing watershed, hydrodynamic, and water quality models, including those that have been developed by SJRWMD. The modeling framework will be comprised of different mechanistic models including HSPF, Environmental Fluid Dynamics Code (EFDC) and Water Quality Analysis Simulation Program (WASP).

In 2028, DEP anticipates the completion of a model revision to the Upper Ocklawaha River Basin as part of a larger effort to model the entire St. Johns River Basin. This work will provide the necessary technical support for potential updates to allocations to meet the TMDLs and

achieve the requirements of the BMAPs, including the Upper Ocklawaha River BMAP. After model completion, DEP will reevaluate and, if necessary, adopt another iteration of the Upper Ocklawaha River BMAP which may include revised pollutant loading information and updates to required reductions for the responsible stakeholders.

Section 1. Context, Purpose, and Scope of the Plan

1.1 Upper Ocklawaha River BMAP

A BMAP is a framework for water quality restoration that contains a comprehensive set of solutions to achieve the pollutant reductions established by a TMDL. Examples include permit limits on regulated facilities, urban and agricultural BMPs, wastewater and stormwater infrastructure, regional projects and conservation programs designed to achieve pollutant reductions established by a TMDL. A BMAP is developed with local stakeholders and relies on local input and commitment for successful implementation. BMAPs are adopted by Secretarial Order and are legally enforceable. BMAPs use an adaptive management approach that allows for incremental load reductions through the implementation of projects and management strategies, while simultaneously monitoring and conducting studies to better understand the water quality and hydrologic dynamics. Progress is tracked by assessing project implementation and evaluating water quality analyses.

The Upper Ocklawaha River BMAP, initially adopted in 2007, was developed by basin stakeholders over a two-year period. It addressed 10 waterbodies in the Upper Ocklawaha River Basin with water quality impairments **(Figure 1)**. The BMAP focuses on reducing nutrient discharges to lakes verified as impaired under the FWRA (Chapter 403.067, Florida Statutes [F.S.]) and the Impaired Surface Waters Rule (Rule 62-303, Florida Administrative Code [F.A.C.]), and for which TMDLs were established. TMDLs, which DEP adopts by rule, establish the maximum amount of specific pollutants that a waterbody can assimilate while maintaining water quality standards, including designated uses. All surface waters (including wetlands) in the Upper Ocklawaha River Basin are designated as Class III waters in accordance with Rule 62-302, F.A.C., defined as having suitable water quality for recreational use and for the propagation and maintenance of a healthy, well-balanced population of fish and wildlife.

About one-half of the flow in this basin originates from the Green Swamp—the headwaters of the Palatlakaha River and Lake Apopka watersheds. The Upper Ocklawaha Basin consists of four primary connected chains of waterbodies as described below:

1) Lake Apopka and the Apopka-Beauclair Canal draining 183 square miles. The Apopka-Beauclair Canal discharges to Lake Beauclair.
2) The Clermont Chain of Lakes (lakes Minneola, Minnehaha, and Louisa, along with 12 other smaller lakes), connected by the Palatlakaha River, draining 223 square miles. The Palatlakaha River discharges to Lake Harris.
3) The Harris Chain of Lakes includes lakes Beauclair, Carlton, Dora, Eustis, Harris, and Little Harris Dora Canal; Dead River; and Trout Lake, draining 240 square miles. Water moves from Lake Harris to Lake Eustis and from Lake Dora to Lake Eustis. Discharge from Lake Eustis flows through Haynes Creek to Lake Griffin.

4) Lake Griffin and Lake Yale, the Yale Canal, some tributaries to Lake Griffin, Emeralda Marsh, and Haynes Creek, draining 232 square miles. The Ocklawaha River originates as a discharge from Lake Griffin.

Within a chain of lakes, water quality problems that occur in one lake can be easily transferred to the other lakes.

The Phase 2 Upper Ocklawaha River BMAP was adopted in 2014 and identified five priority waterbodies in the basin that would not meet their TMDLs without additional effort. The priority waterbodies were Trout Lake, Lake Carlton, Lake Harris, Palatlakaha River, and Lake Yale. Watershed loadings for these priority waterbodies were updated to reflect 2009 land use data and development inputs. In 2019, an amendment was adopted which presented allocations or assignment of loading reductions for the priority waterbodies and 2017 adopted TMDLs for Lakes Denham (Rhew, 2017), Roberts (Kang, 2017) and Marshall (Kang, 2017). The document also included updated nutrient budgets based on 2009 land use coverage for the five nonpriority waterbodies: Lake Apopka, Lake Beauclair, Lake Dora, Lake Eustis, and Lake Griffin.

This 2025 Upper Ocklawaha River Basin BMAP incorporates new legislative requirements that are now in effect. This document is to be used as a supplement to the 2007 and 2014 BMAPs as well as the 2019 BMAP Amendment. In 2028, DEP anticipates the completion of a model revision to the Upper Ocklawaha River Basin because of a larger effort to model the entire St. Johns River Basin. This work will provide the necessary technical support for potential updates to allocations to meet the TMDLs and achieve the requirements of the BMAPs, including the Upper Ocklawaha River BMAP. After model completion, DEP will reevaluate and, if necessary, adopt another iteration of the Upper Ocklawaha River BMAP which may include updated pollutant loading information and updates to required reductions for the responsible stakeholders.

This BMAP provides for phased implementation under subparagraph 403.067(7)(a)1., F.S., and this adaptive management process will continue until the TMDLs are met. The phased BMAP approach allows for incrementally reducing nutrient loadings through the implementation of projects, while simultaneously monitoring and conducting studies to better understand water quality dynamics (sources and response variables) in each impaired waterbody.

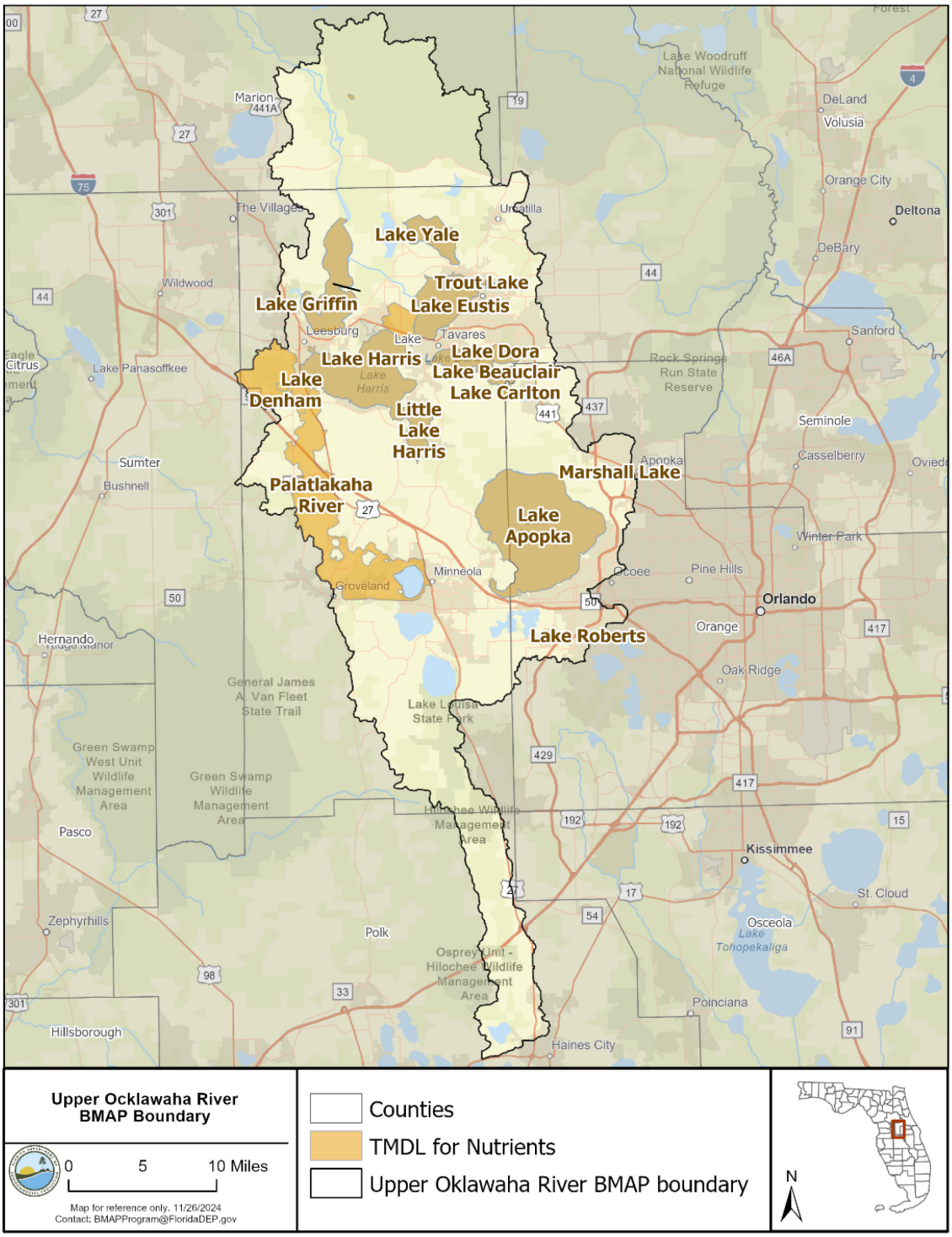

Figure 1. Upper Ocklawaha River Basin BMAP boundary and location of impaired waterbodies

1.2 Water Quality Standards and TMDLs

Florida's water quality standards are designed to ensure that surface waters fully support their designated uses, such as drinking water, aquatic life, recreation, and agriculture. Currently, most surface waters in Florida, including those in the Upper Ocklawaha River Basin, are categorized as Class III waters, meaning they must be suitable for recreation and support fish consumption and the propagation and maintenance of a healthy, well-balanced population of fish and wildlife. **Table 1** lists all designated use classifications for Florida's surface waters.

Table 1. Designated use attainment categories for Florida surface waters

[1] Class I, I-Treated, and II waters additionally include all Class III uses.

Classification	Description
Class I[1]	Potable water supplies
Class I-Treated[1]	Treated potable water supplies
Class II[1]	Shellfish propagation or harvesting
Class III	**Fish consumption; recreation, propagation and maintenance of a healthy, well-balanced population of fish and wildlife**
Class III-Limited	Fish consumption, recreation or limited recreation, and/or propagation and maintenance of a limited population of fish and wildlife
Class IV	Agricultural water supplies
Class V	Navigation, utility, and industrial use (*no current Class V designations*)

Section 303(d) of the federal Clean Water Act (CWA) requires that every two years each state must identify its "impaired" waters, including estuaries, lakes, rivers, and streams that do not meet their designated uses. DEP is responsible for assessing Florida's waters for inclusion on the Verified List of Impaired Waters (when a causative pollutant for the impairment has been identified) and Study List (when a causative pollutant for the impairment has not been identified, and additional study is needed). These lists are then provided to the U.S. Environmental Protection Agency (EPA) as a biennial update to the state "303(d) list."

1.3 Upper Ocklawaha River Basin TMDLs

A TMDL is the maximum amount of a specific pollutant that a waterbody can assimilate while maintaining its designated uses. The Upper Ocklawaha River Basin BMAP has 13 adopted TMDLs. In 2003 and 2004, the Department adopted TMDLs for the following ten impaired waterbodies and associated tributary and connecting canals and streams (e.g., Haynes Creek, Dead River, Apopka- Beauclair Canal, Dora Canal, and Yale Canal) in the Upper Ocklawaha River Basin: Lake Apopka (Magley, 2003), Lake Beauclair (Magley, 2003), Lake Carlton (Magley, 2004), Lake Dora (Magley, 2003), Lake Eustis (Magley, 2003), Trout Lake (Gao and Gilbert, 2004), Lake Harris (includes Little Lake Harris) (Magley, 2003), Palatlakaha River (north of State Road 50l), Lake Griffin (Magley, 2003), and Lake Yale (Magley, 2003). With exceptions for Trout Lake, Lake Carlton, and the Palatlakaha River, these TMDLs were based on pollutant load reduction goals (PLRGs) developed by SJRWMD (Fulton et al., 2004). DEP developed the Trout Lake TMDL using a similar modeling approach, and in 2016 revised the watershed loading calculation using the same methodology as for PLRG development. The Lake

Carlton TMDL was developed using the same loading methodology and target concentrations that SJRWMD used for Lake Beauclair. Three additional TMDLs--Lake Denham, Marshall Lake and Lake Roberts TMDLs--were adopted in 2017.

TP is the primary pollutant of concern in the Upper Ocklawaha River Basin. In Trout Lake, Lake Denham, Marshall Lake, Lake Roberts, and the Palatlakaha River, TN contributes to the problem, and biochemical oxygen demand (BOD) was also identified as a pollutant contributing to the impairment in the Palatlakaha River. Although the BMAP is primarily TP based, the restoration activities under the BMAP are also expected to result in reductions of TN and BOD.

In the 2019 Upper Ocklawaha River Basin BMAP Amendment, all impaired waterbodies listed in the Phase 1 and Phase 2 Upper Ocklawaha BMAPs were updated to reflect 2009 land use data and development inputs. The 2009 estimated loadings replaced the previous BMAP estimates of future loading. The revised land use loading estimates replaced the baseline loading values presented in the Phase 1 and Phase 2 BMAPs. The TMDL targets are the same as when adopted.

Table 2 lists the Upper Ocklawaha River TMDLs in units of pounds per year (lbs/yr). The TMDLs are adopted in rule, into subsection 62-304.505(1), F.A.C.. The purpose of the TMDLs is to achieve the target in-lake TP and TN concentrations in milligrams per liter (mg/L) listed in the table. The TMDLs assigned wasteload allocations for National Pollutant Discharge Elimination System (NPDES) permit holders as well as assigned load allocations to additional nutrient sources.

Table 2. TMDLs for Upper Ocklawaha River Basin

N/A: Not applicable.

Waterbody	WBID Number	Parameter	TMDL (lbs/yr)	Target Concentration (mg/L)	Needed Reduction (lbs/yr)
Lake Apopka	2835D	TP	35,052	0.055	108,258
Lake Beauclair	2834C	TP	7,056	0.032	40,940
Lake Carlton	2837B	TP	195	0.032	283
Lake Dora	2831A, 2831B	TP	13,320	0.031	33,419
Lake Eustis/Haynes Creek	2817A, 2817B	TP	20,286	0.025	22,757
Trout Lake	2819A	TP	521	0.028	1,477
Trout Lake	2819A	TN	9,733	0.78	14,432
Lake Harris/ Little Lake Harris	2838A, 2838B, 2832, 2817C	TP	18,302	0.026	3,890
Palatlakaha River	2839	BOD	43,042	N/A	6,309
Palatlakaha River	2839	TN	16,696	N/A	908
Palatlakaha River	2839	TP	2,207	N/A	589
Lake Griffin	2814A	TP	26,901	0.032	55,196
Lake Yale	2807A, 2807	TP	2,844	0.02	848

Waterbody	WBID Number	Parameter	TMDL (lbs/yr)	Target Concentration (mg/L)	Needed Reduction (lbs/yr)
Lake Denham	2832A	TP	593	0.04	2,008
Lake Denham	2832A	TN	16,468	1.10	57,953
Marshall Lake	2854A	TP	97	0.037	470
Marshall Lake	2854A	TN	2,046	0.90	2,403
Lake Roberts	2872A	TP	100	0.044	86
Lake Roberts	2872A	TN	1,655	1.02	705

1.4 Upper Ocklawaha River Basin BMAP

A BMAP is a framework for water quality restoration that contains a comprehensive set of solutions to achieve the pollutant reductions established by a TMDL. Examples include permit limits on regulated facilities, urban and agricultural BMPs, wastewater and stormwater infrastructure, regional projects and conservation programs designed to achieve pollutant reductions established by a TMDL. A BMAP is developed with local stakeholders and relies on local input and commitment for successful implementation. BMAPs are adopted by Secretarial Order and are legally enforceable. BMAPs use an adaptive management approach that allows for incremental load reductions through the implementation of projects and management strategies, while simultaneously monitoring and conducting studies to better understand the water quality and hydrologic dynamics. Progress is tracked by assessing project implementation and evaluating water quality analyses.

The FWRA, section 403.067, F.S., establishes an adaptive management process for BMAPs that continues until TMDLs are achieved and maintained. This approach allows for incrementally reducing nutrient loads through the implementation of projects and programs, while simultaneously monitoring and conducting studies to better understand water quality dynamics (sources and response variables) in each impaired waterbody.

1.5 Stakeholder Involvement

Local stakeholders are a significant part of the Upper Ocklawaha River BMAP process.

In the context of the BMAP, there are different organizations named in the plan.

- Responsible entities are those organizations who are assigned load reductions and must comply with the BMAP provisions; these organizations are sometimes referred to as “Lead Entities.”

- Responsible agencies may be accountable for reducing loads from their own activities or have an important public sector role in BMAP implementation such as regulatory oversight, monitoring, research, or other related duties.

- Interested stakeholders are those organizations that have engaged with BMAP development and implementation with the intention to influence the implementation process and outcomes.

- Stakeholders is a more general term often used in the BMAP context to include all three of the previously mentioned organizations—responsible entities, responsible agencies, and interested stakeholders.

The BMAP process engages responsible entities, responsible agencies, and interested stakeholders and promotes coordination and collaboration to address the pollutant load reductions necessary to achieve the TMDL.

DEP held a series of individual meetings with responsible stakeholders to review their BMAP progress and ensure they are aware of the legislative changes that apply to the BMAP. A public meeting was held on March 12, 2025, to present and receive public comments on the 2025 BMAP update. The purpose of this meeting was to solicit comments from all interested parties, disseminate information, and allow for public discussion. Prior to adoption, all public meetings are formally noticed in the Florida Administrative Register, and at least one meeting is noticed in local newspapers.

Section 2. Modeling

2.1 Loading Estimates from Existing Models

This 2025 BMAP update does not include updated modeling information. Loading estimates and allocations of load reductions to the responsible stakeholders presented in the 2019 Upper Ocklawaha River BMAP Amendment will remain in effect. For more information on the methodologies please refer to the previously adopted BMAP documents.

2.2 St. Johns River Basin Model Update

At the time of the 2025 Upper Ocklawaha River Basin BMAP update, a multi-year effort is underway to model the entire St. Johns River Basin. DEP and SJRWMD have contracted with Environmental Science Associates (ESA), GHD, and Wildwood Consulting to provide a more comprehensive estimation of pollutant loading to the entire basin and provide updates to the existing watershed, hydrodynamic and water quality models, including those that have been developed by SJRWMD.

The modeling framework will be comprised of different mechanistic models including Hydrological Simulation Program - FORTRAN (HSPF), Environmental Fluid Dynamics Code (EFDC) and Water Quality Analysis Simulation Program (WASP). Public meetings will be held to share progress and update information with interested stakeholders.

DEP anticipates that this effort will be completed in 2028. After the St. Johns River Basin model is complete, DEP will reevaluate and, if necessary, adopt another iteration of the Upper Ocklawaha River Basin BMAP, most likely before 2030. The next iteration may include updated required reductions, timelines, and 5-year milestones.

Section 3. Calculating and Allocating Load Reductions

As noted in **Section 1.3**, the Upper Ocklawaha River Basin TMDLs are adopted in rule, with allowable TP and/or TN loads. The purpose of the allowable loadings is to achieve in-lake concentrations. These concentrations are not part of the rule but are the expected in-lake concentrations after the TMDLs have been attained.

This section describes the process used to calculate the load reductions needed to achieve the TMDL loads and to allocate the load reduction requirements to the responsible stakeholders, as outlined in the 2019 Amendment.

3.1 Calculating Load Reductions

For this update, load reductions have not been re-evaluated. Refer to Chapter 3 of the 2019 Upper Ocklawaha BMAP Amendment for the methodologies used to calculate and apportion the load reductions for the Upper Ocklawaha River Basin.

3.2 Allocated Reductions

In the 2019 BMAP Amendment, developed land uses were used to calculate entity allocated reductions for TP for Lakes Carlton, Trout, Harris, Yale, Denham, Roberts and Marshall and the Palatlakaha River (see **Table 3**, **Table 4**, **Table 5**, **Table 6**, **Table 7**, **Table 8**, **Table 9**, and **Table 10**). Reductions were allocated to individual municipalities, the Florida Department of Transportation (FDOT), Florida Turnpike Enterprise, and Central Florida Expressway Authority. The loading reduction allocated to agricultural lands is addressed through enrollment and implementation of BMPs, which is administered by the Florida Department of Agriculture and Consumer Services (FDACS) Office of Agricultural Water Policy (OAWP). For consistency, DEP has converted loading estimates to Lake Denham, Lake Roberts and Marshall Lake from kilograms per year (kg/yr) to lbs/yr.

The TP loading reductions for the remaining waterbodies covered by the Upper Ocklawaha BMAP (i.e., lakes Griffin, Eustis, Beauclair, Dora, and Apopka) and required TN reductions continue to be allocated to each lake's watershed and not to specific entities (**Table 11**). Local governments within these sub-watersheds are expected to work collaboratively to achieve these required reductions.

The load reductions achieved for Trout Lake, Lake Harris, Lake Carlton, and Lake Yale will also contribute to overall loading reductions for Lake Eustis, Lake Beauclair, and Lake Griffin by reducing the tributary inputs of loading.

Table 3. Required reductions for 2030 milestone by entity (100% milestone) for Lake Harris

Entity	2030 TP Required Reduction 100% Milestone (lbs/yr)
Astatula	65
FDOT	47
Howey-in-the Hills	64
Lake County	788
Leesburg	391
Tavares	153
Wildwood	2
Agriculture	148
Muck Farm Discharge	572
Package Plants	212

Table 4. Required reductions for 2030 milestone by entity (100% Milestone) for Lake Carlton

Entity	2030 TP Required Reduction 100% Milestone (lbs/yr)
FDOT	16
Lake County	37
Orange County	118
Agriculture	97
Package Plants	16

Table 5. Required reductions for 2030 milestone by entity (100% Milestone) for Lake Yale

Entity	2030 TP Required Reduction 100% Milestone (lbs/yr)
Eustis	123
FDOT	24
Lake County	279
Marion County	8
Umatilla	24
Agriculture	187
Package Plants	204

Table 6. Required reductions for 2030 milestone by entity (100% Milestone) for Palatlakaha River

**See waterbody allocation table for required TN reductions.*

Entity	2030 TP Required Reduction 100% Milestone (lbs/yr)
Clermont	15

Entity	2030 TP Required Reduction 100% Milestone (lbs/yr)
Groveland	119
Lake County	245
Leesburg	30
Mascotte	1
Minneola	24
Florida Turnpike Enterprise	4
FDOT	9
Agriculture	142

Table 7. Required reductions for 2030 milestone by entity (100% Milestone) for Trout Lake

**See waterbody allocation table for required TN reductions.*

Entity	2030 TP Required Reduction 100% Milestone (lbs/yr)
Eustis	213
FDOT	29
Lake County	78
Umatilla	166
Agriculture	65
Muck Farms	424

Table 8. Required reductions for 2030 milestone by entity (100% Milestone) for Lake Denham

**See waterbody allocation table for required TN reductions. LCWA = Lake County Water Authority.*

Entity	2030 TP Required Reduction 100% Milestone (kg/yr)	2030 TP Required Reduction 100% Milestone (lbs/yr)
FDOT	6	13
Lake County	26	57
Leesburg	91	201
Wildwood	3	7
Muck Farm-LCWA	421	928
Agriculture	90	198

Table 9. Required reductions for 2030 milestone by entity (100% Milestone) for Marshall Lake

**See waterbody allocation table for required TN reductions.*

Entity	2030 TP Required Reduction 100% Milestone (kg/yr)	2030 TP Required Reduction 100% Milestone (lbs/yr)
Apopka	135	298
Orange County	23	51
FDOT	7	15

Entity	2030 TP Required Reduction 100% Milestone (kg/yr)	2030 TP Required Reduction 100% Milestone (lbs/yr)
Central Florida Expressway Authority	15	33
Agriculture	33	73

Table 10. Required reductions for 2030 milestone by entity (100% Milestone) for Lake Roberts

**See waterbody allocation table for required TN reductions.*

Entity	2030 TP Required Reduction 100% Milestone (kg/yr)	2030 TP Required Reduction 100% Milestone (lbs/yr)
Orange County	24	53
Winter Garden	14	31
Agriculture	2	4

Table 11. Required reductions for 2030 milestone by waterbody (100% Milestone)

**See waterbody allocation table for required TN reductions.*

Entity	2030 TP Required Reduction 100% Milestone (lbs/yr)	2030 TP Required Reduction 100% Milestone (kg/yr)	2030 TN Required Reduction 100% Milestone (lbs/yr)
Lake Apopka	108,258	N/A	N/A
Lake Beauclair	40,940	N/A	N/A
Lake Dora	33,419	N/A	N/A
Lake Eustis	22,757	N/A	N/A
Lake Griffin	55,196	N/A	N/A
Palatlakaha River	*	N/A	908
Trout Lake	*	N/A	14,432
Lake Denham	*	26,287	57,953
Marshall Lake	*	1,090	2,403
Lake Roberts	*	320	705

3.2.1 5-Year Milestones

Section 403.067, F.S., requires that BMAPs include 5-year milestones for the implementation of TMDLs. Any responsible entity within the BMAP that has an assigned pollutant load reduction requirement must identify projects or strategies to meet their upcoming 5-year milestone, even if the identified project or strategy will not be completed by the milestone. Each project must include a planning-level cost estimate and an estimated date of completion that is included in the BMAP and updated in the statewide annual reporting process.

Table 3, **Table 4**, **Table 5**, **Table 6**, **Table 7**, **Table 8**, **Table 9**, **Table 10,** and **Table 11** summarize the required reduction milestones for TN and TP in the Upper Ocklawaha River

Basin. The timeline in the 2019 Upper Ocklawaha River BMAP Amendment had 2027 as the next milestone, 20 years from the adoption of the original BMAP. However, to allow for adjustments for new legislative requirements and in anticipation of the new St. Johns River Basin model, the next milestone is being extended to 2030, 5 years after the 2025 BMAP update is adopted. Consistent with statute, entities must provide a list of projects and strategies to DEP that show how entities will meet their required reductions to achieve the next upcoming BMAP milestone. **Table 12**, **Table 13**, **Table 14**, **Table 15**, **Table 16**, **Table 17**, **Table 18**, and **Table 19** summarize the current reductions made towards the 2030 milestones.

Responsible entities must submit a sufficient list of additional projects and management strategies to DEP by no later than January 14, 2026, to be compliant with the upcoming BMAP milestone or be subject to further department enforcement.

If any lead entity's management strategies list falls short of meeting their next 5-year milestone reductions, additional projects and management strategies are required. To remain in compliance with the BMAP until January 14, 2026, responsible entities with project deficits must catalog their efforts to identify management strategies to meet their milestone reduction requirements. These planning efforts are ineligible for BMAP credit themselves but are necessary to demonstrate that additional eligible management actions will be forthcoming and BMAP compliance will be achieved. Examples of project identification efforts are included in **Appendix C**.

After the St. Johns River Basin model is complete, DEP will reevaluate and, if necessary, adopt another iteration of the Upper Ocklawaha River BMAP, most likely before 2030. The next iteration may include updated required reductions, timelines, and 5-year milestones.

3.2.2 In-Lake Reductions

As the Upper Ocklawaha River BMAP consists of chains of lakes, internal loading and tributary inputs are taken into consideration. However, internal loading will not be immediately addressed until management actions are in place to reduce loading from the watershed. Refer to the previously adopted BMAP documents for more information.

3.2.3 Progress

Table 12, **Table 13**, **Table 14**, **Table 15**, **Table 16**, **Table 17**, **Table 18**, and **Table 19** summarize the total required reductions and the estimated reductions achieved for completed and ongoing projects by entity for areas with entity allocated reductions. **Table 20** summarizes the total required reductions and the estimated reductions achieved in areas with waterbody allocated reductions. **Appendix B** provides the project details. As part of the annual reporting process, stakeholders will be required to provide a detailed and quantified description of their ordinance enforcement and environmental education activities to receive credits for these activities. Based on progress towards meeting the TMDL and water quality monitoring results, reductions from ordinances and education efforts may be reevaluated in future BMAP updates, particularly with respect to enforcement of ordinances.

DEP continues to work with the appropriate agencies and other stakeholders to identify and prioritize needed projects and management strategies required to meet the reduction milestones.

Table 12. Lake Harris TP load reductions

Entity	TP Full Required Reduction (lbs/yr)	TP Completed and Ongoing Project Credits (lbs/yr)	% of TP Reductions Achieved
Agriculture	148	190	100%
Astatula	65	0	0%
FDOT	47	1,222	100%
Howey-in-the Hills	64	13	20%
Lake County	788	303	38%
Leesburg	391	84	21%
Tavares	153	22	14%
Wildwood	2	0	0%

Table 13. Lake Carlton TP load reductions

Entity	TP Full Required Reduction (lbs/yr)	TP Completed and Ongoing Project Credits (lbs/yr)	% of TP Reductions Achieved
Agriculture	97	1	0.01%
FDOT	16	206	100%
Lake County	37	4	10%
Orange County	118	6	5%

Table 14. Lake Yale TP load reductions

Entity	TP Required Reduction (lbs/yr)	TP Completed and Ongoing Project Credits (lbs/yr)	% of TP Reductions Achieved
Agriculture	187	2,054	100%
Eustis	123	16	13%
FDOT	24	475	100%
Lake County	279	77	27%
Marion County	8	1	12%
Umatilla	24	9	37%

Table 15. Palatlakaha River TP load reductions

Entity	TP Required Reduction (lbs/yr)	TP Completed and Ongoing Project Credits (lbs/yr)	% of TP Reductions Achieved
Agriculture	142	853	100%
Clermont	15	407	100%
FDOT	9	1,487	100%
Florida Turnpike Enterprise	4	0	0%
Groveland	119	23	19%
Lake County	245	67	27%
Leesburg	30	5	16%
Mascotte	1	0	0%

Entity	TP Required Reduction (lbs/yr)	TP Completed and Ongoing Project Credits (lbs/yr)	% of TP Reductions Achieved
Minneola	24	3	12%

Table 16. Trout Lake TP load reductions

Entity	TP Required Reduction (lbs/yr)	TP Completed and Ongoing Project Credits (lbs/yr)	% of TP Reductions Achieved
Agriculture	65	109	100%
Eustis	213	231	100%
FDOT	29	531	100%
Lake County	78	873	100%
Umatilla	166	126	76%

Table 17. Lake Denham TP load reductions

Entity	TP Required Reduction (lbs/yr)	TP Completed and Ongoing Project Credits (lbs/yr)	% of TP Reductions Achieved
Agriculture	198	0	0%
FDOT	13	0	0%
Lake County	57	0	0%
Leesburg	201	13	0.06%
Wildwood	7	0	0%
Muck Farm-LCWA	928	0	0%

Table 18. Marshall Lake TP load reductions

Entity	TP Required Reduction (lbs/yr)	TP Completed and Ongoing Project Credits (lbs/yr)	% of TP Reductions Achieved
Agriculture	73	0	0%
Apopka	298	0	0%
Orange County	51	3	0.06%
FDOT	15	0	0%
Central Florida Expressway Authority	33	7	0.21%

Table 19. Lake Roberts TP load reductions

Entity	TP Required Reduction (lbs/yr)	TP Completed and Ongoing Project Credits (lbs/yr)	% of TP Reductions Achieved
Agriculture	4	0	0%
Orange County	53	2	0.04%
Winter Garden	31	2	0.06%

Table 20. Waterbody load reductions

**See entity reduction tables for TP load reductions.*

Entity	TP Required Reduction (lbs/yr)	TP Completed and Ongoing Project Credits (lbs/yr)	% of TP Reductions Achieved	TN Required Reduction (lbs/yr)	TN Completed and Ongoing Project Credits (lbs/yr)	% of TN Reductions Achieved
Lake Apopka	108,258	106,190	98%	N/A	N/A	N/A
Lake Beauclair	40,940	5,607	14%	N/A	N/A	N/A
Lake Dora	33,419	1,762	0.05%	N/A	N/A	N/A
Lake Eustis	22,757	22,757	12%	N/A	N/A	N/A
Lake Griffin	55,196	55,196	80%	N/A	N/A	N/A
Palatlakaha River	*	*	*	908	7,977	100%
Trout Lake	*	*	*	14,432	16,106	100%
Lake Denham	*	*	*	57,953	0	0%
Marshall Lake	*	*	*	2,403	0	0%
Lake Roberts	*	*	*	705	0	0%

Section 4. Management Actions

Management actions refer to the suite of structural and nonstructural activities that the Upper Ocklawaha River BMAP entities will be conducting to achieve their required TP and TN reductions. The projects submitted by the entities to achieve at least their required upcoming 5-year milestone reductions are summarized in the tables in **Appendix B**. These projects were submitted to provide reasonable assurance to DEP that each entity has a plan on how it will meet its allocations. However, this list of projects is meant to be flexible and allow for changes over time, provided that the required reduction is still met within the specified timeframe. New projects that meet the required nutrient reductions may be substituted for those identified in **Appendix B** during the statewide annual report process.

4.1 Wastewater

Recent legislative updates have expanded the requirements for addressing onsite sewage treatment and disposal systems (OSTDS or septic systems) and wastewater treatment facility (WWTF) sources within BMAPs.

4.1.1 OSTDS

Beginning July 1, 2023, section 403.067, F.S., prohibits any new conventional OSTDS serving a lot of one acre or less where central sewer is available. Within all BMAP areas, if central sewer is unavailable, then the owner must install a DEP-approved enhanced nutrient-reducing OSTDS that achieves 65% nitrogen reduction, or other wastewater system that achieves 65% reduction.

4.1.1.1 BMAP OSTDS Remediation Plan

This BMAP contains a remediation plan for OSTDS consisting of management actions, including those described in **Appendix B** and updated annually through the statewide reporting process that reduce loads from existing OSTDS through either sewer connection, adding enhancement nitrogen treatment to OSTDS, or installing another type of wastewater system on the property, as applicable.

Subparagraph 403.067(7)(a)9., F.S., also requires local governments within a BMAP to develop an OSTDS remediation plan that is adopted as part of the BMAP no later than July 1, 2025, if DEP identifies OSTDS as contributors of at least 20% of point source or nonpoint source nutrient pollution or if DEP determines remediation is necessary to achieve the TMDL. When applicable, the OSTDS remediation plans must be developed by each local government in cooperation with DEP, water management districts (WMDs), and public and private domestic wastewater facilities. Each OSTDS remediation plan for this BMAP must contain the information outlined in DEP Final Order 23-0118. Stakeholders submit projects describing how septic system loads are addressed as part of BMAP reporting and estimate the load reductions associated with each project. The estimated reductions to the basin from addressing these septic systems will be based on several factors, including location, how they are addressed, and the amount of attenuation that occurs.

4.1.1.2 Local Government Ordinances

Local governments may have existing ordinances or could adopt new ordinances that add additional requirements for enhancement of OSTDS. To expedite remediation of wastewater sources and to facilitate achievement of assigned milestones in this BMAP, DEP encourages local governments to adopt such ordinances.

4.1.2 Wastewater Treatment

4.1.2.1 Facility Improvements and Effluent Limits

WWTFs located in the Upper Ocklawaha River BMAP are shown in Figure 2. The U.S. EPA authorizes DEP to issue permits for discharges to surface waters under the NPDES Program.

Permits for discharges to groundwater are issued by DEP based on Florida law and rules. Wastewater discharge permits establish specific limitations and requirements based on the location and type of facility or activity releasing industrial or domestic wastewater from a point source. In areas with an adopted, nutrient-related BMAP prior to July 1, 2023, section 403.086, F.S., requires any facility discharging to a waterbody to upgrade to advanced waste treatment (AWT) by January 1, 2033. Further, waterbodies determined not to be attaining nutrient or nutrient-related standards after July 1, 2023, or subject to a BMAP or reasonable assurance plan (RAP) after July 1, 2023, have 10 years to provide AWT after such determination or adoption.

The nitrogen and phosphorus effluent limits set forth in **Table 21** and **Table 22** will be applied as an annual average, taken at end of pipe before any land disposal (or other authorized compliance point), to all new and existing WWTFs with a DEP-permitted discharge or disposal area within this BMAP.

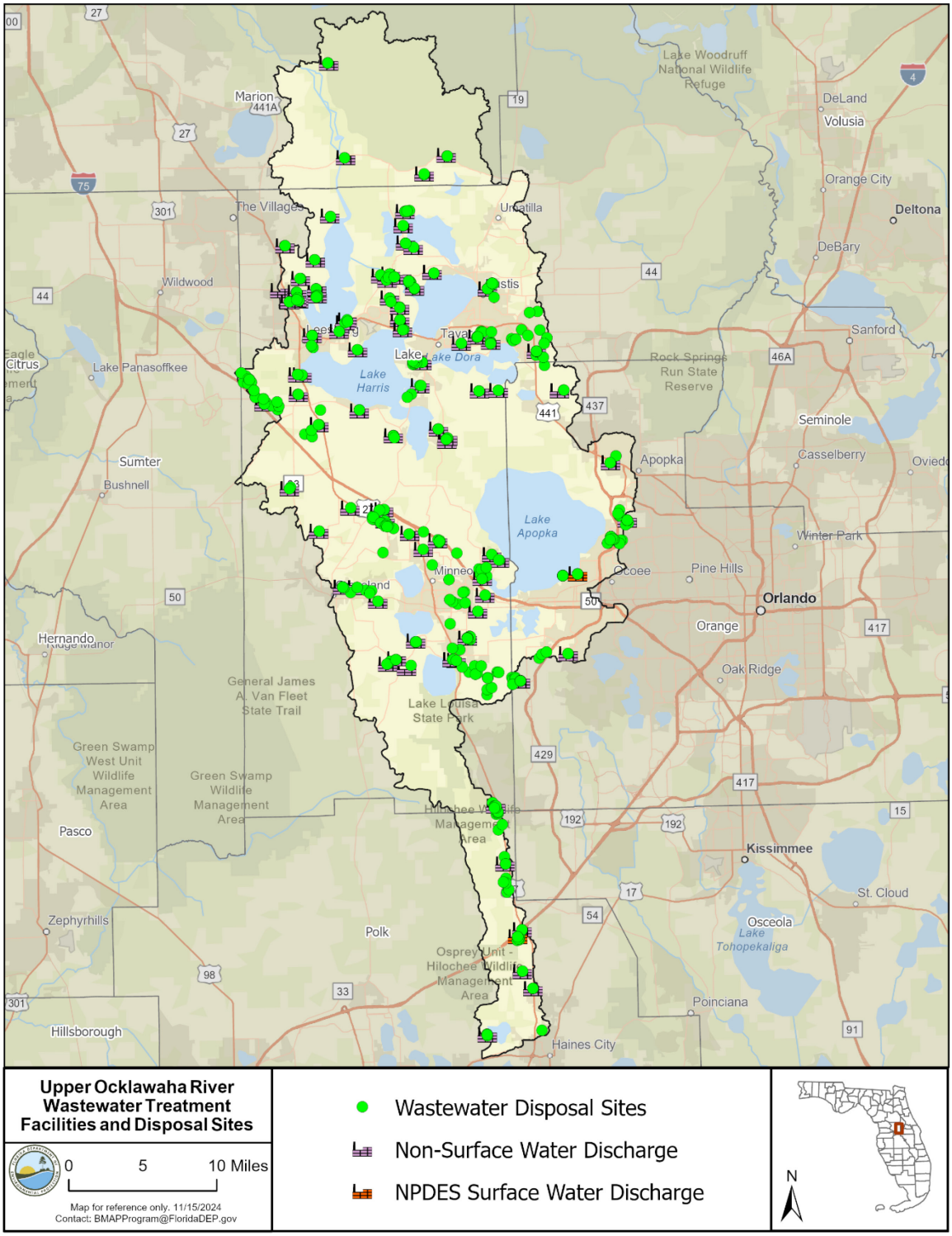

Figure 2. Wastewater treatment facilities and disposal sites in the Upper Ocklawaha River BMAP

Table 21. Nitrogen effluent limits for wastewater facilities

** mgd = million gallons per day.*

Facility Capacity (mgd)	Surface Water Discharges (mg/L)	WWTFs Listed in Appendix D (mg/L)	WWTFs Not Listed in Appendix D – Rapid Rate Land Application Effluent Disposal System (mg/L)	WWTFs Not Listed in Appendix D – All Other Disposal Methods, Including Reuse (mg/L)
≥ 0.5	3	3	3	10
< 0.5, ≥ 0.1	3	3	6	10
< 0.1	3	3	10	10

Table 22. Phosphorus effluent limits wastewater facilities

Facility Capacity (mgd)	Surface Water Discharges (mg/L)	WWTFs Listed in Appendix D (mg/L)	WWTFs Not Listed in Appendix D – Rapid Rate Land Application Effluent Disposal System (mg/L)	WWTFs Not Listed in Appendix D – All Other Disposal Methods, Including Reuse (mg/L)
≥ 0.5	1	1	1	6
< 0.5, ≥ 0.1	1	1	3	6
< 0.1	1	1	6	6

Where the law does not provide a compliance timeframe, new effluent standards will take effect at the time of permit renewal or no later than five years after BMAP adoption, whichever is sooner.

Additionally, new and existing wastewater permits in the BMAP area must require at least quarterly sampling of the effluent discharge for TN and TP concentrations and report these sampling results in the discharge monitoring reports (DMRs) submitted to DEP.

In 2021, subsection 403.064(16), F.S., was amended where domestic wastewater utilities that dispose of effluent, reclaimed water, or reuse water by surface water discharge were required to submit for DEP review and approval, a plan for eliminating non-beneficial surface water discharge by January 1, 2032. A utility must fully implement the approved plan by January 1, 2032. If a plan was not timely submitted or approved by DEP, the utility's domestic WWTFs may not dispose of effluent, reclaimed water, or reuse water by surface water discharge after January 1, 2028. Violations are subject to administrative and civil penalties pursuant to sections 403.121, 403.131, and 403.141, F.S.

4.1.2.2 Reclaimed Water Effluent Limits

In accordance with section 403.086. F.S., by July 1, 2034, any WWTF providing reclaimed water that will be used for commercial or residential irrigation or be otherwise land applied within a nutrient BMAP or reasonable assurance plan (RAP) area is required to meet AWT standards for TN and TP such that the reclaimed water product contains not more, on a permitted annual average basis, of 3 mg/L of TN and 1 mg/L of TP. These requirements do not apply to reclaimed water that is land applied as part of a water quality restoration project or water resource development project approved by DEP to meet a TMDL or minimum flow or level and

where the TN and TP will be at or below AWT standards prior to entering groundwater or surface water.

DEP has determined that certain WWTFs providing reclaimed water for the purpose of commercial or residential irrigation or that is otherwise being land applied within this BMAP area are causing or contributing to the nutrient impairments being addressed in this BMAP. Based on DEP's determination, these facilities are identified in **Appendix D** and are subject to the nitrogen and phosphorus limits set forth in section 403.086, F.S. The facilities listed in **Appendix D** have 10 years from BMAP adoption to meet the applicable AWT standards. This requirement does not prevent the department from requiring an alternative treatment standard, if the department determines the alternative standard is necessary to achieve the TMDL(s) or applicable water quality criteria. For facilities that did not have adequate information to complete an evaluation or where a change occurs to the facility's application of reclaimed water after the initial evaluation (e.g., an increase in facility capacity or change in location of reclaimed water application), the department will evaluate the land application of reclaimed water as more information becomes available pursuant to section 403.086, F.S.

