STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In re:
AMENDMENTS TO THE LAKE JESUP BASIN MANAGEMENT ACTION PLAN

OGC Case No. 19-0434

_____/

FINAL ORDER AMENDING THE LAKE JESUP BASIN MANAGEMENT ACTION PLAN

Pursuant to Section 403.067(7), Florida Statutes, this Final Order adopts amendments to the 2010 Lake Jesup Basin Management Action Plan ("BMAP"). These amendments, entitled "Lake Jesup Basin Management Action Plan Amendment" and dated June 2019, are attached hereto and incorporated herein as Exhibit 1. The 2010 Lake Jesup BMAP remains in full force and effect, except as modified by the amendments in Exhibit 1.

The Lake Jesup BMAP, as amended, has been developed as part of the Department's Total Maximum Daily Load ("TMDL") Program, as authorized under the Florida Watershed Restoration Act (Section 403.067, Florida Statutes). Surface waters in Lake Jesup are designated as Class III waters in accordance with Chapter 62-302, Florida Administrative Code ("F.A.C."). Water quality for Class III waters is meant to be suitable for recreational use and for the propagation and maintenance of a healthy, well-balanced population of fish and wildlife.

In 2006, the Department adopted Rule 62-304.505 F.A.C., establishing nutrient TMDLs for Lake Jesup. Excessive nutrients are the primary pollutants contributing to the impairment of Lake Jesup. Table 1 in the attached Exhibit 1 identifies the applicable TMDLs.

The Department worked closely with the affected stakeholders, including local and state agencies, in developing the 2019 BMAP amendments that were appropriate to further progress in achieving the Lake Jesup TMDLs. Beyond direct work with the affected stakeholders, the Department encouraged public participation to the greatest practicable extent by providing routine updates in technical meetings and requests for comment at technical meetings on the BMAP amendments. The Department held a noticed public meeting in the basin on September 13, 2018, to discuss the BMAP amendments and receive comments.

The 2019 BMAP amendments represent the collaborative effort of stakeholders to identify current and planned management actions to achieve pollutant load reductions required by the TMDLs. The adopted BMAP amendments update the management actions that have been, or will be, undertaken by stakeholders to reduce discharge of pollutants in the watershed. The management actions (completed, ongoing, and planned) identified in the 2019

BMAP amendments address known sources of pollutants, facilitate investigation of unknown sources, prevent new sources, and address future loads associated with population growth and land use changes in the basin.

The specific pollutant reduction projects and management actions required of individual entities are set forth in Chapters 3 - 4 and Appendix B of the 2019 BMAP amendments. Unless otherwise noted in the 2019 BMAP amendments, all requirements of the BMAP amendments are enforceable upon the effective date of this Order.

This Final Order and incorporated BMAP amendments are enforceable pursuant to sections 403.067, 403.121, 403.141, and 403.161, Florida Statutes.

THEREFORE, IT IS ORDERED that the attached Exhibit 1 is hereby adopted as the Lake Jesup Basin Management Action Plan Amendment.

NOTICE OF RIGHTS

The Lake Jesup Basin Management Action Plan Amendment shall become final unless a timely petition for an administrative proceeding is filed pursuant to the provisions of Sections 120.569 and 120.57 of the Florida Statutes, before the deadline for filing a petition. The

procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the Department's proposed agency action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

Petitions must be filed within 21 days of publication of the public notice or within 21 days of receipt of this order, whichever occurs first. Under Section 120.60(3), Florida Statutes, however, any person who asked the Department for notice of agency action may file a petition within 21 days of receipt of such notice, regardless of the date of publication. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 of the Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the

presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

(a) The name, addresses, and telephone number of each petitioner; the Department case identification number and the county in which the subject matter or activity is located;

(b) A statement of how and when each petitioner received notice of the Department action;

(c) A statement of how each petitioner's substantial interests are affected by the Department action;

(d) A statement of the material facts disputed by the petitioner, if any;

(e) A statement of facts that the petitioner contends warrant reversal or modification of the Department action;

(f) A statement of which rules or statutes the petitioner contends require reversal or modification of the Department action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take.

A petition that does not disputes the material facts on which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this order. Persons whose substantial interests will be affected by any such final decision of the Department on the petition have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this proceeding.

A party who is adversely affected by this order has the right to seek judicial review under Section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department in the Office of the General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The

notice of appeal must be filed within thirty days after this order is filed with the clerk of the Department.

DONE AND ORDERED this 23rd day of July, 2019, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Noah Valenstein
Secretary

Marjorie Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

FILED ON THIS DATE PURSUANT TO § 120.52, FLORIDA STATUTES, WITH THE DESIGNATED DEPARTMENT CLERK, RECEIPT OF WHICH IS HEREBY ACKNOWLEDGED.