All new permitted facilities providing reclaimed water that will be used for commercial or residential irrigation or be otherwise land applied within the BMAP area are required to meet AWT standards for TN and TP in accordance with section 403.086, F.S.

4.1.2.3 Wastewater Treatment Facility Plans

Subparagraph 403.067(7)(a)9., F.S., requires local governments within a BMAP to develop WWTF plans to be adopted as part of nutrient BMAPs no later than July 1, 2025, if DEP identifies domestic wastewater as contributors of at least 20% of point source or nonpoint source nutrient pollution or if DEP determines remediation is necessary to achieve the TMDL. The WWTF plans must be developed by each local government in cooperation with DEP, WMDs, and public and private domestic wastewater facilities within the jurisdiction of the local government. Each local government's wastewater treatment plan for this BMAP must contain the information outlined in Final Order 23-0118 for each existing or proposed domestic wastewater facility in the local government's jurisdiction.

Subparagraph 403.067(7)(a)9., F.S., was amended in 2024 to clarify that private domestic wastewater facilities must provide this information to local governments effective July 1, 2024. Information related to private facilities will need to be included in future local government WWTF plans if not captured in the initial plans.

4.1.2.3 Connection to Sewer

The installation of new OSTDS within a BMAP area is prohibited where connection to sewer lines is available. For existing OSTDS, the owner must connect to sewer within 365 days of written notification by the utility that connection to its sewer line is available. A utility is statutorily required (section 381.00655, F.S.) to provide written notice to existing OSTDS owners regarding the availability of sewer lines for connection. Additionally, existing OSTDS

needing repair or modification must connect to available sewer lines within 90 days of notification by DEP.

To facilitate an inventory of noncompliant properties, by February 2, 2026, and every two years thereafter, each utility with sewer lines in the BMAP shall provide DEP a list of properties with existing OSTDS where sewer is available but has not connected. For each identified property, include the date(s) which the utility provided written notice to the owners of the availability of sewer.

4.1.2.4 Biosolids and Septage Application Practices

To provide assurance that nitrogen and phosphorus losses to surface water and groundwater are minimized from the permitted application of biosolids and septage in the BMAP area, the requirements in Chapter 62-640, F.A.C., apply to newly permitted application sites and existing application sites upon permit renewal. Where biosolids materials mixed with yard waste or other organic materials are distributed as compost or soil amendments, DEP recommends the recipients of these materials be notified of their increased nutrient content, so that any fertilization practices on the site can be adjusted accordingly. FDACS and University of Florida Institute of Food and Agricultural Sciences (UF-IFAS) are coordinating efforts to ensure that the distribution process for these kinds of materials includes notification of the nutrient content to the site manager.

4.2 Stormwater

Urban stormwater is a considerable source of nutrient loading to Upper Ocklawaha River Basin and many urban areas are already regulated under the Municipal Separate Storm Sewer System (MS4) NPDES Stormwater Program. An MS4 is a conveyance or system of conveyances, such as roads with stormwater systems, municipal streets, catch basins, curbs, gutters, ditches, constructed channels, or storm drains. If an MS4 permittee is identified as a contributor in the BMAP, the permitted MS4 must undertake projects specified in the BMAP.

Regulated MS4s are required to implement stormwater management programs (SWMP) to reduce pollutants to the maximum extent practicable and address applicable TMDL allocations. Both Phase I and Phase II MS4 permits include provisions for the modification of SWMP activities. Phase I medium and large MS4s are regulated under an individual permit, with multiple permittees having coverage under the same permit as “co-permittees.” Phase II small MS4s are regulated under a generic permit. Under the “NPDES Two-Step Generic Permit for Discharge of Stormwater from Phase II MS4s” (paragraph 62-621.300(7)(a), F.A.C.), regulated Phase II MS4s must develop a SWMP that includes BMPs with measurable goals and a schedule for implementation to meet six minimum control measures.

DEP can designate an entity as a regulated MS4 if its discharges meet the requirements of the rule and are determined to be a significant contributor of pollutants to surface waters of the state in accordance with Rule 62-624.800, F.A.C. A Phase II MS4 can be designated for regulation when a TMDL has been adopted for a waterbody or segment into which the MS4 discharges the

pollutant(s) of concern. Because urban areas located in the BMAP that are not currently covered by an MS4 permit also significantly contribute to nutrient loading, individually or in aggregate, the NPDES Stormwater Program will, within five years of BMAP adoption, evaluate any entity located in the BMAP area that serves a minimum resident population of at least 1,000 individuals that is not currently covered by an MS4 permit and designate eligible entities as regulated MS4s, in accordance with Chapter 62-624, F.A.C.

On June 28, 2024, Governor Ron DeSantis signed Senate Bill 7040 into law, which updates Florida's stormwater rules and design criteria, including Chapter 62-330 F.A.C., to protect the state's waterways. The new regulations aim to manage runoff from developments, ensuring that future stormwater systems are better maintained. Operation and maintenance entities will be required to have estimates for the expected routine maintenance costs and to certify that they have the financial capability to maintain the stormwater system over time. The rule will also provide for more consistent oversight through a required periodic inspection routine and reporting on the inspection results to the permitting agency.

Additionally, under Chapter 62-330 F.A.C., the new rule establishes requirements for applicants to demonstrate, through calculations or modeling, that the future stormwater management systems would provide additional treatment to meet new Environmental Resource Permits stormwater treatment performance standards for an 80% reduction for TP and 55% reduction for TN, along with additional requirements that would apply where a project discharges to Outstanding Florida Waters or impaired waters. Additional permitting requirements to protect groundwater can be found within the Applicant Handbook Volume I, Section 8.5.2.

4.2.1 Urban BMPs and Eligibility

Management actions must reduce TN and/or TP loads and meet certain criteria to be considered eligible for credit in the BMAP. The Upper Ocklawaha River models included urban structural BMPs completed as of 2000. Therefore, urban structural projects completed since 2000 and planned in the future were eligible for BMAP credit. Any completed projects that were missing from the model were given credit in this report. Urban structural projects only received credit for the portion of the load reduction that was over and above any permit requirements. This criterion was needed because permit conditions are established to prevent impacts from the new development and do not contribute to water quality improvement.

Public education and outreach efforts and nonstructural projects were eligible for BMAP credit regardless of when they were implemented because these efforts were not included in the Upper Ocklawaha River models. Estimates of TN and TP reductions from street sweeping and BMP clean out were made using a tool developed by the Florida Stormwater Association (FSA) in 2012, based on data collected by Sansalone et al. (2011) that uses the volume or weight of material removed to estimate the pounds of TN and TP removed.

4.2.2 Sports Turfgrass and Golf Courses

Sports turfgrass sources include golf courses and other sporting facilities. Sporting facilities are required to follow the *2025 Sports Turf BMP Manual* to protect water resources.

All publicly owned golf courses within the BMAP must obtain a certification for golf course BMPs under section 403.9339 F.S. and all golf courses must implement the BMPs described in the DEP golf course BMP manual, *Best Management Practices for the Enhancement of Environmental Quality on Florida Golf Courses* (DEP, 2021). All golf courses located within a BMAP are required to submit an NMP to DEP that is designed to sustain even plant growth while minimizing excessive growth and nutrient losses. Required information for the NMP is available in **Appendix E**. A draft NMP must be submitted to DEP within one year of BMAP adoption and a final document is due two years after adoption. All soil and water sampling must include appropriate nitrogen and phosphorous analyses.

If a facility (either golf course or other sporting facility) uses fertilizer rates greater than those in the BMP manuals, the facility is required to conduct water quality monitoring prescribed by DEP or a WMD that demonstrates compliance with water quality standards.

4.2.3 Agriculture

4.2.3.1 Agricultural BMPs

To address nutrient loading from agricultural operations effectively, a balanced approach is necessary—one that supports agricultural productivity while safeguarding water resources. This entails promoting farming practices that optimize nutrient and water use efficiency, minimize runoff, and enhance soil health. Section 403.067, F.S., requires agricultural producers in adopted BMAPs to either enroll and properly implement the applicable FDACS BMPs for their operation or to conduct water quality monitoring activities as required by Chapter 62-307, F.A.C. Agricultural BMPs include practices such as nutrient management, irrigation management and water resource protection, and can mitigate nutrient loading while promoting environmental stewardship among Florida's agricultural producers. In many BMAPs, however, the implementation of BMPs alone will not be sufficient to meet water quality restoration goals. BMP manuals adopted by FDACS are available at https://www.fdacs.gov/Agriculture-Industry/Water/Agricultural-Best-Management-Practices. Agricultural landowners that do not enroll in BMPs are referred to DEP for water quality monitoring or enforcement under sections 403.121, 403.141 and 403.161, F.S.

Every two years, FDACS is required to perform onsite inspections of each agricultural producer that enrolls in BMPs to ensure that the practices are being properly implemented. The verification includes: review and collection of nutrient application records that producers must maintain to demonstrate compliance with the BMP Program; verification that all other applicable BMPs are being properly implemented; verification that any cost shared practices are being properly implemented; and identification of potential cost share practices, projects or other applicable BMPs not identified during enrollment. Rule 5M-1.008, F.A.C., outlines the procedures used to verify the implementation of agricultural BMPs. Producers not implementing BMPs according to the process outlined in Chapter 5M-1, F.A.C., are referred to DEP for

enforcement action after attempts at remedial action by FDACS are exhausted. Failure to implement BMPs or conduct water quality monitoring that demonstrates compliance with pollutant reductions may result in enforcement action by DEP (paragraph 403.067(7)(b), F.S.).

Pursuant to paragraph 403.067(7)(c), F.S., where water quality problems are detected for agricultural nonpoint sources despite the appropriate implementation, operation and maintenance of adopted BMPs, DEP, a water management district (WMD), or FDACS, in consultation with DEP, must conduct a reevaluation of the BMPs. If the reevaluation determines that the best management practice or other measure requires modification, DEP, a water management district, or FDACS, as appropriate, shall revise the rule to require implementation of the modified practice within a reasonable time period.

For this 2025 BMAP update, FDACS used the parcel-level polygon Agricultural Land Geodatabase (ALG) data that is part of the FSAID Geodatabase to estimate agricultural acreages statewide. The percentage of agricultural land use within the Upper Ocklawaha River BMAP was then determined by comparing the FSAID 11 ALG and total acreage of the BMAP boundary. Based on FSAID 11, the total agricultural land in the BMAP is 22,046 acres. To estimate the agricultural acres enrolled in the BMP program, FDACS OAWP overlayed the FSAID ALG and BMP enrollment data within a geographic information system (GIS) to calculate the acres of agricultural land in an enrolled parcel. **Table 23** summarizes agricultural lands within the Upper Ocklawaha River BMAP based on the FSAID 11 and the results of the FDACS unenrolled agricultural lands characterization.

Table 23. Agricultural lands in the Upper Ocklawaha River Basin by Crediting Location
** Enrollment information current as of June 30, 2024.*

Crediting Location	Agricultural Acres	Unenrolled - Unlikely Enrollable Acres	Agricultural Acres - Adjusted	Agricultural Acres Enrolled*
Apopka	9,288	5,203	4,084	1,987
Beauclair	1,788	383	1,404	958
Carlton	957	142	815	241
Denham	847	460	387	0
Dora	674	396	278	140
Eustis	867	200	367	225
Griffin	5,817	2,260	3,556	1,186
Harris	5,351	2,291	3,061	486
Marshall	35	35	0	0
Palatlakaha	5,282	1,431	3,851	871
Roberts	10	7	3	0
Trout	1,839	775	1,064	132
Yale	4,703	1,527	3,176	901

FDACS will seek further enrollment of producers in the BMAP area. As of June 30, 2024, in the Upper Ocklawaha River Basin there are 7,126 agricultural acres enrolled in the BMP program. **Table 24** and Figure 3 summarize the acres enrolled in the BMP Program by commodity. Currently, no producers are conducting water quality monitoring in lieu of implementing BMPs.

Table 24. Agricultural lands enrolled in the Upper Ocklawaha River BMAP by BMP Program commodity

Commodity	Agricultural Acres Enrolled
Citrus	1,245
Cow/Calf	1,615
Equine	154
Fruit/Nut	391
Multiple Commodities	1,294
Nursery	1,379
Row/Field Crop	662
Sod	386
Total	**7,126 (32%)**

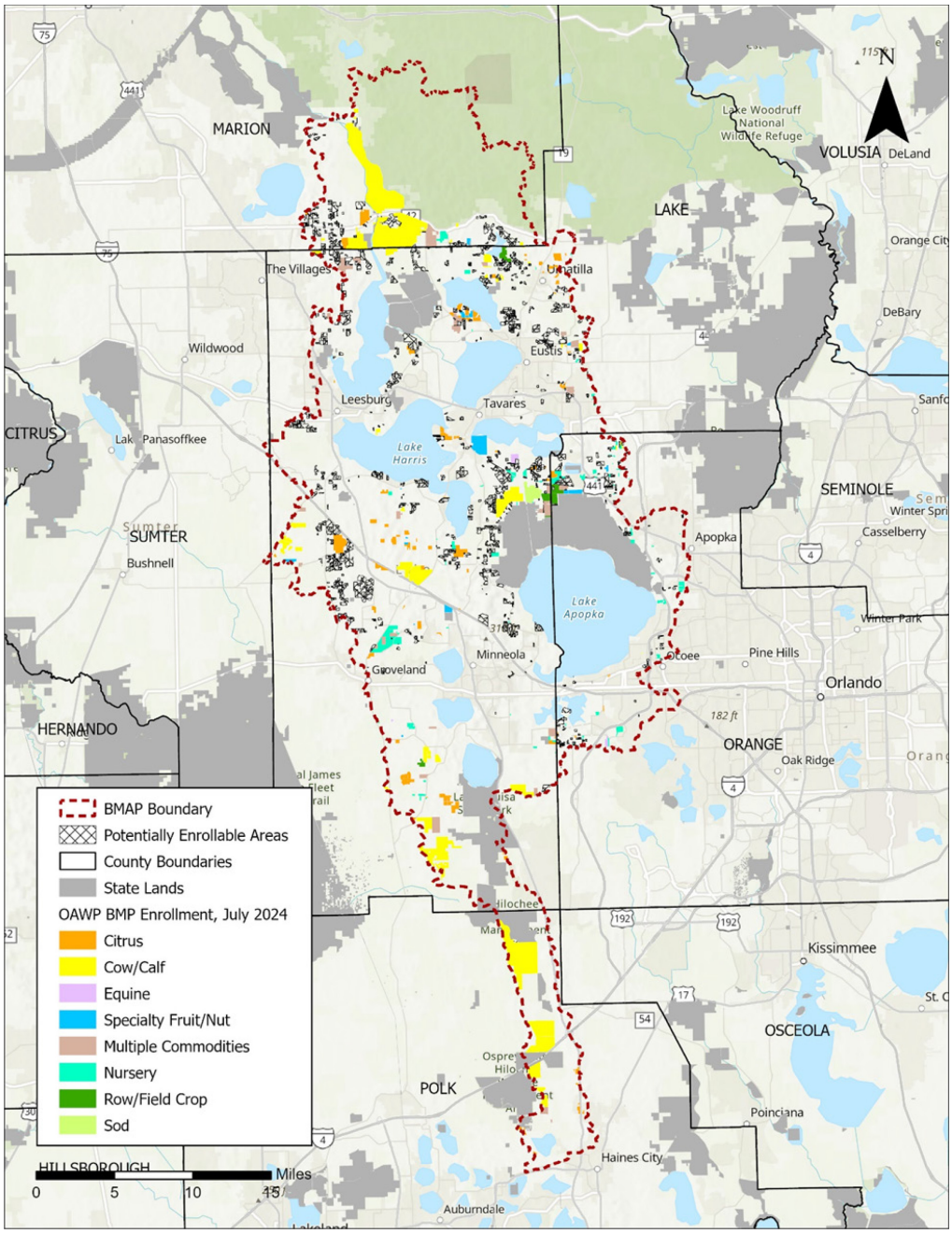

Figure 3. Agricultural BMP enrollment in the Upper Ocklawaha River Basin

4.2.3.2 Dairies and Other Confined Animal Feeding Operations (CAFOs)

CAFO dairies permitted under Chapter 62-670, F.A.C., located within a BMAP, may not cause or contribute to a violation of water quality standards and must implement nutrient management practices identified in the permits. To minimize infiltration of liquid manure, waste storage ponds must be lined using a concrete or geosynthetic liner. If a clay liner exists, then the operation will need to upgrade to a concrete or geosynthetic liner when funding is available, or it must demonstrate that the liner does not allow leaching that results in water quality exceedances.

Additionally, sampling for TN and TP of land applied effluent/wastewater must be included in the DEP-approved nutrient monitoring plan established in the permit and implemented in accordance with the monitoring plan.

4.2.3.3 Livestock Operations Without CAFO Permits

Livestock operations may not cause or contribute to a violation of water quality standards. Not all livestock operations are large enough to require an NPDES CAFO permit under Chapter 62-670, F.A.C. For these operations, section 403.067, F.S., requires the operation to enroll in the FDACS BMP Program and implement applicable BMPs or to conduct a monitoring program according to Chapter 62-307, F.A.C., that is approved by DEP or the applicable WMD.

4.2.3.4 Aquaculture

Under the federal Clean Water Act, aquaculture activities are defined as a point source. In 1999, the Florida Legislature amended Chapter 597, F.S., Florida Aquaculture Policy Act, to create a program within FDACS that requires those who sell aquatic species to annually acquire an Aquaculture Certificate of Registration and implement Chapter 5L-3, F.A.C., Aquaculture BMPs. Permit holders must be certified every year.

4.2.3.5 Silviculture

The Florida Forest Service (FFS) within FDACS is the lead entity responsible for assisting landowners, loggers, and forestry professionals with silviculture BMP implementation as well as for conducting statewide silviculture BMP training and compliance monitoring. The FFS implements Chapter 5I-6, F.A.C., and requires both private and public forest landowners across the state to comply with BMPs and the rule. Compliance with the rule involves submitting a Notice of Intent to Implement BMPs (NOI) to the FFS and thereby committing to follow BMPs during all current and future forestry operations.

4.2.3.6 Agricultural Cooperative Regional Elements (ACE)

Section 403.067, F.S., requires FDACS, DEP, and agricultural producers to work together to establish Agricultural Cooperative Regional Water Quality Elements (ACE) in BMAPs where agricultural nonpoint sources contribute at least 20% of nonpoint source nutrient discharges to impaired waterbodies, or where DEP determines this element is necessary to achieve the TMDLs. FDACS is responsible for providing DEP a list of projects which, in combination with BMPs, state-sponsored regional projects and other management strategies, will achieve the

needed pollutant load reductions established for agricultural nonpoint sources. The list of projects included in the ACE must include a planning-level cost estimate of each project along with the estimated amount of nutrient reduction that such project will achieve. Partner agencies and key stakeholders referred to in this process include FDACS, DEP and agricultural producers.

Addressing nutrient loading from agricultural sources in Florida's waterways requires collective action and partnership among the key stakeholders, and in consultation with the WMDs. By fostering cooperation and engagement, the ACE framework facilitates the exchange of knowledge, resources, and expertise, leading to innovative solutions and effective strategies for tackling water quality challenges. Engaging producers in the decision-making process ensures that projects are practical, feasible, and tailored to the needs and realities of agricultural operations. Partner agencies provide technical support, regulatory guidance, and funding opportunities that will enhance the implementation and success of regional water quality improvement initiatives. This cooperative effort is essential for implementing targeted actions that balance the economic and social benefits of agriculture with the obligation to address agricultural nonpoint source loading beyond BMP implementation and cost share.

The ACE framework leverages resources and technical expertise to efficiently identify regional projects and other strategies tailored to the diverse agriculture production methods, landscapes, and watersheds that will need to be implemented to achieve the TMDLs. Regional project types will vary among the different BMAPs, and can include, but are not limited to, a combination of traditional projects that focus on water treatment, land acquisition in fee or conservation easements on the lands of willing sellers, site-specific water quality improvement projects, dispersed water management projects, innovative technologies, and regional projects funded through existing or enhanced cost share programs administered by FDACS or the WMDs.

While FDACS is assigned the lead role on project solicitation, development, selection, and implementation, they will work closely with all the key stakeholders, including DEP as a partner agency, to define and identify regional projects that will be included in the BMAP and to leverage existing programs and resources. FDACS will lead engagement with producers and industry groups through workshops to identify potential regional projects. Identified projects will be implemented through various mechanisms, such as existing agency cost share or grant programs or through a legislative budget request and eventual appropriation. Upon identification of a project, FDACS will update DEP on project development and implementation, including the funding strategy.

FDACS and DEP will work together to track progress on agricultural water quality projects under the ACE framework through the development of performance metrics and evaluation of water quality monitoring data in the basin or, if necessary, at the project level. The default performance measures will be the expected range of pollutant removal efficiencies associated with a project or strategy. Tools may be needed to determine the effectiveness of projects, such as modeling and where feasible onsite water quality monitoring.

FDACS will report on projects annually through DEP's Statewide Annual Report (STAR) process and during BMAP update and/or development. Projects and other management strategies implemented through the ACE will be evaluated cooperatively by partner agencies using the predetermined performance metrics. The ACE process provides for adaptive management, allowing flexibility to adapt and improve based on regional project or management strategy results.

Currently, agricultural nonpoint sources contribute 9% of the TN and 9% of the TP in the Upper Ocklawaha River BMAP. However, DEP, in collaboration with the SJRWMD, is updating the hydrodynamic, water quality, and watershed models for the St. Johns River basin, which includes the area in the Upper Ocklawaha River BMAP. This effort is expected to take at least two years to complete, at which point more current land use and pollutant load information will be available for a Upper Ocklawaha River BMAP update. The department will then re-evaluate the need for ACE projects.

Most agricultural lands are engaged in row crop production. **Table 25** shows the dominant crop types within the Upper Ocklawaha River BMAP.

Table 25. Dominant crop types in the Upper Ocklawaha River BMAP

Crop Type	Acres
Row Crops	11,578
Grazing Land	10,032
Nursery	1,986

Targeting future funding toward precision agriculture, manure management, innovative technologies or soil health practices, including combining practices where applicable, to address nutrient impacts from row crop production on a regional scale could provide additional reductions.

FDACS will continue to work with key stakeholders in the Upper Ocklawaha River BMAP to identify additional options for addressing agricultural nonpoint source nutrient loading. For more information on the FDACS Regional Projects Program, see the links in **Appendix F**.

4.2.3.7 Description of BMPs Adopted by Rule

Appendix F provides detailed information on BMPs and agricultural practices in the BMAP area. **Table 26** identifies the adopted BMPs and BMP manuals relevant to this BMAP.

Table 26. BMPs and BMP manuals adopted by rule as of July 2025

Agency	F.A.C. Chapter	Chapter Title
FDACS OAWP	5M-1	Office of Agricultural Water Policy
FDACS OAWP	5M-06	Florida Nursery Operations, 2024 Edition: Water Quality and Water Quantity Best Management Practices

Agency	F.A.C. Chapter	Chapter Title
FDACS OAWP	5M-08	Florida Vegetable and Agronomic Crop (VAC) Operations, 2024 Edition: Water Quality and Water Quantity Best Management Practices
FDACS OAWP	5M-09	Florida Sod Operations, 2024 Edition: Water Quality and Water Quantity Best Management Practices
FDACS OAWP	5M-11	Florida Cattle Operations, 2024 Edition: Water Quality and Water Quantity Best Management Practices
FDACS OAWP	5M-12	Conservation Plans for Specified Agricultural Operations
FDACS OAWP	5M-13	Florida Specialty Fruit and Nut Crop Operations, 2024 Edition: Water Quality and Water Quantity Best Management Practices
FDACS OAWP	5M-14	Florida Equine Operations, 2024 Edition: Water Quality and Water Quantity Best Management Practices
FDACS OAWP	5M-16	Florida Citrus Operations, 2024 Edition: Water Quality and Water Quantity Best Management Practices
FDACS OAWP	5M-17	Florida Dairy Operations, 2024 Edition: Water Quality and Water Quantity Best Management Practices
FDACS OAWP	5M-18	Florida Agriculture Wildlife Best Management Practices
FDACS OAWP	5M-19	Florida Poultry Operations, 2024 Edition: Water Quality and Water Quantity Best Management Practices
FDACS OAWP	5M-21	Florida Small Farms and Specialty Livestock Operations, 2024 Edition: Water Quality and Water Quantity Best Management Practices
FDACS Division of Agriculture Environmental Services	5E-1	Fertilizer
FDACS Division of Aquaculture	5L-3	Aquaculture Best Management Practices
FFS	5I-6	Best Management Practices for Silviculture
DEP	62-330	Environmental Resource Permitting

4.3 Atmospheric Deposition

4.3.1 Summary of Atmospheric Loading

Some of the Upper Ocklawaha River TMDLs estimated direct atmospheric deposition to the lake surfaces based on the average surface area of the lake, annual precipitation, and atmospheric TN and TP concentrations. For details on methodologies, refer to the individual TMDL documents.

Atmospheric deposition is largely a diffuse, albeit continual, source of nitrogen. Currently, nitrogen species and other chemical constituents are measured in wet and dry deposition at discrete locations around the U.S. In 2014, Schwede and Lear developed a hybrid model for estimating the total atmospheric deposition of nitrogen and sulfur for the entire U.S., referred to as the total atmospheric deposition model (TDEP). Deposition data from several monitoring networks--including the Clean Air Status and Trends Network (CASTNET); the National Atmospheric Deposition Program (NADP) Ammonia Monitoring Network; the Southeastern Aerosol Research and Characterization Network; and modeled data from the Community Multiscale Air Quality (CMAQ) Modeling System--are combined in a multistep process with National Trends Network (NTN) wet deposition values to model total deposition.

Atmospheric deposition of phosphorus can also be a source to lakes via wet deposition through rainfall and dry deposition via gaseous and particulate wind-transported particles (Anderson & Downing, 2006; Zhai et al., 2009). The movement of phosphorus between land and water sources has been greatly accelerated by anthropogenic activities, particularly related to use of fertilizers that include phosphorus (Cordell et al., 2009; Boehme et al., No Date). However, the NADP National Analytical laboratory does not include phosphorus measurements as a primary objective; orthophosphate is measured, but only for quality assurance as an indicator of sample pollution (University of Wisconsin, 2024). Therefore, fewer data are available on the trends of atmospheric deposition of phosphorus in the basin.

4.3.2 Description of Approach

Atmospheric sources of nutrients are local, national, and international. Nitrogen atmospheric sources are generally of low concentration compared with other sources and are further diminished through additional biological and chemical processes before they reach groundwater. Recent data (Himes and Dawson, 2017) indicate that the deposition of nitrogen has been generally decreasing in Florida with an up to 55% decrease in atmospheric deposition by 2028, possibly related to power plant fuel source changes and air treatment upgrades as well as the increased use of electric vehicles, decreasing mobile sources (Himes and Dawson, 2017). This gradual decrease in atmospheric deposition of nitrogen will assist with creating the necessary reductions. Currently, since the scale of the national and international programs to address air deposition loads are difficult to integrate into the much smaller scale of this water quality plan, there are no specific nitrogen or phosphorus reductions assigned to this source category. Atmospheric deposition sources and trends will be re-evaluated periodically.

4.4 Future Growth

Nutrient impacts from new development are addressed through a variety of mechanisms outlined in this BMAP, as well as provisions of Florida law. While most of the restoration projects and management strategies listed in this BMAP address current nutrient loading, there is a need to plan and implement sound management strategies to address loading associated with population growth. DEP has included in this BMAP specific elements to address current and future WWTF effluent, OSTDS, and stormwater sources. Broader requirements—such as local land development regulations, comprehensive plans, ordinances, incentives, environmental resource permit requirements and consumptive use permit requirements—all provide additional mechanisms and avenues to protect water resources and reduce the impact of new development and other land use changes as they occur.

Further strengthening of comprehensive plans is required under section 163.3177, F.S., which requires local governments to amend their comprehensive plans with the following considerations:

- Identify and prioritize projects to meet the TMDLs.

- Update the wastewater section to include plans for treatment updates, not just capacity, and AWT must be prioritized.

- In developments with more than 50 lots with more than one OSTDS per acre, the plan must consider the feasibility of providing sanitary sewer within a 10-year planning horizon and identify the facility that could receive the flows. The plan must review the capacity of the facility and any associated transmission facilities; projected wastewater flow at that facility for the next 20 years, including expected future new construction and connections of OSTDS to sanitary sewer; and timeline for the construction of the sanitary sewer system. The plan was initially required to be updated by July 1, 2024.

- Comprehensive plans must contain capital improvements element to consider the need for and the location of public facilities:
    - Construction, extension, or increase in capacity of public facilities as well as principals for correcting existing public facility deficiencies. Components must cover at least a 5-year period.
    - Costs, timeline, general location, and projected revenue sources to fund the facilities.
    - Standards to meet an acceptable level of service.
    - Schedule of capital improvements, which may include privately funded projects.
    - A list of projects necessary to achieve the pollutant load reductions attributable to the local government, as established in a BMAP.
    - The element must address coordinating the extension of, increase in the capacity of, or upgrade in treatment of facilities to meet future needs; prioritizing AWT while maximizing the use of existing facilities and discouraging urban sprawl; conserving potable water resources; and protecting the functions of natural groundwater recharge areas and natural drainage features.

Through this array of laws and the requirements in this BMAP, new development must undertake certain nutrient-reduction measures before the development is complete. DEP recommends that local governments revise their planning and land use ordinance(s) to adequately address future growth and the associated environmental impact. Maintaining land at lower intensity uses through land purchases or easements for conservation and recreational use is one strategy that can help reduce water quality impacts in the basin. Any additional nutrient loading from land use intensification will be evaluated during future BMAP update efforts. If an increase in loading occurs, a responsible entity may receive additional reduction allocations that will require additional management actions by the responsible entity to mitigate those water quality impacts.

4.4.1 Future Growth Analysis

An analysis was done to consider the impacts of future population growth and urban development on loading in the basin. Wastewater sources were evaluated using per-person estimations calculated for portions of the population estimated to be served by OSTDS and those

connected to central sewer. Stormwater sources were evaluated using per-acre estimations calculated for portions of a jurisdictional area that may be developed.

First, population growth for each county was taken from the Bureau of Economic and Business Research (BEBR) 2040 Medium Growth Projections. Then, a spatial analysis was performed to determine the proportion of developable land area attributed to each entity within each county. Areas where there are permanent waterbodies, or which have been set aside for conservation are unlikely to see future development or increased population so the National Hydrography Database (NHD) for lake and ponds and the Florida Natural Areas Inventory (FNAI) conservation lands were used to remove lands from the analysis. The percentage of remaining land attributed to each entity was applied to the county projected population growth to determine the number of additional people anticipated to contribute to loading by 2040.

The next step was to distinguish the future population expected to be served by sewer versus those with OSTDS based on the most recent Florida Water Management Inventory (FLWMI) for each BMAP county. For this, FLWMI parcels within each entity's jurisdiction were counted and categorized based on the Wastewater Type field. The number of points in "Known Sewer," "Likely Sewer," and "Somewhat Likely Sewer" divided by the total number of points estimated a portion of the population that are served by central wastewater collection system. The remainder are assumed to have an OSTDS.

Per person loading calculations were used to estimate future loads from WWTFs and OSTDS under different planning scenarios, as described below. The DEP Domestic Wastewater Program estimates each person in Florida generates 100 gallons of wastewater per day. For OSTDS, FDOH estimates each person in Florida generates 10 lbs TN/yr. US-IFAS estimates each person in Florida generates 10 grams TP/day. Phosphorus loading rates from OSTDS are not affected by new technologies or BMAP management strategies. An attenuation rate of 50% for wastewater effluent disposal was applied to loading calculations to derive the estimated future load to the basin.

Per acre loading calculations were used to estimate future loads from increased urban runoff as a result of development under different planning scenarios, described below. First, a number of developed acres were derived by applying percentages to the developable land areas from the initial GIS analysis for each entity. Then, the loadings were based on the DEP statewide event mean concentrations (EMCs) and runoff coefficients (ROCs) for low density residential, with a generalized rainfall for Central Florida from *Harper 2007 Stormwater Evaluation*. Finally, a generalized attenuation rate of 70% for urban runoff was applied to loading calculations to derive the estimated future load to the basin.

Scenario 1 represents a future planning scenario with the highest levels of treatment feasible. It assumes all local governments within the BMAP have a minimum of 90% of their population served by centralized sewer, and all domestic wastewater will be treated to AWT standards (3 mg/L TN or less and 1mg/L TP or less) by 2040 based on current Florida law and BMAP management strategies. This scenario also assumes that all future OSTDS will be enhanced

nutrient-reducing systems or other wastewater systems with a nitrogen treatment efficiency of at least 65%. For urban development, this scenario represents a conservative growth future where 2% of developable land is converted to low density residential.

Scenario 2 utilizes the current rates of sewer availability based on the FLWMI parcels to estimate the population served by central wastewater collection system. This future planning scenario assumes that all domestic wastewater will be treated to AWT standards (3 mg/L TN or less and 1mg/L TP or less) by 2040 based on current Florida law and BMAP management strategies. This scenario also assumes that all future OSTDS will be enhanced nutrient-reducing systems or other wastewater systems with a nitrogen treatment efficiency of at least 65%. For urban development, this scenario represents a moderate growth future where 10% of developable land is converted to low density residential.

Scenario 3 represents a future planning scenario with the lowest levels of treatment feasible. It utilizes the current rates of sewer availability based on the FLWMI parcels to estimate the population served by central wastewater collection system and assumes that all domestic wastewater will be treated to 6 mg/L TN and 3 mg/L TP by 2040. This scenario also assumes that all future OSTDS will be conventional systems. For urban development, this scenario represents an extreme growth future where 17% of developable land is converted to low density residential.

Future development will likely also result in an increase in loading from turfgrass. This change is difficult to model because much of it depends on the type and location of development, enforcement of local ordinances, future home values, and future social attitudes towards turfgrass lawns. There are also complex dynamics associated with new urban development in which loading from human activities is compounded by potential removal or conversion of forest lands or green spaces, which had previously provided natural remediation of atmospheric and soil nitrogen.

Based on the methodology above, using nitrogen loads as an example, **Table 27** and **Table 28** show the estimated future loads from wastewater and urban stormwater sources that may be assigned to local governments if growth continues as projected under the three planning scenarios. DEP encourages local governments to consider these additional nutrient loads when authorizing new development or changes in land uses, and when developing local plans for wastewater infrastructure expansion and maintenance, to ensure that the TMDL target is achieved and maintained.

Table 27. Estimated nitrogen load from future growth in the BMAP area

Entity	2040 Additional Population	Scenario 1 2040 Additional TN Loading (lbs/yr)	Scenario 2 2040 Additional TN Loading (lbs/yr)	Scenario 3 2040 Additional TN Loading (lbs/yr)
Lake County	49,639	28,008	49,266	98,307
Astatula	542	306	703	1,405

Entity	2040 Additional Population	Scenario 1 2040 Additional TN Loading (lbs/yr)	Scenario 2 2040 Additional TN Loading (lbs/yr)	Scenario 3 2040 Additional TN Loading (lbs/yr)
Clermont	4,006	1,847	1,895	3,772
Eustis	2,366	1,335	1,857	3,702
Fruitland Park	314	177	274	546
Groveland	4,097	2,210	2,260	4,501
Howey-in-the-Hills	703	397	1,058	2,113
Lady Lake	57	32	38	76
Leesburg	5,449	2,610	2,676	5,326
Mascotte	487	275	534	1,066
Minneola	2,488	1,404	3,766	7,522
Montverde	335	189	495	989
Mount Dora	1,581	892	1,181	2,354
Tavares	2318	1,308	3,074	6,137
Umatilla	726	410	513	1,023
Wildwood	38	19	19	38
Marion County	3,022	1,719	4,248	8,462
Orange County	14,746	8,296	12,369	24,707
Apopka	6,367	3,554	3,590	7,167
Oakland	1,016	571	1,477	2,952
Ocoee	2,688	1,512	2,044	4,081
Winter Garden	7,461	3,680	3,722	7,429
Polk County	4,522	2,555	4,012	7,999
Basin Totals	**114,967**	**63,307**	**101,072**	**201,674**

Table 28. Estimated phosphorous load from future growth in the BMAP area

Entity	2040 Additional Population	Scenario 1 2040 Additional TP Loading (lbs/yr)	Scenario 2 2040 Additional TP Loading (lbs/yr)	Scenario 3 2040 Additional TP Loading (lbs/yr)
Lake County	49,639	8,853	14,009	21,764
Astatula	542	97	193	229
Clermont	4,006	615	632	1,865
Eustis	2,366	422	550	1,063
Fruitland Park	314	56	80	140
Groveland	4097	706	723	1,891
Howey-in-the-Hills	703	125	285	289
Lady Lake	57	10	12	26
Leesburg	5,449	860	883	2,532
Mascotte	487	87	150	211
Minneola	2,488	444	1,013	1,023
Montverde	335	60	134	139

Entity	2040 Additional Population	Scenario 1 2040 Additional TP Loading (lbs/yr)	Scenario 2 2040 Additional TP Loading (lbs/yr)	Scenario 3 2040 Additional TP Loading (lbs/yr)
Mount Dora	1,581	282	353	713
Tavares	2,318	413	840	976
Umatilla	726	129	155	329
Wildwood	38	6	6	18
Marion County	3,022	544	1,160	1,305
Orange County	14,746	2,622	3,606	6,508
Apopka	6367	1,125	1,138	2,902
Oakland	1,016	181	398	416
Ocoee	2,688	478	607	1,198
Winter Garden	7461	1,202	1,217	3,426
Polk County	4,522	808	1,164	2,019
Basin Totals	**114,967**	**20,125**	**29,306**	**50,982**

Scenario 1 resulted in an additional basin load of 63,307 lbs/yr TN and 20,125 lbs/yr TP. Scenario 3 resulted in an additional basin load of 201,674 lbs/yr TN and 50,982 lbs/yr TP.

While it is unlikely that additional nutrient loading from future populations can be entirely avoided, the results of this analysis provide local governments information on how they can mitigate future nitrogen loading by pursuing planning scenarios which prioritize the expansion of centralized sewer services that meet or exceed AWT standards for wastewater effluent. Entities with minor or no changes in 2040 loading under Scenarios 1 and 2 already have a high rate of sewering in their jurisdiction.

This broad analysis is not being used to determine allocated reductions for responsible entities because it does not capture all local considerations and complexities of mixed land use, or current allocation approaches for wastewater. In addition, changes in nutrient loading from future population and development are difficult to model because much of it is dependent on the type and location of development, enforcement of local ordinances, future home values, and future social attitudes towards lawn maintenance and waste management. There are also complex dynamics associated with new urban development in which loading from human activities is compounded by potential removal or conversion of forest lands or green spaces, which had previously provided natural remediation of atmospheric and soil nutrients, as well as other ecosystem benefits. However, the results show trends in how loading in the basin might change in the coming decades without comprehensive local and regional planning.

Other mechanisms discussed in this section are available to local governments to further mitigate future nutrient loading from existing and future developed land. For example, strengthening and enforcing fertilizer ordinances, working with homeowners' associations or neighborhood groups to reduce fertilizer use on community landscaping, or incentivizing Florida Friendly development practices could reduce the overall impact of additional nutrient loading associated

with urban fertilizer. Additionally, wastewater can be treated to higher standards than those built into this analysis through upgrades to WWTFs and use of enhanced nutrient-reducing OSTDS certified with higher nitrogen treatment efficiencies or other wastewater treatment systems with higher treatment levels. Local governments can use this information to incorporate water quality considerations when developing and implementing local ordinances, comprehensive plans, stormwater planning, and enhanced OSTDS incentive programs in areas of urban expansion.

4.4.2 Funding Opportunities

Chapter 2023-169, Laws of Florida (L.O.F.), expanded grant opportunities for local governments and eligible entities working to address TMDLs or impaired waters. Through the DEP Water Quality Improvement Grant Program, eligible entities can apply for grant funding for wastewater, stormwater, and regional agricultural projects. Projects are prioritized that have the maximum nutrient load per project, demonstrate project readiness, are cost-effective, have cost-share by the applicant (except for Rural Areas of Opportunity), have previous state commitment, and are in areas where reductions are most needed. Multiple competitive funding resources are available under the *Protecting Florida Together* website.

Financial and technical assistance through FDACS and the SJRWMD are available to agricultural producers within the Upper Ocklawaha River BMAP. FDACS and conservation district technicians provide outreach and education on BMP implementation for enrolled agricultural operations, as well as work with interested producers to provide cost share funding for projects to improve on-farm nutrient and irrigation efficiencies that work in tandem with the applicable practices from the producer's BMP checklist. The SJRWMD cost share program also provides outreach and funding for projects that provide nutrient and irrigation management benefits. FDACS and the SJRWMD work closely to ensure their cost share programs complement each other to meet the needs of the producers while considering the specific characteristics of the region.

Section 5. Monitoring Strategy

5.1 Monitoring Objectives

The Upper Ocklawaha River BMAP monitoring plan is described in detail in **Chapter 14** of the 2014 BMAP. Primary objectives involve evaluating the success of the BMAP. Secondary objectives contribute to this evaluation and can help interpret the data collected.

Primary Objectives

1. To determine whether the target TP and TN (where applicable) concentrations used to develop the TMDLs are being achieved.

2. To determine whether expected improvements in other water quality indicators are being achieved, particularly reductions in chlorophyll-a concentrations.

Secondary Objectives

3. To measure tributary loadings.

4. To measure loadings associated with specific sources or projects, as feasible.

To achieve the objectives above, the monitoring strategy focuses on two types of indicators to track water quality trends: core and supplemental. The core indicators **(Table 29)** are directly related to the parameters causing impairment in the lake and its tributaries.

Table 29. Core water quality indicators

** TSI: trophic state index; LVI: linear vegetation index.*

Core Water Quality Indicators	Lakes	Canals	Palatlakaha River
BOD	-	-	√
Chlorophyll-*a*	√	√	√
Dissolved Oxygen (DO)	-	-	√
Stream Condition Index (SCI)	-	-	√
TN	√	√	√
TP	√	√	√
Trophic Condition, Per the TSI	√	-	-
LVI	√	-	-
Phytoplankton Enumeration and Identification	√	-	-

Supplemental indicators **(Table 30**) are monitored primarily to support the interpretation of core water quality parameters.

Table 30. Supplemental water quality indicators

Supplemental Water Quality Indicators	Lakes	Canals	Palatlakaha River
Algal Biomass	√	-	-
Alkalinity	√	√	√
BOD	-	-	√
Clarity, Measured as Secchi Depth	√	√	√
Color	√	-	-
Conductivity	√	√	√
DO	√	√	-
pH	√	√	√
Temperature	√	√	√
Total Organic Carbon	√	√	-
Total Suspended Solids (TSS)	√	√	√
Turbidity	√	√	√
Unionized Ammonia	√	√	√
Field Conditions during Sampling	√	√	√

A network of stations supporting both the primary and secondary objectives was assembled from monitoring networks supported by Lake County, LCWA, Orange County, and SJRWMD (**Figure 4**). For the primary objective, stations representative of the lakes, the tributaries between the lakes, and the Palatlakaha River were selected. As a secondary objective, stations that provide data on specific loading sources were selected. Monitoring agencies agreed that each impaired waterbody, at a minimum, has at least one monitoring station. Individual sites/parameters may be periodically added or removed, depending on environmental conditions, resources, data review, and other pertinent factors.

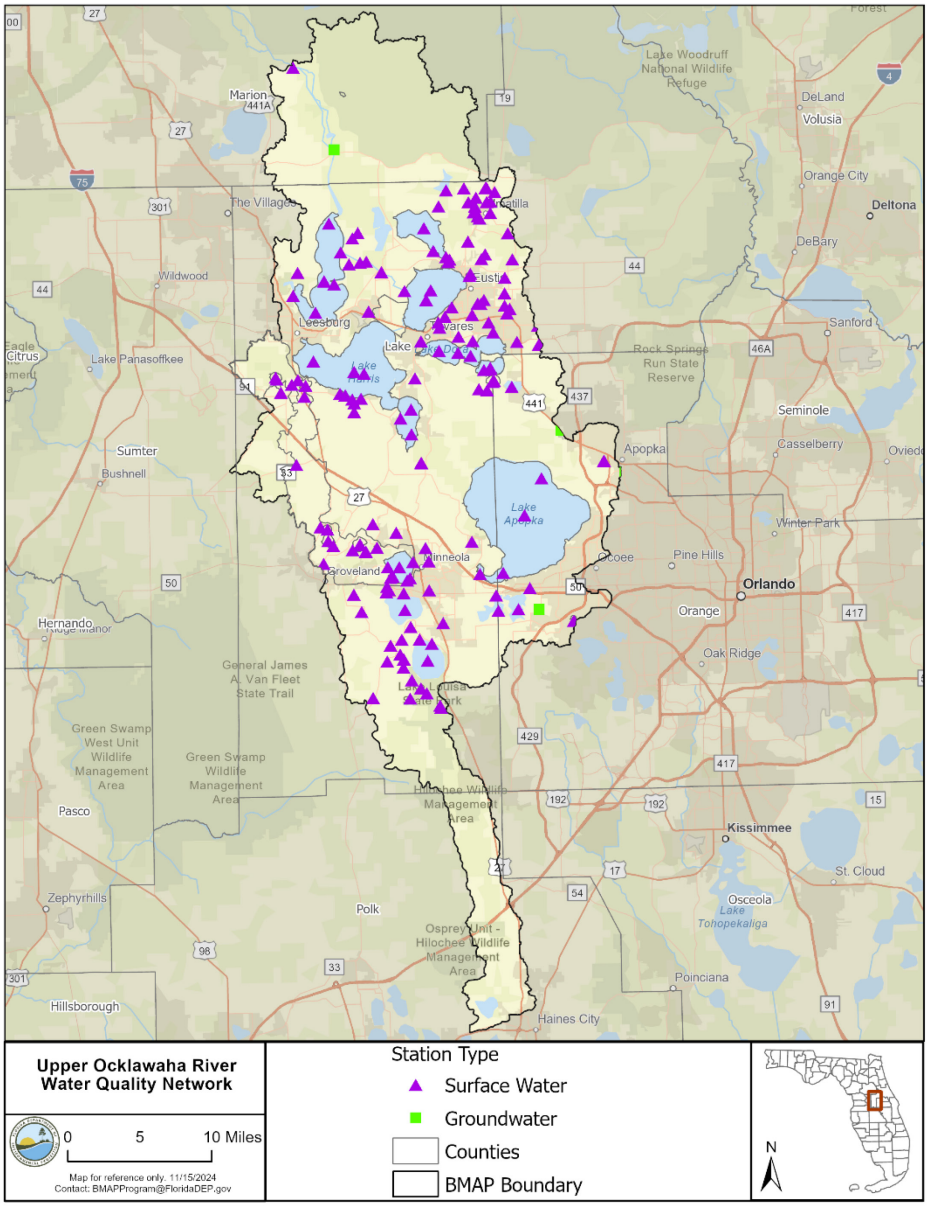

Figure 4. Upper Ocklawaha River Basin water quality monitoring network

5.2 Hotspot Analysis

To better prioritize and focus resources to achieve restoration most efficiently in the Upper Ocklawaha River BMAP, DEP developed the hotspot analysis approach. This approach uses measured data collected throughout the watershed to evaluate TN and TP concentrations. This process is not intended to be a management strategy under section 403.067, F.S. The benchmarks are not intended to measure progress towards restoration or compliance; they are only be used to assist with allocating and prioritizing resources.

The measured nutrient concentrations were compared with selected benchmarks to identify areas that should be the highest priority for restoration. Four statistics are calculated for the whole BMAP and are used to compare against each station average: TN or TP concentration average; TN or TP 90th percentile; TN or TP standard deviation; and TN or TP percent frequency of samples over the BMAP threshold. Stations are assigned a rank of 0, 1, or 2 for each category, as shown in **Figure 5**.

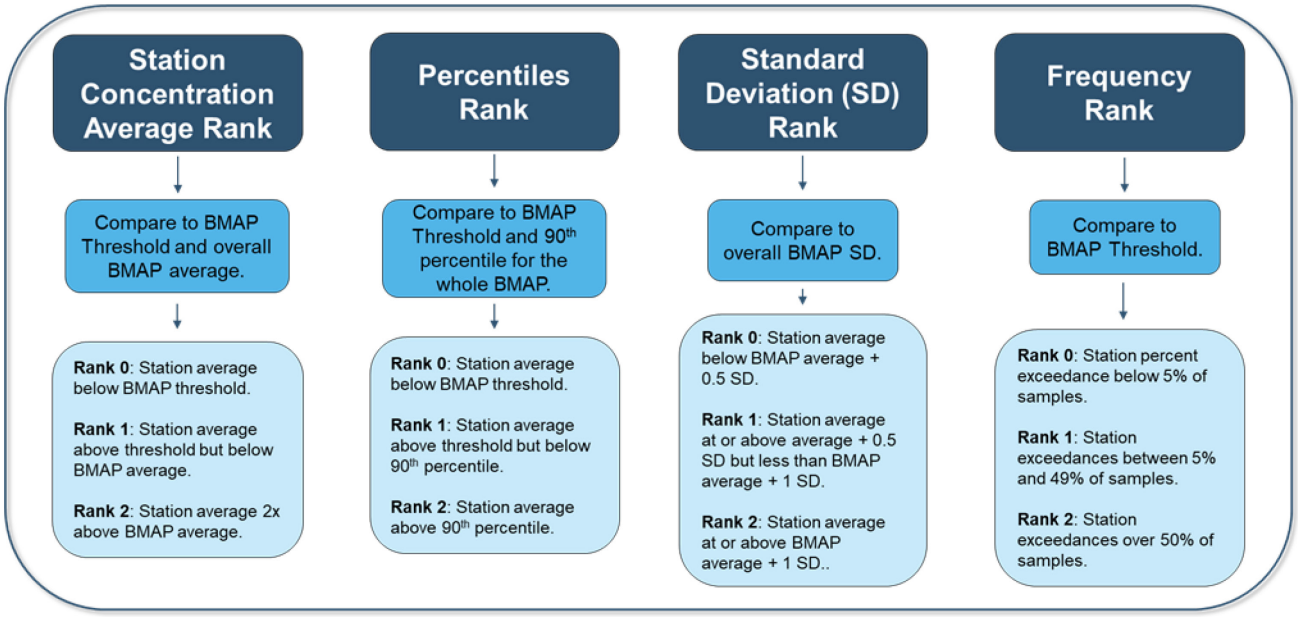

Figure 5. Summary of the hot spot analysis approach

The scores for the four categories are added for a total index rank. The total index rank ranges between 0 and 8, with high rank values (8, 7, and 6) being stations of high concern and low ranks (0, 1, and 2) of least concern. This analysis will be run as needed to identify areas of concern within the BMAP boundary.

Figure 6 and **Figure 7** summarize the most recent TN and TP hot spot analysis results. The period of record used was 2019 to 2023, using ambient monitoring sites with at least three samples per year and minimum of 3 years of data.

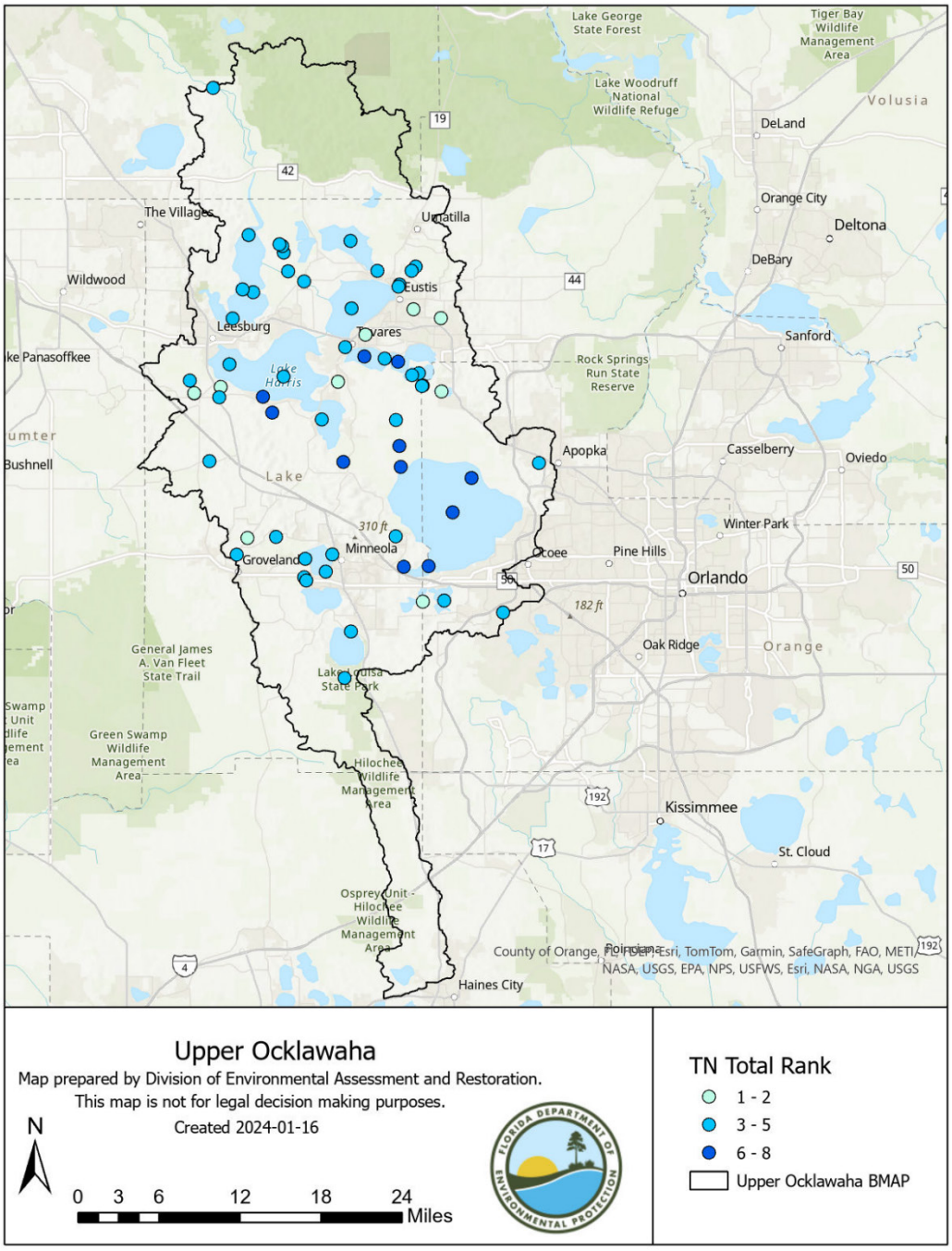

Figure 6. TN hot spot results

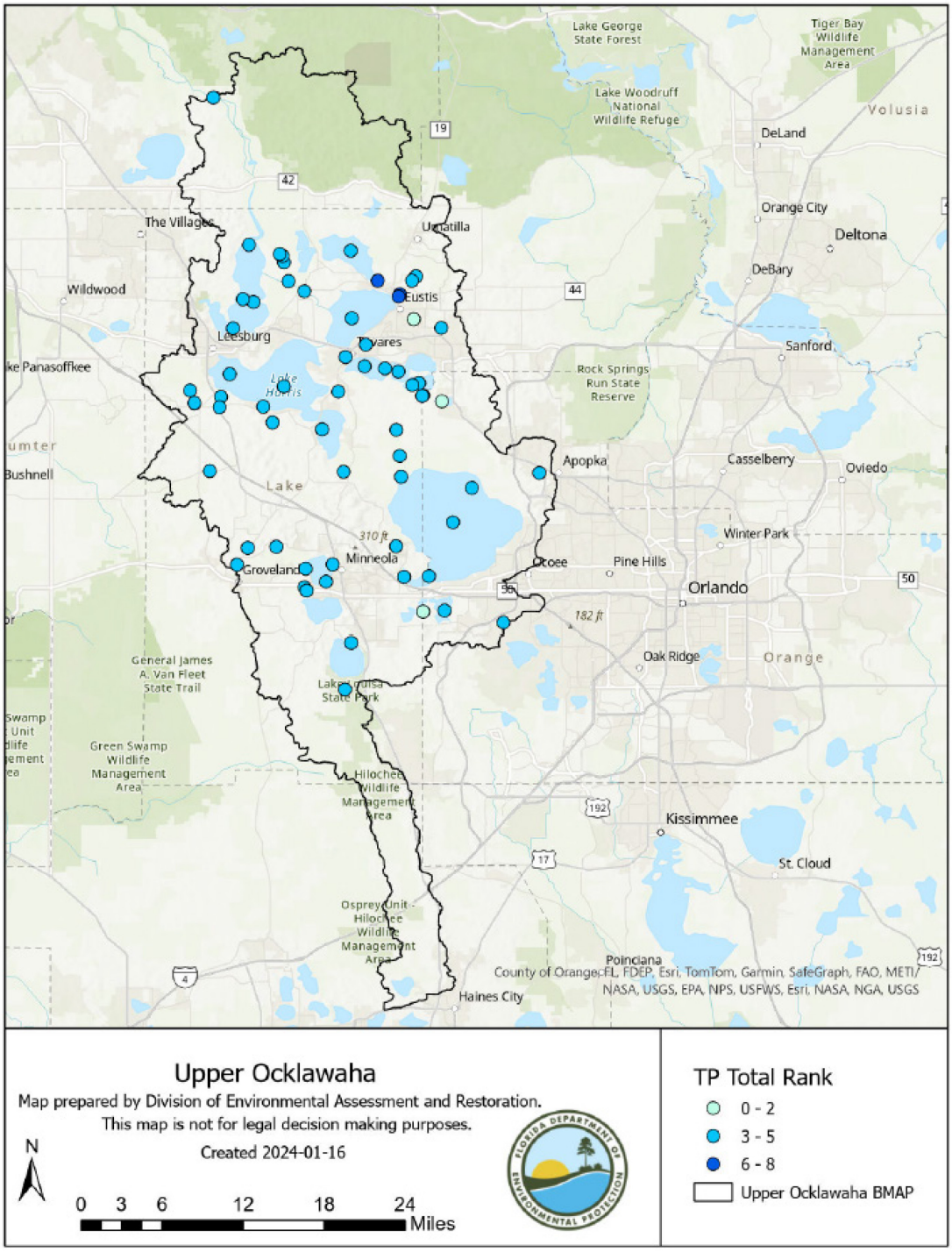

Figure 7. TP hot spot results

Section 6. Commitment to Plan Implementation

6.1 Adoption Process

The 2025 BMAP update is adopted by Secretarial Order and assigns TP and TN load reductions to the responsible stakeholders in the Upper Ocklawaha River Basin.

6.2 Tracking Reductions

The required loading reductions are expected to be met by 2030. Each entity responsible for implementing management actions to meet their upcoming 5-year milestone as part of the BMAP will provide DEP, via the statewide annual report process, with an annual update of progress made in implementing load reductions. The update will track the implementation status of the management actions listed in the BMAP and document additional projects undertaken to further water quality improvements in the basin. FDACS will continue to report acreage enrolled in NOIs at least annually to DEP.

6.3 Revisions to the BMAP

Adaptive management involves setting up a mechanism for making course corrections in the BMAP when circumstances change, or feedback mechanisms indicate that a more effective strategy is needed. Section 403.067, F.S., requires that the plan be revised, as appropriate, in collaboration with basin stakeholders. All or part of a revised BMAP must be adopted by Secretarial Order. Adaptive management measures include the following:

- Need to update based on new information, including model updates.
- New law requirements.
- Procedures to determine whether additional cooperative actions are needed.
- Criteria/process for determining whether and when plan components need to be revised because of changes in costs, environmental impacts, social effects, watershed conditions, or other factors.
- Descriptions of the stakeholders' role after BMAP completion.

DEP anticipates that the St. Johns River Basin model will be completed in 2028. After the St. Johns River Basin model is complete, DEP will reevaluate and, if necessary, adopt another iteration of the Upper Ocklawaha River BMAP, most likely before 2030. The next iteration may include updated required reductions, timelines and 5-year milestones. Tracking implementation, monitoring water quality and pollutant loads, and holding periodic meetings to share information and expertise are key components of adaptive management.

Section 7. References

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Appendices

Appendix A. Important Links

The links below were correct at the time of document preparation. Over time, the locations may change and the links may no longer be accurate. None of these linked materials are adopted into this BMAP.

- DEP Website: http://www.floridadep.gov
- DEP Map Direct Webpage: https://ca.dep.state.fl.us/mapdirect/
- Florida Statutes: http://www.leg.state.fl.us/statutes:
    a. Florida Watershed Restoration Act (Section 403.067, F.S.)
- DEP Model Ordinances: http://fyn.ifas.ufl.edu/fert_ordinances.html
- DEP Standard Operating Procedures for Water Quality Samples: https://floridadep.gov/dear/quality-assurance/content/dep-sops
- NELAC NELAP: https://fldeploc.dep.state.fl.us/aams/index.asp
- FDACS BMPs: Best Management Practices (BMPs) / Agriculture Industry / Home - Florida Department of Agriculture & Consumer Services
- FDACS BMP and Field Staff Contacts: Agricultural Water Policy / Divisions & Offices / Home - Florida Department of Agriculture & Consumer Services
- FDACS Regional Projects Program: https://www.fdacs.gov/Divisions-offices/Agricultural-Water-Policy.
- Florida Administrative Code (Florida Rules): https://www.flrules.org/
- Florida Stormwater Rule: https://floridadep.gov/water/engineering-hydrology-geology/content/erp-stormwater-resource-center
- SJRWMD 2002 Middle St. Johns River Surface Water Improvement and Management (SWIM) Plan: https://www.sjrwmd.com/static/plans/2002_MSJRB_SWIM_Plan.pdf
- UF–IFAS Research: http://research.ifas.ufl.edu/

Appendix B. Projects to Reduce Nutrient Sources

Table B-1. Stakeholder projects

ProjID	Lead Entity	Project Number	Project Name	Project Description	Project Type	Project Status	Estimated Completion Date	Estimated Nitrogen Load Reduction (lbs/yr)	Estimated Phosphorous Load Reduction (lbs/yr)	Crediting Location	Cost Estimate	Funding Source	Funding Amount
6652	Central Florida Expressway	MARSHALL 01	SR 451 - Ponds 1,3,5	Ponds 1, 3, and 5 are dry detention ponds designed to retain 25-year, 24-hour storm event.	Dry Detention Pond	Completed	2000	0	3	Marshall Lake Basin	$0	CFX	CFX - $0.00
6654	Central Florida Expressway	Marshall02	SR 451 - Pond 9	Pond 9 is wet detention pond designed to retain entire 100-year, 24-hour storm event.	100% On-site Retention	Completed	2000	0	3	Marshall Lake Basin	$0	CFX	CFX - $0.00
160	City of Apopka	APOPKA02-MARSHALL	Educational Outreach	Various educational activities that inform and give guidance to citizens on importance of water as a resource. Storm drain stenciling program that engages local volunteers. Total credit is based on meeting 5.5	Education Efforts	Ongoing	NA	0	14	Upper Ocklawaha Basin	$0	City of Apopka	City of Apopka - $0.00

				% of education credit requirements.									
161	City of Apopka	LAP48	Harry St. Project	A drainage easement located off Harry St. in Apopka has become a dumping ground. City is removing all the garbage, debris, and litter and installing a new fence to protect the retention area. City is sodding the hill slope to prevent erosion.	BMP Cleanout	Completed	2018	0	0	Lake Apopka Basin	$22,000	City of Apopka	City of Apopka - $22,000.00
162	City of Apopka	APOPKA03	Stormwater Collection System Maintenance	Maintenance and cleaning of stormwater inlets, ditches, swales, and ponds. The benchmark frequency for this routine maintenance shall be quarterly or as needed.	BMP Cleanout	Ongoing	NA	0	0	Lake Apopka Basin	$0	City of Apopka	City of Apopka - $0.00

163	City of Apopka	APOPKA02	Educational Outreach	Various educational activities that inform and give guidance to citizens on importance of water as a resource. Storm drain stenciling program that engages local volunteers. Total credit is based on meeting 5.5 % of education credit requirements.	Education Efforts	Ongoing	NA	0	0	Lake Apopka Basin	$0	City of Apopka	City of Apopka - $0.00
164	City of Apopka	APOPKA01	Street Sweeping	Removes sediment and debris from streets that would otherwise contribute potential nutrient loadings to Lake Apopka. In the past 12 months over 4000 miles have been cleaned.	Street Sweeping	Ongoing	NA	476	557	Lake Apopka Basin	$0	City of Apopka	City of Apopka - $0.00

175	City of Apopka	LAP29	Lake Fuller Retention Pond	Runoff from southern Apopka sent to a 10 acre wet detention pond. Stormwater discharge removed from Lake Fuller. Lake within Lake Apopka watershed and indirectly benefits Lake Apopka through reduction of stormwater runoff and loading from watershed.	Wet Detention Pond	Completed	2007	0	0	Lake Apopka Basin	$0	City of Apopka	City of Apopka - $0.00
4471	City of Apopka	APOPKA01-MARSHALL	Street Sweeping	Removes sediment and debris from streets that would otherwise contribute potential nutrient loadings to Lake Apopka. In the past 12 months over 4000 miles have been cleaned.	Street Sweeping	Ongoing	NA	0	0	Lake Apopka Basin	$0	City of Apopka	City of Apopka - $0.00

4472	City of Apopka	APOPKA04	MS4 Lake Sampling	Four lakes connected to major outfalls are sampled quarterly. Three of the lakes are within the Upper Ocklawaha River Basin. Marshall Lake is sampled quarterly to monitor nutrient loading and parameters.	Monitoring/Data Collection	Ongoing	NA	0	0	Marshall Lake Basin	$0	City of Apopka	City of Apopka - $0.00
4473	City of Apopka	APOPKA05	Fertilizer Reduction	City has adopted the Orange County Fertilizer Ordinance. City Grounds Department only fertilizes twice a year instead of quarterly on all city-owned and maintained (not recreational nor sports arena) landscapes.	Regulations, Ordinances, and Guidelines	Completed	2018	0	0	Upper Ocklawaha Basin	$0	City of Apopka	City of Apopka - $0.00

156	City of Clermont	PAL09	Lake Winona Study and Stormwater Improvement	Lake Winona Study and Stormwater Improvements : Completed a study to determine retrofit projects to improve the quality of stormwater discharges to Lake Winona from158.3 Acres of land and 89.9 acres of open water and wetlands.	Study	Completed	2004	0	0	Palatlakaha River Basin	$40,000	LCWA; City of Clermont	LCWA - $30,000.00; City of Clermont - $10,000.00
209	City of Clermont	PAL25	12th St. and Lakeshore Dr. Stormwater Improvements	The project includes removing of 3,500 square feet of impervious area subject to vehicular traffic and construction of a dry retention pond to treat stormwater discharges from the 8.72-acre contributing basin.	On-line Retention BMPs	Completed	2014	46	7	Palatlakaha River Basin	$227,000	City of Clermont; LCWA	City of Clermont - $0.00; LCWA - $0.00

226	City of Clermont	PAL08	Lake Minnehaha Study and Stormwater Improvements	Lake Minnehaha Study and Stormwater Improvements : Completed a study to determine retrofit projects to improve the quality of stormwater discharges to Lake Minnehaha from 406.8 Ac.	Study	Completed	2004	0	0	Palatlakaha River Basin	$64,000	LCWA; City of Clermont	LCWA - $48,000.00; City of Clermont - $16,000.00
257	City of Clermont	PAL07	Storm Drain Marking	Storm Drain Marking: Signs were placed on all inlets in the city with direct discharge to a lake. Signs were placed on 350 inlets. Discourages dumping of chemicals or other harmful substances in stormwater inlets.	Education Efforts	Ongoing	NA	0	0	Palatlakaha River Basin	$720	City of Clermont	City of Clermont - $720.00
258	City of Clermont	PAL30	Drew Ave. and East Ave.	Implementation of a treatment train to treat	BMP Treatment Train	Completed	2017	62	8	Palatlakaha River Basin	$0	Not provided	Not provided - $0.00

				stormwater from 8.77 acres contributing to Lake Minnehaha. Street sweeping, nutrient separating baffle box, and underground retention upstream of two outfalls.									
259	City of Clermont	PAL29	Victory Pointe	Implementation of a treatment train to improve the quality of stormwater discharges to Lake Minneola from 68 Acres of downtown Clermont. Street sweeping, stormwater planters, nutrient separating baffle box, wet detention, and filter marsh.	Regional Stormwater Treatment	Completed	2018	185	47	Palatlakaha River Basin	$10,200,000	City of Clermont; DEP; LCWA; SJRWMD; Florida Communities Trust; Urban and Community Forestry; State of Florida Division of Cultural Affairs	City of Clermont - $0; DEP - $0; LCWA - $0; SJRWMD - $0; Florida Communities Trust - $0; Urban and Community Forestry - $0; State of Florida Division of Cultural Affairs - $6,000,000

260	City of Clermont	PAL27	Disston Ave. Stormwater Improvements	Disston Avenue stormwater improvements : Constructed 50 underground concrete chambers to treat stormwater discharges from 12 acres upstream of one outfall to Lake Minnehaha.	BMP Treatment Train	Completed	2011	0	8	Palatlakaha River Basin	$442,550	LCWA; City of Clermont	LCWA - $0.00; City of Clermont - $0.00
261	City of Clermont	PAL26	Lake Winona Stormwater Improvements	Lake Avenue stormwater improvements : Added street sweeping and a nutrient separating baffle box followed by underground retention at one outfall, and a dry retention pond at another outfall to Lake Winona.	BMP Treatment Train	Completed	2016	10	2	Palatlakaha River Basin	$512,357	LCWA; City of Clermont	LCWA - $0.00; City of Clermont - $0.00
5135	City of Clermont	CLR01	Baffle Boxes	Seven baffle boxes with hydrocarbon absorbent pillows	Baffle Boxes-First Generation	Completed	2007	325	199	Palatlakaha River Basin	$0	City of Clermont	City of Clermont - $0.00

				installed. Each unit 15 ft by 5.33 ft by 7 ft deep. Units installed.									
5136	City of Clermont	CLR02	Street Sweeping	City sweeps streets within commercial area and main roads. The frequency benchmark shall be monthly or as needed. The performance benchmark shall be 1682 miles of road swept per year with approximately 616.4 cubic yards of material removed annually.	Street Sweeping	Ongoing	NA	211	135	Palatlakaha River Basin	$0	City of Clermont	City of Clermont - $0.00
5137	City of Clermont	CLR03	Education and Outreach Activities	Pamphlets and website provide information to local residents. Adopted landscaping, irrigation and pet waste	Education Efforts	Ongoing	NA	0	1	Palatlakaha River Basin	$0	City of Clermont	City of Clermont - $0.00

				management ordinances.									
6392	City of Clermont	CLR04	Baffle Boxes	Install Gen 1 baffle box in basin 12A (West Ave./ W Minnehaha Ave.). Project Number 2024-040.	Baffle Boxes-First Generation	Planned	2025	0	0	Palatlakaha River Basin	$0	City of Clermont; LCWA	City of Clermont - $189,500.00 ; LCWA - $189,500.00
6691	City of Clermont	CLR05	Fran Mar Ct	Install Second Generation Baffle Box at end of Fran Mar CT.	Baffle Boxes-Second Generation	Planned	TBD	0	0	Palatlakaha River Basin	$0	City of Clermont	City of Clermont - $0.00
6692	City of Clermont	CLR06	Carolyn Drive	Install Second Generation Baffle Box at end of Carolyn Drive.	Baffle Boxes-Second Generation	Planned	TBD	0	0	Palatlakaha River Basin	$0	City of Clermont	City of Clermont - $0.00
6693	City of Clermont	CLR07	Diana Place	Install Second Generation Baffle Box at end of Diana Place.	Baffle Boxes-Second Generation	Planned	TBD	0	0	Palatlakaha River Basin	$0	City of Clermont	City of Clermont - $0.00
6778	City of Clermont	PAL29-A	Streetscape West Ave, 7th St, and Osceole St	Upsize stub out to every lot to 15in and 18in between 7th Street and West Ave going to Victory Pointe.	Stormwater System Upgrade	Completed	2024	0	0	Palatlakaha River Basin	$0	City of Clermont	City of Clermont - $7,718,815.00

246	City of Eustis	EUSTIS02-DORA	Education and Outreach Activities	Public service announcements on utility bills, pamphlets, website, illicit connection reporting. City adopted ordinances for, landscaping, fertilizer application, and pet waste management. Student and adult education programs.	Education Efforts	Ongoing	NA	0	4	Lake Dora Basin	$0	City of Eustis Stormwater Utility Fee	City of Eustis Stormwater Utility Fee - $0.00
247	City of Eustis	EUS31	Ardice Ave., Kurt, and Ruleme Improvements	The storm piping along Ardice Ave. - Kurt and Ruleme St. will be constructed and routed to an existing retention pond in which the city will maintain.	Stormwater System Rehabilitation	Completed	2019	0	0	Lake Eustis Basin	$650,000	City of Eustis	City of Eustis - $650,000.00
249	City of Eustis	EUS28	Downtown Stormwater Master Plan	Master plan for downtown City of Eustis including construction of pond off Grove St. and	Wet Detention Pond	Completed	2012	0	45	Lake Eustis Basin	$6,528,473	City of Eustis; SJRWMD; LCWA; DEP	City of Eustis - $2,679,411; SJRWMD - $477,250; LCWA - $1,312,605;

				new stormwater lines along State Road 19.									DEP - $1,000,000
250	City of Eustis	EUS27	Bates Ave. Pond	Two ponds. South side pond treats Bates and northside from Cardinal.	Wet Detention Pond	Completed	2014	0	10	Lake Eustis Basin	$250,236	LCWA; City of Eustis	LCWA - $75,119.00; City of Eustis - $175,117.00
251	City of Eustis	EUS24	North Bay St. and Clifford Ave. Retrofit	Stormwater retrofit. Divert stormwater runoff to dry detention pond via storm sewer retrofit for total treatment and storage. Divert stormwater runoff to the pond instead of discharge into Lake Eustis.	Dry Detention Pond	Completed	2007	0	51	Lake Eustis Basin	$654,500	LCWA; City of Eustis	LCWA - $327,250.00 ; City of Eustis - $327,251.00
252	City of Eustis	EUS23	South Bay St. and Eustis St. Retrofit	Stormwater retrofit. Divert stormwater runoff to dry detention pond via storm sewer	Dry Detention Pond	Completed	2009	0	80	Lake Eustis Basin	$650,000	LCWA; DEP; SJRWMD	LCWA - $289,000; DEP - $155,000; SJRWMD - $206,001

				retrofit for total treatment and storage. Divert stormwater runoff to the pond instead of discharge into Lake Eustis.									
254	City of Eustis	EUS35	Lakeview Ave. Sewer Line Replacement	Project will replace all damaged sewer lines removing TN seepage upstream from Lake Eustis.	Sanitary Sewer and Wastewater Treatment Facility (WWTF) Maintenance	Completed	2019	0	0	Lake Eustis Basin	$2,800,000	City of Eustis	City of Eustis - $2,800,000.00
255	City of Eustis	EUS34	Ferran Park Parking Lot	Parking lot was constructed along with its drainage.	Stormwater System Rehabilitation	Completed	2016	0	0	Lake Eustis Basin	$350,000	City of Eustis	City of Eustis - $0.00
263	City of Eustis	EUSTIS01-YALE	Street Sweeping and Drainage Maintenance	City, FDOT and citizen groups sweep streets. Downtown Village streets are swept weekly (52 times/yr). Other streets are swept monthly. The performance benchmark	Street Sweeping	Ongoing	NA	0	2	Lake Yale Basin	$0	City of Eustis Stormwater Utility Fee	City of Eustis Stormwater Utility Fee - $0.00

				shall be 1,110 miles of road swept with 1,587 cubic yards of material removed annually.									
270	City of Eustis	EUS32	Sewer Master Lift Station Upgrade	The upgrade will include addition of the bar screen, fixture replacement and coating.	WWTF Upgrade	Completed	2019	0	0	Lake Eustis Basin	$0	City of Eustis	City of Eustis - $0.00
272	City of Eustis	EUS33	Florida Food Products Inc. for the City to Provide Sewage Treatment Services	To decrease Florida Food Products (FFP) Inc. sprayfield burden, FFP asked the city to accept some of their excess process waters for treatment. The city's wastewater department accepted FFP effluent in an increasing step-feed manner for testing.	Wastewater Service Area Expansion	Completed	2015	0	0	Lake Eustis Basin	$0	Florida Food Products Inc.	Florida Food Products Inc. - $0.00

273	City of Eustis	EUSTIS04	Sewer Line Replacement Idlewilde Drive, Lakeshore Drive, Mary St.	Project will replace all damaged sewer lines removing TN seepage upstream from Lake Eustis.	Sanitary Sewer and Wastewater Treatment Facility (WWTF) Maintenance	Completed	2016	0	0	Lake Eustis Basin	$39,680	City of Eustis	City of Eustis - $39,680.00
274	City of Eustis	EUSTIS03	Stormwater Design Rules	Eustis code sec. 115-5. Eustis stormwater rules for new development are more stringent than state or SJRWMD rules. Eustis rule has three design criteria: 100 year storm, 50 year storm, and 25 year storm based on geotechnical and soil conditions.	Regulations, Ordinances, and Guidelines	Completed	2007	0	0	Lake Eustis Basin	$0	City of Eustis	City of Eustis - $0.00
275	City of Eustis	EUSTIS02-EUS	Education and Outreach Activities	Public service announcements on utility bills, pamphlets, website, illicit connection reporting. City adopted	Education Efforts	Ongoing	NA	0	42	Lake Eustis Basin	$0	City of Eustis Stormwater Utility Fee	City of Eustis Stormwater Utility Fee - $9,300.00

				ordinances for, landscaping, fertilizer application, and pet waste management. Student and adult education programs.									
276	City of Eustis	EUSTIS01-Trout	Street Sweeping and Drainage Maintenance	City, FDOT and citizen groups sweep St.'s. / Downtown Village St.'s are swept weekly (52 times/year). Other St.'s are swept monthly. The performance benchmark shall be 1,110 miles of road swept with 1,587 cubic yards of material removed annually.	Street Sweeping	Ongoing	NA	0	0	Trout Lake Basin	$0	City of Eustis Stormwater Utility Fee	City of Eustis Stormwater Utility Fee - $0.00
277	City of Eustis	EUSTIS01-EUS	Street Sweeping and Drainage Maintenance	City, FDOT and citizen groups sweep streets. Downtown Village streets are swept	Street Sweeping	Ongoing	NA	0	2	Lake Eustis Basin	$0	City of Eustis Stormwater Utility Fee	City of Eustis Stormwater Utility Fee - $0.00

				weekly (52 times/yr). Other streets are swept monthly. The performance benchmark shall be 1,110 miles of road swept with 1,587 cubic yards of material removed annually.									
278	City of Eustis	EUSTIS01-DORA	Street Sweeping and Drainage Maintenance	City, FDOT and citizen groups sweep streets. Downtown Village streets are swept weekly (52 times/yr). Other streets are swept monthly. The performance benchmark shall be 1,110 miles of road swept with 1,587 cubic yards of material removed annually.	Street Sweeping	Ongoing	NA	0	0	Lake Dora Basin	$0	City of Eustis Stormwater Utility Fee	City of Eustis Stormwater Utility Fee - $0.00

302	City of Eustis	EUS13	South Grove St. and Steven Ave. Retrofit	Stormwater retrofit-exfiltration trenches.	Exfiltration Trench	Completed	2006	0	14	Lake Eustis Basin	$100,000	City of Eustis Stormwater Utility Fee	City of Eustis Stormwater Utility Fee - $0.00
306	City of Eustis	EUS06	Eustis St. and Ward Ave. Stormwater Facility	Divert stormwater runoff to dry detention pond via storm sewer retrofit for total treatment and storage. Divert stormwater runoff to the pond instead of discharge into Lake Eustis.	Dry Detention Pond	Completed	2003	399	36	Lake Eustis Basin	$355,550	LCWA; DEP	LCWA - $177,775.00 ; DEP - $177,775.00
307	City of Eustis	EUS07	Salem St. and Magnolia Ave. Retrofit	Divert stormwater runoff to dry detention pond via storm sewer retrofit for total treatment and storage. Divert stormwater runoff to the pond instead of discharge into Lake Eustis.	Dry Detention Pond	Completed	2001	688	63	Lake Eustis Basin	$750,000	FDOT; City of Eustis	FDOT - $600,000.00 ; City of Eustis - $150,000.00

308	City of Eustis	EUS08	South Grove St. and Palm Ave. Stormwater Facility	Divert stormwater runoff to dry detention pond via storm sewer retrofit for total treatment and storage. Divert stormwater runoff to the pond instead of discharge into Lake Eustis.	Dry Detention Pond	Completed	2002	255	32	Lake Eustis Basin	$114,700	City of Eustis; LCWA	City of Eustis - $58,700.00; LCWA - $56,000.00
309	City of Eustis	EUS09	Barnes Ave. and Center St. Retrofit	Divert stormwater runoff to dry detention pond via storm sewer retrofit for total treatment and storage. Divert stormwater runoff to the pond instead of discharge into Lake Eustis.	Dry Detention Pond	Completed	2003	640	5	Lake Eustis Basin	$100,000	City of Eustis	City of Eustis - $0.00
310	City of Eustis	EUS10	Stevens Ave. Retrofit	Divert stormwater runoff to dry detention pond via store sewer retrofit	Dry Detention Pond	Completed	2006	447	41	Lake Eustis Basin	$1,065,000	FDOT; City of Eustis	FDOT - $990,000.00 ; City of Eustis - $75,000.00

				for total treatment and storage. Construction of new storm sewers. Diverts runoff prior to discharge into Lake Eustis to new detention pond at Stevens Ave. and Donnelly St.									
312	City of Eustis	EUS12	Hazzard Ave. Retrofit	Divert stormwater runoff to wet retention pond via storm sewer retrofit for total treatment and storage. Divert stormwater runoff to the pond instead of discharge into Lake Eustis.	Wet Detention Pond	Completed	2004	68	14	Lake Eustis Basin	$76,539	LCWA; City of Eustis	LCWA - $38,270.00; City of Eustis - $38,270.00
314	City of Eustis	EUSTIS02-Yale	Education and Outreach Activities	Public service announcements on utility bills, pamphlets, website, illicit connection reporting.	Education Efforts	Ongoing	NA	0	14	Lake Yale Basin	$0	City of Eustis Stormwater Utility Fee	City of Eustis Stormwater Utility Fee - $0.00

				City adopted ordinances for, landscaping, fertilizer application, and pet waste management. Student and adult education programs.									
315	City of Eustis	EUSTIS02-TROUT	Education and Outreach Activities	Public service announcements on utility bills, pamphlets, website, illicit connection reporting. City adopted ordinances for, landscaping, fertilizer application, and pet waste management. Student and adult education programs.	Education Efforts	Ongoing	NA	0	14	Trout Lake Basin	$0	City of Eustis Stormwater Utility Fee	City of Eustis Stormwater Utility Fee - $0.00
316	City of Eustis	TROUT10	Trout Lake Hybrid Wetland Treatment	Hybrid wetland treatment system will remove TN and TP loading to Hicks Ditch	Hybrid wetland treatment technology (HWTT)	Completed	2017	4,872	199	Trout Lake Basin	$3,000,000	City of Eustis; FDACS	City of Eustis - $0.00; FDACS - $0.00

				and Trout Lake. In dry season will also be used to treat water in a canal connected will treat Trout Lake water.									
322	City of Eustis	EUS11	Russell Ave. Retrofit	Divert stormwater runoff to dry detention pond via storm sewer retrofit for total treatment and storage. Divert stormwater runoff to the pond instead of discharge into Lake Eustis.	Dry Detention Pond	Completed	2004	244	31	Lake Eustis Basin	$150,000	LCWA; City of Eustis	LCWA - $75,000.00; City of Eustis - $75,000.00
4476	City of Eustis	EUSTIS05	Sewer Line Replacement North (Park Ave 151') South (Ruleme St Alley 600')	Project will replace all damaged sewer lines removing TN seepage upstream from Lake Eustis.	Sanitary Sewer and Wastewater Treatment Facility (WWTF) Maintenance	Completed	2018	0	0	Lake Eustis Basin	$68,200	City of Eustis	City of Eustis - $0.00

4477	City of Eustis	EUSTIS06	Sewer Line Replacement North (Pendleton Ave 1097', N Eustis 780', Herrick Ave 311', Wilt Ave 716') South (Chelsey Ave 500', E. Banger Ave 350', Ruleme St 500')	Project will replace all damaged sewer lines on North (Pendleton Ave 1097', N Eustis 780', Herrick Ave 311', Wilt Ave 716') and South (Chelsey Ave 500', E. Banger Ave 350', Ruleme St 500') removing TN seepage upstream from Lake Eustis.	Sanitary Sewer and Wastewater Treatment Facility (WWTF) Maintenance	Completed	2019	0	0	Lake Eustis Basin	$280,400	City of Eustis	City of Eustis - $0.00
4478	City of Eustis	EUSTIS07	Infiltration and Inflow (I&I) Study of the Lift Station 24 Collection System	Investigative review of the collection system connectivity upstream of Lift Station 24. Prepare a flow monitoring plan that covers the collection system for the purpose of evaluating infiltration	Study	Completed	2019	0	0	Lake Eustis Basin	$38,000	City of Eustis	City of Eustis - $0.00

				and inflow (I/I) rates.									
5379	City of Eustis	EUS37	Bates Avenue WWTP Expansion Study Phase I	Engineering completed the Phase 1 Bates Ave WWTP engineering study that included a CWSRF Facilities Plan which included alternatives analysis for expansion, environmental effects, and an implementation plan with a cost estimate.	Study	Completed	2023	0	0	Trout Lake Basin	$6,500,000	City of Eustis	City of Eustis - $0.00
5380	City of Eustis	EUS38	Mae St. Sewer and Lift Station	Lift Station Rehab	Sanitary Sewer and Wastewater Treatment Facility (WWTF) Maintenance	Planned	TBD	0	0	Lake Eustis Basin	$0	City of Eustis	City of Eustis - $0.00
5875	City of Eustis	EUSTIS08	Infiltration and Inflow (I&I) Smoke Testing for LS 1, LS 1 Flow Meter	City of Eustis conducted smoke testing on approximately 13,500 linear feet of sanitary sewer pipes in priority areas	Sanitary Sewer and Wastewater Treatment Facility (WWTF) Maintenance	Completed	2020	0	0	Lake Eustis Basin	$29,100	City of Eustis	City of Eustis - $29,100.00

				of Bates Avenue and the Lift Station 1 drainage area in conjunction with other investigations for inflow and infiltration (I/I).									
5876	City of Eustis	EUSTIS09	Infiltration and Inflow (I&I) Smoke Testing for LS24	City of Eustis conducted smoke testing on approximately 41,800 linear feet of sanitary sewer pipes in priority areas of Lift Station 24.	Sanitary Sewer and Wastewater Treatment Facility (WWTF) Maintenance	Completed	2021	0	0	Lake Yale Basin	$38,700	City of Eustis	City of Eustis - $0.00
5877	City of Eustis	EUSTIS10	Misc. WWTP Infrastructure Maintenance	The MH outside of LS24 has been rehabbed, Pine Tree Drive Sewer Lateral was repaired.	Sanitary Sewer and Wastewater Treatment Facility (WWTF) Maintenance	Completed	2020	0	0	Lake Eustis Basin	$0	City of Eustis	City of Eustis - $0.00
6393	City of Eustis	EUSTIS11	LS9 Improvements	LS9 Improvements is currently under construction. Improvements include	Sanitary Sewer and Wastewater Treatment Facility	Underway	2024	0	0	Lake Dora Basin	$429,020	City of Eustis	City of Eustis - $0.00

				replacement of lift station chopper pumps, discharge piping & valves, power upgrade, generator replacement, site stormwater improvements , and relining of 2 wet wells.	(WWTF) Maintenance								
6394	City of Eustis	EUSTIS12	Woodward Ave Improvement Project	Replacement of damaged sanitary sewer manholes and mains, new sewer, and storm water infrastructure improvements on Woodward Ave removing TN seepage upstream from Lake Eustis.	Sanitary Sewer and Wastewater Treatment Facility (WWTF) Maintenance	Completed	2022	0	0	Lake Eustis Basin	$801,563	City of Eustis	City of Eustis - $801,563.00
6395	City of Eustis	EUSTIS13	Phase III Infiltration and Inflow (I&I) Smoke Testing	I/I plan was conducted and included smoke , flow and inspections within collection systems of	Sanitary Sewer and Wastewater Treatment Facility (WWTF) Maintenance	Completed	2021	0	0	Trout Lake Basin	$38,700	City of Eustis	City of Eustis - $0.00

				Lift Station 7, Lift Station 17, and Palmetto Street areas. The City is now working on addressing and repairing all the issues that were identified.									
6643	City of Eustis	EUSTIS15	Bates Avenue WWTP Expansion Study Phase II	Phase II Engineering design plans that include a final design for the CMAR contractor which included a GMP.	WWTF Upgrade	Completed	2023	0	0	Trout Lake Basin	$6,500,000	City of Eustis	City of Eustis - $0.00
6647	City of Eustis	EUSTIS14	LS 7, LS 17, & Palmetto St Manhole and Clean Out Repair	Based on findings from phase III I&I smoke testing, the City has completed repairing all identified faulty manholes and clean outs to address I&I on Lift Station 7, Lift Station 17, and Palmetto Street	Sanitary Sewer and Wastewater Treatment Facility (WWTF) Maintenance	Completed	2023	0	0	Trout Lake Basin	$112,842	City of Eustis	City of Eustis - $0.00

				manhole and clean out repairs.									
7033	City of Eustis	EUSTIS16	Bates Avenue WWTP Expansion Construction	The construction from Phase II Engineering design plans is underway as a CMAR with a GMP.	WWTF Upgrade	Underway	2024	0	0	Trout Lake Basin	$10,870,035	City of Eustis	City of Eustis - $0.00
7034	City of Eustis	EUSTIS17	Coolidge Utility Improvements Construction	This project includes the construction of a force main along the Coolidge Street Corridor and new service lines, decreasing the need for septic.	Wastewater Service Area Expansion	Underway	2024	0	0	Trout Lake Basin	$3,880,450	City of Eustis	City of Eustis - $0.00
7037	City of Eustis	EUSTIS18	Coolidge Storm and Roadway Improvements Construction	Currently in Engineering Phase. This project includes the construction of a storm water system along Coolidge Street and its adjacent roads to include Virginia Ave, Hollywood	Stormwater System Upgrade	Underway	2024	0	0	Trout Lake Basin	$399,595	City of Eustis	City of Eustis - $0.00

				Ave, Suanee Ave, Dixie Ave, Harlem Ave, and Grant Ave.									
7041	City of Eustis	EUSTIS19	Infiltration and Inflow (I&I) Projects	Deployment of one City-owned rain gauge, two City-owned flow meters, two Wright-Pierce owned flow meters, and conducting night flow isolations. Smoke Testing may be scheduled later.	Sanitary Sewer and Wastewater Treatment Facility (WWTF) Maintenance	Ongoing	NA	0	0	Trout Lake Basin	$399,595	City of Eustis	City of Eustis - $0.00
7480	City of Eustis	EUSTIS22	Master Lift Station Control Upgrades	Master lift station motor controls including additional equipment needed for upgrades as outlined in the Wastewater Master Plan.	Sanitary Sewer and Wastewater Treatment Facility (WWTF) Maintenance	Planned	TBD	0	0	Trout Lake Basin	$720,000	City of Eustis	City of Eustis - $0.00
7489	City of Eustis	EUSTIS20	JP Townhomes Sewer Expansion	Sewer lines extended to seven duplex townhomes (14 units). This property	Wastewater Service Area Expansion	Underway	TBD	0	0	Lake Eustis Basin	$350,000	City of Eustis; Lake County ARPA	City of Eustis - $0.00; Lake County

				currently has 7 separate septic systems (2 units tied to each septic system). Actual connection to the sewer and phase-out of the septic systems is not currently included.									ARPA - $100,000.00
7494	City of Eustis	EUSTIS21	Rosenwald Gardens 7 Blocks Sewer	Installation of sanitary sewer through 7 blocks in the Rosenwald Gardens neighborhood tying into the new Coolidge Street utility line. Area covered runs from Getford Road south to Bates Ave between Wall St and Coolidge Street.	Wastewater Service Area Expansion	Underway	TBD	0	0	Trout Lake Basin	$1,450,000	Grants; City of Eustis	City of Eustis - $0.00; Grants - $0.00
317	City of Fruitland Park	FRUITLAN DP01	Street Sweeping and Storm Drain Inlet Cleaning	Sweep streets 4 times per year and clean out 12 storm drain inlets.	Street Sweeping	Ongoing	NA	0	0	Lake Griffin Basin	$0	City of Leesburg	City of Leesburg - $0.00

318	City of Fruitland Park	FRUITLANDP02	Fruitland Park NPDES Permit Education and Outreach	Landscaping, irrigation, fertilizer, and pet waste ordinances. Fruitland Park utilizes a consultant for education and outreach. Activities include PSAs, pamphlets, website, illicit discharge program, utility bill inserts and informational displays.	Education Efforts	Ongoing	NA	0	8	Lake Griffin Basin	$0	City of Fruitland Park	City of Fruitland Park - $0.00
4483	City of Fruitland Park	GRIF37	Fruitland Park WWTF Decommissioning	Remove existing WWTF from service. Construction of lift station to allow transfer of wastewater to Lady Lake for treatment. Improved treatment at Lady Lake facility.	WWTF Upgrade	Completed	2020	0	0	Lake Griffin Basin	$1,500,000	Not provided	Not provided - $0.00
5396	City of Fruitland Park	GRIF43	Library Stormwater pond	Install stormwater 0.41 acre	Dry Detention Pond	Completed	2019	0	10	Lake Griffin Basin	$21,000	City of Fruitland Park	City of Fruitland Park - $0.00

				pond for new library.									
5878	City of Fruitland Park	GRIF45	Mirror Lake Baffle Boxes	Install 3 2nd-generation nutrient separating baffle boxes at 15.6 acre Mirror Lake. 1 box installed in 2022, second box installed in 2023. Seeking funding for 3rd box.	Baffle Boxes-Second Generation with Media	Completed	2023	0	0	Lake Griffin Basin	$800,000	LCWA	LCWA - $400,000.00
285	City of Groveland	PAL11	Septic Tank Prohibition	No septic tanks permitted in Green Swamp or on new development sites in Groveland. Addresses groundwater protection.	Regulations, Ordinances, and Guidelines	Completed	2007	0	0	Palatlakaha River Basin	$0	Developer	Developer - $0.00
286	City of Groveland	PAL12	Green Swamp Additional Stormwater Runoff Retention	Three inches of runoff to be retained in most effective recharge areas in Green Swamp Area of Critical State Concern. Addresses	Regulations, Ordinances, and Guidelines	Completed	2004	0	0	Palatlakaha River Basin	$0	Developer	Developer - $0.00

				ground and surface water protection.									
287	City of Groveland	PAL13	Stormwater Study and Stormwater Master Plan	Stormwater study and development of master plan for older parts of City of Groveland.	Study	Completed	2006	0	0	Palatlakaha River Basin	$150,000	City of Groveland CRA; Possible Grants	City of Groveland CRA - $0.00; Possible Grants - $0.00
288	City of Groveland	PAL22	Septic Tank Comprehensive Plan	Septic tanks within the Green Swamp are required to be pumped every five years. Comprehensive plan addresses ground and surface water protection.	Regulations, Ordinances, and Guidelines	Completed	2007	0	0	Palatlakaha River Basin	$0	Homeowners	Homeowners - $0.00
319	City of Groveland	GROVE01	Street Sweeping	Sweeping of city-maintained streets to remove dirt, vegetation, and debris. The benchmark frequency for sweeping shall be once every 30 days as needed.	Street Sweeping	Ongoing	NA	24	15	Palatlakaha River Basin	$0	City of Groveland	City of Groveland - $0.00

321	City of Groveland	GROVE02	Education and Outreach Activities	Pamphlets and website provide information to local residents. Adopted landscaping, irrigation and fertilizer application ordinances.	Education Efforts	Ongoing	NA	0	8	Palatlakaha River Basin	$0	City of Groveland	City of Groveland - $0.00
282	City of Leesburg	GRIF08	Canal St. Retrofit	Stormwater retrofit, construct 2.4-acre pond.	Wet Detention Pond	Completed	2009	0	7	Lake Griffin Basin	$200,000	City of Leesburg; LCWA	City of Leesburg - $150,000.00 ; LCWA - $50,001.00
289	City of Leesburg	LEESBURG 01	Street Sweeping	Sweeping of city-maintained streets to remove dirt, vegetation, and debris. Benchmark frequency is monthly for an estimated 170 miles of pavement. The performance benchmark shall be 50 cubic yards of debris collected and disposed of each month.	Street Sweeping	Ongoing	NA	0	0	TBD	$0	City of Leesburg	City of Leesburg - $150,000.00

290	City of Leesburg	HAR17	Lake Harris Water Quality Improvement Project at Venetian Gardens	WQI project - water monitoring, education, removal of invasive species & re-vegetation. Background and ongoing water monitoring, survey, individual permits issued.	Baffle Boxes-Second Generation	Completed	2008	0	2	Lake Harris Basin	$167,000	DEP 319; SJRWMD; City of Leesburg	DEP 319 - $0.00; SJRWMD - $0.00; City of Leesburg - $0.00
291	City of Leesburg	LEESBURG 02-EUS	Education and Outreach Activities	Public service announcements on Lakefront TV, pamphlets, website, illicit connection reporting. City adopted ordinances for, landscaping, fertilizer application, and pet waste management. Student and adult education programs.	Education Efforts	Ongoing	NA	0	4	Lake Eustis Basin	$0	City of Leesburg	City of Leesburg - $0.00
293	City of Leesburg	GRIF10	Whispering Pines Regional	Stormwater retrofit. Construction of wet	Wet Detention Pond	Completed	2009	0	130	Lake Griffin Basin	$1,500,000	City of Leesburg; LCWA	City of Leesburg - $750,000.00

			Stormwater Retrofit	detention pond with littoral shelf on 4.7-acre site. Expected 66 % reduction in TP.									; LCWA - $750,000.00
294	City of Leesburg	GRIF23	Lake Griffin Water Quality Improvement Project at Canal St. WWTP	Sediment box.	Baffle Boxes-First Generation	Completed	2007	0	0	Lake Griffin Basin	$150,000	SJRWMD; City of Leesburg	SJRWMD - $0.00; City of Leesburg - $0.00
295	City of Leesburg	GRIF29	Lake Griffin Stormwater Improvements	Proposed stormwater treatment facility will be a wet detention pond located on city-owned land between US 441 at RoMac Lumber. Stormwater Pond. 2.7-acre wet detention pond with wetland.	Wet Detention Pond	Completed	2018	118	35	Lake Griffin Basin	$440,000	City of Leesburg; LCWA; SJRWMD; DEP	City of Leesburg - $1,117,801; LCWA- $356,444; SJRWMD- $97,734; DEP- $169,085
298	City of Leesburg	GRIF32	Public Works	Baffle box.	Baffle Boxes-First Generation	Completed	2014	0	0	Lake Griffin Basin	$0	City of Leesburg	City of Leesburg - $0.00
299	City of Leesburg	LEESBURG 02-GRIF	Education and Outreach Activities	Public service announcements on Lakefront TV,	Education Efforts	Ongoing	NA	0	28	Lake Griffin Basin	$0	City of Leesburg	City of Leesburg - $0.00

				pamphlets, website, illicit connection reporting. City adopted ordinances for, landscaping, fertilizer application, and pet waste management. Student and adult education programs.									
300	City of Leesburg	HAR01	Lakeshore Drive Stormwater Project	Stormwater wet detention pond. Removes nutrient loading from Venetian Canals and Lake Harris. Near Venetian Gardens Canals - East Dixie Ave. in Leesburg.	Wet Detention Pond	Completed	2003	0	2	Lake Harris Basin	$185,756	City of Leesburg; LCWA; Florida Legislature	City of Leesburg - $64,086; LCWA - $64,086; Florida Legislature - $57,584
301	City of Leesburg	LEESBURG 02-DEN	Education and Outreach Activities	Public service announcements on Lakefront TV, pamphlets, website, illicit connection reporting. City adopted	Education Efforts	Ongoing	NA	0	13	Lake Denham Basin	$0	City of Leesburg	City of Leesburg - $0.00

				ordinances for, landscaping, fertilizer application, and pet waste management. Student and adult education programs.									
338	City of Leesburg	HAR19	Heritage Estates Stormwater Improvement	Former CSX-vacated railway. Dry retention swale system, treatment train approach with Type 2 baffle box at main inflow to swales.	BMP Treatment Train	Completed	2018	75	12	Lake Harris Basin	$351,000	City of Leesburg; LCWA; DEP; SJRWMD	City of Leesburg - $216,513; LCWA - $78,250; DEP - $250,000; SJRWMD - $93,900
344	City of Leesburg	HAR26	Palm Harbour Court	Redirecting flow and adding storage capacity of ditch system.	Stormwater System Rehabilitation	Completed	2017	0	0	Lake Harris Basin	$0	Not provided	Not provided - $0.00
345	City of Leesburg	HAR25	PoBoys	Have design ready, seeking additional cost share funds for construction during FY 24 unless funds are received sooner. Removing	Stormwater System Rehabilitation	Completed	2024	0	0	Lake Harris Basin	$425,000	City of Leesburg	City of Leesburg - $50,000.00

				open ditch & enclosing pipes located at Highway 27 & South St. Project has entered the solicitation phase and is out for bids.									
346	City of Leesburg	HAR20	Pine St. Stormwater Pond	0.89 acre dry detention pond. Project has been incorporated into the Aquatic Complex project. Project has a preliminary design, site approval and construction plan.	Dry Detention Pond	Completed	2022	0	0	Lake Harris Basin	$343,000	City of Leesburg; Cost-Share; Grants	City of Leesburg - $0.00; Cost-Share - $0.00; Grants - $0.00
347	City of Leesburg	LEESBURG 02-HAR	Education and Outreach Activities	Public service announcements on Lakefront TV, pamphlets, website, illicit connection reporting. City adopted ordinances for, landscaping, fertilizer application, and pet waste	Education Efforts	Ongoing	NA	0	68	Lake Harris Basin	$0	City of Leesburg	City of Leesburg - $0.00

				management. Student and adult education programs.									
350	City of Leesburg	LEESBURG 02-PAL	Education and Outreach Activities	Public service announcements on Lakefront TV, pamphlets, website, illicit connection reporting. City adopted ordinances for, landscaping, fertilizer application, and pet waste management. Student and adult education programs.	Education Efforts	Ongoing	NA	0	5	Palatlakaha River Basin	$0	City of Leesburg	City of Leesburg - $0.00
5383	City of Leesburg	HAR34	Venetian Center Pond	Stormwater wet detention pond. Removes nutrient loading from Venetian Canals and Lake Harris. Located at new Venetian Center Community	Wet Detention Pond	Completed	2019	0	0	Lake Harris Basin	$513,225	City of Leesburg	City of Leesburg - $0.00

				Building at Dozier Circle.									
5384	City of Leesburg	GRIF42	Lake Lorraine Dredging	Dredging and removal of nuisance aquatic vegetations to restore storage capacity and improve drainage quality.	Aquatic Vegetation Harvesting	Completed	2020	0	0	Lake Griffin Basin	$1,762,400	City of Leesburg	City of Leesburg - $0.00
5385	City of Leesburg	HAR35	Circle K Stormwater Pond Project	Construction of two new retention ponds to replace three outfall ditches to Lake Harris. Project will increase storage capacity and improve drainage quality.	Dry Detention Pond	Completed	2020	0	0	Lake Harris Basin	$2,233,655	City of Leesburg; LCWA; FDOT	City of Leesburg - $212,500; LCWA - $212,500; FDOT - $0
5386	City of Leesburg	DEN02	Abandonment and transfer of Turnpike WWTP North Spray Field	The City of Leesburg abandoned and transferred a 325 acre spray field to The Villages (VLC).	Decommissio n/ Abandonment	Completed	2019	0	0	Lake Denham Basin	$0	NA	NA - $0.00

5387	City of Leesburg	HAR36	Leesburg International Airport Stormwater Retention Pond Improvement Project	Dredging and removal of nuisance aquatic vegetations to restore storage capacity and improve drainage quality.	Aquatic Vegetation Harvesting	Completed	2020	0	0	Lake Harris Basin	$95,000	City of Leesburg	City of Leesburg - $0.00
6396	City of Leesburg	LEESBURG 03	Stormwater 5 Year Master Plan Update 2021	Update Stormwater Program Master Plan by identifying and prioritizing future Stormwater Program projects.	Study	Completed	2021	0	0	TBD	$32,000	City of Leesburg	City of Leesburg - $0.00
6397	City of Leesburg	LEESBURG 04	South Street (SR 44)	Seeking land purchase. Construction of a wet detention pond in a vacant, residential lot on the North side of South Street (SR44) between South Lone Oak Drive and Florida Avenue.	Wet Detention Pond	Planned	TBD	0	0	Lake Harris Basin	$0	TBD	TBD - $0.00

6398	City of Leesburg	LEESBURG 05	Center Street	Construction of a dry retention pond on vacant, residential lots on the North side of Center Street at North Moss Street.	Dry Detention Pond	Underway	2024	0	0	Lake Griffin Basin	$346,000	TBD	TBD - $0.00
6400	City of Leesburg	LEESBURG 07	Lake Robinhood	Project designed. Seeking funding for construction of two (2) dry retention ponds on land owned by the City of Leesburg on the West side of 1303-1330 Braebury Drive.	Dry Detention Pond	Planned	2025	0	0	Lake Harris Basin	$0	TBD	TBD - $0.00
City of Mascotte has not reported any projects at the time of this adoption.													
351	City of Minneola	PAL18	Disston Ave. and Bike Trail	Installation of piping, catch basins, sidewalk replacement, driveway repair, relocated existing water lines needed	Stormwater System Rehabilitation	Completed	Prior to 2007	0	0	Palatlakaha River Basin	$80,133	City of Minneola	City of Minneola - $80,133.00

				for existing stormwater pond in Forrest Subdivision.									
352	City of Minneola	PAL19	The Crescent	Installation of new curb and gutter, road surface, new inlet basin, and sod as improvements for existing pond. Improvements to existing stormwater treatment system that will better protect water resources.	Stormwater System Rehabilitation	Completed	Prior to 2007	0	0	Palatlakaha River Basin	$740,000	DEP	DEP - $0.00
353	City of Minneola	PAL20	Firestone and WaterFord Landing	Install piping, manholes, open and repair road, and concrete flume as part of improvements for existing pond.	Stormwater System Rehabilitation	Completed	Prior to 2007	0	0	Palatlakaha River Basin	$91,077	City of Minneola	City of Minneola - $91,077.00
354	City of Minneola	MINN02	Inlet Cleanout and Street Sweeping	Street sweeping and inlet cleanout. Removes sediments and debris from streets and	Street Sweeping	Ongoing	NA	0	2	Palatlakaha River Basin	$0	City of Minneola	City of Minneola - $0.00

				prevents their entry into lakes.									
363	City of Minneola	MINN01	Education Outreach	Implement MS4 permit outreach requirements for 1 % credit.	Education Efforts	Ongoing	NA	0	1	Palatlakaha River Basin	$0	City of Minneola	City of Minneola - $0.00
7446	City of Minneola	MINN03-LAP	Wastewater expansion	Study, design, & install a wastewater treatment plant upgrade to increase capacity. Still in design phase.	Wastewater Service Area Expansion	Planned	2027	0	0	Upper Ocklawaha Basin	$0	ARPA Fund; City of Minneola	City of Minneola - $0.00; ARPA Fund - $500,000.00
37	City of Mount Dora	DORA39	Exfiltration System 3rd Ave. and Donnelly St. Parking Lot	City of Mount Dora northeast corner of 3rd Ave. and Donnelly St. parking lot. Installed exfiltration system with perforated CMP to reduce TP loading in stormwater.	Exfiltration Trench	Completed	Prior to 2014	0	0	Lake Dora Basin	$0	City of Mount Dora	City of Mount Dora - $0.00
38	City of Mount Dora	DORA38	Exfiltration System at Medical Office	City of Mount Dora on southeast corner of Baker St. and 4th Ave.	Exfiltration Trench	Completed	Prior to 2014	0	0	Lake Dora Basin	$0	Private Developer (Medical Office)	Private Developer (Medical Office) - $0.00

				Privately installed exfiltration system with perforated CMP to reduce TP loading in stormwater.									
39	City of Mount Dora	DORA37	Exfiltration System at Suntrust Bank	City of Mount Dora on 5th Ave. between Tremain and Baker St.'s. Installed exfiltration system with perforated CMP to reduce TP loading in stormwater.	Exfiltration Trench	Completed	Prior to 2014	0	0	Lake Dora Basin	$0	Private Developer (Suntrust)	Private Developer (Suntrust) - $0.00
40	City of Mount Dora	DORA36	Exfiltration System at McDonald St. and 5th Ave. Parking Lot	Installed exfiltration system with perforated corrugated metal pipe (CMP) to reduce TP loading in stormwater.	Exfiltration Trench	Completed	Prior to 2014	0	0	Lake Dora Basin	$0	Not provided	Not provided - $0.00
41	City of Mount Dora	DORA35	City of Mount Dora MS4 System	City-wide catch basin and pipeline cleaning program.	BMP Cleanout	Ongoing	NA	0	82	Lake Dora Basin	$0	City of Mount Dora	City of Mount Dora - $0.00

42	City of Mount Dora	DORA33	S. Johns St. StormTech Installation	Installed StormTech system with two 50 linear feet rows with "Isolator Row" for maintenance. Re-graded and paved road to improve drainage.	LID- Other	Completed	2011	0	0	Lake Dora Basin	$10,000	City of Mount Dora	City of Mount Dora - $10,000.00
44	City of Mount Dora	DORA31	Continuous Deflection Separation Unit at Old Eustis Rd. and Overlook Rd.	Installed CDS unit at Old Eustis Rd. and Overlook Rd. System removes sand and debris from stormwater runoff before entering Lake Gertrude.	Hydrodynamic Separators	Completed	Prior to 2014	0	1	Lake Dora Basin	$71,000	City of Mount Dora; LCWA	City of Mount Dora - $35,500.00; LCWA - $35,501.00
45	City of Mount Dora	DORA42	StormTech Chamber at 13th and Annie St.	City of Mount Dora at corner of West 13th St. and Annie St. Installed a 125 foot by 75 foot Stormtech chamber (infiltration system) to reduce TP loading in stormwater	LID- Other	Completed	Prior to 2014	0	0	Lake Dora Basin	$0	Private Developer (Christian Home and Bible School)	Private Developer (Christian Home and Bible School) - $0.00

				through filtering.									
52	City of Mount Dora	DORA32	Underground Stormwater Treatment System at 6th Ave. and Baker St.	Installation of an underground stormwater treatment system as part of the 7th Ave. stormwater project. Off-line stormwater treatment system located in Donnelly Park under the tennis court and event area.	Off-line Retention BMPs	Completed	2014	0	20	Lake Dora Basin	$150,000	City of Mount Dora; LCWA	City of Mount Dora - $51,000.00; LCWA - $49,500.00
60	City of Mount Dora	DORA40	StormTech Chambers Highland and Liberty St. Parking Lot	City of Mount Dora parking lot at intersection of Highland and Liberty St. (west side of Highland). Installed Stormtech chambers (infiltration system) to reduce TP loading in stormwater	LID- Other	Completed	Prior to 2014	0	0	Lake Dora Basin	$0	City of Mount Dora	City of Mount Dora - $0.00

				through filtering.									
62	City of Mount Dora	DORA41	StormTech Chambers at East side of Highland and Liberty St.	City of Mount Dora at intersection of Highland and Liberty St.'s (east side). Installed Stormtech chambers (infiltration system) to reduce TP loading in stormwater through filtering.	LID- Other	Completed	Prior to 2014	0	0	Lake Dora Basin	$0	City of Mount Dora	City of Mount Dora - $0.00
66	City of Mount Dora	DORA20	Nutrient Separating Baffle Box Retrofit	Nutrient separating baffle box retrofit into existing junction box at stormwater discharge into Lake Gertrude to removes trash and organic debris. Project determined to not be within the basin- 0 reductions from project.	Baffle Boxes- Second Generation	Completed	2009	0	0	TBD	$7,400	City of Mount Dora	City of Mount Dora - $7,400.00

67	City of Mount Dora	MTDORA02	Education Outreach	Education outreach meeting requirements of MS4 permit.	Education Efforts	Ongoing	NA	0	4	Lake Dora Basin	$0	City of Mount Dora	City of Mount Dora - $0.00
68	City of Mount Dora	MTDORA01	Street Sweeping	Contract city-wide street sweeping program utilizing a mechanical sweeper. Removes debris from streets. Benchmark frequency is entire city swept 15 times per year with a performance goal of 1500+ cubic yards of debris collected annually.	Street Sweeping	Ongoing	NA	0	684	Lake Dora Basin	$0	City of Mount Dora	City of Mount Dora - $0.00
218	City of Mount Dora	DORA28	Nutrient Separating Baffle Box at 4th Ave. and Donnelly St.	Installed Suntree 2nd generation NSBB at 4th Ave. and Donnelly St. System removes sand and debris from stormwater runoff before	Baffle Boxes-Second Generation	Completed	Prior to 2014	0	2	Lake Dora Basin	$88,100	City of Mount Dora; LCWA	City of Mount Dora - $44,050.00; LCWA - $44,050.00

				entering Lake Dora.									
225	City of Mount Dora	DORA30	Continuous Deflection Separation Unit at Charles St.	Installed CDS unit at Charles St. System removes sand and debris from stormwater runoff before entering Lake Dora.	Hydrodynamic Separators	Completed	Prior to 2014	0	0	Lake Dora Basin	$71,000	City of Mount Dora; LCWA	City of Mount Dora - $35,500.00; LCWA - $35,500.00
244	City of Mount Dora	DORA27	Continuous Deflection Separation Unit at Lake Dora Rd.	Installed continuous deflection separation (CDS) unit at Lake Dora Rd. System removes sand and debris from stormwater runoff before entering Lake Dora.	Hydrodynamic Separators	Completed	2012	0	4	Lake Dora Basin	$0	Lake County Public Works	Lake County Public Works - $0.00
253	City of Mount Dora	DORA29	Nutrient Separating Baffle Box at 3rd Ave. and McDonald St.	Installed Suntree 2nd generation NSBB at 3rd Ave. and McDonald St. System removes sand and debris from stormwater runoff before	Baffle Boxes-Second Generation	Completed	2012	0	5	Lake Dora Basin	$45,090	City of Mount Dora; LCWA	City of Mount Dora - $22,545.00; LCWA - $22,545.00

				entering Lake Dora.									
264	City of Mount Dora	DORA26	StormX Gross Pollutant Traps	City of Mount Dora-three locations StormX gross pollutant traps were installed at the discharge point of three stormwater pipelines. The traps are large heavy mesh bags that capture leaves, trash, debris and some sand.	Catch Basin Inserts/Inlet Filter Cleanout	Completed	2012	0	6	Lake Dora Basin	$19,025	City of Mount Dora; LCWA	City of Mount Dora - $9,512.00; LCWA - $9,513.00
265	City of Mount Dora	DORA25	Nutrient Separating Baffle Box at 5th Ave. and Rossiter St.	Installed nutrient separating baffle box at corner of 5th Ave. and Rossiter St. to treat stormwater entering Lake Franklin. System includes upflow filter to remove dissolved nutrients. Public education sign with	Baffle Boxes-Second Generation	Completed	2012	0	6	Lake Dora Basin	$124,168	City of Mount Dora; LCWA	City of Mount Dora - $67,873.00; LCWA - $56,295.00

				removal tally placed next to unit.									
266	City of Mount Dora	DORA24	Nutrient Separating Baffle Box at Grandview St. and Johns St.	Installed nutrient separating baffle box at the corner of Grandview and Johns St. including an upflow filter to remove dissolved nutrients. System treats stormwater runoff entering Lake Dora. Public education sign with removal tally next to unit.	Baffle Boxes-Second Generation	Completed	2012	0	5	Lake Dora Basin	$140,125	City of Mount Dora; LCWA	City of Mount Dora - $90,004.00; LCWA - $50,121.00
267	City of Mount Dora	DORA23	Flexstorm Inlet Filters	Installed inlet filters into curb inlets in the downtown area. Filters capture gross pollutants, leaves, trash, debris and some sand. 65 filters installed.	Catch Basin Inserts/Inlet Filter Cleanout	Completed	2010	0	15	Lake Dora Basin	$0	City of Mount Dora; LCWA	City of Mount Dora - $0.00; LCWA - $0.00

268	City of Mount Dora	DORA22	Nutrient Separating Baffle Box at 4th Ave. and Lakefront	Installed 2nd Generation Nutrient Separating Baffle Box (NSBB) at 4th Ave at the lakefront on Lake Dora. Erosion blocks installed at outfall. Public education sign with removal tally placed next to unit.	Baffle Boxes-Second Generation	Completed	2009	0	6	Lake Dora Basin	$69,061	City of Mount Dora; LCWA	City of Mt. Dora - $34,531; LCWA - $34,531
269	City of Mount Dora	DORA21	Ten Grate Inlet Skimmer Boxes	Ten Suntree grate inlet skimmer boxes installed within the city public works complex to remove sand and debris from paved areas.	Baffle Boxes-First Generation	Completed	2009	0	0	Lake Dora Basin	$10,050	City of Mount Dora; LCWA	City of Mount Dora - $5,025.00; LCWA - $5,025.00
271	City of Mount Dora	DORA17	Lake John - Dogwood Mountain Retrofit	Interlocal agreement between City of Mount Dora and Lake County Public Works.	Dry Detention Pond	Completed	2008	0	0	Lake Dora Basin	$1,203,771	City of Mount Dora; Lake County	City of Mount Dora - $698,461.00 ; Lake County - $505,310.00

280	City of Mount Dora	DORA19	Nutrient Separating Baffle Box - Gilbert Park	Nutrient separating baffle box installed at stormwater discharge culvert. Box removes trash and organic debris in top basket and captures sediment in series of baffle beneath the basket.	Baffle Boxes-Second Generation	Completed	2008	0	2	Lake Dora Basin	$54,035	Not provided	Not provided - $0.00
6787	City of Mount Dora	MTDORA03	Overlook Baffle Box No. 1 on Lake Gertrude	Construction of a second generation baffle box to treat stormwater from a 15.9 acre sub-basin in the City of Mount Dora in order to improve water quality in Lake Gertrude. The baffle box is located at 1843 Overlook Drive.	Baffle Boxes-Second Generation	Completed	2022	24	3	Upper Ocklawaha Basin	$179,300	City of Mount Dora; SJRWMD Cost-Share Grant; LCWA	City of Mount Dora - $69,475.00; SJRWMD Cost-Share Grant - $44,825.00; LCWA - $65,000.00
7387	City of Mount Dora	MTDORA04	Liberty Avenue Stormwater	Intercept runoff from 41.4 acres of City area and	Stormwater System Upgrade	Completed	2024	333	42	Lake Dora Basin	$393,358	Lake County LCWA;	Lake County LCWA - $285,739.00 ; City of

			Treatment Project	direct it to an existing stormwater pond with available capacity, including a skimmer improvement on the control structure.								City of Mount Dora	Mount Dora - $107,619.00
355	City of Ocoee	LAP25	Pioneer Key Regional Stormwater Project	Pioneer Key Mobile Home Park. Regional stormwater improvements with water quality enhancements. Construction of regional wet detention stormwater treatment pond. Reduce pollutant loading to Lake Apopka. Project Completed in two phases.	Wet Detention Pond	Completed	2006	102	62	Lake Apopka Basin	$2,500,000	City of Ocoee; Private Property Owner; Orange County CDBG; DEP	City of Ocoee - $0.00; Private Property Owner - $1,682,500.00; Orange County CDBG - $817,500.00; DEP - $900,000.00
356	City of Ocoee	LAP42	Crown Pointe Cove Subdivision	Retention BMPs at West Rd and Ocoee-Apopka Road.	On-line Retention BMPs	Completed	2017	0	0	Lake Apopka Basin	$0	NA	NA - $0.00

358	City of Ocoee	OCOEE01	Street Sweeping	Streets are swept daily; All Debris collected from street sweeping activities are sent to landfill, Northwest Ditch Basin portion plus some private communities within the BMAP make up approximately 20% of the approx. 600 tons collected.	Street Sweeping	Ongoing	NA	313	201	Lake Apopka Basin	$0	Not provided	Not provided - $0.00
359	City of Ocoee	LAP39	Ocoee Crown Point Subdivision	Retention BMPs.	On-line Retention BMPs	Completed	2018	0	0	Lake Apopka Basin	$0	NA	NA - $0.00
361	City of Ocoee	LAP40	Renaissance Charter School	Retention BMPs at West Road, Ocoee.	On-line Retention BMPs	Completed	2017	0	0	Lake Apopka Basin	$0	NA	NA - $0.00
362	City of Ocoee	LAP41	Arbors at Crown Point Subdivision	Retention BMPs at Fountain Rd - West Road.	On-line Retention BMPs	Completed	2017	0	0	Lake Apopka Basin	$0	NA	NA - $0.00
5888	City of Ocoee	OCOEE02	City of Ocoee LDC Chapter 176, Ordinance 2020-016 Fertilizer Management, Grass Clippings	Fertilizer ordinance, pet waste ordinance, landscape ordinance, irrigation	Regulations, Ordinances, and Guidelines	Completed	2020	0	0	Lake Apopka Basin	$0	NA	NA - $0.00

			and Vegetation Material/Debris and Pet Waste	ordinances, FYN, and public education. Covered by Orange County.									
5889	City of Ocoee	LAP68	Vermeer	Retention BMP at Palm Drive and Ocoee-Apopka Road.	On-line Retention BMPs	Completed	2021	0	0	Lake Apopka Basin	$0	NA	NA - $0.00
5890	City of Ocoee	LAP69	Summit Self Storage	Retention BMP at Fountains West Road.	On-line Retention BMPs	Completed	2021	0	0	Lake Apopka Basin	$0	NA	NA - $0.00
5891	City of Ocoee	LAP70	Greens at Forest Lake	Retention BMP at Fountains West Road.	On-line Retention BMPs	Completed	2021	0	0	Lake Apopka Basin	$0	NA	NA - $0.00
6527	City of Ocoee	LAP75	Commerce 429	Approximately 5 acres of dry retention and wet detention ponds capture and treat stormwater runoff from the industrial complex and the bypass stream before entering the 2.2 acres of remaining	On-line Retention BMPs	Underway	2025	352	76	Lake Apopka Basin	$10,000,000	Progress Commerce Park, LLC	Progress Commerce Park, LLC - $10,000,000.00

				wetland on property.									
7178	City of Ocoee	OCOEE03	Lake Apopka Nature Park	The City is creating a multipurpose green space along the southeast shores of Lake Apopka. Water entering the lake from the stream north of the park is to be diverted and treated through a series of BMPs.	Constructed Wetland Treatment	Planned	TBD	0	0	Lake Apopka Basin	$0	City of Ocoee	City of Ocoee - $0.00
324	City of Tavares	Tavares01-DORA	Street Sweeping	City-wide street sweeping program. Removes sediment and debris from streets that would otherwise contribute potential nutrient loadings to Lakes Dora and Eustis. The benchmark frequency for sweeping	Street Sweeping	Ongoing	NA	0	87	Lake Dora Basin	$0	City of Tavares	City of Tavares - $0.00

				shall be quarterly or as needed.									
325	City of Tavares	Tavares03-DORA	Education and Outreach Activities	Pamphlets, website, illicit connection reporting. City adopted irrigation ordinance and has several displays of Florida Friendly Landscaping.	Education Efforts	Ongoing	NA	0	6	Lake Dora Basin	$0	City of Tavares	City of Tavares - $0.00
326	City of Tavares	EUS05	Stormwater Retrofit	North Tavares. Sediment and debris collection box. Baffle box.	Baffle Boxes-First Generation	Completed	2004	0	0	Lake Eustis Basin	$30,000	Tavares; LCWA; Florida Legislature	Tavares - $10,350; LCWA - $10,350; Florida Legislature - $9,300
327	City of Tavares	Tavares02-EUS	Baffle Boxes	Baffle boxes have been placed in many of the direct stormwater discharges into these lakes.	Baffle Boxes-Second Generation	Completed	Prior to 2007	0	84	Lake Eustis Basin	$0	City of Tavares	City of Tavares - $0.00
328	City of Tavares	Tavares01-EUS	Street Sweeping	City-wide street sweeping program. Removes sediment and debris from	Street Sweeping	Ongoing	NA	0	213	Lake Eustis Basin	$0	City of Tavares	City of Tavares - $0.00

				streets that would otherwise contribute potential nutrient loadings to Lakes Dora and Eustis. The benchmark frequency for sweeping shall be quarterly or as needed.									
329	City of Tavares	Tavares03-EUS	Education and Outreach Activities	Pamphlets, website, illicit connection reporting. City adopted irrigation ordinance and has several displays of Florida Friendly Landscaping.	Education Efforts	Ongoing	NA	0	9	Lake Eustis Basin	$0	City of Tavares	City of Tavares - $0.00
330	City of Tavares	Tavares03-HAR	Education and Outreach Activities	Pamphlets, website, illicit connection reporting. City adopted irrigation ordinance and has several displays of Florida	Education Efforts	Ongoing	NA	0	8	Lake Harris Basin	$0	City of Tavares	City of Tavares - $0.00

				Friendly Landscaping.									
331	City of Tavares	Tavares04-DORA	City of Tavares Downtown Community Redevelopment Area (CRA) Area A Stormwater Improvements Treatment Pond	Construction of a stormwater interceptor which will divert stormwater from Downtown Community Redevelopment Area to a wet detention pond, removing several outfalls into Lake Dora. Located in Lake County (Sections: 29,32; Township: 19S; Range: 26E).	Wet Detention Pond	Completed	2020	518	104	Lake Dora Basin	$1,734,000	DEP SRF; DEP 319; DEP LF; DEP TMDL; LCWA	DEP SRF - $0.00; DEP 319 - $0.00; DEP LF - $0.00; DEP TMDL - $0.00; LCWA - $0.00
333	City of Tavares	Tavares01-HAR	Street Sweeping	City-wide street sweeping program. Removes sediment and debris from streets that would otherwise contribute potential nutrient	Street Sweeping	Ongoing	NA	0	10	Lake Harris Basin	$0	City of Tavares	City of Tavares - $0.00

				loadings to Lakes Dora and Eustis. The benchmark frequency for sweeping shall be quarterly or as needed.									
349	City of Tavares	Tavares02-DORA	Baffle Boxes	Baffle boxes have been placed in many of the direct stormwater discharges into these lakes.	Baffle Boxes-Second Generation	Completed	Prior to 2007	0	252	Lake Dora Basin	$0	City of Tavares	City of Tavares - $0.00
357	City of Tavares	DORA02	Tavares Stormwater Retrofit	Downtown Tavares. Reduce sediment input to Lake Dora.	Baffle Boxes-First Generation	Completed	2004	0	0	Lake Dora Basin	$60,000	Tavares; LCWA; Florida Legislature	Tavares - $20,700; LCWA - $20,700; Legislature - $18,600
7661	City of Tavares	TAVARES05-DORA	Eco Park Floating Wetlands Nutrient Removal Project	The Eco Park project contain (15) 450 sq ft floating wetland islands that absorb available nutrients in the water through plant roots. These islands are	Floating Islands/ Managed Aquatic Plant Systems (MAPS)	Completed	2017	68	11	Lake Dora Basin	$81,000	City of Tavares	City of Tavares - $81,000.00

				then harvested quarterly for lab analysis and replanting to continue removing bio-available P and N.									
7662	City of Tavares	TAVARES06-HAR	Public Works Pond Floating Wetlands Nutrient Removal Project	This project contains (12) 450 sq ft floating wetland islands that absorb available nutrients in the water through plant roots. These plants are harvested quarterly for updated lab analysis and replanting, to continue removing bio-available P and N.	Floating Islands/ Managed Aquatic Plant Systems (MAPS)	Completed	2024	26	4	Lake Harris Basin	$90,000	Lake County Water Authority Stormeater Grant Program	Lake County Water Authority Stormeater Grant Program - $90,000.00
7663	City of Tavares	TAVARES07-DORA	Aesops Park Floating Wetlands Nutrient Removal Project	This project contains (8) 450 sq ft floating wetland islands that absorb available nutrients in	Floating Islands/ Managed Aquatic Plant Systems (MAPS)	Planned	2025	0	0	Lake Dora Basin	$60,000	City of Tavares	City of Tavares - $60,000.00

				the water through plant roots. These plants are harvested quarterly for lab analysis and replanting, to continue removing bio-available P and N.									
7664	City of Tavares	TAVARES08-EUS	Eagle Park Floating Wetland Nutrient Removal Project	This project contains (8) 450 sq ft floating wetland islands that absorb available nutrients through plant roots. These islands are harvested quarterly for lab analysis and replanting, to continue the removal of bio-available P and N.	Floating Islands/ Managed Aquatic Plant Systems (MAPS)	Planned	2025	0	0	Lake Eustis Basin	$60,000	City of Tavares	City of Tavares - $60,000.00
320	City of Umatilla	UMATILLA05-TROUT	Public Education	Public education and participation program for residents of Umatilla to	Education Efforts	Ongoing	NA	0	10	Trout Lake Basin	$0	City of Umatilla	City of Umatilla - $0.00

				enhance knowledge and awareness of stormwater management. Part of MS4 Phase II public education requirement.									
323	City of Umatilla	UMATILLA 04	Master Stormwater Management Plan	Stormwater master plan. Includes Trout Lake and Lake Yale Basins.	Study	Completed	2013	0	0	Trout Lake Basin	$24,000	City of Umatilla; LCWA	City of Umatilla - $12,000.00; LCWA - $12,000.00
332	City of Umatilla	UMATILLA 05-YALE	Public Education	Public education and participation program for residents of Umatilla to enhance knowledge and awareness of stormwater management. Part of MS4 Phase II public education requirement.	Education Efforts	Ongoing	NA	0	3	Lake Yale Basin	$0	City of Umatilla	City of Umatilla - $0.00
334	City of Umatilla	EUS30	Orange Ave. Retrofit	Lake Bracy Watershed in Umatilla. Addition of catch basins	BMP Treatment Train	Completed	2013	0	19	Trout Lake Basin	$1,644,427	City of Umatilla; DEP 319	City of Umatilla - $0.00; DEP 319 - $0.00

				and stormwater pond addition and enlargement.									
335	City of Umatilla	TROUT03	Trowell Ave. Baffle Boxes	Lake Umatilla watershed. Installation of 2 baffle boxes at the edge of Lake Umatilla to catch sediment carried in stormwater before it enters Lake Umatilla. Lake Umatilla does not discharge into Trout Lake. Hicks Ditch discharges into Lake Umatilla.	Baffle Boxes-First Generation	Completed	Prior to 2007	0	0	Trout Lake Basin	$0	SJRWMD	SJRWMD - $0.00
336	City of Umatilla	TROUT04	Kentucky Ave. Retention Pond	Kentucky Ave.-Lake Umatilla watershed. Retention pond located on Kentucky Ave. will reduce stormwater inputs into Lake Umatilla. Lake Umatilla	On-line Retention BMPs	Completed	Prior to 2007	0	0	Trout Lake Basin	$1,468,320	FEMA	FEMA - $0.00

				no longer drains to Trout Lake. Hicks Ditch discharges to Lake Umatilla.									
337	City of Umatilla	UMATILLA 01	Green Space Ordinance	Umatilla Land Development Regulations, Chapter 6, Zoning District Regulations require that new development in Umatilla must set aside 25 percent of area as a green space.	Regulations, Ordinances, and Guidelines	Completed	Prior to 2007	0	0	Trout Lake Basin	$0	City of Umatilla	City of Umatilla - $0.00
340	City of Umatilla	UMATILLA 03-TROUT	Street Sweeping	Monthly sweeping of city-maintained streets to remove dirt, vegetation, and debris.	Street Sweeping	Ongoing	NA	0	87	Trout Lake Basin	$0	City of Umatilla	City of Umatilla - $0.00
341	City of Umatilla	UMATILLA 02	Stormwater Development Ordinance	Umatilla Code of Ordinances, Subdivision Regulation (k) Storm Drainage 19-53. All new	Regulations, Ordinances, and Guidelines	Completed	Prior to 2007	0	0	Trout Lake Basin	$0	City of Umatilla	City of Umatilla - $0.00

				development in Umatilla is required to retain stormwater runoff on site.									
342	City of Umatilla	UMATILLA 03-YALE	Street Sweeping	Monthly sweeping of city-maintained streets to remove dirt, vegetation, and debris.	Street Sweeping	Ongoing	NA	0	6	Lake Yale Basin	$0	City of Umatilla	City of Umatilla - $0.00
4508	City of Umatilla	TROUT11	Rose Street Baffle Box	Baffle boxes-second generation with media.	Baffle Boxes-Second Generation with Media	Completed	2018	0	10	Trout Lake Basin	$150,000	LCWA	LCWA - $150,000.00
5397	City of Umatilla	YALE12	WWTP Transfer	City of Eustis wall be accepting all Umatilla sewer, Umatilla will be taking WWTP offline except for portion used to pump to City of Eustis.	WWTF Diversion to Reuse	Underway	2022	0	0	Lake Yale Basin	$5,000,000	City of Umatilla; DEP SRF; SJRWMD; DEP LF	City of Umatilla - $0; DEP SRF - $1,500,000; SJRWMD - $1,500,000; DEP LF - $0
5898	City of Umatilla	TROUT16	Trowell Ave Stormwater Improvement	Lake Umatilla watershed installation of Nutrient Separating Baffle Box 400 yards	Baffle Boxes-Second Generation with Media	Completed	2021	0	0	Trout Lake Basin	$200,000	LCWA	LCWA - $150,000.00

				south of a previous box.									
105	City of Wildwood	WILDWOOD01	Education and Outreach Activities	Outreach program (1 % credit) to residents of City of Wildwood that enhances knowledge and awareness of stormwater management. Includes SWFWMD requirements for water conservation and FFL recommendations for fertilizing and irrigating landscapes.	Education Efforts	Ongoing	NA	0	0	Lake Harris Basin	$0	Not provided	Not provided - $0.00
51	City of Winter Garden	LAP34	Dillard St. Pond Expansion	Project is part of the permitting process for new City Hall in Winter Garden. Modify storm water system adjacent to pond to treat previously untreated runoff.	Stormwater System Rehabilitation	Completed	2014	0	0	Lake Apopka Basin	$246,000	City of Winter Garden	City of Winter Garden - $0.00

88	City of Winter Garden	LAP49	Stormwater Capture and Reuse and Recharge	The berming of 2-direct discharge canals to Lake Apopka and treat the stormwater to reuse standards to be put into the distribution system. Project also includes a recharge of the aquifer with reclaimed water.	Stormwater Reuse	Completed	2018	0	0	Lake Apopka Basin	$3,360,000	City of Winter Garden; DEP; SJRWMD	City of Winter Garden - $1,860,000.00; DEP - $750,000.00; SJRWMD - $750,000.00
96	City of Winter Garden	LAP35	Plant St.	Project involves widening Plant St., including blowing out intersection of West Crown Point Rd. in Winter Garden; no stormwater treatment for this section of road prior to widening.	Dry Detention Pond	Completed	2014	0	0	Lake Apopka Basin	$2,000,000	City of Winter Garden	City of Winter Garden - $0.00
98	City of Winter Garden	WNTRGAR01	Street Sweeping	Sweeping of city-maintained streets to remove dirt	Street Sweeping	Ongoing	NA	2,829	1,442	Lake Apopka Basin	$0	City of Winter Garden	City of Winter Garden - $0.00

				and debris. Benchmark frequency for sweeping shall be quarterly or as needed. The performance benchmark shall be 4,355 miles of pavement swept with 312 cubic tons of debris collected annually.									
99	City of Winter Garden	LAP47	Avalon and Tilden Rd. Improvement Project	Roadway improvements including dry retention of roadway runoff in swales with ditch blocks. Swales with blocks or raised culverts	Grass swales with swale blocks or raised culverts	Completed	2017	0	14	Lake Apopka Basin	$0	City of Winter Garden	City of Winter Garden - $0.00
100	City of Winter Garden	WNTRGAR 02-ROB	Education and Outreach in the Lake Roberts Basin	Education outreach credit of 6 %.	Education Efforts	Ongoing	NA	0	2	Lake Roberts Basin	$0	City of Winter Garden	City of Winter Garden - $0.00
4500	City of Winter Garden	LAP63	Carriage Point Aquifer Recharge	Project is associated with the stormwater capture and reuse.	Stormwater Reuse	Completed	2019	0	0	Lake Apopka Basin	$115,500	City of Winter Garden; DEP; SJRWMD	City of Winter Garden - $1,860,000; DEP - $750,000;

				Recharging of the aquifer with reclaimed water in the Carriage Point subdivision stormwater pond.									SJRWMD - $750,000
5893	City of Winter Garden	LAP71	Crest Ave WWTF Capacity Expansion & Process Optimization	Modifications to WWTF (convert to MBR) to increase treatment capacity and meet more stringent effluent objectives (5 mg/L BOD5; 5 mg/L Sus. Solids; 3 mg/L TN; 1 mg/L TP).	WWTF Upgrade	Underway	2028	17,813	1,761	Lake Apopka Basin	$132,640,000	City of Winter Garden; DEP SRF	City of Winter Garden - $0.00; DEP SRF - $0.00
6401	City of Winter Garden	WNTRGAR03	Lulu Creek & Bradford Park Stormwater Improvements	Lulu Creek/East Crest Avenue: remove debris/soil, installation of sheet piles, place rip rap and grade site; Bradford Park: remove existing stormwater piping, install	Stormwater System Rehabilitation	Completed	2021	0	0	Lake Apopka Basin	$811,654	City of Winter Garden	City of Winter Garden - $811,654.00

				end-wall structures, manholes, stormwater pipe installation, rip rap and site grading.									
6402	City of Winter Garden	WNTRGAR 04	Reclaimed Water Facility Plan	Expansion of reclaimed water system for new development and utilize additional effluent from the Crest Ave WWTF. The project also will limit annual average surface water effluent discharge to less than 10% of annual treatment volume by Year 2032.	WWTF Diversion to Reuse	Completed	2022	0	0	Lake Apopka Basin	$315,000	City of Winter Garden	City of Winter Garden - $315,000.00
7021	City of Winter Garden	WNTRGAR 05	City of Winter Garden - Teacup Springs Septic to Sewer	Retrofit approximately 135 homes in the Teacup Springs neighborhood from septic system to centralized gravity sewer.	OSTDS Phase Out	Underway	2027	0	0	Lake Apopka Basin	$6,500,000	DEP 319; City of Winter Garden	DEP 319 - $0.00; City of Winter Garden - $0.00

				City will also be extending reclaimed water services to houses within these neighborhoods.									
7372	City of Winter Garden	WNTRGAR 06-LAP	City of Winter Garden - Emerald Acres Septic to Sewer	Retrofit approximately 28 homes from septic system to centralized gravity sewer.	OSTDS Phase Out	Planned	2028	0	0	Lake Apopka Basin	$1,650,000	DEP 319; City of Winter Garden	DEP 319 - $0.00; City of Winter Garden - $0.00
7374	City of Winter Garden	WNTRGAR 07-LAP	City of Winter Garden - Wintermere Pointe Septic to Sewer	Retrofit approximately 79 homes from septic system to centralized gravity sewer.	OSTDS Phase Out	Planned	2033	0	0	Lake Apopka Basin	$3,650,000	DEP 319; City of Winter Garden	City of Winter Garden - $0.00; DEP 319 - $0.00
7375	City of Winter Garden	WNTRGAR 08-LAP	City of Winter Garden - Wintermere Harbor Septic to Sewer	Retrofit approximately 91 homes from septic system to centralized gravity sewer.	OSTDS Phase Out	Planned	2034	0	0	Lake Apopka Basin	$3,750,000	City of Winter Garden; DEP 319	City of Winter Garden - $0.00; DEP 319 - $0.00
101	DEP	GRIF12	Lake Griffin State Park Retrofit	Wet detention pond. No increase in TP load with road improvement.	Wet Detention Pond	Completed	2004	0	11	Lake Griffin Basin	$82,535	DEP; LCWA	DEP - $41,268.00; LCWA - $41,268.00

72	FDACS	NUTRIENT13	BMP Manual Development - Dairy	Development and rule adoption of manual that addresses BMPs for fruit and nut production.	Agricultural BMPs	Completed	2016	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00
73	FDACS	NUTRIENT14	BMP Manual Revision - Cow/calf	Revision and adoption of a manual that addresses best management practices for cow.	Agricultural BMPs	Completed	2016	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00
74	FDACS	NUTRIENT15	BMP Manual Revision - Equine	Revision and adoption of a manual that addresses best management practices for horse management. Management of agricultural runoff reduces nutrient loadings.	Agricultural BMPs	Completed	2016	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00
75	FDACS	NUTRIENT16	BMP Manual Revision - Container Grown Plants	Revision and adoption of a manual that addresses best management practices for container grown plants. Management of agricultural	Agricultural BMPs	Completed	2016	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00

				runoff reduces nutrient loadings.									
76	FDACS	NUTRIENT17	BMP Manual Revision - Vegetable and Agronomic Crop	Revision and adoption of a manual that addresses best management practices for vegetable and agronomic crops. Management of agricultural runoff reduces nutrient loadings.	Agricultural BMPs	Completed	2016	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00
77	FDACS	NUTRIENT18	BMP Manual Revision - Sod	Revision and adoption of a manual that addresses best management practices for sod operations. Reduce nutrient loadings in runoff from agricultural operations.	Agricultural BMPs	Completed	2016	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00
79	FDACS	NUTRIENT20	BMP Implementation and Verification	Enrollment and verification of BMPs by agricultural producers.	Agricultural BMPs	Ongoing	NA	0	0	Upper Ocklawaha Basin	$0	FDACS	FDACS - $0.00

				Acres treated based on FDACS June 2024 Enrollment and FSAID XI. Reductions based on FDACS December 2022 Enrollment and DEP spreadsheet loading tool which will be revised following the SJRWMD 2028 model update.									
80	FDACS	NUTRIENT06	BMP Manual Development - Equine	Development and rule adoption of a manual that addresses best management practices for horse management. Management of agricultural runoff reduces nutrient loadings.	Agricultural BMPs	Completed	2012	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00

81	FDACS	NUTRIENT10	BMP Manual Development - Nurseries	Development and rule adoption of a manual that addresses BMPs for in-ground nurseries. Management of agricultural runoff reduces nutrient loadings.	Agricultural BMPs	Completed	2014	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00
82	FDACS	NUTRIENT11	BMP Manual Development - Specialty Fruit and Nut	Development and rule adoption of manual that addresses BMPs for fruit and nut production. Management of agricultural runoff reduces nutrient loadings.	Agricultural BMPs	Completed	2011	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00
83	FDACS	NUTRIENT12	BMP Manual Development - Statewide Citrus	Development and rule adoption of manual that addresses BMPs for citrus. Management of agricultural runoff reduces	Agricultural BMPs	Completed	2013	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00

				nutrient loadings.									
87	FDACS	NUTRIENT19	Sod Farm Operations	Reduce nutrient loadings from sod farm operations.	Agricultural BMPs	Ongoing	NA	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00
95	FDACS	NUTRIENT08	BMP Manual Development - Sod	Development and rule adoption of a manual that addresses best management practices for sod operations. Reduce nutrient loadings in runoff from agricultural operations.	Agricultural BMPs	Completed	2008	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00
97	FDACS	NUTRIENT07	BMP Manual Development - Container Grown Plants	Development and rule adoption of a manual that addresses best management practices for container grown plants. Management of agricultural runoff reduces nutrient loadings.	Agricultural BMPs	Completed	2007	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00

102	FDACS	TROUT08	Trout Lake Hybrid Wetland Treatment	Hybrid wetland treatment system will remove TN and TP loading to Hicks Ditch and Trout Lake. In dry season will also be used to treat Trout Lake water. Eustis receives 199 TP-pounds/yr of credit and FDACS receives 2,015 TP-pounds/yr of credit.	Hybrid wetland treatment technology (HWTT)	Completed	2017	9,648	1,464	Trout Lake Basin	$2,752,650	FDACS	FDACS - $0.00
103	FDACS	NUTRIENT05	BMP Manual Development - Cow/calf	Development and rule adoption of a manual that addresses best management practices for cow.	Agricultural BMPs	Completed	2009	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00
6403	FDACS	NUTRIENT21	BMP Implementation and Verification	Enrollment and verification of BMPs by agricultural producers. Acres treated based on FDACS June 2024	Agricultural BMPs	Ongoing	NA	0	6	Lake Beauclair Basin	$0	FDACS	FDACS - $0.00

				Enrollment and FSAID XI. Reductions based on FDACS December 2022 Enrollment and DEP spreadsheet loading tool which will be revised following the SJRWMD 2028 model update.									
6404	FDACS	NUTRIENT22	BMP Implementation and Verification	Enrollment and verification of BMPs by agricultural producers. Acres treated based on FDACS June 2024 Enrollment and FSAID XI. Reductions based on FDACS December 2022 Enrollment and DEP spreadsheet loading tool which will be	Agricultural BMPs	Ongoing	NA	0	1	Lake Carlton Basin	$0	FDACS	FDACS - $0.00

				revised following the SJRWMD 2028 model update.									
6405	FDACS	NUTRIENT23	BMP Implementation and Verification	Enrollment and verification of BMPs by agricultural producers. Acres treated based on FDACS June 2024 Enrollment and FSAID XI. Reductions based on FDACS December 2022 Enrollment and DEP spreadsheet loading tool which will be revised following the SJRWMD 2028 model update.	Agricultural BMPs	Ongoing	NA	0	5	Lake Dora Basin	$0	FDACS	FDACS - $0.00
6406	FDACS	NUTRIENT24	BMP Implementation and Verification	Enrollment and verification of BMPs by agricultural producers. Acres treated	Agricultural BMPs	Ongoing	NA	0	4	Lake Eustis Basin	$0	FDACS	FDACS - $0.00

				based on FDACS June 2024 Enrollment and FSAID XI. Reductions based on FDACS December 2022 Enrollment and DEP spreadsheet loading tool which will be revised following the SJRWMD 2028 model update.									
6407	FDACS	NUTRIENT25	BMP Implementation and Verification	Enrollment and verification of BMPs by agricultural producers. Acres treated based on FDACS June 2024 Enrollment and FSAID XI. Reductions based on FDACS December 2022 Enrollment and DEP	Agricultural BMPs	Ongoing	NA	0	2	Lake Griffin Basin	$0	FDACS	FDACS - $0.00

				spreadsheet loading tool which will be revised following the SJRWMD 2028 model update.									
6408	FDACS	NUTRIENT26	BMP Implementation and Verification	Enrollment and verification of BMPs by agricultural producers. Acres treated based on FDACS June 2024 Enrollment and FSAID XI. Reductions based on FDACS December 2022 Enrollment and DEP spreadsheet loading tool which will be revised following the SJRWMD 2028 model update.	Agricultural BMPs	Ongoing	NA	0	2	Lake Harris Basin	$0	FDACS	FDACS - $0.00
6409	FDACS	NUTRIENT27	BMP Implementation and Verification	Enrollment and verification of BMPs by	Agricultural BMPs	Ongoing	NA	109	20	Palatlakaha River Basin	$0	FDACS	FDACS - $0.00

				agricultural producers. Acres treated based on FDACS June 2024 Enrollment and FSAID XI. Reductions based on FDACS December 2022 Enrollment and DEP spreadsheet loading tool which will be revised following the SJRWMD 2028 model update.									
6410	FDACS	NUTRIENT28	BMP Implementation and Verification	Enrollment and verification of BMPs by agricultural producers. Acres treated based on FDACS June 2024 Enrollment and FSAID XI. Reductions based on FDACS December	Agricultural BMPs	Ongoing	NA	2	0	Trout Lake Basin	$0	FDACS	FDACS - $0.00

				2022 Enrollment and DEP spreadsheet loading tool which will be revised following the SJRWMD 2028 model update.									
6411	FDACS	NUTRIENT29	BMP Implementation and Verification	Enrollment and verification of BMPs by agricultural producers. Acres treated based on FDACS June 2024 Enrollment and FSAID XI. Reductions based on FDACS December 2022 Enrollment and DEP spreadsheet loading tool which will be revised following the SJRWMD 2028 model update.	Agricultural BMPs	Ongoing	NA	0	2	Lake Yale Basin	$0	FDACS	FDACS - $0.00

6412	FDACS	NUTRIENT30	BMP Implementation and Verification	Enrollment and verification of BMPs by agricultural producers. Acres treated based on FDACS June 2024 Enrollment and FSAID XI. Reductions based on FDACS December 2022 Enrollment and DEP spreadsheet loading tool which will be revised following the SJRWMD 2028 model update.	Agricultural BMPs	Ongoing	NA	0	0	Marshall Lake Basin	$0	FDACS	FDACS - $0.00
6413	FDACS	NUTRIENT31	BMP Implementation and Verification	Enrollment and verification of BMPs by agricultural producers. Acres treated based on FDACS June 2024 Enrollment and FSAID XI.	Agricultural BMPs	Ongoing	NA	0	0	Lake Roberts Basin	$0	FDACS	FDACS - $0.00

				Reductions based on FDACS December 2022 Enrollment and DEP spreadsheet loading tool which will be revised following the SJRWMD 2028 model update.									
6414	FDACS	NUTRIENT32	BMP Implementation and Verification	Enrollment and verification of BMPs by agricultural producers. Acres treated based on FDACS June 2024 Enrollment and FSAID XI. Reductions based on FDACS December 2022 Enrollment and DEP spreadsheet loading tool which will be revised following the SJRWMD	Agricultural BMPs	Ongoing	NA	0	0	Lake Denham Basin	$0	FDACS	FDACS - $0.00

				2028 model update.									
6415	FDACS	NUTRIENT33	BMP Implementation and Verification	Enrollment and verification of BMPs by agricultural producers. Acres treated based on FDACS June 2024 Enrollment and FSAID XI. Reductions based on FDACS December 2022 Enrollment and DEP spreadsheet loading tool which will be revised following the SJRWMD 2028 model update.	Agricultural BMPs	Ongoing	NA	0	0	Lake Apopka Basin	$0	FDACS	FDACS - $0.00
1	FDOT District 5	GRIF14	SR 500/US 441 - Basin 200	US 441 from West of Griffin Road to East of Perkins St. - Basin 200. Wet Pond Detention. No increase in TP	Wet Detention Pond	Completed	2012	0	74	Lake Griffin Basin	$0	Florida Legislature	Florida Legislature - $0.00

				load with road improvement.									
7	FDOT District 5	GRIF25	SR 500/US 441 - Basin C	Lake Griffin, SR 500 (US 441) From Martin Luther King to Lake Ella Rd - Basin C (238395-4). Wet Detention. No increase in TP load with road improvement.	Wet Detention Pond	Completed	2014	0	8	Lake Griffin Basin	$0	Florida Legislature	Florida Legislature - $0.00
8	FDOT District 5	EUS19	State Road 19 in Tavares - System IV	US 441 from 4.0 Miles Southwest of College Drive to Lake Shore Blvd. - System IV (Basin 2). Wet Pond Detention. No increase in TP load with road improvement.	Wet Detention Pond	Completed	2007	0	10	Lake Eustis Basin	$0	Florida Legislature	Florida Legislature - $0.00
9	FDOT District 5	GRIF15	SR 500/US 441 - Basin 2	SR 500/US 441 Leesburg - Basin 2. No increase in TP load with road improvement.	Wet Detention Pond	Completed	2012	0	10	Lake Griffin Basin	$0	Florida Legislature	Florida Legislature - $0.00
10	FDOT District 5	DOT02-YALE	FDOT Swale Maintenance	Removal of debris and sediment from state	BMP Cleanout	Ongoing	NA	33	4	Lake Yale Basin	$0	Florida Legislature	Florida Legislature - $0.00

				maintained roadways									
11	FDOT District 5	GRIF13	SR 500/US 441 - Basin 100	US 441 from West of Griffin Road to East of Perkins St. - Basin 100. Wet Pond Detention. No increase in TP load with road improvement.	Wet Detention Pond	Completed	2012	0	55	Lake Griffin Basin	$0	Florida Legislature	Florida Legislature - $0.00
12	FDOT District 5	DOT04-EUS	Education and Outreach Activities	Informational pamphlets and Illicit discharge notification.	Education Efforts	Ongoing	NA	0	0	Lake Eustis Basin	$0	Florida Legislature	Florida Legislature - $0.00
13	FDOT District 5	DOT01-EUS	FDOT Street Sweeping (E5Q71 Contract No)	Removal of debris and sediment from state maintained roadways.	Street Sweeping	Ongoing	NA	206	132	Lake Eustis Basin	$0	Florida Legislature	Florida Legislature - $0.00
14	FDOT District 5	EUS22	SR 500/US 441 - System D	US 441 from 4.0 Miles Southwest of College Drive to Lake Shore Blvd. - System D- No detention. No increase in TP load with road improvement.	On-line Retention BMPs	Completed	2007	0	2	Lake Eustis Basin	$0	Florida Legislature	Florida Legislature - $0.00

15	FDOT District 5	EUS21	SR 500/US 441	US 441 from Lake Eustis Drive to CR 44B Wet Pond Detention. No increase in TP with road improvement.	Wet Detention Pond	Completed	2007	0	3	Lake Eustis Basin	$0	Florida Legislature	Florida Legislature - $0.00
17	FDOT District 5	GRIF24	SR 500/US 441 - Basin D	SR 500 (US 441) From Martin Luther King to Lake Ella Rd - Basin D (238395-4). Wet Detention. No increase in TP load with road improvement.	Wet Detention Pond	Completed	2014	0	15	Lake Griffin Basin	$0	Florida Legislature	Florida Legislature - $0.00
28	FDOT District 5	DOT04-GRIF	Education and Outreach Activities	Informational pamphlets and Illicit discharge notification.	Education Efforts	Ongoing	NA	0	0	Lake Griffin Basin	$0	Florida Legislature	Florida Legislature - $0.00
29	FDOT District 5	HAR04	SR 500/US 441 - System A	Lake Harris, US 441 from 4.0 Miles Southwest of College Drive to Lake Shore Boulevard. System A. dry retention pond. No increase in TP	On-line Retention BMPs	Completed	2012	0	13	Lake Harris Basin	$0	Florida Legislature	Florida Legislature - $0.00

				load with road improvement.									
30	FDOT District 5	DOT03-HAR	Fertilizer Cessation	Elimination of bulk fertilizer contracts. Reduction of TN/TP from elimination of fertilizer use along state highway system.	Fertilizer Cessation	Completed	2005	819	819	Lake Harris Basin	$0	Florida Legislature	Florida Legislature - $0.00
31	FDOT District 5	DOT03-LLHAR	Fertilizer Cessation	Elimination of bulk fertilizer contracts. Reduction of TN/TP from elimination of fertilizer use along state highway system within Little Lake Harris Basin.	Fertilizer Cessation	Completed	2005	189	189	Lake Harris Basin	$0	Florida Legislature	Florida Legislature - $0.00
32	FDOT District 5	DOT04-HAR	Education and Outreach Activities	Informational pamphlets and Illicit discharge notification.	Education Efforts	Ongoing	NA	0	1	Lake Harris Basin	$0	Florida Legislature	Florida Legislature - $0.00
33	FDOT District 5	DOT01-YALE	FDOT Street Sweeping (E5Q71 Contract No)	Removal of debris and sediment from state maintained roadways.	Street Sweeping	Ongoing	NA	12	8	Lake Yale Basin	$0	Florida Legislature	Florida Legislature - $0.00

34	FDOT District 5	EUS18	SR 500/US 441 - System C	US 441 from 4.0 Miles Southwest of College Drive to Lake Shore Blvd. - System C. Wet Pond Detention. No increase in TP with road improvement.	Wet Detention Pond	Completed	2007	0	21	Lake Eustis Basin	$0	Florida Legislature	Florida Legislature - $0.00
43	FDOT District 5	EUS20	SR 500/US 441	US 441 from Lake Eustis Drive to CR 44B. Wet Pond Detention. No increase in TP load with road improvement.	Wet Detention Pond	Completed	2007	0	2	Lake Eustis Basin	$0	Florida Legislature	Florida Legislature - $0.00
53	FDOT District 5	DORA10	SR 19 in Tavares-System II	State Road 19 from 1.9 Miles South of US 441 to US 441 - System II (Basins 1&2). Wet pond detention. No increase in TP load with road improvement.	Wet Detention Pond	Completed	2007	0	1	Lake Dora Basin	$0	Florida Legislature	Florida Legislature - $0.00
54	FDOT District 5	EUS17	SR 500/US 441 - Basin E	US 441 from 0.2 Miles West of Lake Shore Blvd. to Lake Eustis Drive - Basin	Wet Detention Pond	Completed	2007	0	15	Lake Eustis Basin	$0	Florida Legislature	Florida Legislature - $0.00

				E. Wet Pond Detention. No increase in TP with road improvement.									
55	FDOT District 5	EUS16	SR 500/US 441 - Basin D	US 441 from 0.2 Miles West of Lake Shore Blvd to Lake Eustis Drive - Basin D. Wet Pond Detention. No increase in TP load with road improvement.	Wet Detention Pond	Completed	2007	0	1	Lake Eustis Basin	$0	Florida Legislature	Florida Legislature - $0.00
56	FDOT District 5	EUS15	SR 500/US 441 - Basin C	US 441 from 0.2 Miles West of Lake Shore Blvd to Lake Eustis Drive - Basin C. Wet Pond Detention. No increase in TP with road improvement.	Wet Detention Pond	Completed	2007	0	4	Lake Eustis Basin	$0	Florida Legislature	Florida Legislature - $0.00
57	FDOT District 5	EUS14	SR 500/US 441 - Basin A	US 441 from 0.2 Miles West of Lake Shore Blvd to Lake Eustis Drive - Basin A. Wet Pond Detention. No increase in TP with road improvement.	Wet Detention Pond	Completed	2007	0	26	Lake Eustis Basin	$0	Florida Legislature	Florida Legislature - $0.00

58	FDOT District 5	DOT04-DORA	Education and Outreach Activities	Informational pamphlets and Illicit discharge notification.	Education Efforts	Ongoing	NA	0	0	Lake Dora Basin	$0	Florida Legislature	Florida Legislature - $0.00
59	FDOT District 5	DOT03-DORA	Fertilizer Cessation	Elimination of bulk fertilizer contracts. Reduction of TN/TP from elimination of fertilizer use along state highway system.	Fertilizer Cessation	Completed	2005	96	96	Lake Dora Basin	$0	Florida Legislature	Florida Legislature - $0.00
61	FDOT District 5	DORA11	SR 19 in Tavares-System III	State Road 19 from 1.9 Miles South of US 441 to US 441 - System III (Basins 1 & 2). Wet pond detention. No increase in TP load with road improvement.	Wet Detention Pond	Completed	2007	0	8	Lake Dora Basin	$0	Florida Legislature	Florida Legislature - $0.00
63	FDOT District 5	DORA09	SR 19 in Tavares-System 1	State Road 19 from 1.9 Miles South of US 441 to US 441 - System 1 (Basins 1-4). Wet detention pond.	Wet Detention Pond	Completed	2007	0	2	Lake Dora Basin	$0	Florida Legislature	Florida Legislature - $0.00

64	FDOT District 5	DORA05	SR 500/US 441 - Basins 300 A,B,C,D	US 441 from Lake Eustis Drive to CR 44B - Basin 300A, B, C, and D. Lakes Saunders and Woodward.	On-line Retention BMPs	Completed	2007	0	11	Lake Dora Basin	$0	Florida Legislature	Florida Legislature - $0.00
65	FDOT District 5	DORA04	SR 500 US 441 - Basin 300A	US 441 from Lake Eustis Drive to CR 44B Basin 300A. Exfiltration trench. No increase in TP with road improvement.	Exfiltration Trench	Completed	2007	0	3	Lake Dora Basin	$0	Florida Legislature	Florida Legislature - $0.00
70	FDOT District 5	DOT01-DORA	FDOT Street Sweeping (E5Q71 Contract No)	Removal of debris and sediment from state maintained roadways.	Street Sweeping	Ongoing	NA	50	32	Lake Dora Basin	$0	Florida Legislature	Florida Legislature - $0.00
78	FDOT District 5	LAP16	SR-50 - Basin I	SR-50 from West of Hancock Road to East of Turnpike - Basin I. Dry Detention Pond. No increase in TP load with road improvement.	Dry Detention Pond	Completed	2014	0	0	Lake Apopka Basin	$0	Florida Legislature	Florida Legislature - $0.00

85	FDOT District 5	LAP14	SR-50 - Basin G	SR-50 from West of Hancock Road to East of Turnpike - Basin G. Wet Pond Detention.	Wet Detention Pond	Completed	2014	0	3	Lake Apopka Basin	$0	Florida Legislature	Florida Legislature - $0.00
94	FDOT District 5	DOT03-TROUT	Fertilizer Cessation	Elimination of bulk fertilizer contracts. Reduction of TN/TP from elimination of fertilizer use along state highway system.	Fertilizer Cessation	Completed	2005	502	502	Trout Lake Basin	$0	Florida Legislature	Florida Legislature - $0.00
104	FDOT District 5	LAP30	SR 50 - Basin 1 (L-4)	SR 50 From West of Avalon Road to SR429 (410983-1) - Basin 1 (L-4). Wet detention pond. No increase in TP load with road improvement.	Wet Detention Pond	Completed	2014	0	12	Lake Apopka Basin	$0	Florida Legislature	Florida Legislature - $0.00
113	FDOT District 5	LAP15	SR-50 - Basin H	SR-50 from West of Hancock Road to East of Turnpike - Basin H. Wet detention pond. No increase in TP	Wet Detention Pond	Completed	2014	0	13	Lake Apopka Basin	$0	Florida Legislature	Florida Legislature - $0.00

				load with road improvement.									
123	FDOT District 5	DOT02-CARL	FDOT Swale Maintenance	Removal of debris and sediment from state maintained roadways	BMP Cleanout	Ongoing	NA	3	0	Lake Carlton Basin	$0	Florida Legislature	Florida Legislature - $0.00
124	FDOT District 5	LAP31	SR 50 - Basin 2 (L-7)	SR 50 From West of Avalon Road to SR429 (410983-1) - Basin 2 (L-7). Wet detention pond. No increase in TP load with road improvement.	Wet Detention Pond	Completed	2014	0	16	Lake Apopka Basin	$0	Florida Legislature	Florida Legislature - $0.00
125	FDOT District 5	LAP32	SR 50 - Basin 3 (M-10/11)	SR 50 From West of Avalon Road to SR429 (410983-1) - Basin 3 (M-10/11). Wet detention pond. No increase in TP load with road improvement.	Wet Detention Pond	Completed	2014	0	27	Lake Apopka Basin	$0	Florida Legislature	Florida Legislature - $0.00
126	FDOT District 5	LAP33	SR 50 - Basin 4 (N-2)	SR 50 From West of Avalon Road to SR429 (410983-1) - Basin 4 (N-2). Wet detention	Wet Detention Pond	Completed	2014	0	2	Lake Apopka Basin	$0	Florida Legislature	Florida Legislature - $0.00

				pond. No increase in TP load with road improvement.									
127	FDOT District 5	LAP36	FM:239535-2	State Road 50. Add lanes from east ramps of Turnpike to Avalon Road, and wet detention ponds A and B providing treatment for runoff from existing and proposed pavement.	Wet Detention Pond	Completed	2014	0	7	Lake Apopka Basin	$0	Florida Legislature	Florida Legislature - $0.00
129	FDOT District 5	DOT01-LAP	FDOT Street Sweeping (E5Q71 Contract No)	Removal of debris and sediment from state maintained roadways (US 27, US 441, SR 44, SR 19, SR 50).	Street Sweeping	Ongoing	NA	82	53	Lake Apopka Basin	$0	Florida Legislature	Florida Legislature - $0.00
131	FDOT District 5	DOT01-CARL	FDOT Street Sweeping (E5Q71 Contract No)	Removal of debris and sediment from state maintained roadways.	Street Sweeping	Ongoing	NA	0	0	Lake Carlton Basin	$0	Florida Legislature	Florida Legislature - $0.00
133	FDOT District 5	DOT03-CARL	Fertilizer Cessation	Elimination of bulk fertilizer contracts.	Fertilizer Cessation	Completed	2005	206	206	Lake Carlton Basin	$0	Florida Legislature	Florida Legislature - $0.00

				Reduction of TN/TP from elimination of fertilizer use along state highway system.									
134	FDOT District 5	DOT04-CARL	Education and Outreach Activities	Informational pamphlets and Illicit discharge notification.	Education Efforts	Ongoing	NA	0	0	Lake Carlton Basin	$0	Florida Legislature	Florida Legislature - $0.00
135	FDOT District 5	GRIF26	SR 500/US 441 - Basin E	Lake Griffin, State Road 500 (US 441) From Martin Luther King to Lake Ella Road. Basin E (238395-4). Dry retention. No increase in TP load with road improvement.	On-line Retention BMPs	Completed	2014	0	8	Lake Griffin Basin	$0	Florida Legislature	Florida Legislature - $0.00
136	FDOT District 5	DOT01-GRIF	FDOT Street Sweeping (E5Q71 Contract No)	Removal of debris and sediment from state maintained roadways.	Street Sweeping	Ongoing	NA	88	57	Lake Griffin Basin	$0	Florida Legislature	Florida Legislature - $0.00
140	FDOT District 5	DOT03-LAP	Fertilizer Cessation	Elimination of bulk fertilizer contracts. Reduction of TN/TP from elimination of	Fertilizer Cessation	Completed	2005	2,607	2,607	Lake Apopka Basin	$0	Florida Legislature	Florida Legislature - $0.00

				fertilizer use along state highway system. (US 27, US 441, SR 44, SR 19, SR 50)									
176	FDOT District 5	PAL14	US 27 - Basin 1	US 27 from US 192 to North Boggy Marsh Road - Basin 1. Wet Pond Detention. No increase in TP load with road improvement.	Wet Detention Pond	Completed	2007	0	13	Palatlakaha River Basin	$0	Florida Legislature	Florida Legislature - $0.00
184	FDOT District 5	DOT04-YALE	Education and Outreach Activities	Informational pamphlets and Illicit discharge notification.	Education Efforts	Ongoing	NA	0	0	Lake Yale Basin	$0	Florida Legislature	Florida Legislature - $0.00
186	FDOT District 5	DOT01-PAL	FDOT Street Sweeping (E5Q71 Contract No)	Removal of debris and sediment from state maintained roadways.	Street Sweeping	Ongoing	NA	57	37	Palatlakaha River Basin	$0	Florida Legislature	Florida Legislature - $0.00
187	FDOT District 5	DOT03-PAL	Fertilizer Cessation	Elimination of bulk fertilizer contracts. Reduction of TN/TP from elimination of fertilizer use along state	Fertilizer Cessation	Completed	2005	1,437	1,437	Palatlakaha River Basin	$0	Florida Legislature	Florida Legislature - $0.00

				highway system.									
188	FDOT District 5	DOT04-PAL	Education and Outreach Activities	Informational pamphlets and Illicit discharge notification.	Education Efforts	Ongoing	NA	0	0	Palatlakaha River Basin	$0	Florida Legislature	Florida Legislature - $0.00
189	FDOT District 5	DOT01-TROUT	FDOT Street Sweeping (E5Q71 Contract No)	Removal of debris and sediment from state maintained roadways.	Street Sweeping	Ongoing	NA	37	24	Trout Lake Basin	$0	Florida Legislature	Florida Legislature - $0.00
190	FDOT District 5	DOT02-TROUT	FDOT Swale Maintenance	Removal of debris and sediment from state maintained roadways swales	BMP Cleanout	Ongoing	NA	39	5	Trout Lake Basin	$0	Florida Legislature	Florida Legislature - $0.00
191	FDOT District 5	DOT04-TROUT	Education and Outreach Activities	Informational pamphlets and Illicit discharge notification.	Education Efforts	Ongoing	NA	0	0	Trout Lake Basin	$0	Florida Legislature	Florida Legislature - $0.00
192	FDOT District 5	DOT03-YALE	Fertilizer Cessation	Elimination of bulk fertilizer contracts. Reduction of TN/TP from elimination of fertilizer use along state highway system.	Fertilizer Cessation	Completed	2005	463	463	Lake Yale Basin	$0	Florida Legislature	Florida Legislature - $0.00

283	FDOT District 5	HAR10	SR 500/US 441 - Basin 5	Lake Harris, SR 500 - US 441 Leesburg - Basin 5. No increase in TP with road improvement.	On-line Retention BMPs	Completed	2008	0	22	Lake Harris Basin	$0	Florida Legislature	Florida Legislature - $0.00
284	FDOT District 5	HAR09	SR 500/US 441 - Basin 4	Lake Harris, SR 500 - US 441 Leesburg - Basin 4. No increase in TP with road improvement.	On-line Retention BMPs	Completed	2008	0	4	Lake Harris Basin	$0	Florida Legislature	Florida Legislature - $0.00
292	FDOT District 5	HAR08	SR 500/US 441 - Basin 3	Lake Harris, SR 500 - US 441 Leesburg - Basin 3. No increase in TP load with road improvement.	On-line Retention BMPs	Completed	2008	0	11	Lake Harris Basin	$0	Florida Legislature	Florida Legislature - $0.00
303	FDOT District 5	HAR05	SR 500/US 441 - System B1	Lake Harris, US 441 from 4.0 Miles Southwest of College Drive to Lake Shore Boulevard. System B1. Dry retention pond. No increase in TP with road improvement.	On-line Retention BMPs	Completed	2005	0	18	Lake Harris Basin	$0	Florida Legislature	Florida Legislature - $0.00
304	FDOT District 5	HAR06	SR 500/US 441 - System B2	Lake Harris. US 441 from 4.0 Miles Southwest of	Wet Detention Pond	Completed	2005	0	10	Lake Harris Basin	$0	Florida Legislature	Florida Legislature - $0.00

				College Drive to Lake Shore Blvd. - System B2. Wet Pond Detention. No increase in TP load with road improvement.									
305	FDOT District 5	HAR07	SR 500/US 441 - Basin 1	Lake Harris, SR 500 - US 441 Leesburg - Basin 1. No increase in TP load with road improvement.	On-line Retention BMPs	Completed	2008	0	13	Lake Harris Basin	$0	Florida Legislature	Florida Legislature - $0.00
311	FDOT District 5	HAR11	SR 500/US 441 - Basin 6	Lake Harris, SR 500 - US 441 Leesburg - Basin 6. No increase in TP with road improvement.	On-line Retention BMPs	Completed	2008	0	4	Upper Ocklawaha Basin	$0	Florida Legislature	Florida Legislature - $0.00
313	FDOT District 5	DOT01-HAR	FDOT Street Sweeping (E5Q71 Contract No)	Removal of debris and sediment from state maintained roadways.	Street Sweeping	Ongoing	NA	164	105	Lake Harris Basin	$0	Florida Legislature	Florida Legislature - $0.00
5399	FDOT District 5	HAR39	FM: 238319-3-72-01	Leesburg - Lake Harris Regional Pond.	Wet Detention Pond	Completed	2021	77	17	Lake Harris Basin	$0	Florida Legislature	Florida Legislature - $0.00
6935	FFS	NUTRIENT09	Silviculture Best Management Practices	Best Management Practices for silviculture	Agricultural BMPs	Ongoing	NA	0	0	Upper Ocklawaha Basin	$0	NA	NA - $0.00

			Implementation and Compliance	applied to industrial, public, and private lands. Silviculture BMP implementation and compliance. Previously ProjID 71.									
181	Howey-in-the Hills	HHILL01	Education	Education outreach assigned 2.5 % credit for meeting MS4 permit requirements and 3 ordinances.	Education Efforts	Ongoing	NA	0	2	Lake Harris Basin	$0	Howey-in-the Hills	Howey-in-the Hills - $0.00
182	Howey-in-the Hills	HAR27	Baffle Box	Nutrient removing baffle box installed in urban area of city bordering Little Lake Harris. Collects drainage from US 19 highway.	Baffle Boxes-Second Generation	Completed	Prior to 2019	0	11	Lake Harris Basin	$0	LCWA	LCWA - $0.00
5381	Howey-in-the Hills	HAR33	Sewer Connection	Lake Hill School and Boondocks Restaurant connected to sewer. Wastewater	Wastewater Service Area Expansion	Completed	2019	0	0	Lake Harris Basin	$0	Not provided	Not provided - $0.00

				service purchased from Mission Inn.									
5879	Howey-in-the Hills	HAR40	Sanitary Sewer for Central Avenue	Connection of existing OSTDS to central sewer.	OSTDS Phase Out	Completed	2022	0	11	Lake Harris Basin	$567,000	Howey-in-the Hills; DEP	Howey-in-the Hills - $0.00; DEP - $400,000.00
2	Lake County	LC05-YALE	Support of Adopt-a-Lake Program	Adopt-a-Lake Countywide Program is an outreach program to residents of Lake County that enhances knowledge and awareness of stormwater management. Part of MS4 Phase II public education requirement. Replaces WAV Program.	Education Efforts	Ongoing	NA	0	20	Lake Yale Basin	$0	Lake County	Lake County - $0.00
3	Lake County	YALE03	Old Chisholm Trail Drainage Improvements	Lake Yale Basin.	Stormwater System Rehabilitation	Completed	2008	0	0	Lake Yale Basin	$182,555	Lake County	Lake County - $0.00
4	Lake County	YALE02	Washington Ave. Drainage Improvements	Drainage improvements and retrofit of treatment via swales with	Grass swales with swale blocks or raised culverts	Completed	2015	77	12	Lake Yale Basin	$1,654,186	Lake County	Lake County - $0.00

				ditch block and linear pond.									
5	Lake County	YALE01	Lake Yale Basin Study	Study to inventory stormwater system and identify potential sites for treatment retrofit projects.	Study	Completed	2008	0	0	Lake Yale Basin	$266,374	Lake County	Lake County - $0.00
6	Lake County	LC09-HAR	Catch Basin and Pipe Cleaning	Removal of sediments and nutrients from roadside catch basins and stormwater pipes.	BMP Cleanout	Ongoing	NA	9	5	Lake Harris Basin	$0	Lake County	Lake County - $0.00
25	Lake County	LC09-YALE	Catch Basin and Pipe Cleaning	Removal of sediments and nutrients from roadside catch basins and stormwater pipes.	BMP Cleanout	Ongoing	NA	6	3	Lake Yale Basin	$0	Lake County	Lake County - $0.00
27	Lake County	PAL01	Septic Tank Land Development Regulations	Green Swamp Area of Critical State Concern. Septic tanks within the Green Swamp are required to be pumped every five years. Land Development	Regulations, Ordinances, and Guidelines	Completed	2016	0	0	Palatlakaha River Basin	$0	Not provided	Not provided - $0.00

				Regulation addresses ground and surface water protection.									
141	Lake County	GRIF07	Brittany Estates Retrofit	Drainage improvements and retrofit of treatment through exfiltration system installation and expansion of existing pond.	Exfiltration Trench	Completed	2005	0	12	Lake Griffin Basin	$109,685	Lake County Public Works; LCWA; DEP	Lake County Public Works - $0; LCWA - $54,843; DEP - $54,843
142	Lake County	LC09-GRIF	Catch Basin and Pipe Cleaning	Removal of sediments and nutrients from roadside catch basins and stormwater pipes.	BMP Cleanout	Ongoing	NA	14	9	Lake Griffin Basin	$0	Lake County	Lake County - $0.00
143	Lake County	LC05-GRIF	Support of Adopt-a-Lake Program	Adopt-a-Lake Countywide Program is an outreach program to residents of Lake County that enhances knowledge and awareness of stormwater management. Part of MS4 Phase II public	Education Efforts	Ongoing	NA	0	62	Lake Griffin Basin	$0	Lake County	Lake County - $0.00

				education requirement. Replaces WAV Program.									
144	Lake County	GRIF22	Mid-Florida Lakes Mobile Home Park Retrofit	Exfiltration trenches. Exfiltration trench will operate as off-line retention system.	Exfiltration Trench	Completed	2005	0	42	Lake Griffin Basin	$390,000	Lake County; DEP	Lake County - $0.00; DEP - $0.00
145	Lake County	GRIF21	CR 466B Swale Improvements	Swale improvements planned for 2004.	Grass swales without swale blocks or raised culverts	Completed	Prior to 2007	0	0	Lake Griffin Basin	$100,000	Lake County; LCWA; Florida Legislature	Lake County - $50,000; LCWA - $35,000; Florida Legislature - $4,000
147	Lake County	GRIF18	Lakeside Village Retrofit	Underdrain system placed in recontoured ditches located along shoreline.	Exfiltration Trench	Completed	2007	0	0	Lake Griffin Basin	$400,000	Lake County	Lake County - $400,000.00
148	Lake County	EUS26	Lakeshore Drainage Improvement	Lake Eustis Basin.	Stormwater System Upgrade	Completed	2010	14	2	Lake Eustis Basin	$872,981	Lake County Stormwater MSTU	Lake County Stormwater MSTU - $872,981.00
149	Lake County	GRIF16	Picciola Road Ditches	Picciola Road-unincorporated Lake County. Recontouring of ditches.	Hydrologic Restoration	Completed	2011	0	0	Lake Griffin Basin	$150,000	Lake County	Lake County - $150,000.00

				Addition of ditch blocks.									
150	Lake County	HAR14	Dead River Road Stormwater Park	Stormwater park. Lake County Public Works is partnering with Public Lands to purchase property.	Wet Detention Pond	Completed	2010	0	38	Lake Harris Basin	$1,600,000	Lake County Stormwater MSTU	Lake County Stormwater MSTU - $0.00
151	Lake County	GRIF06	Griffwood Community Retrofit	Drainage improvements and retrofit of treatment through exfiltration system.	Exfiltration Trench	Completed	2004	0	33	Lake Griffin Basin	$109,685	Lake County Public Works; LCWA; DEP	Lake County Public Works - $0; LCWA - $54,843; DEP - $54,843
152	Lake County	GRIF05	Lazy Oaks Retrofit	Drainage improvements and retrofit of treatment through exfiltration system.	Exfiltration Trench	Completed	2004	0	19	Lake Griffin Basin	$109,685	Lake County Public Works; LCWA; DEP	Lake County Public Works - $0; LCWA - $54,843; DEP - $54,843
153	Lake County	GRIF04	Lake Griffin Basin Drainage Evaluation	Basin study of Lake Griffin Basin- identify potential treatment project retrofit areas.	Study	Completed	2003	0	0	Lake Griffin Basin	$92,410	Lake County Public Works; DEP	Lake County Public Works - $46,205.00; DEP - $46,205.00
154	Lake County	EUS25	Pine Meadows Restoration Area	Management and restoration of former muck	Wetland Restoration	Completed	2014	0	1,487	Lake Eustis Basin	$0	Lake County; SJRWMD	Lake County - $0.00;

				farm property. Restored toward natural state.									SJRWMD - $0.00
155	Lake County	LC09-EUS	Catch Basin and Pipe Cleaning	Removal of sediments and nutrients from roadside catch basins and stormwater pipes.	BMP Cleanout	Ongoing	NA	6	3	Lake Eustis Basin	$0	Lake County	Lake County - $0.00
157	Lake County	GRIF17	Harbor Oaks Retrofit	Exfiltration system installed.	Exfiltration Trench	Completed	2010	0	0	Lake Griffin Basin	$200,000	Lake County	Lake County - $200,000.00
158	Lake County	HAR24	Aquatic Vegetation Harvesting- Dead River and Hollondel Ponds	Harvesting of aquatic vegetation to remove nutrients from waterbody.	Aquatic Vegetation Harvesting	Completed	2016	0	0	Lake Harris Basin	$15,000	Lake County Stormwater MSTU	Lake County Stormwater MSTU - $15,000.00
165	Lake County	HAR12	Lake Harris and Little Lake Harris Basin Study	Lake Harris and Little Lake Harris drainage evaluation, per the county stormwater program. Precursor to stormwater retrofit and restoration activities.	Study	Completed	2009	0	0	Lake Harris Basin	$200,000	Lake County; SJRWMD	Lake County - $0.00; SJRWMD - $0.00
166	Lake County	LC05-HAR	Support of Adopt-a-Lake Program	Adopt-a-Lake Countywide Program is an outreach	Education Efforts	Ongoing	NA	0	88	Lake Harris Basin	$0	Lake County	Lake County - $0.00

				program to residents of Lake County that enhances knowledge and awareness of stormwater management. Part of MS4 Phase II public education requirement. Replaces WAV Program.									
167	Lake County	HAR13	Hollondel Road Stormwater Pond	Stormwater pond. SJRWMD is assisting with purchase of property. Design of pond is next step.	Regional Stormwater Treatment	Completed	2009	0	150	Lake Harris Basin	$956,000	Lake County; SJRWMD	Lake County - $0.00; SJRWMD - $0.00
169	Lake County	HAR22	Harris Road Water Quality Retrofit	Installation of swales with ditch blocks and replacement of existing outfall with continuous Deflective Separator unit at Harris Road.	Grass swales with swale blocks or raised culverts	Completed	2019	1	0	Lake Harris Basin	$88,000	Not provided	Not provided - $88,000.00

170	Lake County	HAR21	Magnolia Lane Water Quality Retrofit	Installation of pipe, manholes and next generation baffle box with media filtration on existing outfall within portion of Springs Subdivision in Yahala. Will retrofit treatment onto an approximate 18-acre basin.	Baffle Boxes-Second Generation with Media	Completed	2017	25	3	Lake Harris Basin	$500,000	SJRWMD	SJRWMD - $61,500.00
171	Lake County	HAR18	Silver Lake	WQI project - water monitoring, education, removal of invasive species & re-vegetation. Background and ongoing water monitoring, survey, individual permits issued.	Education Efforts	Ongoing	NA	0	0	Upper Ocklawaha Basin	$6,000	DEP	DEP - $0.00
172	Lake County	HAR16	Orange Ave. Drainage Improvements	Drainage improvements and installation of	Hydrodynamic Separators	Completed	2009	0	5	Lake Harris Basin	$154,274	Lake County Stormwater MSTU	Lake County Stormwater MSTU - $0.00

				CDS water quality unit.									
173	Lake County	HAR15	Porto Bello Ave. Drainage Improvements	Drainage improvements and installation of CDS water quality unit.	Hydrodynamic Separators	Completed	2009	0	4	Lake Harris Basin	$171,567	Lake County Stormwater MSTU	Lake County Stormwater MSTU - $0.00
174	Lake County	EUS04	Lakes Eustis and Silver Lake Drainage Evaluation	Lake Eustis and Silver Lake Basins drainage evaluation, per county's stormwater program. Inventory of stormwater outfalls (type, condition, location, amount of discharge) that discharge to lakes.	Study	Completed	Prior to 2007	0	0	Lake Eustis Basin	$184,000	Lake County	Lake County - $184,000.00
177	Lake County	LAP04	Johns Lake Stormwater Master Plan	Joint study with Orange County to inventory stormwater system and identify potential sites for treatment retrofit projects.	Study	Completed	2003	0	0	Lake Apopka Basin	$250,000	Lake County; Orange County; LCWA	Lake County - $24,958; Orange County - $200,000; LCWA - $25,001

178	Lake County	LAP02	Lake Apopka Basin Drainage Inventory	Lake Apopka Basin drainage inventory, per the Lake County Stormwater Program. Precursor to stormwater retrofit or restoration activities. BCI contracted to inventory stormwater management features and outfalls and delineate drainage subbasins.	Study	Completed	2002	0	0	Lake Apopka Basin	$25,135	SJRWMD; Lake County	SJRWMD - $12,567.00; Lake County - $12,568.00
179	Lake County	LAP01	Apopka Basin Development Guidelines, Contained within County Land Development Regulations	Lake County portion of Lake Apopka watershed including Johns Lake. Apopka Basin Development Guidelines, contained within Lake County Land Development Regulations. Provides ground and surface water protection.	Regulations, Ordinances, and Guidelines	Ongoing	NA	0	0	Lake Apopka Basin	$0	Not provided	Not provided - $0.00

180	Lake County	ABC02	Lois Drive Baffle Box	Baffle box included with drainage improvements.	Baffle Boxes-First Generation	Completed	2005	0	0	Lake Apopka Basin	$150,000	Lake County	Lake County - $150,000.00
183	Lake County	LC05-EUS	Support of Adopt-a-Lake Program	Adopt-a-Lake Countywide Program is an outreach program to residents of Lake County that enhances knowledge and awareness of stormwater management. Part of MS4 Phase II public education requirement. Replaces WAV Program.	Education Efforts	Ongoing	NA	0	93	Lake Eustis Basin	$0	Lake County	Lake County - $0.00
185	Lake County	LC05-LAP	Support of Adopt-a-Lake Program	Adopt-a-Lake Countywide Program is an outreach program to residents of Lake County that enhances knowledge and awareness of stormwater management. Part of MS4	Education Efforts	Ongoing	NA	0	0	Lake Apopka Basin	$0	Lake County	Lake County - $0.00

				Phase II public education requirement. Replaces WAV Program.									
193	Lake County	DORA01	Lake Dora Ave. Improvement Project	Repair of failing stormwater components and retrofit of baffle box treatment.	Hydrodynamic Separators	Completed	2003	0	0	Lake Dora Basin	$127,910	Lake County	Lake County - $127,910.00
194	Lake County	EUS02	Haynes Creek Park Retrofit	Improved drainage and retrofit of treatment using swale with ditch blocks.	Grass swales with swale blocks or raised culverts	Completed	2004	0	6	Lake Eustis Basin	$109,685	Lake County; LCWA; DEP	Lake County - $0; LCWA - $54,843; DEP - $54,843
195	Lake County	LC09-DORA	Catch Basin and Pipe Cleaning	Removal of sediments and nutrients from roadside catch basins and stormwater pipes.	BMP Cleanout	Ongoing	NA	93	57	Lake Dora Basin	$0	Lake County	Lake County - $0.00
196	Lake County	LC05-DORA	Support of Adopt-a-Lake Program	Adopt-a-Lake Countywide Program is an outreach program to residents of Lake County that enhances knowledge and	Education Efforts	Ongoing	NA	0	41	Lake Dora Basin	$0	Lake County	Lake County - $0.00

				awareness of stormwater management. Part of MS4 Phase II public education requirement. Replaces WAV Program.									
197	Lake County	DORA43	Lake Saunders Outfall Improvements	Repair of failing stormwater components and retrofit of treatment using swale with ditch blocks.	Grass swales with swale blocks or raised culverts	Completed	2015	0	0	Lake Dora Basin	$775,000	Lake County Stormwater MSTU	Lake County Stormwater MSTU - $775,000.00
198	Lake County	DORA34	Hwy 441 and Hwy 46 Stormtech Installation	Installed StormTech System: 100 linear feet in-line arrangements with "Isolator Rows" at each end for maintenance.	Exfiltration Trench	Completed	2010	0	0	Lake Dora Basin	$0	Not provided	Not provided - $0.00
199	Lake County	DORA18	Vincent Drive Drainage Improvement	Lake Dora Basin.	Stormwater System Rehabilitation	Completed	2008	0	0	Lake Dora Basin	$10,553	Lake County Stormwater MSTU	Lake County Stormwater MSTU - $10,553.00
201	Lake County	DORA03	Old Hwy 441 and Lake Dora	Deteriorating ditch and pipe system discharged	Wet Detention Pond	Completed	2003	0	0	Lake Dora Basin	$200,000	Lake County	Lake County - $200,000.00

				stormwater from Old Hwy 441 to Lake Dora from north side of Lakeshore Drive. Upgrade of inlets and construction of wet detention pond to treat highway runoff. Reduce stormwater inputs to Lake Dora.									
202	Lake County	LAP28	Shore Drive and Lake Blvd-Johns Lake Retrofit	Exfiltration and outfall improvements.	Exfiltration Trench	Completed	2008	0	0	Lake Apopka Basin	$100,000	Lake County	Lake County - $100,000.00
203	Lake County	LC05-DEN	Support of Adopt-a-Lake Program	Adopt-a-Lake Countywide Program is an outreach program to residents of Lake County that enhances knowledge and awareness of stormwater management. Part of MS4 Phase II public	Education Efforts	Ongoing	NA	0	0	Lake Denham Basin	$0	Lake County	Lake County - $0.00

				education requirement. Replaces WAV Program.									
204	Lake County	DORA14	Lakes Dora, Beauclair, and Carlton Basin Study	Lake Carlton basin drainage evaluation, per county's stormwater program. Precursor to stormwater retrofit and restoration activities.	Study	Completed	2009	0	0	Lake Carlton Basin	$200,000	Lake County	Lake County - $200,000.00
205	Lake County	LC09-CARL	Catch Basin and Pipe Cleaning	Removal of sediments and nutrients from roadside catch basins and stormwater pipes.	BMP Cleanout	Ongoing	NA	6	3	Lake Carlton Basin	$0	Lake County	Lake County - $0.00
206	Lake County	LC05-CARL	Support of Adopt-a-Lake Program	Adopt-a-Lake Countywide Program is an outreach program to residents of Lake County that enhances knowledge and awareness of stormwater management. Part of MS4 Phase II	Education Efforts	Ongoing	NA	0	1	Lake Carlton Basin	$0	Lake County	Lake County - $0.00

				public education requirement. Replaces WAV Program.									
207	Lake County	LC05-BCL	Support of Adopt-a-Lake Program	Adopt-a-Lake Countywide Program is an outreach program to residents of Lake County that enhances knowledge and awareness of stormwater management. Part of MS4 Phase II public education requirement. Replaces WAV Program.	Education Efforts	Ongoing	NA	0	10	Lake Beauclair Basin	$0	Lake County	Lake County - $0.00
208	Lake County	LC09-LAP	Catch Basin and Pipe Cleaning	Removal of sediments and nutrients from roadside catch basins and stormwater pipes.	BMP Cleanout	Ongoing	NA	0	0	Lake Apopka Basin	$0	Lake County	Lake County - $0.00
210	Lake County	DORA15	Lake Saunders Flood Study	Priority project identified from Lake	Study	Completed	2009	0	0	Lake Dora Basin	$43,102	Lake County	Lake County - $43,102.00

				Dora Basin study.									
211	Lake County	PAL21	Lower Palatlakaha River Basin Study	Lower reaches of the Palatlakaha River and connected lakes. Basin study of the lower Palatlakaha River basin. Basin drainage evaluation, per the county stormwater program. Precursor to stormwater retrofit and restoration activities.	Study	Completed	2009	0	0	Palatlakaha River Basin	$323,211	Lake County	Lake County - $0.00
212	Lake County	LC05-TROUT	Support of Adopt-a-Lake Program	Adopt-a-Lake Countywide Program is an outreach program to residents of Lake County that enhances knowledge and awareness of stormwater management. Part of MS4 Phase II public education	Education Efforts	Ongoing	NA	0	4	Trout Lake Basin	$0	Lake County	Lake County - $0.00

				requirement. Replaces WAV Program.									
213	Lake County	TROUT07	Lake Joanna	WQI project - water monitoring, education, removal of invasive species, and re-vegetation. Background and ongoing water monitoring, survey, and individual permits issued.	Education Efforts	Ongoing	NA	0	0	Lake Joanna	$0	Pollution Recovery Trust Fund	Pollution Recovery Trust Fund - $0.00
214	Lake County	TROUT06	Getford Road Stormwater Park	Trout Lake Basin. Lake County stormwater master plan implementation. Joint project between Lake County and the City of Eustis. Construction of a stormwater pond with passive park features.	Regional Stormwater Treatment	Completed	2010	0	143	Trout Lake Basin	$2,900,000	Lake County; City of Eustis	Lake County - $0.00; City of Eustis - $0.00

215	Lake County	TROUT05	Trout Lake Basin Study	Basin study of Trout Lake basin. Basin drainage evaluation, per county's stormwater program. Precursor to stormwater retrofit and restoration activities. Study is a continuation of Lake Eustis Basin study.	Study	Completed	2008	0	0	Trout Lake Basin	$130,000	Lake County	Lake County - $0.00
216	Lake County	LC09-PAL	Catch Basin and Pipe Cleaning	Removal of sediments and nutrients from roadside catch basins and stormwater pipes.	BMP Cleanout	Ongoing	NA	13	8	Palatlakaha River Basin	$0	Lake County	Lake County - $0.00
217	Lake County	LC05-PAL	Support of Adopt-a-Lake Program	Adopt-a-Lake Countywide Program is an outreach program to residents of Lake County that enhances knowledge and awareness of stormwater management. Part of MS4 Phase II public	Education Efforts	Ongoing	NA	0	53	Palatlakaha River Basin	$0	Lake County	Lake County - $0.00

				education requirement. Replaces WAV Program.									
219	Lake County	PAL24	Lake Winona	WQI project - water monitoring, education, removal of invasive species, and re-vegetation. Background and ongoing water monitoring, survey, and individual permits issued.	Education Efforts	Completed	2023	0	0	Palatlakaha River Basin	$0	Grant; General Revenue	Grant - $0.00; General Revenue - $0.00
220	Lake County	LC02	Lake County Shoreline Protection Guide	Education outreach information provided on an ongoing basis through Adopt-a-Lake and Lake County Stormwater program outreach.	Regulations, Ordinances, and Guidelines	Ongoing	NA	0	0	Upper Ocklawaha Basin	$0	Lake County	Lake County - $0.00
221	Lake County	PAL17	Elbert St. and Virginia St. Swale	Swale and swale blocks added. Project will provide capture of runoff and	Grass swales with swale blocks or raised culverts	Completed	2008	0	0	Palatlakaha River Basin	$100,000	Lake County	Lake County - $0.00

				enhanced infiltration. Elbert St. (Lake Minnehaha) and Virginia St. (Lake Minneola) in Clermont.									
222	Lake County	PAL16	Lakeshore Drive Clermont Retrofit	Exfiltration system constructed. Required recontouring of ditches and reworking of road shoulder. Project provides for capture of runoff and enhanced infiltration.	Exfiltration Trench	Completed	2005	0	0	Palatlakaha River Basin	$180,000	Lake County	Lake County - $0.00
223	Lake County	PAL15	Lake Minneola Shores Ditch Reconstruction	Ditches in Minneola Shores (CR561A) were recontoured, had paved bottoms removed, and ditch blocks were added. Project provides for capture of runoff and	Hydrologic Restoration	Completed	2004	0	0	Palatlakaha River Basin	$200,000	Lake County	Lake County - $0.00

				enhanced infiltration.									
224	Lake County	PAL02	Drainage Evaluation: Lakes Louisa, Minnehaha, and Minneola	Study to inventory stormwater system and identify potential sites for treatment retrofit projects.	Study	Completed	2007	0	0	Palatlakaha River Basin	$164,951	Lake County; SJRWMD; LCWA	Lake County - $50,000.00; SJRWMD - $50,000.00; LCWA - $64,951.00
227	Lake County	PAL31	Lake Emma Road & Lake Emma Estates Water Quality Retrofit	Installation of three next generation nutrient baffle boxes on existing outfalls from Lake Emma Road and Lake Emma Estates subdivision.	Baffle Boxes-Second Generation	Completed	2017	8	1	Palatlakaha River Basin	$461,500	Lake County	Lake County - $0.00
235	Lake County	TROUT01	Pine Meadows Restoration Area	Management and restoration of former muck farm property. Restored toward natural state.	Wetland Restoration	Completed	2014	0	726	Trout Lake Basin	$0	SJRWMD; Lake County	SJRWMD - $0.00; Lake County - $0.00
237	Lake County	LC01	Golf Course Resource Management Plan	Golf course resource management plans are applicable to the unincorporate	Regulations, Ordinances, and Guidelines	Ongoing	NA	0	0	Upper Ocklawaha Basin	$0	Lake County	Lake County - $0.00

				d portion of Lake County. They apply to new and existing golf courses. Regulatory approach that will provide protection to ground and surface waters.									
240	Lake County	LC08	Construction Erosion Control-Education and Inspection	Recurring training provided by Lake County to instruct and certify contractors on erosion and sediment control BMPs. Reduces nutrient load by reducing sediment discharge to water bodies.	Education Efforts	Ongoing	NA	0	0	Upper Ocklawaha Basin	$0	Lake County	Lake County - $0.00
241	Lake County	LC07	Targeted Business Sector BMP Education	Site visits to targeted business sectors (automotive service, landscape, and food service) throughout	Education Efforts	Ongoing	NA	0	0	Upper Ocklawaha Basin	$0	Lake County	Lake County - $0.00

				unincorporated Lake County. Inspection for BMPs to protect stormwater quality and distribution of educational flyers on water quality.									
242	Lake County	LC06	Landscaper BMP Training	Landscaper education about BMPs for landscapers and those that hire landscapers. A seminar was held with the Lake County Agriculture Center to educate landscapers about BMPs and BMP brochures were mailed out county wide to landscape companies.	Education Efforts	Completed	2018	0	0	Upper Ocklawaha Basin	$1,277	LCWA	LCWA - $1,277.00
4487	Lake County	HAR31	Sunset Drive WQ Retrofit	Drainage improvements and retrofit of treatment via	Baffle Boxes-Second	Completed	2018	14	2	Lake Harris Basin	$250,000	Lake County MSTU	Lake County MSTU - $250,000.00

				next generation baffle box with media filtration on existing outfall. Sunset Drive Yahala.	Generation with Media								
4502	Lake County	LC09-MINN	Pipe and Catch Basin Cleaning-Minnehaha/ Crescent Lake Basin	Removal of sediments from catch basins and pipes in stormwater system reducing associated nutrient discharge to receiving water body. Lakeshore Drive, Clermont.	BMP Cleanout	Ongoing	NA	8	5	Palatlakaha River Basin	$0	Lake County	Lake County - $0.00
4503	Lake County	LC10	Green Industries Best Management Practices	Stormwater staff have attained certification to be instructors in UF Green Industries-BMP program. Staff will assist in outreach on Green Industries Best	Education Efforts	Ongoing	NA	0	0	Upper Ocklawaha Basin	$0	Lake County	Lake County - $0.00

				Management Practices with an emphasis on Lake County Fertilizer ordinance requirements.									
4517	Lake County	YALE10	Lake Yale Marsh Park Stormwater Enhancements	Create wet detention pond out of remnant boat launch canal. Install control structures and route existing untreated direct discharges to new system. Install wetland plants and information kiosks for public education located at Lake Yale.	Wet Detention Pond	Completed	2020	94	12	Lake Yale Basin	$150,000	LCWA; Lake County MSTU; SJRWMD	LCWA - $0.00; Lake County MSTU - $0.00; SJRWMD - $0.00
5375	Lake County	HAR32	Little Lake Harris- N. Buckhill Road and Palm Ave Dirt Road Paving	1.6 Mile Paving of Dirt Road with grass swales and ditch blocks. Work done by County staff- Special Projects.	Grass swales with swale blocks or raised culverts	Completed	2019	46	8	Lake Harris Basin	$0	Lake County	Lake County - $125,000.00

5376	Lake County	TROUT13	Lake Joanna WQ Study	Nutrient study of Lake Joanna- ultimately discharges to Trout Lake. Study will include recommendations to reduce nutrient loads.	Study	Completed	2020	0	0	Lake Joanna	$52,175	Lake County; LCWA	Lake County - $0.00; LCWA - $52,175.00
5378	Lake County	LC11	Nutrient Pollution Awareness Campaign	Paid TV, Radio and Social Media advertising campaign to educate citizens on nutrient pollution and benefits of fertilizer ordinance. First of three videos- https://youtu.be/IqFcIOEqwWs.	Education Efforts	Completed	2022	0	0	Upper Ocklawaha Basin	$45,000	DEP; Lake County	DEP - $0.00; Lake County - $45,000.00
5881	Lake County	LC09-DORAa	Lake Dora Basin Catch Basin and Pipe Cleaning 2020	Catch basin and pipe cleaning to remove sediments.	BMP Cleanout	Completed	2020	238	146	Lake Dora Basin	$0	Lake County	Lake County - $0.00
5882	Lake County	DORA44	Challenger and Lenze Dirt Road Paving and Drainage	Paving of dirt roads and construction of swales for treatment.	Grass swales with swale blocks or raised culverts	Completed	2022	76	13	Lake Dora Basin	$729,000	Lake County	Lake County - $729,000.00

5883	Lake County	GRIF46	Picciola Harbors Stormwater Retrofit	Retrofit of CDS type unit on existing direct discharge to Lake Griffin.	Baffle Boxes-First Generation	Planned	2026	0	0	Lake Griffin Basin	$130,000	Lake County	Lake County - $0.00
5884	Lake County	TROUT15	Lake Joanna Stormwater Enhancements	Installation of next generation baffle box with media filtration on existing ditch. Bold and Gold Media was used in the baffle box.	Baffle Boxes-Second Generation with Media	Completed	2022	570	86	Lake Joanna	$180,000	Lake County	Lake County - $180,000.00
6225	Lake County	LC13	SR 44B Baffle Box for Lake Joanna Ditch	Additional baffle box with media filtration on inflow ditch to Lake Joanna. Will be 2nd baffle box to aid in treatment during high flow conditions.	Stormwater System Upgrade	Planned	2026	0	167	Lake Joanna	$243,283	Lake County LCWA	Lake County LCWA - $243,283.00
6228	Lake County	LC15	Lake Yale Marsh Park Pond Hyacinth Harvesting	Mechanical harvest and disposal of water hyacinth from Lake Yale	Aquatic Vegetation Harvesting	Completed	2021	26	30	Lake Yale Basin	$0	Lake County	Lake County - $9,889.00

				Marsh Park pond.									
6229	Lake County	LC14	Septic to Distributed Sewer (OnSyte) Conversion Phase 1 2023	Program to assist homeowners with conversion of OSTDS to OnSyte. - two units installed (Lenker and Ricci).	OSTDS Conversion to Distributed Wastewater System	Completed	2023	0	0	Upper Ocklawaha Basin	$2,000,000	Lake County; DEP Grant	Lake County - $1,000,000.00; DEP Grant - $1,000,000.00
6266	Lake County	LC12	Sun Eden- Lake Harris WQ Improvements	Retrofit of swales, and next generation baffle boxes with media filtration on existing direct discharges to canals and Lake Harris.	Stormwater System Upgrade	Planned	2025	0	0	Lake Harris Basin	$0	Lake County	Lake County - $350,000.00
7482	Lake County	LC17-YALE	Nutrient Loading Sources - Lake Yale	Monthly sampling of potential nutrient loading sources contributing to Lake Yale. Cost estimate is per year.	Monitoring/Data Collection	Underway	2027	0	0	Lake Yale Basin	$7,500	LCWA	LCWA - $7,500.00
7484	Lake County	LC17-BCL	Nutrient Loading Sources - Apopka Beauclair	Monthly sampling of potential nutrient loading	Monitoring/Data Collection	Underway	2027	0	0	Lake Beauclair Basin	$7,500	LCWA	LCWA - $7,500.00

			Canal/Lake Beauclair	sources contributing to the Apopka Beauclair Canal and Lake Beauclair. Cost estimate is per year.								
7485	Lake County	LC17-DEN	Nutrient Loading Sources - Lake Denham	Monthly sampling of potential nutrient loading sources contributing to Lake Denham. Cost estimate is per year.	Monitoring/Data Collection	Underway	2027	0	0	Lake Denham Basin	$5,000	LCWA	LCWA - $5,000.00
228	LCWA	YALE05	Water Quality Investigation	Lake Yale watershed. Survey and identify potential nutrient sources not previously evaluated and propose remediation projects.	Study	Completed	2017	0	0	Lake Yale Basin	$0	LCWA	LCWA - $0.00
234	LCWA	BCL02	Suction Dredging of Western Lake Beauclair	Internal load projects are not credited toward modeled loading. Western end	Muck Removal/Restoration Dredging	Completed	Prior to 2007	0	0	Lake Beauclair Basin	$9,300,000	FWC; LCWA; SJRWMD	FWC - $0.00; LCWA - $0.00; SJRWMD - $0.00

				of Lake Beauclair. Suction dredging to remove one million cubic yards of sediment in western end of Lake Beauclair.									
238	LCWA	DEN01	Lake Denham Muck Farm Buyout	Purchase and maintenance of 563 acre Lake Denham Muck Farm to eliminate an estimated 1100 pounds per year TP loading. Leesburg partnered with LCWA to purchase the former muck farm which contributes nutrients to Lake Denham and Lake Harris.	Land Acquisition	Completed	2019	0	0	Lake Denham Basin	$1,600,000	City of Leesburg; LCWA	City of Leesburg - $500,000.00 ; LCWA - $1,100,000. 00
239	LCWA	ABC01	Nutrient Reduction Facility	Apopka-Beauclair Canal/CC Ranch. Water in Apopka-Beauclair Canal treated	Regional Stormwater Treatment	Completed	2009	0	5,000	Lake Beauclair Basin	$7,300,000	LCWA; Florida Legislature; SJRWMD	LCWA - $0.00; Florida Legislature - $0.00;

				off-line with alum. Removes phosphorus containing compounds from Lake Apopka discharge. Reduce loading from Lake Apopka to Lake Beauclair and Apopka-Beauclair Canal.									SJRWMD - $0.00
243	LCWA	LC03	Water Resource Atlas	Web-based out reach education program focused on water resource issues. Water Atlas lead partner is LCWA with Lake County providing water quality monitoring data.	Education Efforts	Ongoing	NA	0	0	Upper Ocklawaha Basin	$90,000	Lake County	Lake County - $0.00
245	LCWA	TROUT09	Water Quality Investigation	Trout Lake watershed. Survey and identify potential nutrient sources not	Study	Completed	2017	0	0	Trout Lake Basin	$0	LCWA	LCWA - $0.00

				previously evaluated and propose remediation projects.									
5382	LCWA	DEN03	Lake Denham Muck Farm Remediation	Remediation and restoration of former muck farm into large lake and wetland system. Needs repair to levee and boat ramp and upland soil contaminant removal before discharge is ceased.	Wetland Restoration	Underway	2026	0	1,100	Lake Denham Basin	$0	Private Agricultural Interests	Private Agricultural Interests - $0.00
5885	LCWA	TROUT13a	Lake Joanna Study	Survey and identify potential nutrient sources and propose remediation projects.	Study	Completed	2020	0	0	Lake Joanna	$180,000	LCWA; Lake County	LCWA - $0.00; Lake County - $0.00
5886	LCWA	PAL37	Lake Minneola Study	Survey and identify potential nutrient sources that may be contributing	Study	Completed	2021	0	0	Palatlakaha River Basin	$150,000	LCWA	LCWA - $0.00

				to blue-green algal blooms.									
5887	LCWA	ABC01a	Nutrient Reduction Facility Upgrades	Upgrade NuRF facility with new treatment and processing equipment.	Regional Stormwater Treatment	Underway	2025	0	0	Upper Ocklawaha Basin	$4,500,000	LCWA; Florida Legislature	LCWA - $2,250,000.00; Florida Legislature - $2,250,000.00
6416	LCWA	PAL38	Clermont Chain Study	Identify potential nutrient sources contributing to HAB on Palatlakaha River water bodies.	Study	Completed	2024	0	0	Palatlakaha River Basin	$0	LCWA	LCWA - $250,000.00
7187	LCWA	LC16	Healthy Shorelines Grant Program	Training and native aquatic plants are being provided to residents free of charge to encourage planting along private property shorelines.	Enhanced Public Education	Ongoing	NA	0	0	Upper Ocklawaha Basin	$0	LCWA	LCWA - $100,000.00
7188	LCWA	TROUT17	Pine Meadows Conservation Area Expansion Project	Purchase 226.5-acres east of Pine Meadows Conservation Area to expand the property.	Land Acquisition	Completed	2024	0	0	Trout Lake Basin	$950,000	LCWA	LCWA - $950,000.00

7189	LCWA	PAL43	Villa City Dam Expansion Property	Purchase 53-acres surrounding an active water control structure to prevent future development, preserve a critical floodplain, and protect wetland ecosystems.	Land Acquisition	Planned	2025	0	0	Palatlakaha River Basin	$300,000	LCWA	LCWA - $300,000.00
89	Marion County	MARION02	Clean Farms Initiative	Marion County Orange Creek Basin. The Clean Farms Initiative was originally passed under Resolution 04-R-384 and has evolved using a Farm Outreach Coordinator to educate farms regarding BMPs. The number of farm visits are tracked yearly.	Agricultural BMPs	Ongoing	NA	0	0	Upper Ocklawaha Basin	$55,000	Marion County	Marion County - $0.00
90	Marion County	MARION04	Marion County Aquifer Vulnerability	Marion County Orange Creek Basin. The	Study	Completed	2007	0	0	Upper Ocklawaha Basin	$101,932	Marion County	Marion County Stormwater

			Assessment (MCAVA)	MCAVA project provides a scientifically defensible water-resource management and protection tool that uses a map to show relative aquifer vulnerability for use in guiding growth.								Stormwater Assessment	Assessment - $0.00
91	Marion County	MARION05	Marion County Low Impact Development Practices	Countywide. Seminar to share and encourage low-impact development practices to preserve and protect water resources. Marion County conducted the seminar for developers, engineers, landscape architects, and construction professionals in April 2007.	Education Efforts	Ongoing	NA	0	0	Upper Ocklawaha Basin	$6,500	Marion County Stormwater Assessment	Marion County Stormwater Assessment - $0.00

230	Marion County	MARION01-YALE	Springshed Protection	Prevent further degradation of water quality of Rainbow & Silver Springs, and to reduce or eliminate existing sources of pollution. Marion County has adopted ordinances and land development code for springs protection, fertilizer, and irrigation.	Education Efforts	Ongoing	NA	0	1	Lake Yale Basin	$0	Marion County	Marion County - $0.00
231	Marion County	MARION01-GRIF	Springshed Protection Program	Prevent further degradation of water quality of Rainbow & Silver Springs, and to reduce or eliminate existing sources of pollution. Marion County has adopted ordinances	Education Efforts	Ongoing	NA	0	40	Lake Griffin Basin	$0	Marion County	Marion County - $0.00

				and land development code for springs protection, fertilizer, and irrigation.									
232	Marion County	MARION06	Street Sweeping	Sweep Marion County-maintained roads in Upp. Ockl. Basin. Swept 8 times/yr, about 0.645 miles in Basin. 2021 load yield is roughly 0.78 tons. 2021 Upper Ocklawaha BMAP pro-rata share costs for street sweeping was approximately $219.08. Nutrient reduction	Street Sweeping	Ongoing	NA	3	2	Lake Griffin Basin	$0	Marion County Stormwater Assessment	Marion County Stormwater Assessment - $219.08
233	Marion County	GRIF28	Watershed Management Plan	Marion County portion of Lake Griffin. The WMP was initiated and the Floodplain	Study	Underway	TBD	0	0	Lake Griffin Basin	$975,832	Marion County Stormwater Assessment	Marion County Stormwater Assessment - $0.00

				Analysis completed in 2012. The Floodplain Level of Service, Surface Water Resource Assessment and Capital Projects Reports are still to be completed.									
16	Orange County	ORANGE07	Water Resource Atlas	Web-based outreach education program focused on water resource issues. including TMDLs, stormwater, water quality, etc. Hosted through the University of S. Florida. Four-year cost is provided.	Education Efforts	Ongoing	NA	0	0	Upper Ocklawaha Basin	$276,160	OC BCC	OC BCC - $276,160.00
18	Orange County	CARL01	Lake Carlton Nutrient and Hydrologic Assessment	Lake Carlton watershed. Nutrient and hydrologic assessment of lake and identification	Study	Completed	2018	0	0	Lake Carlton Basin	$185,825	Orange County	Orange County - $185,825.00

				of possible nutrient reduction projects. 3,100 acre watershed investigation.									
19	Orange County	LAP38	Lake Clarice Pond	Lake Clarice Estates. Bold & Gold™ filter media (upflow filter) added to the discharge of a wet detention pond.	Retention/Detention BMP Retrofit with Nutrient Reducing Media	Completed	2015	0	0	Lake Apopka Basin	$0	OC BCC	OC BCC - $0.00
20	Orange County	ORANGE03	Surface Water Protection Code	Orange County Code, Chapter 15, Articles II and IV. Orange County Air and Water Pollution Control Act provides protection and regulation of pollution and contamination of air, soil, and water resources of Orange County.	Regulations, Ordinances, and Guidelines	Ongoing	NA	0	0	Upper Ocklawaha Basin	$0	Orange County	Orange County - $0.00
21	Orange County	ORANGE04	Street Sweeping	Unincorporated Orange County. Lake Carlton, and	Street Sweeping	Ongoing	NA	0	0	Lake Carlton Basin	$0	OC BCC	OC BCC - $0.00

				Lake Beauclair, which is primarily roads around Lake Ola. Basin area approximately 6,522 acres. 13.87 miles of roads swept monthly for an annual total mileage of 166.44.and removal of 3,080 pounds.									
22	Orange County	ROB03	Lake Roberts BMP Feasibility Study	BMP construction feasibility study.	Study	Completed	2019	0	0	Lake Roberts Basin	$49,978	OC BCC	OC BCC - $49,978.00
23	Orange County	ROB02	Lake Roberts Nutrient and Hydrologic Loading Study	Lake Roberts nutrient and hydrologic loading study.	Study	Completed	2015	0	0	Lake Roberts Basin	$114,000	OC BCC	OC BCC - $114,000.00
24	Orange County	ORANGE09-ROB	Educational Efforts	1) FYN funded by the county 2) Local ordinances 3) PSAs 4) Information pamphlets addressing pollution reduction NPDES program 5) Water Atlas	Education Efforts	Ongoing	NA	0	2	Lake Roberts Basin	$0	OC BCC	OC BCC - $0.00

				and website 6) Proactive and reactive inspection programs.									
26	Orange County	ORANGE09-CARL	Educational Efforts	Education efforts in unincorporated Orange County Lake Carlton Basin.	Education Efforts	Ongoing	NA	0	6	Lake Carlton Basin	$0	OC BCC	OC BCC - $0.00
35	Orange County	ORANGE09-MARSHALL	Educational Efforts	1) FYN funded by the county 2) Local ordinances 3) PSAs 4) Information pamphlets addressing pollution reduction NPDES program 5) Water Atlas and website 6) Proactive and reactive inspection programs.	Education Efforts	Ongoing	NA	0	3	Marshall Lake Basin	$0	OC BCC	OC BCC - $0.00
36	Orange County	ORANGE09-BCL	Educational Efforts	Education efforts in unincorporated Orange County Lake Beauclair Basin.	Education Efforts	Ongoing	NA	0	3	Lake Beauclair Basin	$0	OC BCC	OC BCC - $0.00

46	Orange County	ORANGE09-LAP	Educational Efforts	Education efforts in unincorporated Orange County.	Education Efforts	Ongoing	NA	0	0	Lake Apopka Basin	$0	OC BCC	OC BCC - $0.00
48	Orange County	ORANGE01	Street Sweeping	Contractor and FDOT sweep about 460 miles countywide basis. The benchmark for sweeping shall be about 3,000 cumulative miles annually. Based on typical street sweeping, the debris picked up would be approximately 28 tons.	Street Sweeping	Ongoing	NA	31	20	Lake Apopka Basin	$0	City of Apopka; Orange County; City of Winter Garden	City of Apopka - $0.00; Orange County - $0.00; City of Winter Garden - $0.00
49	Orange County	LAP46	Lake Tilden Hydrological and Nutrient Assessment & Feasibility Study	Data and information from the assessment can be used by stakeholders to refine TMDL, provide allocation information within the watershed, and identify	Study	Completed	2019	0	0	Lake Apopka Basin	$242,579	OC BCC	OC BCC - $242,579.00

				potential BMP effectiveness. Feasibility Study will evaluate selected BMPs for implement ability.									
50	Orange County	LAP45	Lake Roper Hydrological and Nutrient Assessment & Feasibility Study	Data and information from the assessment can be used by stakeholders to refine TMDL, provide allocation information within the watershed, and identify potential BMP effectiveness. Feasibility Study will evaluate selected BMPs for implement ability.	Study	Completed	2019	0	0	Lake Apopka Basin	$192,319	OC BCC	OC BCC - $0.00
69	Orange County	ORANGE08	Orange County Parks Total Phosphorus	Parks including Trimble, Roosevelt, Nichols,	Fertilizer Reduction	Completed	2005	0	0	Upper Ocklawaha Basin	$0	Not provided	Not provided - $0.00

			Fertilizer Reduction	Magnolia Park, Chapin Station, Winter Garden Station, and County Line Station. OCEPD and Parks Department agreed to reduce the use of phosphorus fertilizers.									
86	Orange County	ORANGE06	WAV Program Support	Watershed Action Volunteers (WAV) program is a public education and participation program for residents of Orange County. Part of MS4 Phase I public education requirement.	Education Efforts	Ongoing	NA	0	0	Upper Ocklawaha Basin	$24,500	SJRWMD; OCEPD	SJRWMD - $12,500.00; OCEPD - $12,000.00
92	Orange County	LAP09	Jones Ave. Regional Stormwater Management Project	North of Lake Apopka, City of Apopka, north shore of Lake Apopka. Jones Ave. Regional Stormwater Project -15-	BMP Treatment Train	Completed	2008	0	296	Lake Apopka Basin	$4,600,000	SJRWMD; Orange County	SJRWMD - $300,000.00 ; Orange County - $4,300,000.00

				acre wet detention pond S 19,20, 21 T- 20S R-27E. It treats 0.35 inches over 500 acres and serves an area of 1000 acres during a 100-year flood.									
93	Orange County	LAP19	Water St.	Lake Apopka Basin. Stormwater retrofit Section 23; Township 22; range 27. Retention pond. Treatment and or percolation of stormwater.	On-line Retention BMPs	Completed	2000	0	23	Lake Apopka Basin	$104,000	Orange County Public Works	Orange County Public Works - $0.00
121	Orange County	ORANGE09-DORA	Educational Efforts	Education efforts in unincorporated Orange County Lake Dora Basin.	Education Efforts	Ongoing	NA	0	1	Upper Ocklawaha Basin	$0	OC BCC	OC BCC - $0.00
139	Orange County	LAP22	East Bay St. Community Development Project	Lake Apopka Basin. Paving and drainage upgrades - Section 13, 24; Township 22; Range 27. Road	On-line Retention BMPs	Completed	2007	0	0	Lake Apopka Basin	$1,700,000	HUD	HUD - $0.00

				resurfacing, closed drainage system, new pond and relocate existing pond for Bethune Avenue, Maxey Street, Dunbar Avenue, Edgeway Drive, and East Bay Street.									
159	Orange County	LAP44	Black Lake Hydrological and Nutrient Assessment & Feasibility Study	Data from the assessment can be used to refine TMDL, provide allocation information within the watershed, and identify potential BMP effectiveness. Feasibility Study will evaluate selected BMPs for implementability. Design of Pond retrofit with media.	Study	Completed	2022	0	0	Lake Apopka Basin	$288,104	OC BCC	OC BCC - $288,104.00

229	Orange County	LAP21	Burch's Quarters Community Development Project	Lake Apopka Basin. Paving and drainage upgrades - Section 22; Township 22; Range 27. Stormwater detention pond and storm sewer for Pamela Avenue, Coke Avenue, Foster Avenue, and Burch Street.	Dry Detention Pond	Completed	2006	0	0	Lake Apopka Basin	$1,356,000	HUD	HUD - $0.00
279	Orange County	LAP18	Berg Dr.	Lake Apopka Stormwater retrofit Section 16; Township 20; range 27. Exfiltration chambers for discharge of stormwater. Percolation of existing stormwater through ground.	Exfiltration Trench	Completed	2000	0	2	Upper Ocklawaha Basin	$207,000	Orange County Public Works	Orange County Public Works - $0.00
281	Orange County	LAP20	Lake Apopka Master Plan	Stormwater management plan for Lake Apopka. Phase I complete, ongoing with Phase II and	Study	Completed	2006	0	0	Lake Apopka Basin	$250,000	Orange County Public Works	Orange County Public Works - $0.00

				III . Identify retrofit opportunities to remove nutrient loading into Lake Apopka.									
4501	Orange County	LAP64	Lake Pearl (West) Hydro/Nutrient Assessment and Water Quality Improvement Plan	Watershed assessment, source characterization, and determination of relative source contributions. Report will produce a list of ranked BMPs for further consideration and/or implementation.	Study	Completed	2021	0	0	Lake Apopka Basin	$168,443	Orange County	Orange County - $0.00
5377	Orange County	CARL02	Lake Carlton BMP Feasibility Study	Assess the feasibility of installing BMPs in County rights-of-way.	Study	Completed	2020	0	0	Lake Carlton Basin	$85,963	Orange County	Orange County - $85,963.00
5895	Orange County	LAP66	Black Lake Siplin Pond #6749 Retrofit Design	Pond retrofit side bank media filter.	Retention/Detention BMP Retrofit with Nutrient Reducing Media	Underway	2025	0	0	Lake Apopka Basin	$94,308	OC BCC	OC BCC - $94,307.68

5896	Orange County	LAP67	Johns Lake Hydrological and Nutrient Assessment	Data and information from the assessment can be used by stakeholders to refine TMDL, provide allocation information within the watershed, and identify potential BMP effectiveness.	Study	Underway	2024	0	0	Lake Apopka Basin	$318,877	OC BCC	OC BCC - $0.00
5897	Orange County	ORANGE10	Groundwater Vulnerability Study	Countywide assessment of the risk and vulnerability of the groundwater and surface water to contamination from septic systems.	Study	Completed	2024	0	0	Upper Ocklawaha Basin	$202,438	OC BCC	OC BCC - $202,438.00
5899	Orange County	LAP09a	Jones Ave. Regional Stormwater Management Performance Monitoring	Evaluate BMP system performance and make recommendations.	Study	Completed	2021	0	0	Lake Apopka Basin	$60,667	OC BCC	OC BCC - $60,667.00
6429	Orange County	ORANGE11	Jones Ave. Regional Stormwater Management	Improve reduction efficiencies.	In Waterbody - Alum	Underway	2026	0	0	Lake Apopka Basin	$168,684	OC BCC	OC BCC - $168,684.00

			Retrofit Design Project		Injection System								
6641	Orange County	ORANGE12	Lake Carlton BMP Design Testing	2004 TMDL did not consider TP, TN loading from internal recycling. This project is to evaluate that load and recommend strategies to improve water quality.	Monitoring/Data Collection	Underway	2025	0	0	Lake Carlton Basin	$384,934	OCBCC	OCBCC - $384,933.52
7620	Orange County	ORANGE13	Update Chapter 37 Wastewater Code	Increased sewer connection requirements in OC-PVAs and PFA: <2 ERU fronting gravity or force main, >2 ERU connect within 600 ft of main Enhanced Septic (65% N Reduction) in OC-PVAs lots one acre or less septic <150' from waterbody must be enhanced.	Regulations, Ordinances, and Guidelines	Underway	2025	0	0	Upper Ocklawaha Basin	$0	OC BCC	OC BCC - $0.00

7623	Orange County	ORANGE14	OC-Facilities West District Septic to Sewer Feasibility	Septic to sewer feasibility is being evaluated at Tibet Butler, Willow Street, Apopka R&D, RD Keen, LEVO, West Beach, Rolling Hills, West Orange Highway, Trimble Park, Orlo Vista Park, Shadow Bay Park, Parks & Rec Warehouse, Frederick Douglas.	Study	Underway	2027	0	0	Upper Ocklawaha Basin	$820,000	OC BCC	OC BCC - $820,000.00
7628	Orange County	ORANGE15-LAP	Killarney Station Sewer Connection	Killarney Station sewer connection.	OSTDS Phase Out	Underway	2027	0	0	Lake Apopka Basin	$930,000	OC BCC	OC BCC - $930,000.00
Polk County has not reported any projects at the time of this adoption.													
106	SJRWMD	GRIF01	Lake Griffin Emeralda Marsh Restoration	Emeralda Marsh Conservation Area: managed for wetland restoration, alum treatment to bind phosphates in	Wetland Restoration	Completed	Prior to 2007	0	41,450	Lake Griffin Basin	$15,975,204	SJRWMD Ad Valorem; Florida Legislature	SJRWMD Ad Valorem - $0.00; Florida Legislature - $0.00

				sediments, manage nutrient outflow to Lk Griffin to feasible loading of 1.1 kg/ha/yr or about 1 lb/ac. Area 3 reconnected to Lk Griffin in 2017.									
107	SJRWMD	DORA13	Gizzard Shad Harvest	Internal load projects are not credited toward modeled loading. Harvest of gizzard shad from Lake Dora by commercial fishermen. Part of experimental assessment with UF and FWC. Removal of fish removes nutrients. Reduces recycling of nutrients from sedimen	Fish Harvesting	Completed	2006	0	0	Lake Dora Basin	$0	SJRMWD; Florida Legislature	SJRMWD - $0.00; Florida Legislature - $0.00

108	SJRWMD	BCL03	Gizzard Shad Harvest	Internal load projects are not credited toward modeled loading. Harvest of gizzard shad from Lake Beauclair by commercial fishermen. Removal of fish removes nutrient from lake. Reduces recycling of nutrients from sediments and reduces TSS.	Fish Harvesting	Completed	2018	0	0	Lake Beauclair Basin	$0	SJRWMD; Florida Legislature	SJRWMD - $0.00; Florida Legislature - $0.00
109	SJRWMD	LAP52	Lake Apopka SAV Initial Assessment and In-lake Planting Pilot Projects	SJRWMD Contract 31945 (UF) to determine factors that promote the establishment, persistence, and expansion of SAV in Lake Apopka, planted or naturally recruited. This will inform future large-scale SAV restoration	SAV Planting	Completed	2021	0	0	Lake Apopka Basin	$750,000	DEP LF; SJRWMD	DEP LF - $750,000.00 ; SJRWMD - $0.00

				efforts in Lake Apopka.									
110	SJRWMD	LAP51	Unconsolidated Floc Pumping	Internal load projects are not credited toward modeled loading. Pump unconsolidated floc from Lake Apopka to improve the opportunity of habitat. Total project will remove 50,000 pounds of TN and 1,600 pounds of TP.	Muck Removal/Restoration Dredging	Completed	2019	0	0	Lake Apopka Basin	$2,444,000	DEP LF; FWC	DEP LF - $983,000.00; FWC - $1,461,000.00
111	SJRWMD	LAP50	In-lake Sump Project at Lake Apopka	Internal load projects are not credited toward modeled loading. Dredging in the northwest portion of Lake Apopka to create a sump where unconsolidated flocculent can settle and be removed in the future. Project also	Muck Removal/Restoration Dredging	Completed	2019	0	0	Lake Apopka Basin	$4,200,000	FWC	FWC - $4,200,000.00

				includes navigation dredging.									
112	SJRWMD	LAP08	Removal of Gizzard Shad	Internal load projects are not credited toward modeled loading. Harvest of gizzard shad by commercial fishermen. Reduces recycling of nutrients from sediments and resuspension (TSS). Estimated reductions: 20,927 lbs/yr TN; 6,916 lbs/yr TP.	Fish Harvesting	Ongoing	NA	0	0	Lake Apopka Basin	$0	SJRWMD; Florida Legislature; Lake County; LCWA	SJRWMD - $0.00; Florida Legislature - $750,000.00; Lake County - $0.00; LCWA - $0.00
114	SJRWMD	HAR02	Lake Harris Conservation Area	North shore of Lake Harris. Restoration of former muck farm. Treatment of soil (alum) to bind phosphates. Aquatic & wetland habitat restoration. Reduce &	Wetland Restoration	Completed	Prior to 2007	0	6,665	Lake Harris Basin	$950,538	SJRWMD; Florida Legislature	SJRWMD - $0.00; Florida Legislature - $0.00

				manage phosphorus outflow to Lk Harris or Lk Griffin to 1.1 kg/ha/yr or about 1 lb/ac.									
116	SJRWMD	LAP06	North Shore Restoration Area	Apopka North Shore wetland habitat restoration. Approved revision from USFWS enhancing water management options. Evaluating projects to optimize pump utilization and water movement on the North Shore to further reduce loading to Lake.	Wetland Restoration	Completed	Prior to 2007	0	99,960	Lake Apopka Basin	$103,895,000	SJRWMD; DEP LF	SJRWMD - $103,805,000.00; DEP LF - $90,000.00
117	SJRWMD	LAP05	Lake Apopka Constructed Marsh Flow-way Phase 1	Internal load projects are not credited toward modeled loading. Treatment wetland on shore of Lake Apopka to	Constructed Wetland Treatment	Completed	2007	0	0	Lake Apopka Basin	$3,900,000	Ad Valorem; SJRWMD; Central Florida Beltway Trust Fund; Mitigation; Lake County;	Ad Valorem - $0.00; SJRWMD - $0.00; Central Florida Beltway Trust Fund - $0.00; Mitigation -

				improve lake. Major maintenance and regrading was done in 2020 and 2021.In 2023, 1552 lbs of TP and 199,069 lbs of TN was removed.								LCWA; EPA	$0.00; Lake County - $0.00; LCWA - $0.00; EPA - $0.00
118	SJRWMD	HAR03	Harris Bayou Conveyance Project	Harris Conservation Area. Establish water flow connection to Lake Griffin. After connection established, TP discharges from Project HAR02 go to Lake Griffin, instead of Lake Harris. Modification of hydrodynamics to accommodate higher flows of water.	Hydrologic Restoration	Completed	2008	0	0	Lake Harris Basin	$5,000,000	Ad Valorem; Florida Legislature	Ad Valorem - $0.00; Florida Legislature - $0.00
119	SJRWMD	LAP53	Storm Water Nutrient Loading Assessment of	SJRWMD Contract 31869. Storm event monitoring of	Study	Completed	2018	0	0	Lake Apopka Basin	$124,951	DEP LF	DEP LF - $0.00

			Lake Apopka Tributaries	tributaries on Lake Apopka southshore, includes project concept development for phosphorus load reductions. Implementation of projects via future cost-share or Florida Legislature appropriations									
122	SJRWMD	LAP07	With-in Lake Habitat Restoration	Planting wetland littoral vegetation in Lake Apopka and trees along the north shore to help improve fishery, replace damaged/diseased rookery trees, improve lake water quality, to reduce nutrient levels, stabilize bottom	Creating/ Enhancing Living Shoreline	Completed	2012	0	0	Lake Apopka Basin	$0	SJRWMD Ad Valorem	SJRWMD Ad Valorem - $0.00

				sediments and reduce TSS.									
130	SJRWMD	GRIF02	Gizzard Shad Harvest	Internal load projects are not credited toward modeled loading. Harvest of gizzard shad from Lake Griffin by commercial fishermen. Remove and export nutrients via fish. Reduces recycling of nutrients from sediments and reduces TSS.	Fish Harvesting	Completed	2008	0	0	Lake Griffin Basin	$1,000,000	SJRWMD Ad Valorem; Florida Legislature Appropriation; LCWA	SJRWMD Ad Valorem - $0.00; Florida Legislature Appropriation - $0.00; LCWA - $0.00
4474	SJRWMD	BCL04	Irrigation Conversion	Convert from seepage to center pivot on sod.	Agricultural BMPs	Completed	2018	45	5	Lake Beauclair Basin	$260,192	SJRWMD	SJRWMD - $194,109.00
4475	SJRWMD	BCL05	Irrigation Conversion	Convert from seepage to center pivot on sod.	Agricultural BMPs	Completed	2016	825	91	Lake Beauclair Basin	$187,796	SJRWMD	SJRWMD - $169,016.00
4479	SJRWMD	GRIF33	Irrigation Conversion	Construction of tailwater recovery and reuse pond.	Agricultural BMPs	Completed	2016	323	70	Lake Griffin Basin	$157,917	SJRWMD	SJRWMD - $142,125.00

4480	SJRWMD	GRIF34	Precision fertilizer application	Variable rate fertilizer equipment on citrus.	Agricultural BMPs	Completed	2017	523	114	Lake Griffin Basin	$49,608	SJRWMD	SJRWMD - $37,206.00
4481	SJRWMD	GRIF35	Precision fertilizer application	Variable rate fertilizer application with CC-Eye technology.	Agricultural BMPs	Completed	2016	1,593	286	Lake Griffin Basin	$88,872	SJRWMD	SJRWMD - $66,654.00
4482	SJRWMD	GRIF36	Irrigation Conversion	Convert from overhead to drip irrigation.	Agricultural BMPs	Completed	2016	738	108	Lake Griffin Basin	$182,543	SJRWMD	SJRWMD - $164,289.00
4484	SJRWMD	HAR28	Precision fertilizer application	Variable rate fertilizer spreader with CC-Eye Technology.	Agricultural BMPs	Completed	2016	488	88	Lake Harris Basin	$99,519	SJRWMD	SJRWMD - $74,639.00
4485	SJRWMD	HAR29	Irrigation Conversion	Convert from micro-jet to drip irrigation for citrus.	Agricultural BMPs	Completed	2019	56	12	Lake Harris Basin	$223,821	SJRWMD	SJRWMD - $167,866.00
4486	SJRWMD	HAR30	Mobile fertigation	Purchase and implement a mobile fertigation system for citrus.	Agricultural BMPs	Completed	2019	80	17	Lake Harris Basin	$13,682	SJRWMD	SJRWMD - $10,261.00
4491	SJRWMD	LAP54	Lake Apopka Aquatic Habitat Restoration	SJRWMD Contract 33421 (Cardno, Inc) to plant floating wetland vegetation in	Creating/ Enhancing Living Shoreline	Completed	2019	0	0	Lake Apopka Basin	$200,000	FWC	FWC - $200,000.00

				Lake Apopka to help improve fishery by providing habitat, improve lake water quality, to reduce nutrient levels, stabilize bottom sediments and reduce total suspended solids.									
4492	SJRWMD	LAP55	Lake Apopka North Shore Infrastructure Improvements	Design and construct improvements to the north shore infrastructure to allow the storage of more water on the north shore and reduce the discharge of nutrients to Lake Apopka. Estimated reductions upon completion are 3,546 lbs/yr TN and 143 lbs/yr TP.	Impoundment	Underway	2025	0	0	Lake Apopka Basin	$2,490,000	FWC; DEP	FWC - $0.00; DEP - $2,490,000.00

4493	SJRWMD	LAP56	Lake Apopka Interconnect Across Lake Level Canal	Design and construct infrastructure to move water between the Duda and Zellwood portions of the Lake Apopka North Shore to better manage water and reduce the nutrient load to Lake Apopka.	Impoundment	Completed	2024	2,857	115	Lake Apopka Basin	$1,987,000	DEP	DEP - $1,575,000.00
4494	SJRWMD	LAP57	Lake Apopka Duda Property Water Storage Improvements	Improve roads and berms and add additional internal water management capabilities within Duda to better manage water and retain phosphorous on the Lake Apopka North Shore.	Impoundment	Completed	2021	8,666	308	Lake Apopka Basin	$1,535,000	DEP	DEP - $2,650,000.00
4495	SJRWMD	LAP58	Lake Apopka Innovative TP Removal	Internal load projects are not credited toward modeled loading. The project will utilize an	Stormwater System Upgrade	Completed	2024	0	0	Lake Apopka Basin	$1,160,000	DEP	DEP - $1,160,000.00

				innovative treatment technology, and the SJRWMD will pay a pre-negotiated rate for each pound of TP removed from Lake Apopka's water column. 5,000 lbs/yr TP.									
4496	SJRWMD	LAP59	Lake Apopka Marsh Flow-Way Improvements	Improve removal efficiencies by limiting short circuiting and improving sheet flow patterns within the cells of the flowway. Internal load projects are not credited toward modeled loading but estimated reductions are 124,245 lbs/yr TN and 244 lbs/yr TP.	Constructed Wetland Treatment	Completed	2021	0	0	Lake Apopka Basin	$2,735,000	DEP	DEP - $2,735,000.00

4497	SJRWMD	LAP60	Irrigation Retrofit/Tailwater	Install hydroponic system, irrigation retrofit and tailwater recovery pond.	Agricultural BMPs	Completed	2017	206	44	Lake Apopka Basin	$176,444	Bekemeyer Family Farm; SJRWMD	Bekemeyer Family Farm - $17,645.00; SJRWMD - $158,799.00
4498	SJRWMD	LAP61	Irrigation Conversion	Convert from seepage to center pivot on mixed vegetables.	Agricultural BMPs	Completed	2017	286	77	Lake Apopka Basin	$212,614	Long and Scott; SJRWMD	Long and Scott - $53,154.00; SJRWMD - $159,460.00
4499	SJRWMD	LAP62	Precision agriculture	GPS-guided fertilizer application.	Agricultural BMPs	Completed	2018	127	34	Lake Apopka Basin	$64,801	Long and Scott; SJRWMD	Long and Scott - $16,200.00; SJRWMD - $48,601.00
4504	SJRWMD	PAL32	Irrigation Conversion	Retrofit micro-emitter system so it is possible to shut off individual emitters as trees are harvested.	Agricultural BMPs	Completed	2018	258	128	Palatlakaha River Basin	$400,000	Cherrylake Inc.; SJRWMD	Cherrylake Inc. - $100,000.00; SJRWMD - $300,000.00
4505	SJRWMD	PAL33	Pressure regulation	Update valves and improve pressure regulation on containerized nursery.	Agricultural BMPs	Completed	2019	209	59	Palatlakaha River Basin	$124,778	Cherrylake Inc.; SJRWMD	Cherrylake Inc. - $31,194.00; SJRWMD - $93,584.00
4506	SJRWMD	PAL34	Irrigation Conversion	Irrigation retrofit on citrus.	Agricultural BMPs	Completed	2018	87	19	Palatlakaha River Basin	$25,275	William C. Davis; SJRWMD	William C. Davis - $6,319.00;

													SJRWMD - $18,956.00
4507	SJRWMD	TROUT12	Precision agriculture	Variable rate fertilizer applicator and weather stations.	Agricultural BMPs	Completed	2018	1,006	109	Trout Lake Basin	$140,374	Lake Jem Farms; SJRWMD	Lake Jem Farms - $35,093.00; SJRWMD - $105.28
4509	SJRWMD	UOB01	Irrigation Conversion	Convert from overhead to micro-jet irrigation system.	Agricultural BMPs	Completed	2016	614	132	Upper Ocklawaha Basin	$229,590	Black Bear Ranch; SJRWMD	Black Bear Ranch - $22,959.00; SJRWMD - $206,631.00
4510	SJRWMD	UOB02	Irrigation Conversion	Pump automation and soil moisture sensors with telemetry.	Agricultural BMPs	Completed	2019	5	16	Upper Ocklawaha Basin	$35,236	Kenneth MacKay; SJRWMD; DEP	Kenneth MacKay - $8,809; SJRWMD - $13,214; DEP - $13,213
4511	SJRWMD	UOB03	Irrigation Retrofit And Variable Rate Fertilizer	Irrigation retrofit on indoor foliage.	Agricultural BMPs	Completed	2018	113	16	Upper Ocklawaha Basin	$100,135	Mercer Botanicals; SJRWMD	Mercer Botanicals - $25,034.00; SJRWMD - $75,101.00
4512	SJRWMD	UOB04	Precision fertilizer application	Variable rate fertilizer applicator and CC-Eye technology.	Agricultural BMPs	Completed	2016	2,042	355	Upper Ocklawaha Basin	$86,378	Simpson Fruit Company; SJRWMD	Simpson Fruit Company - $21,595.00; SJRWMD - $64,783.00
4513	SJRWMD	YALE06	Irrigation Conversion	Convert from overhead to drip and precision	Agricultural BMPs	Completed	2016	239	42	Lake Yale Basin	$59,551	May and Whitaker; SJRWMD	May and Whitaker - $14,888.00; SJRWMD - $44,663.00

				fertilizer applicator.									
4514	SJRWMD	YALE07	Precision fertilizer application	Double-boom fertilizer soil applicator.	Agricultural BMPs	Completed	2016	68	11	Lake Yale Basin	$16,770	Sevorg Trading Company; SJRWMD	Sevorg Trading Company - $4,193.00; SJRWMD - $12,577.00
4515	SJRWMD	YALE08	Precision fertilizer application	Fertigation system for citrus.	Agricultural BMPs	Completed	2018	110	25	Lake Yale Basin	$36,600	Sevorg Trading Company; SJRWMD	Sevorg Trading Company - $10,640.00; SJRWMD - $25,960.00
4516	SJRWMD	YALE09	Irrigation Conversion	Soil moisture sensors for blueberries and citrus.	Agricultural BMPs	Completed	2017	147	26	Lake Yale Basin	$16,703	Sevorg Trading Company; SJRWMD	Sevorg Trading Company - $4,176.00; SJRWMD - $12,527.00
5388	SJRWMD	PAL36	Precision fertilizer application	Variable rate spreaders with Lidar technology.	Agricultural BMPs	Completed	2020	4,037	493	Palatlakaha River Basin	$111,013	Cherrylake Inc.; SJRWMD	Cherrylake Inc. - $27,753.00; SJRWMD - $83,260.00
5389	SJRWMD	HAR37	Irrigation Conversion	Irrigation retrofit, weather station and soil moisture sensors.	Agricultural BMPs	Completed	2020	86	19	Lake Harris Basin	$50,216	SJRWMD	SJRWMD - $37,662.00
5390	SJRWMD	BCL06	Irrigation Retrofit And Variable Rate Fertilizer	Install surface water pump to convert to surface water, convert to	Agricultural BMPs	Completed	2020	816	90	Lake Beauclair Basin	$230,739	SJRWMD	SJRWMD - $173,055.00

				linear overhead system and purchase variable rate fertilizer equipment.									
5391	SJRWMD	YALE11	Precision fertilizer application	Purchase and implement hoop boom sprayer.	Agricultural BMPs	Completed	2020	2,274	473	Lake Yale Basin	$59,923	May and Whitaker; SJRWMD	May and Whitaker - $14,980.00; SJRWMD - $44,943.00
5392	SJRWMD	HAR38	Precision fertilizer application	Variable rate spreader with GPS technology.	Agricultural BMPs	Completed	2020	126	32	Lake Harris Basin	$50,339	SJRWMD	SJRWMD - $37,754.00
5393	SJRWMD	GRIF44	Precision fertilizer application	Variable rate spreader with GPS technology.	Agricultural BMPs	Completed	2020	84	62	Lake Griffin Basin	$29,997	SJRWMD	SJRWMD - $22,483.00
5394	SJRWMD	UOB05	Irrigation Conversion	Convert to low volume irrigation system.	Agricultural BMPs	Completed	2020	2	0	Upper Ocklawaha Basin	$64,419	Mercer Botanicals; SJRWMD	Mercer Botanicals - $16,105.00; SJRWMD - $48,314.00
5395	SJRWMD	UOB06	Precision fertilizer application	Precision fertilizer application equipment.	Agricultural BMPs	Completed	2019	78	46	Upper Ocklawaha Basin	$40,574	Kenneth MacKay; SJRWMD; DEP	Kenneth MacKay - $10,144; SRJWMD - $15,215; DEP - $15,215
5892	SJRWMD	LAP65	Lake Apopka Submerged Aquatic	SJRWMD contract 35541-1 to plant 24 acres	SAV Planting	Completed	2022	0	0	Lake Apopka Basin	$600,000	DEP LF; SJRWMD	DEP LF - $600,000.00

			Vegetation Planting	annually (48 acres within 2 years) of submerged aquatic vegetation (SAV), including Vallisneria americana (24 acres) and Potamogeton illinoensis (24 acres) in Lake Apopka.									; SJRWMD - $0.00
6417	SJRWMD	PAL39	Irrigation Retrofit - Cherrylake Inc.	Perform an irrigation retrofit and install weather station.	Agricultural BMPs	Completed	2021	70	8	Palatlakaha River Basin	$90,197	Cherrylake Inc.; SJRWMD	Cherrylake Inc. - $22,549.00; SJRWMD - $67,648.00
6418	SJRWMD	BCL07	Soil Moisture Sensors and Precision Fertilizer - Lake Jem LLC	Install soil moisture sensors, implement GPS leveling and mapping, and purchase and implement precision fertilizer application equipment.	Agricultural BMPs	Completed	2022	2,848	313	Lake Beauclair Basin	$229,340	Lake Jem Farms; SJRWMD	Lake Jem Farms - $57,335.00; SJRWMD - $172,005.00
6419	SJRWMD	BCL08	Pump Automation - Lennon & Wilson	Convert pumps to automation	Agricultural BMPs	Completed	2021	131	29	Lake Beauclair Basin	$15,995	Lennon and Wilson; SJRWMD	Lennon and Wilson - $3,999.00;

				with telemetry.									SJRWMD - $11,996.00
6420	SJRWMD	BCL09	Irrigation Conversion - Long & Scott Farms, Inc.	Convert from seepage to center pivot irrigation.	Agricultural BMPs	Completed	2021	544	60	Lake Beauclair Basin	$75,785	Long and Scott; SJRWMD	Long and Scott - $18,946.00; SJRWMD - $56,839.00
6421	SJRWMD	GRIF47	Precision Fertilizer Application - Orange Bend Harvesting	Purchase and implement a GPS variable rate controlled liquid fertilizer boom.	Agricultural BMPs	Completed	2021	3,771	825	Lake Griffin Basin	$41,703	Orange Bend Harvesting; SJRWMD	Orange Bend Harvesting - $10,426.00; SJRWMD - $31,277.00
6422	SJRWMD	UOB07	Tailwater Recovery and Reuse Pond - Quality Trees	Construction of a tailwater recover and reuse pond utilizing greenhouse roof runoff.	Agricultural BMPs	Completed	2021	39	4	Upper Ocklawaha Basin	$33,296	SJRWMD; Quality Trees	SJRWMD - $24,972.00; Quality Trees - $8,324.00
6423	SJRWMD	UOB08	Irrigation Retrofit - Richard Davis	Irrigation retrofit of micro-irrigation system.	Agricultural BMPs	Completed	2022	73	16	Upper Ocklawaha Basin	$36,760	Richard Davis; SJRWMD	Richard Davis - $9,190.00; SJRWMD - $27,570.00
6424	SJRWMD	PAL40	Pump Automation - Summer Lake Grace Grove Partnership	Convert pumps to automation with telemetry.	Agricultural BMPs	Completed	2021	85	19	Palatlakaha River Basin	$23,116	Summer Lake-Grace Grove; SJRWMD	Summer Lake-Grace Grove - $5,779; SJRWMD - $17,337
6425	SJRWMD	HAR41	Pump Automation - Twin Lakes	Convert pumps to automation	Agricultural BMPs	Completed	2021	77	17	Lake Harris Basin	$31,990	Twin Lakes-Cherrylake	Twin Lakes-Cherrylake Partnership -

			Cherry Lake Partnership LLP	with telemetry.								Partnership; SJRWMD	$7,997; SJRWMD - $23,993
6426	SJRWMD	GRIF48	Precision Fertilizer and Weather Station - Wild Goose Farms	Purchase and implement GPS sensing technology, variable rate hoop boom applicator, and weather station.	Agricultural BMPs	Completed	2022	3,491	517	Lake Griffin Basin	$107,504	Wild Goose Farms; SJRWMD	Wild Goose Farms - $26,876; SJRWMD - $80,628
6427	SJRWMD	GRIF49	Emeralda Marsh Area 1 Hydrologic Improvement - FWC	Levee breach construction to connect to Lake Griffin.	Hydrologic Restoration	Completed	2023	0	0	Lake Griffin Basin	$100,000	FWC; SJRWMD	FWC - $100,000.00; SJRWMD - $0.00
6428	SJRWMD	GRIF50	Emeralda Marsh Conservation Area 5 Peat Removal - Lake Jem Farms	Multi-year lease issued to Florida Potting Soils (FPS) for removal of peat. FPS monitors TP levels and applies treatment, as needed, under the requirements of the TMDLs for Lake Griffin. Anticipate future reconnection	Natural Wetlands as Filters	Underway	2031	0	0	Lake Griffin Basin	$0	NA	NA - $0.00

				to Lake Griffin.									
6535	SJRWMD	HAR42	Irrigation Retrofit 2 - Hooper's Landscape and Nursery	Irrigation retrofit and pump automation.	Agricultural BMPs	Completed	2023	24	3	Lake Harris Basin	$24,650	Hooper's Landscape and Nursery; SJRWMD Cost Share	Hooper's Landscape and Nursery - $6,162.50; SJRWMD Cost Share - $18,487.50
6536	SJRWMD	YALE15	Irrigation Retrofit - May and Whitaker Family Partnership	Irrigation retrofit on citrus.	Agricultural BMPs	Completed	2022	56	12	Lake Yale Basin	$61,016	May and Whitaker Family Partnership; SJRWMD Cost Share	May and Whitaker Family Partnership - $15,253.94; SJRWMD Cost Share - $45,761.82
6537	SJRWMD	YALE14	Irrigation Retrofit - May and Whitaker Blueberry LLC	Irrigation retrofit on blueberries.	Agricultural BMPs	Completed	2022	756	111	Lake Yale Basin	$80,848	May and Whitaker Blueberry LLC; SJRWMD Cost Share	May and Whitaker Blueberry LLC - $20,211.89; SJRWMD Cost Share - $60,635.67
6538	SJRWMD	UOB11	Recirculating Hydroponic System - McGregor's Greens LLC	Convert from overhead irrigation to recirculating hydroponic system for greenhouse herbs.	Agricultural BMPs	Completed	2022	288	96	Upper Ocklawaha Basin	$485,945	McGregors Greens LLC; SJRWMD Cost Share	McGregors Greens LLC - $235,945.00 ; SJRWMD Cost Share - $250,000.00
6546	SJRWMD	GRIF52	Irrigation Retrofit -	Irrigation retrofit on 35	Agricultural BMPs	Completed	2022	136	30	Lake Griffin Basin	$95,525	Orange Bend Harvesting;	Orange Bend Harvesting - $23,881.29;

			Orange Bend Harvesting	acres of citrus.								SJRWMD Cost Share	SJRWMD Cost Share - $71,643.88
6587	SJRWMD	LAP76	Precision Fertilizer - Total Ag Care	Purchase and implement use of precision fertilizer sprayer and nurse tank on approximately 100 acres of blueberries/strawberries.	Agricultural BMPs	Completed	2022	1,612	236	Lake Apopka Basin	$40,872	Total Ag Care LLC; SJRWMD	Total Ag Care LLC - $12,826.00; SJRWMD - $30,654.00
6588	SJRWMD	LAP77	Irrigation Conversion and Pump Automation - Total Ag Care	Performing an irrigation conversion and implementing pump automation on approximately 120 acres of row crops. Estimated reductions upon completion are 208 lbs/yr TN and 61 lbs/yr TP.	Agricultural BMPs	Completed	2023	208	61	Lake Apopka Basin	$464,207	Total Ag Care LLC; SJRWMD	Total Ag Care LLC - $214,207.33; SJRWMD - $250,000.00
6592	SJRWMD	EUS39	Irrigation Retrofit - Wild Goose Farms	Performing an irrigation retrofit on approximately 39 acres of blueberries. Estimated reductions	Agricultural BMPs	Completed	2023	313	46	Lake Eustis Basin	$158,558	SJRWMD; Wild Goose Farms	SJRWMD - $118,918.45; Wild Goose Farms - $39,639.48

				upon completion are 313 lbs/yr TN and 46 lbs/yr TP.									
6593	SJRWMD	PAL41	Variable Frequency Drive Pump Pressure Regulation - Cherrylake Inc.	Installing Variable Frequency Drive controls on the water sources on approximately 22 acres of greenhouse and container nursery.	Agricultural BMPs	Completed	2023	18	2	Palatlakaha River Basin	$40,903	SJRWMD; Cherrylake Inc.	SJRWMD - $30,676.88; Cherrylake Inc. - $10,225.62
6594	SJRWMD	UOB10	Irrigation Retrofit - Lennon Grove Service	Performing an irrigation retrofit on approximately 12 acres of citrus.	Agricultural BMPs	Completed	2023	45	10	Upper Ocklawaha Basin	$9,140	Lennon Grove Service; SJRWMD	Lennon Grove Service - $2,285.03; SJRWMD - $6,855.08
6660	SJRWMD	UOB09	Precision Fertilizer Equipment - Faryna Grove Care and Harvesting	Purchase and implementation of liquid fertilizer application equipment.	Agricultural BMPs	Completed	2023	920	201	Upper Ocklawaha Basin	$16,100	SJRWMD; Faryna Grove Care and Harvesting	SJRWMD - $12,075.00; Faryna Grove Care and Harvesting - $4,025.00
6675	SJRWMD	YALE13	Irrigation Retrofit - May and Whitaker Family Partnership Ltd.	Irrigation retrofit with soil moisture sensors and a weather station.	Agricultural BMPs	Completed	2023	0	0	Lake Yale Basin	$74,689	May and Whitaker Family Partnership; SJRWMD Cost Share	May and Whitaker Family Partnership - $18,672.35; SJRWMD Cost Share - $56,017.07

6796	SJRWMD	GRIF51	Emeralda Marsh Conservation Area - Area 3 Hydrologic Improvement	Improve hydrologic connection between Lake Griffin and Area 3 of EMCA.	Wetland Restoration	Completed	2024	0	0	Lake Griffin Basin	$225,000	FWC	FWC - $162,000.00
6952	SJRWMD	PAL42	Precision Fertilizer Equipment - 5-D Blueberry Farm Inc.	This project includes the purchase and implementation of GPS rate-controlled fertilizer application equipment on approximately 70 acres of blueberries.	Agricultural BMPs	Completed	2023	717	105	Palatlakaha River Basin	$34,963	5-D Blueberry Farm Inc.; SJRWMD Cost Share	5-D Blueberry Farm Inc. - $8,740.75; SJRWMD Cost Share - $26,222.25
6954	SJRWMD	UOB12	Cover Crop for Citrus Row Middles - MacKay Farm	This project involves the purchase and implementation of a no till drill and side discharge mower for establishment of cover crop on approximately 65 acres of citrus.	Agricultural BMPs	Completed	2023	416	91	Upper Ocklawaha Basin	$48,199	MacKay Farm; SJRWMD Cost Share; DEP Springs	MacKay Farm - $12,049.01; SJRWMD Cost Share - $18,074.99; DEP Springs - $18,075.00
6958	SJRWMD	YALE16	GPS Fertilizer Equipment - May and Whitaker BB LLC	This project includes the purchase and implementation of GPS rate-controlled	Agricultural BMPs	Completed	2024	871	128	Lake Yale Basin	$28,602	SRJWMD Cost Share; May and Whitaker BB LLC	SRJWMD Cost Share - $21,451.50; May and Whitaker

				fertilizer application equipment on approximately 88 acres of blueberries.									BB LLC - $7,150.50
6959	SJRWMD	YALE17	Precision Fertilizer Application Equipment - May and Whitaker Family Partnership	This project involves the purchase and implementation of precision fertilizer application equipment with tree sensing technology on approximately 265 acres of citrus.	Agricultural BMPs	Completed	2024	2,926	640	Lake Yale Basin	$55,938	May and Whitaker Family Partnership; SJRWMD Cost Share	May and Whitaker Family Partnership - $13,984.50; SJRWMD Cost Share - $41,953.50
6967	SJRWMD	YALE18	Precision Fertilizer Application Equipment - Wild Goose Farms LLC	This project involves the purchase and implementation of precision fertilizer application equipment for 170 acres of blueberries and 100 acres of citrus.	Agricultural BMPs	Completed	2023	2,787	488	Lake Yale Basin	$86,138	SJRWMD Cost Share; Wild Goose Farms LLC	Wild Goose Farms LLC - $21,534.50; SJRWMD Cost Share - $64,603.50
6968	SJRWMD	LAP78	Irrigation Conversion - Long and Scott Farms	This project involves performing an irrigation conversion from seepage to drip on	Agricultural BMPs	Underway	2025	490	108	Lake Apopka Basin	$125,040	Long and Scott Farms; SJRWMD Cost Share	Long and Scott Farms - $31,260.00; SJRWMD

				approximately 90 acres of vegetables.									Cost Share - $93,780.00
6971	SJRWMD	YALE19	Precision Fertilizer Application 2 - May and Whitaker Family Partnership	This project involves the purchase and implementation of variable rate fertilizer application equipment on approximately 60 acres of citrus.	Agricultural BMPs	Completed	2024	442	97	Lake Yale Basin	$5,375	May and Whitaker Family Partnership; SJRWMD Cost Share	May and Whitaker Family Partnership - $1,343.75; SJRWMD Cost Share - $4,031.25
6972	SJRWMD	UOB13	Cover Crop in Citrus Middles - Richard Davis	This project involves purchasing equipment for the establishment of cover crop in citrus row middles.	Agricultural BMPs	Completed	2024	201	44	Upper Ocklawaha Basin	$32,675	Richard Davis; SJRWMD Cost Share	Richard Davis - $8,393.75; SJRWMD Cost Share - $24,281.25
6973	SJRWMD	EUS40	Irrigation Retrofit 3 - Wild Goose Farms	This project involves performing an irrigation retrofit on approximately 13 acres of blueberries.	Agricultural BMPs	Completed	2024	48	7	Lake Eustis Basin	$52,355	SJRWMD Cost Share; Wild Goose Farms Inc.	SJRWMD Cost Share - $39,266.40; Wild Goose Farms Inc. - $13,088.80
6974	SJRWMD	LAP79	West Marsh Restoration	Improve water quality in the marsh, and subsequently, in Lake Apopka.	Wetland Restoration	Planned	2026	0	0	Lake Apopka Basin	$0	TBD	TBD - $0.00

				Reducing phosphorus loading to the lake (diet project) helps Lake Apopka to meet existing TMDLs. Project includes flood control and improved habitat for O&M and recreational uses.									
7211	SJRWMD	PAL46	Southern Hill Farms Precision Fertilizer and Irrigation Retrofit	This project involves the purchase of precision fertilizer application equipment for 40 acres of blueberries and to purchase and install irrigation controllers for 118 acres of mixed fruits and vegetables.	Agricultural BMPs	Completed	2024	1,396	204	Palatlakaha River Basin	$46,190	Southern Hill Farms; SJRWMD Cost Share	Southern Hill Farms - $11,547.46; SJRWMD Cost Share - $34,642.39
7212	SJRWMD	PAL45	Southern Hill Farms Soil Moisture Sensors	This project involves the purchase of soil moisture sensors to be	Agricultural BMPs	Completed	2024	28	4	Palatlakaha River Basin	$18,130	Southern Hill Farms; SJRWMD Cost Share	Southern Hill Farms - $4,532.50; SJRWMD

				used on approximately 120 acres of mixed fruits and vegetables.									Cost Share - $13,597.50
7214	SJRWMD	PAL44	Tom West Blueberries Precision Fertilizer Equipment	This project involves the purchase and implementation of precision fertilizer application equipment for 20 acres of blueberries.	Agricultural BMPs	Completed	2024	182	27	Palatlakaha River Basin	$48,520	Tom West Blueberries; SJRWMD Cost Share	Tom West Blueberries - $12,130.00; SJRWMD Cost Share - $36,390.00
Town of Astatula has not reported any projects at the time of this adoption.													
115	Town of Lady Lake	LADYL01	Lady Lake NPDES Permit Education and Outreach	Lady Lake contracts services for public education and participation program serving residents Lady Lake. This is a requirement of Phase II MS4 permit. Potential for increasing community participation in BMPs that protect water resources.	Education Efforts	Ongoing	NA	0	0	Lake Griffin Basin	$0	Town of Lady Lake	Town of Lady Lake - $9,000.00

132	Town of Lady Lake	GRIF27	Service Area 1 and Service Area 3	Skyline Drive Drainage Improvement. Improved stormwater conveyance system. Area covers Skyline Drive north to Ray St., west to Summit St., and east to High St.	Stormwater System Upgrade	Completed	2013	0	0	Lake Griffin Basin	$1,300,000	Town of Lady Lake; DEO	Town of Lady Lake - $550,000.00 ; DEO - $750,000.00
137	Town of Lady Lake	LADYL03	Storm Water System Maintenance	Town-wide curb and gutter cleaning and catch basin vacuuming. Remove pollutants and debris before entering storm sewer system. The benchmark frequency for this routine maintenance shall be quarterly or as needed.	BMP Cleanout	Ongoing	NA	0	0	Lake Griffin Basin	$0	Town of Lady Lake	Town of Lady Lake - $0.00
138	Town of Lady Lake	LADYL02	Street Sweeping	Town wide street sweeping to remove dirt and debris. The benchmark	Street Sweeping	Ongoing	NA	0	8	Lake Griffin Basin	$0	Town of Lady Lake	Town of Lady Lake - $0.00

				frequency is quarterly or as needed. Removal of debris and pollutants prevents entry into lakes. The performance benchmark shall be 250 cubic yards of material removed annually.									
4488	Town of Lady Lake	LADYL04	Lady Lake Landscape Requirements	County codes and ordinances require FFL principles to be applied in the design and of landscapes and irrigation systems. Fertilizer application restrictions require 30 % or more slow release nitrogen and restrict frequency to "as needed."	Regulations, Ordinances, and Guidelines	Ongoing	NA	0	0	Lake Griffin Basin	$0	Town of Lady Lake	Town of Lady Lake - $0.00
4489	Town of Lady Lake	LADYL05	Lady Lake Irrigation Schedules	SJRWMD irrigation schedule adopted,	Regulations, Ordinances,	Ongoing	NA	0	0	Lake Griffin Basin	$0	Town of Lady Lake	Town of Lady Lake - $0.00

				specific water conservation measures encouraged, and the seven basic principles of water efficient landscaping are incorporated. Establish minimum standards for landscaped areas with goal of water use efficiency.	and Guidelines								
4490	Town of Lady Lake	LADYL06	Lady Lake Pet Waste Management	County code related to illicit discharges includes provisions requiring removal of per waste.	Regulations, Ordinances, and Guidelines	Ongoing	NA	0	0	Lake Griffin Basin	$0	Town of Lady Lake	Town of Lady Lake - $0.00
5880	Town of Lady Lake	LADYL07	Stormwater Master Plan	Town-wide determination and prioritization of stormwater improvements.	Study	Completed	2022	0	0	Lake Griffin Basin	$65,000	LCWA	LCWA - $65,000.00

6646	Town of Montverde	LAP74	Education and Outreach Activities	Public service announcements on utility bills, pamphlets, website, illicit connection reporting. City adopted ordinances for, landscaping, fertilizer application, and pet waste management. Student and adult education programs.	Education Efforts	Ongoing	NA	0	0	Lake Apopka Basin	$7,500	Town of Montverde	Town of Montverde - $7,500.00
6648	Town of Montverde	LAP73	Montverde Fertilizer & Landscape Requirements	Town Article III, CH 12 codes and ordinances require FFL principles to be applied in the design and of landscapes and irrigation systems. Fertilizer application restrictions require 30 % or more slow release nitrogen and restrict	Regulations, Ordinances, and Guidelines	Ongoing	NA	0	0	Lake Apopka Basin	$0	Town of Montverde	Town of Montverde - $0.00

				frequency to "as needed."									
6650	Town of Montverde	LAP72	Town Irrigation Requirements	Town Ch 12 Art 12 SJR irrigation schedule adopted, specific water conservation measures encouraged, 7 basic principles of water efficient landscaping are incorporated. Establish minimum standards for landscaped areas with goal of water use efficiency.	Regulations, Ordinances, and Guidelines	Ongoing	NA	0	0	Lake Apopka Basin	$0	Town of Montverde	Town of Montverde - $0.00
Town of Oakland has not reported any projects at the time of this adoption.													

Appendix C. Planning for Additional Management Strategies

Responsible entities must submit a sufficient list of additional projects and management strategies to DEP no later than January 14, 2026, to be compliant with the upcoming BMAP milestone or be subject to further department enforcement.

If any lead entity is unable to submit a sufficient list of eligible management strategies to meet their next 5-year milestone reductions, specific project identification efforts are required to be submitted by January 14, 2026. Any such project identification efforts must define the purpose of and a timeline to identify sufficient projects to meet the upcoming milestone. The project description and estimated completion date for any such project identification effort must be provided and reflect the urgency of defining, funding, and implementing projects to meet the upcoming and future BMAP milestones. These planning efforts are ineligible for BMAP credit themselves but are necessary to demonstrate that additional eligible management actions will be forthcoming and BMAP compliance will be achieved. Only those entities that provide sufficient project identification efforts will be deemed as possessing a defined compliance schedule. Those entities without an adequate project list nor a defined compliance schedule to meet their upcoming 5-year milestone may be subject to enforcement actions.

Examples of project identification efforts include:

- Planning and identifying water quality projects and related costs and schedules in specific plans:
  - Feasibility studies (e.g., stormwater feasibility studies or wastewater feasibility studies).
  - Flood mitigation plans with nutrient management components.
  - Basinwide water quality management plans.
  - Nutrient management plans.
- Applying for external project funding.
- Developing interagency/interdepartmental agreements or MOUs for collaboration on nutrient reduction projects that cross jurisdictional or administrative boundaries.
- Updating future growth considerations in local comprehensive plans, land development reviews, and audits of relevant codes and ordinances
- Updating existing remediation plans.
- Monitoring water quality in support of project planning and implementation.
- Researching innovative technologies.

Appendix D: Wastewater Facilities

DEP has determined that certain WWTFs providing reclaimed water for the purpose of commercial or residential irrigation or that is otherwise being land applied within this BMAP area are causing or contributing to the nutrient impairments being addressed in this BMAP. Based on DEP's determination, the facilities listed below are subject to the nitrogen and phosphorus limits set forth in section 403.086, F.S.

These facilities have 10 years from BMAP adoption to meet the applicable AWT standards. This requirement does not prevent the department from requiring an alternative treatment standard, if the department determines the alternative standard is necessary to achieve the TMDL(s) or applicable water quality criteria.

For facilities that did not have adequate information to complete an evaluation or where a change occurs to the facility's application of reclaimed water after the initial evaluation (e.g., an increase in facility capacity or change in location of reclaimed water application), the department will evaluate the land application of reclaimed water as more information becomes available pursuant to section 403.086, F.S.

Table D-1. Wastewater facilities subject to the nitrogen and phosphorus limits set forth in section 403.086, F.S.

Facility Name	Permit Number
Pine Island	FLA297631
City of Minneola WWTF	FLA356344
Frozen Grove WWTF	FLA010588
Sunshine Parkway WWTF	FLA010656
Groveland/Sampey Rd. WWTF	FLA010513
Southlake Utilities	FLA010634
City of Haines City	FLA012977
Eustis Bates Avenue WWTF	FLA010507
City of Tavares WWTF	FLA010509
City of Leesburg - Canal Street WWTF	FLA105066
Polk County - Northeast Regional WWTF	FL0A00002
City of Leesburg - Turnpike WWTF	FLA105147
City of Clermont - East WWTF	FLA010515
City of Mt Dora - James Snell WWTF #2	FLA268542
City of Mount Dora WWTF #1	FLA010508
City of Wildwood WWTF	FLA013497
City of Ocoee WWTF	FLA010815
Winter Garden WWTF	FL0020109
Apopka WRF - Project Arrow	FLA010818
Northwest Reclamation Facility	FLA010798
Conserv II Distribution Center	FLA010795

Appendix E: Golf Course NMPs

The fertilizers used to maintain golf courses can be significant sources of nutrients in watersheds that are impaired for nitrogen and/or phosphorous. To achieve the TMDL target(s), all nutrient sources need to reduce their nutrient loading. Similar to other sources, golf courses are required to implement management strategies to mitigate their nutrient loading and be in compliance with the BMAP. Florida BMAPs are adopted by Secretarial Order and therefore legally enforceable by the DEP. Requirements for golf courses located in BMAPs are below.

1. **Golf Course BMP Certification, Implementation, and Reporting.**
   a. In areas with an adopted BMAP, all golf courses must implement the BMPs described in DEP's golf course BMP manual, *Best Management Practices for the Enhancement of Environmental Quality on Florida Golf Courses* (DEP, 2021).
   b. At minimum, the superintendent for each golf course must obtain and maintain certification through the UF-IFAS Florida Golf Courses Best Management Practices Program. It is highly recommended that course managers and landscape maintenance staff also participate in the certification program to ensure proper BMP implementation and understanding of nutrient-related water quality issues and the role of golf courses in water quality restoration and protection. By no later than January 14, 2026, the golf course superintendents must confirm to DEP whether they have completed the certification. Certification must be completed by December 31, 2026. This certification must be renewed every four years.
   c. Beginning in 2026 a nutrient application record (fertilizer, reuse, etc.) must be submitted each year during the BMAP statewide annual reporting process.
   d. Fertilizer rates should be no greater than the UF/IFAS recommendations to help prevent leaching. This includes nutrients from reuse or any other source applied. If a facility uses fertilizer rates greater than those in the BMP manual they are required to conduct water quality monitoring prescribed by DEP or WMD that demonstrates compliance with water quality standards (**Table E-1**).
   e. Example golf course BMPs applicable to protecting water quality are listed below.
      - Use slow release fertilizer to prevent volatilization.
      - Use of lined media in stormwater features.
      - Use of denitrification walls.
      - Use of rain gardens.
      - Use of tree boxes.
      - Use of bioswales.

Table E-1. Nutrient ranges for warm-season turfgrass species

Note: For more information refer to the *Best Management Practices for the Enhancement of Environmental Quality on Florida Golf Courses* (DEP, 2021).

Nutrient	Bermudagrass (%)	St. Augustinegrass (%)	Seashore Paspalum (%)	Centipedegrass (%)	Zoysia (%)
N	1.95 - 4.63	1.53 - 2.41	2.80 -3.50	1.5 - 2.9	2.04 - 2.36

Nutrient	Bermudagrass (%)	St. Augustinegrass (%)	Seashore Paspalum (%)	Centipedegrass (%)	Zoysia (%)
P	0.15 - 0.43	0.30 - 0.55	0.30 - 60	0.18 - 0.26	0.19 - 0.22
Potassium (K)	0.43 - 1.28	1.1 - 2.25	2.00 - 4.00	1.12 - 2.50	1.05 - 1.27
Calcium (Ca)	0.15 - 0.63	0.24 - 0.54	0.25 - 1.50	0.50 - 1.15	0.44 - 0.56
Magnesium (Mg)	0.04 - 0.10	0.20 - 0.46	0.25 - 0.60	0.12 - 0.21	0.13 - 0.15
Sulfur (S)	0.07 - 0.02	0.15 - 0.48	0.20 - 0.60	0.20 - 0.38	0.32 - 0.37
Sodium (Na)	0.05 - 0.17	0.00 - 0.17	-	-	-

2. **All golf courses located within a BMAP are required to submit a nutrient management plan (NMP) that is designed to, while maintaining even plant growth, prevent nutrient losses to the Floridan aquifer and surrounding surface waters. A draft NMP must be submitted to DEP within one year of BMAP adoption and a final document is due two years after adoption. The NMP must include the following:**
   a. ***A brief description of the goals of the nutrient management plan.***

   This should be a paragraph that describes the goals of your NMP. Talk about how you are managing for high quality turf and water quality. Remember your goal is to protect water quality while maintaining the golf course in premium condition.

   b. ***Identification of areas where nutrient applications will be made including greens, tees, fairways and roughs.***

   Discuss the areas of the course where you plan to use fertilizer, and why. Also discuss the areas that do not need or get any fertilizer applications.

   Include a GIS shapefile identifying all of these areas.

   Complete the table(s) detailing your nutrient application practices.

Turf Details

Turf Type	Turf Species	Acreage
Tees		
Greens		
Fairways		
Roughs		
Totals		

Fertilizer Applications

Month	Turf Type	TN Application Rate (lbs/acre)	TP Application Rate (lbs/acre)	Number of Applications	Total TN Applied (lbs/acre)	Total TP Applied (lbs/acre)
January	Tees					
	Greens					
	Fairways					
	Roughs					
February	Tees					
	Greens					
	Fairways					
	Roughs					
March	Tees					
	Greens					
	Fairways					
	Roughs					
April	Tees					
	Greens					
	Fairways					
	Roughs					
May	Tees					
	Greens					
	Fairways					
	Roughs					
June	Tees					
	Greens					
	Fairways					
	Roughs					
July	Tees					
	Greens					
	Fairways					
	Roughs					
August	Tees					
	Greens					
	Fairways					
	Roughs					
September	Tees					
	Greens					
	Fairways					
	Roughs					

Month	Turf Type	TN Application Rate (lbs/acre)	TP Application Rate (lbs/acre)	Number of Applications	Total TN Applied (lbs/acre)	Total TP Applied (lbs/acre)
October	Tees					
	Greens					
	Fairways					
	Roughs					
November	Tees					
	Greens					
	Fairways					
	Roughs					
December	Tees					
	Greens					
	Fairways					
	Roughs					
Totals						

Amount of Reuse/Reclaimed Water Applied

**Supply reuse/reclaimed water volumes applied, if applicable.*

Month	Reuse/Reclaimed Water Quantity (Gallons)	Monthly Average TN (mg/L)	Monthly Average TP (mg/L)	Quantity of TN Applied (lbs)	Running Total of TN Applied per Acre (lbs/acre)	Quantity of TP Applied (lbs)	Running Total of TP Applied per Acre (lbs/acre)
January							
February							
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							
Totals							

Are any other sources of nutrients (i.e. manure, etc.) applied to the grounds? If so, please detail in a table similar to the reuse and fertilizer tables.

c. ***Soil sampling methods and results for each area receiving fertilizer applications. Areas receiving fertilizer applications shall be sampled once every three years. Soil samples shall be collected and analyzed according to UF-IFAS/DEP recommendations or standard industry practice. Soil samples shall be analyzed, at minimum, for:***

1. Nitrogen
2. Phosphorus

Describe existing soil sampling here. Describe what your planned soil sampling schedule looks like. Have you been soil testing for years already? Please describe. If you are just getting started with soil testing the course, you can discuss that. What parts of the course are priority?

If soil samples from areas of similar soil, fertilizer use and management are combined, then describe that process and justify why you feel they are similar enough to combine into a "representative" sample. That's fine, just describe why.

Keep all soil test results (or copies of them) in this file as part of your nutrient management plan. Please do not send them in to DEP individually. If you've been soil testing for years, remember to add copies of all those past results to your NMP file.

d. ***Water quality sampling methods and results. Water quality sampling and analysis should be conducted in accordance with DEP's Standard Operating Procedures. Water quality samples shall be analyzed, at minimum, for:***

1. Nitrogen
2. Phosphorus.

Describe your existing water quality sampling here. Describe what your planned water quality sampling schedule looks like. Have you been sampling for years already? If you are just getting started with soil testing the course, you can discuss that. What parts of the course are priority?

Keep all water quality test results (or copies of them) in this file as part of your nutrient management plan. Please do not send them in to DEP individually. If you've been testing for years, remember to add copies of all those past results to your NMP file.

e. ***Tissue sampling methods and results. Tissue samples shall be collected and analyzed according to UF-IFAS/DEP recommendations or standard industry practice.***
Describe existing tissue sampling plan here. Keep all test results (or copies of them) in this file as part of your nutrient management plan. Please do not send them in to DEP

individually. If you've been testing for years, remember to add copies of all those past results to your NMP file.

f. ***Soil, tissue and water quality sample results shall be maintained for a minimum of 5 years. Please provide records.***
g. ***When developing new (or expanding) golf courses, pre- and pos- monitoring should be implemented in accordance with UF-IFAS/DEP recommendations.***

Appendix F: Agricultural Enrollment and Reductions

FDACS provides the information for this appendix for each BMAP. The information in this appendix does not necessarily represent DEP's position.

Agricultural Landowner Requirements

Section 403.067, F.S., requires agricultural producers and landowners located within BMAP areas to either enroll in the FDACS Best Management Practices (BMP) Program and properly implement BMPs applicable to their property and operation or to conduct water quality monitoring activities as required by Rule Chapter 62-307, F.A.C. Producers or agricultural landowners who are enrolled in the FDACS BMP Program and are properly implementing the applicable BMPs identified on the BMP Checklist, or who are in compliance with the Equivalent Program requirements of Rule Chapter 5M-1, F.A.C., are entitled to a presumption of compliance with state water quality standards per section 403.067(7)(c)3., F.S.

FDACS OAWP BMP Program

BMPs Definition

For the purposes of the OAWP BMP Program, the term "best management practice" means a practice or combination of practices determined based on research, field-testing, and expert review, to be the most effective and practicable on-location means, including economic and technological considerations, for improving water quality in agricultural discharges. Section 403.067, F.S., requires that BMPs reflect a balance between water quality improvements and agricultural productivity. FDACS works closely with the FDEP, water management districts (WMDs), industry experts, and academic institutions to understand the environmental and agronomic effects addressed by BMPs.

Section 403.067, F.S., authorizes and directs FDACS to develop and adopt by rule BMPs that will help Florida's agricultural industry achieve the pollution reductions allocated in BMAPs. To date, FDACS OAWP has adopted 11 commodity specific BMP manuals by rule, covering cattle, citrus, equine, dairy, nurseries, poultry, sod, small farms and specialty livestock, specialty fruit and nut, vegetable and agronomic crops, and wildlife operations. All OAWP BMP manuals are periodically revised, updated, and subsequently reviewed and preliminarily verified by DEP before re-adoption. BMPs serve as part of a multidisciplinary approach to water resource restoration and protection that includes public/private partnerships, landowner agreements and regional treatment technologies, which together form the comprehensive strategy needed to meet the goals established in BMAPs.

Enrolling in a FDACS BMP Program

To initially enroll in the FDACS BMP Program, agricultural landowners and producers must meet with an FDACS representative on site to determine the appropriate practices that are applicable to their operation(s) and to document the BMPs on the Notice of Intent (NOI) and BMP Checklist. FDACS representatives consider site-specific factors when determining the

applicability of BMPs including commodity type, topography, geology, location of production, soil type, field size, and type and sensitivity of the ecological resources in the surrounding areas. Producers collaborate with the FDACS representative to complete an NOI to implement the BMPs and the BMP Checklist from the applicable BMP manual.

Once the NOI and Checklist are completed, signed, and submitted to OAWP, the producer is formally enrolled in the BMP Program. Because many agricultural operations are diverse and are engaged in the production of multiple commodities, a landowner may sign multiple NOIs for a single parcel. Producers must properly implement all applicable BMPs as soon as practicable, but no later than 18 months after completion and execution of the NOI and associated BMP Checklist.

Enrollment Prioritization

To address the greatest resource concerns, OAWP utilizes a phased approach based on commodity type, irrigation, and agricultural acreages, while ensuring that all entities identified as agriculture will be notified. Enrollment efforts have previously focused on enrolling parcels that are most impactful to water quality including parcels containing many agricultural acres, irrigated acres, or more intense agricultural land uses.

Implementation Verification

Section 403.067, F.S., requires FDACS to conduct an Implementation Verification (IV) site visit at least every two years to ensure that agricultural landowners and producers are properly implementing the applicable BMPs identified in the BMP Checklist. An IV site visit includes: review and collection of nutrient application records that producers must maintain to demonstrate compliance with the BMP Program; verification that all other applicable BMPs are being properly implemented; verification that any cost shared practices are being properly implemented; and identification of potential cost share practices, projects or other applicable BMPs not identified during enrollment. During the IV site visit, FDACS representatives also identify opportunities for achieving greater nutrient, irrigation, or water resource management efficiencies, including opportunities for water conservation. Procedures used to verify the implementation of agricultural BMPs are outlined in Rule 5M-1.008, F.A.C.

Nutrient Application Records

Enrolled landowners and producers are required to keep records on the total pounds of nitrogen (N) and phosphorus (P) fertilizer from all sources that are applied to their operations to comply with BMP program requirements, including bio-solids. FDACS will collect information pertaining to these records for a two-year period identified when an IV site visit is scheduled. OAWP adopted a Nutrient Application Record Form (NARF) (FDACS-04005, rev. 06/24, incorporated in 5M-1.008(4), F.A.C.), to help simplify the record keeping requirement. The form is available under Program Resources at https://www.FDACS.gov/Agriculture-Industry/Water/Agricultural-Best-Management-Practices. As these records relate to processes or

methods of production, costs of production, profits, other financial information, fertilizer application information collected during an IV site visit is considered confidential and may be exempt from public records under chapters 812 and 815, Florida Statutes (F.S.), and Section 403.067, F.S. In accordance with subsection 403.067(7)(c)5., F.S., FDACS is required to provide DEP the nutrient application records.

Compliance Enforcement

If multiple efforts to contact agricultural landowners and producers within BMAPs about enrollment in the BMP Program are unsuccessful or if the landowner or producer chooses not to enroll in the BMP Program FDACS refers them to DEP for enforcement action per Section 403.067(7)(b), F.S.

If a producer is enrolled in the FDACS BMP program and the producer chooses not to properly implement the applicable BMPs, FDACS representatives provide the landowner or producer with a list of corrective measures and the timeframes within which they must be implemented. If a landowner or producer does not cooperate with FDACS to identify or implement corrective or remedial measures, or refuses an IV site visit, FDACS refers them to DEP for enforcement action after attempts at corrective and remedial action are exhausted. Chapter 5M-1, F.A.C. outlines the process to ensure compliance with the BMP Program requirements.

Equivalent Programs

Enrollees operating under one of the Equivalent Programs listed in Rule 5M-1.001(7), F.A.C., are required to complete an NOI and meet the other requirements for Equivalent Programs specified in Rule Chapter 5M-1, F.A.C. Compliance with BMPs on the area(s) of the NOI property subject to the Equivalent Program instrument is demonstrated by fulfilling the requirements of Rule 5M-1.008(8), F.A.C. An Enrollee under an Equivalent Program listed in Rule 5M-1.001(7)(a)-(b), F.A.C., that is not required to complete a BMP Checklist is not subject to IV site visits. For Enrollees under an Equivalent Program listed in Rule 5M-1.001(7)(a)-(b), F.A.C., implementation verification shall be undertaken by the agency that issued the permit pursuant to its statutory and/or rule authority.

Other FDACS BMP Programs

FDACS implements other regulatory programs that help minimize nonpoint source pollution from agricultural activities.

Aquaculture

The FDACS Division of Aquaculture develops and enforces regulations governing the commercial aquaculture industry in Florida. Chapter 597, F.S., Florida Aquaculture Policy Act, requires Floridians who engage in commercial aquaculture to annually acquire an Aquaculture Certificate of Registration and implement all applicable Aquaculture Best Management Practices listed in Rule Chapter 5L-3.004, F.A.C. Facilities with certain production and discharge rates

also require an NPDES permit from DEP. The Aquaculture BMPs were last updated by rule in November 2023.

FDACS Division of Aquaculture conducts annual site visits at certified facilities to confirm compliance with BMPs. These include management practices in areas of construction, containment, shrimp culture, sturgeon culture, shellfish culture, live rock culture, aquatic plants, including fertilizer application, and health management. For more information about FDACS Division of Aquaculture and Aquaculture BMPs go to https://www.FDACS.gov/Divisions-Offices/Aquaculture.

Within the Orange Creek BMAP, there are 3 aquaculture facilities under certification with the FDACS Division of Aquaculture as of November 2024. As with agricultural land use in Florida, aquaculture facilities are frequently in and out of production. The facilities being provided may no longer be in operation and/or there may be new companies in different parts of the basin by the next BMAP iteration.

Forestry

The FDACS FFS develops, implements (through education and training), and monitors Silviculture BMPs in Florida. Silviculture BMPs are applicable to *bona-fide* ongoing silviculture operations and are not intended for use during tree removal or land clearing operations that are associated with a land-use change to a non-forestry objective. The FFS Silviculture BMP Manual is adopted under Chapter 5I-6.002 F.A.C. and was last updated in 2008. FFS is currently in the process of updating the manual with guidance from the FDACS Silviculture BMP Technical Advisory Council. The current manual is composed of fourteen BMP categories covering many aspects of silviculture operations including timber harvesting, site preparation, forest roads, stream and wetland crossings, and forest fertilization. The primary objectives of Silviculture BMPs are to minimize the risks to Florida's water resources from silviculture-related sources of nonpoint source pollution and maintain overall ecosystem integrity. Section 403.067, F.S., provides silviculture practitioners implementing Silviculture BMPs a presumption of compliance with state water quality standards for the pollutants addressed by the BMPs.

The FFS Silviculture BMP implementation monitoring program was initiated in 1981 and follows the criteria which have been established for state forest agencies in the southeastern United States by the Southern Group of State Foresters. Monitoring surveys are conducted biennially on a random sample of recently conducted silviculture operations throughout Florida with the goal of determining the level of implementation and compliance with Silviculture BMPs. For the period of record (1981 to 2023), Florida's statewide Silviculture BMP compliance rates range from 84% (1985) to 99.7% (2019) and have shown an overall average compliance rate above 98% since 2005. For more information about Silviculture BMPs and to download a copy of the latest FFS Silviculture BMP Implementation Survey Report go to https://www.FDACS.gov/bmps.

Agricultural Land Use

Agricultural Land Use in BMAPs

Land use data are helpful as a starting point for estimating agricultural acreage, determining agricultural nonpoint source loads, and developing strategies to reduce those loads in a BMAP area, but there are inherent limitations in the available data. Agriculture acreages fluctuate when volatile economic markets for certain agricultural commodities provide incentive for crops to change at a fast pace, properties are sold, leases are terminated, production areas decrease, or production ceases, among other reasons. Florida's recent population growth has also resulted in accelerated land use changes statewide, some of which include transitioning agricultural or fallow agricultural lands to developed land uses. The dynamic nature of Florida's agricultural industry creates challenges with comparing agricultural acres from year to year.

When developing a BMAP, agricultural nonpoint source loading is estimated using a broad methodology based on statewide land use data. Oftentimes, this results in properties being designated as agricultural nonpoint pollution sources and creates an obligation for these properties to enroll in the FDACS BMP Program when they may be better addressed under other programs more applicable to the practices occurring on those properties. Examples of these properties include: rural residential/homesteads, ranchettes, or single-family homes with accessory structures for livestock or groves that serve the needs of those living on the property. Continued identification of these properties as agricultural nonpoint sources limits the ability to reliably direct programmatic resources to meet water quality restoration goals.

FDACS uses the parcel-level polygon ALG data that is part of the FSAID Geodatabase to estimate agricultural acreages statewide. FSAID provides acreages and specific crop types of irrigated and non-irrigated agricultural lands statewide. FSAID is updated annually based on WMD land use data, county property appraiser data, OAWP BMP enrollment data, U.S. Department of Agriculture data for agriculture, such as the Cropland Data Layer and Census of Agriculture, FDACS Division of Plant Industry citrus data, as well as field verification performed by the U.S. Geological Survey, WMDs, and OAWP. As the FSAID is detailed and updated on an annual basis, it provides a reliable characterization of agricultural land uses that accounts for the fast-growing population and resultant land use changes taking place statewide. The FSAID also provides FDACS a clearer picture of agriculture's impact on the landscape and consistent method to better track, direct, and assess BMP implementation, cost share projects, and regional projects.

Table F-1 shows a comparison of the agricultural acres within the BMAP boundary compared to the total acreage.

Figure F-1 shows the percentage of agricultural land use within the Upper Ocklawaha BMAP, determined by comparing the FSAID 11 ALG and total acreage of the BMAP boundary. Understanding what proportion of a BMAP is comprised of agriculture provides insight as to the potential contribution of agricultural nonpoint sources.

Table F-1. Agricultural versus non-agricultural acreages

Acreage Type	Acres
Non-agricultural acres	46,3108
Agricultural acres	22,046

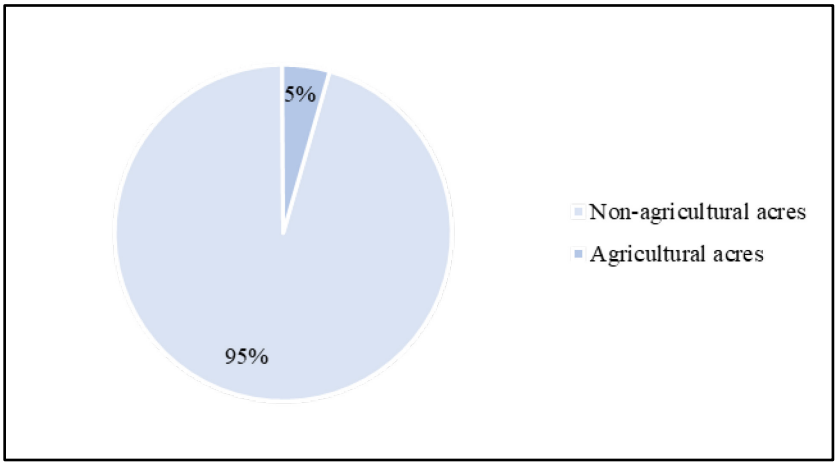

Figure F-1. Relative agricultural land uses in the Upper Ocklawaha River BMAP

FDACS BMP Program Metrics

Enrollment Delineation and BMAP Metrics

BMP enrollments are delineated in GIS using county property appraiser parcels. In terms of NOIs, enrolled acreage fluctuates when parcels are sold, when leases end or change hands, or when production areas downsize or production ceases, among other reasons. Nonproduction areas such as forest, roads, urban structures, and water features are often included within the parcel boundaries. Conversely, agricultural lands in the FSAID ALG only include areas identified as agriculture. To estimate the agricultural acres enrolled in the BMP program, OAWP overlays the FSAID ALG and BMP enrollment data within GIS to calculate the acres of agricultural land in an enrolled parcel.

Summary Tables

Table F-2. Agricultural lands enrolled in the Upper Ocklawaha River BMAP by BMP Program Commodity

Commodity	Agricultural Acres Enrolled
Cow/Calf	12,186

Commodity	Agricultural Acres Enrolled
Dairy	223
Equine	2,251
Citrus	1,245
Cow/Calf	1,615
Equine	154
Fruit/Nut	391
Multiple Commodities	1,294
Nursery	1,379
Row/Field Crop	662
Sod	386
Total	**7,126 (32%)**

Table F-3. Agricultural acres enrolled by commodity and crediting location for Lake Apopka, Lake Beauclair, Lake Carlton, Lake Dora, and Lake Eustis

Commodity	Lake Apopka	Lake Carlton	Lake Dora	Lake Eustis
Citrus	68	37	86	13
Cow/Calf	371	158	0	0
Equine	20	104	0	29
Fruit/Nut	163	0	0	97
Multiple Commodities	415	78	0	0
Nursery	440	161	154	0
Row/Field Crop	509	34	0	0
Sod	0	386	0	0
Total	1,987	958	241	140
Percent of Agricultural Lands Enrolled in BMPs	49%	68%	30%	50%

Table F-4. Agricultural acres enrolled by commodity and crediting location for Lake Griffin, Lake Harris, Palatlakaha, Trout Lake, and Lake Yale

Commodity	Griffin	Harris	Palatlakaha	Trout	Yale
Citrus	82	352	215	43	338
Cow/Calf	855	49	0	5	176
Equine	0	0	0	0	0
Fruit/Nut	0	0	0	13	118
Multiple Commodities	249	10	127	71	131
Nursery	0	74	530	0	19
Row/Field Crop	0	0	0	0	120
Sod	0	0	0	0	0

Commodity	Griffin	Harris	Palatlakaha	Trout	Yale
Total	1,186	486	871	132	901
Percent of Agricultural Lands Enrolled in BMPs	33%	16%	23%	12%	28%

As of July 2024, 32% of the agricultural acres in the Upper Ocklawaha River BMAP area are enrolled in FDACS' BMP program. **Table F-2** shows the acreages enrolled in the BMP Program by commodity. **Table F-3** and **Table F-4** show enrollment in each lake basin. **Figure F-2** shows the locations of agricultural enrollment in the basin. It is important to note that producers often undertake the production of multiple commodities on their operations, resulting in the requirement to implement the applicable BMPs from more than one BMP manual. When this occurs, the acres enrolled under more than one BMP manual are classified as “multiple commodity” and not included in the individual commodity totals to prevent duplication.

Enrollment Map

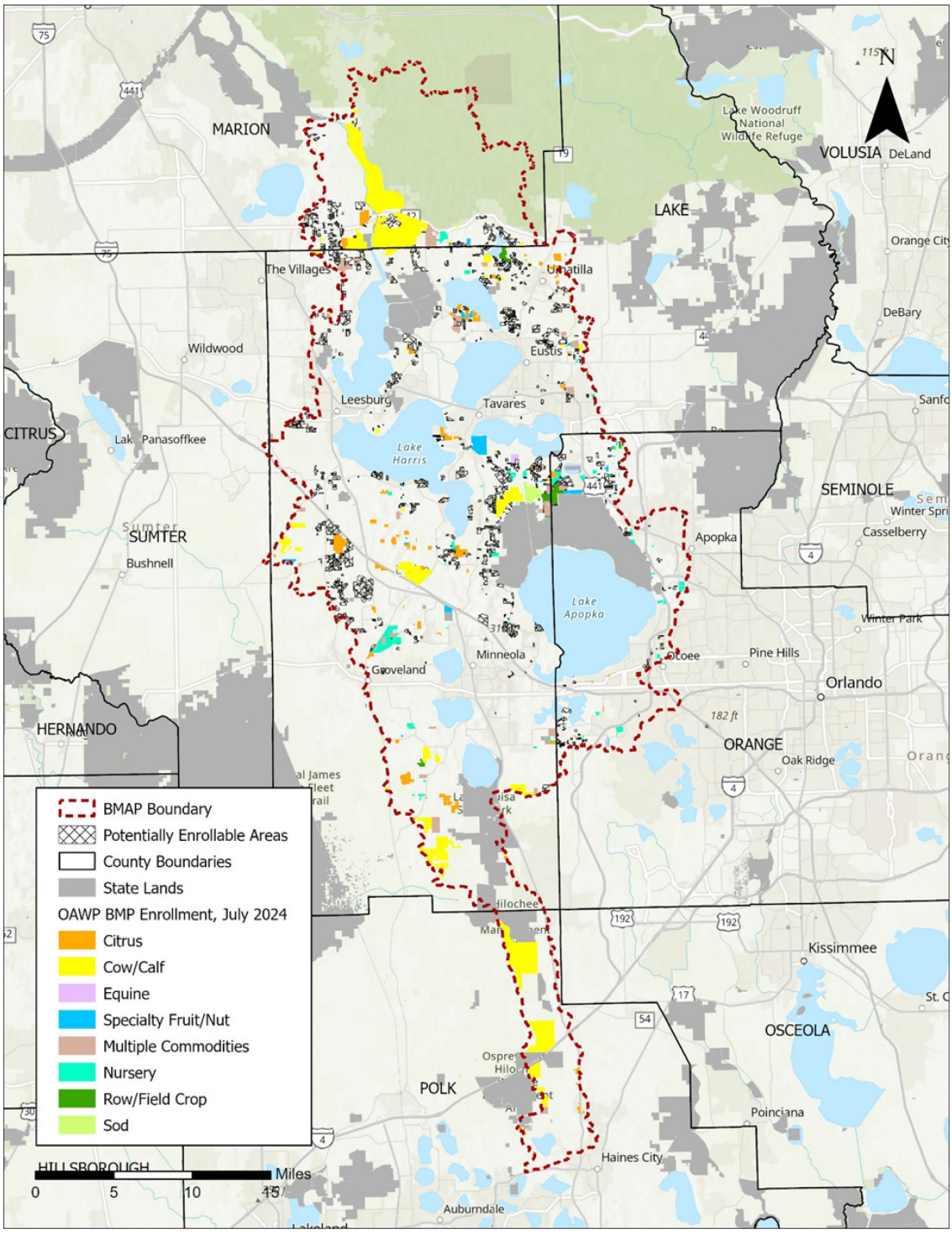

Figure F-2. Agricultural enrollment in the Upper Ocklawaha River BMAP

Unenrolled Agricultural Lands

Oftentimes, there are lands initially identified as agriculture which, upon closer evaluation, raise questions as to whether there is agricultural activity and whether it is enrollable within the purview of OAWP. FDACS characterizes lands classified as agriculture in the FSAID ALG, but not currently enrolled in the FDACS BMP Program using property appraiser data such as parcel owner information, agricultural tax valuation for exemption purposes, other parcel land use details to determine whether the remaining lands are potentially enrollable. More information about the "Unenrolled agricultural lands" characterization analyses is available in F**DACS Annual Status of Implementation of BMPs Report**.

The assessment of unenrolled agricultural lands at a more granular scale provides an indication of which areas are more likely (or unlikely) to have enrollable agricultural activities occurring on them. It also provides an estimate of the number of parcels and the associated agricultural acres deemed to be enrollable. The number of parcels is a useful proxy for the level of resource dedication needed to enroll the associated agricultural acres and where best to focus finite resources and staffing needs. It is often the case that much of the potentially enrollable acreage is encompassed within many smaller parcels which may require additional resources to enroll and require further evaluation, such as those that have agricultural activity intended solely for personal use ancillary to a residence, those that do not have an agricultural land use per the property appraiser, as well as parcels where there is no current activity to enroll.

Table F-5 shows the breakdown of agricultural lands within the Upper Ocklawaha River BMAP based on the FSAID 11 and the results of the FDACS unenrolled agricultural lands characterization.

Table F-5. Agricultural lands in Upper Ocklawaha River BMAP by crediting location

** Enrollment information current as of June 30, 2024.*

Crediting Location	Agricultural Acres	Unenrolled - Unlikely Enrollable Acres	Agricultural Acres - Adjusted	Agricultural Acres Enrolled*
Apopka	9,288	5,203	4,084	1,987
Beauclair	1,788	383	1,404	958
Carlton	957	142	815	241
Denham	847	460	387	0
Dora	674	396	278	140
Eustis	867	200	367	225
Griffin	5,817	2,260	3,556	1,186
Harris	5,351	2,291	3,061	486
Marshall	35	35	0	0
Palatlakaha	5,282	1,431	3851	871
Roberts	10	7	3	0
Trout	1,839	775	1,064	132
Yale	4,703	1,527	3,176	901

Potentially Enrollable Lands

There are 15,099 acres of potentially enrollable lands within the Upper Ocklawaha River BMAP based on the assessment of unenrolled agricultural lands performed by FDACS. **Table F-6** shows the potentially enrollable acreages by crop type**. Figure F-3** shows the count of potentially enrollable parcels based on size classifications used by FDACS.

Table F-6. Potentially Enrollable Acres by Crop Type

Crop Type	Acres
Citrus	401
Crops	302
Fallow	3,639
Fruit (Non-citrus)	17
Grazing Land	9,592
Hay	113
Livestock	319
Nursery	548
Open Lands	43
Sod	125
Total	**15,099**

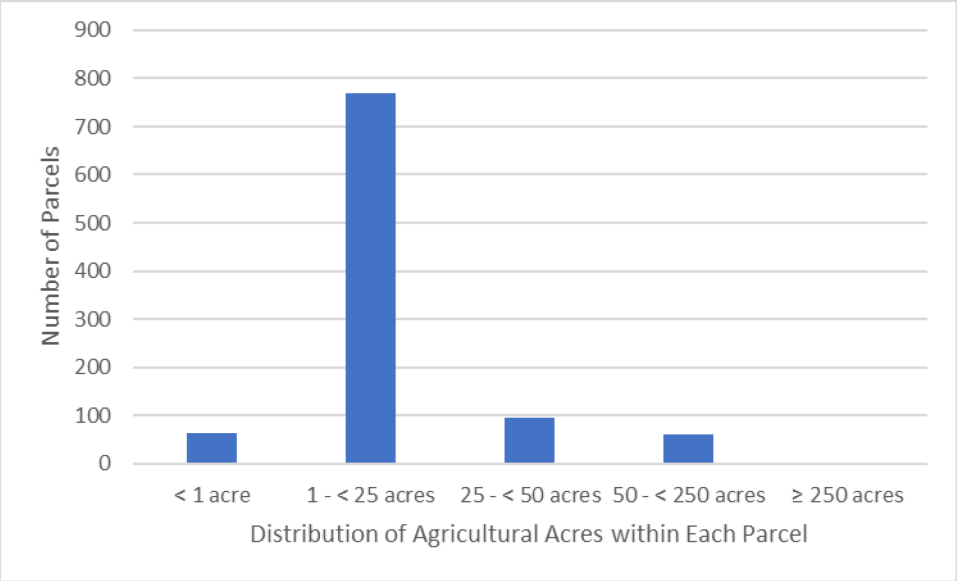

Figure F-3. Count of potentially enrollable parcels by size class

FDACS Cost Share

Enrollment in and proper implementation of BMPs makes a producer eligible for cost share for certain BMPs, other practices, and projects. The availability of cost share funds depends on

annual appropriations by the Florida Legislature, and therefore, the amount available can vary each year. Cost share applications may be submitted once a producer has enrolled in the BMP Program and has been assigned an NOI number. Cost share practices are categorized as nutrient management, irrigation management, or water resource protection. BMPs, other practices, and projects eligible for cost share funding may include precision agriculture technologies, variable rate irrigation methods, water control structures, and tailwater recovery systems. OAWP seeks to leverage its cost share funding with other cost share programs offered by FDACS and other state and federal agencies. The U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) offers funding through its Environmental Quality Incentives Program, and certain WMDs have agricultural cost share programs. Applicants are encouraged to use OAWP cost share in conjunction with other available conservation programs although funding cannot be duplicative.

Future Efforts

Outreach

To address resource concerns, FDACS continues enhancing coordination with producers, agencies, and stakeholders to increase enrollment in the BMP program. OAWP is sending correspondence to agricultural landowners within BMAPs that are not currently enrolled in the BMP program to increase enrollment rates and verify land uses where additional focus may be required to achieve resource protection. This effort is utilizing a phased approach and targeting priority land uses and then evaluating the amount of agricultural acreage for the remaining unenrolled lands, while ensuring that all entities identified as agriculture will be notified. Additionally, OAWP continues to coordinate with industry groups and outreach partners to educate and inform agricultural producers about the BMP program.

Legacy Loads

Legacy loading can present an additional challenge to measuring progress in many areas of Florida with adopted BMAPs. Based on research, initial verification by DEP, and long-term trends in water quality in the BMAP area, it is expected that current efforts, such as BMP implementation, will continue to provide improvements in overall water quality despite the impacts from legacy loads.

While the implementation of BMPs will improve the water quality in the basin, it is not reasonable to assume that BMP implementation alone can overcome the issues of legacy loads, conversion to more urban environments, and the effects of intense weather events. BMP implementation is one of several complex and integrated components in managing the water resources of a watershed.

Collaboration between DEP, FDACS, the water management districts, and other state agencies, as well as local governments, federal partners, and agricultural producers, is critical in identifying projects and programs, as well as locating funding opportunities to achieve allocations provided for under this BMAP. To improve water quality while retaining the benefits that agricultural production provides to local communities, wildlife enhancement, and the

preservation of natural areas requires a commitment from all stakeholders to implementing protective measures in a way that maintains the viability of agricultural operations.