Donna M. Ethridge 7/23/19
Deputy CLERK DATE

Final

Lake Jesup Basin Management Action Plan Amendment

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

with participation from the
Lake Jesup Basin Stakeholders

June 2019

2600 Blair Stone Road
Tallahassee, FL 32399-2400
https://floridadep.gov

Acknowledgments

This *2018 Lake Jesup Basin Management Action Plan Amendment* 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 in coordination with the Lake Jesup stakeholders.

Lake Jesup stakeholders

Type of Organization/Entity	Name
Local Governments	Orange County Seminole County City of Altamonte Springs City of Casselberry City of Lake Mary City of Longwood City of Maitland City of Orlando City of Oviedo City of Sanford City of Winter Park City of Winter Springs Town of Eatonville
Regional and State Agencies	Florida Department of Agriculture and Consumer Services Florida Department of Environmental Protection–Central District Florida Department of Environmental Protection–Tallahassee Florida Department of Transportation District 5 Florida Turnpike Enterprise St. Johns River Water Management District

For additional information on the watershed management approach in the Lake Jesup Basin, contact:

Florida Department of Environmental Protection
Watershed Restoration Program, Watershed Planning and Coordination Section
2600 Blair Stone Road, Mail Station 3565
Tallahassee, FL 32399-2400
Phone: (850) 245–2118

Table of Contents

List of Figures

List of Tables

List of Acronyms and Abbreviations

BMAP	Basin Management Action Plan
BMP	Best Management Practice
BOCC	Board of County Commissioners
BOD	Biochemical Oxygen Demand
CDS	Continuous Deflective Separation (unit)
CR	County Road
DEP	Florida Department of Environmental Protection
DO	Dissolved Oxygen
EFDC	Environmental Fluid Dynamics Code (model)
F.A.C.	Florida Administrative Code
FDACS	Florida Department of Agriculture and Consumer Services
FDOT	Florida Department of Transportation
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
HSPF	Hydrological Simulation Program–FORTRAN (model)
lbs/yr	Pounds Per Year
mgd	Million Gallons Per Day
mg/L	Milligrams Per Liter
MS4	Municipal Separate Storm Sewer System
N/A	Not Applicable
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
OAWP	Office of Agricultural Water Policy
PLRG	Pollutant Load Reduction Goal
PSA	Public Service Announcement
RSF	Regional Stormwater Facility
RST	Regional Stormwater Treatment
SAV	Submerged Aquatic Vegetation
SJRWMD	St. Johns River Water Management District
SR	State Road
STA	Stormwater Treatment Area
TBD	To Be Determined
TKN	Total Kjeldahl nitrogen
TMDL	Total Maximum Daily Load
TN	Total Nitrogen
TP	Total Phosphorus
TSS	Total Suspended Solids

USGS	U.S. Geological Survey
WASP	Water Quality Analysis Simulation Program (model)
WBID	Waterbody Identification (number)
WWTF	Wastewater Treatment Facility

Chapter 1: Context, Purpose, and Scope of the Plan

Lake Jesup is one of the largest lakes in Central Florida and is part of the St. Johns River system (**Figure 1**). The Lake Jesup Basin Management Action Plan (BMAP) was adopted in 2010 to implement the adopted total maximum daily load (TMDL) for total phosphorus (TP). Because of uncertainties regarding the nitrogen dynamics in the system, the total nitrogen (TN) TMDL was not explicitly addressed in the 2010 BMAP; however, many of the actions implemented to address TP also resulted in TN reductions.

After the BMAP was adopted, the Florida Department of Environmental Protection (DEP) worked with the local stakeholders and St. Johns River Water Management District (SJRWMD) to gather additional data through monitoring and studies, which were then used to create more detailed models to evaluate the watershed nutrient loads, as well as the internal loading within the lake.

This 2018 BMAP Amendment is a supplement to the 2010 BMAP and is meant to be used in conjunction with the 2010 BMAP. The 2018 BMAP Amendment provides information on changes since the 2010 BMAP was adopted, including updates to the modeling, revised loading estimates from the watershed and the lake, updated allocations of load reductions to the responsible stakeholders, management actions to achieve nutrient reductions, and a revised monitoring plan to continue to track trends in water quality.

This amendment sets a deadline for achieving load reductions no later than 2030, which is 20 years after the initial BMAP adoption. The reductions are split, with at least half of the required reductions occurring within the next 5 years and the remaining reductions occurring by 2030. The 2010 BMAP had reductions spread over a 15-year period. The additional 5 years were added to account for the time that was needed to update the modeling before preparing this BMAP Amendment and to allow time to design, test, and implement in-lake projects.

The 2010 Lake Jesup BMAP remains in full force and effect, except as specifically modified by this document (hereafter referred to as the "2018 BMAP Amendment"). The BMAP provides for 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 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.

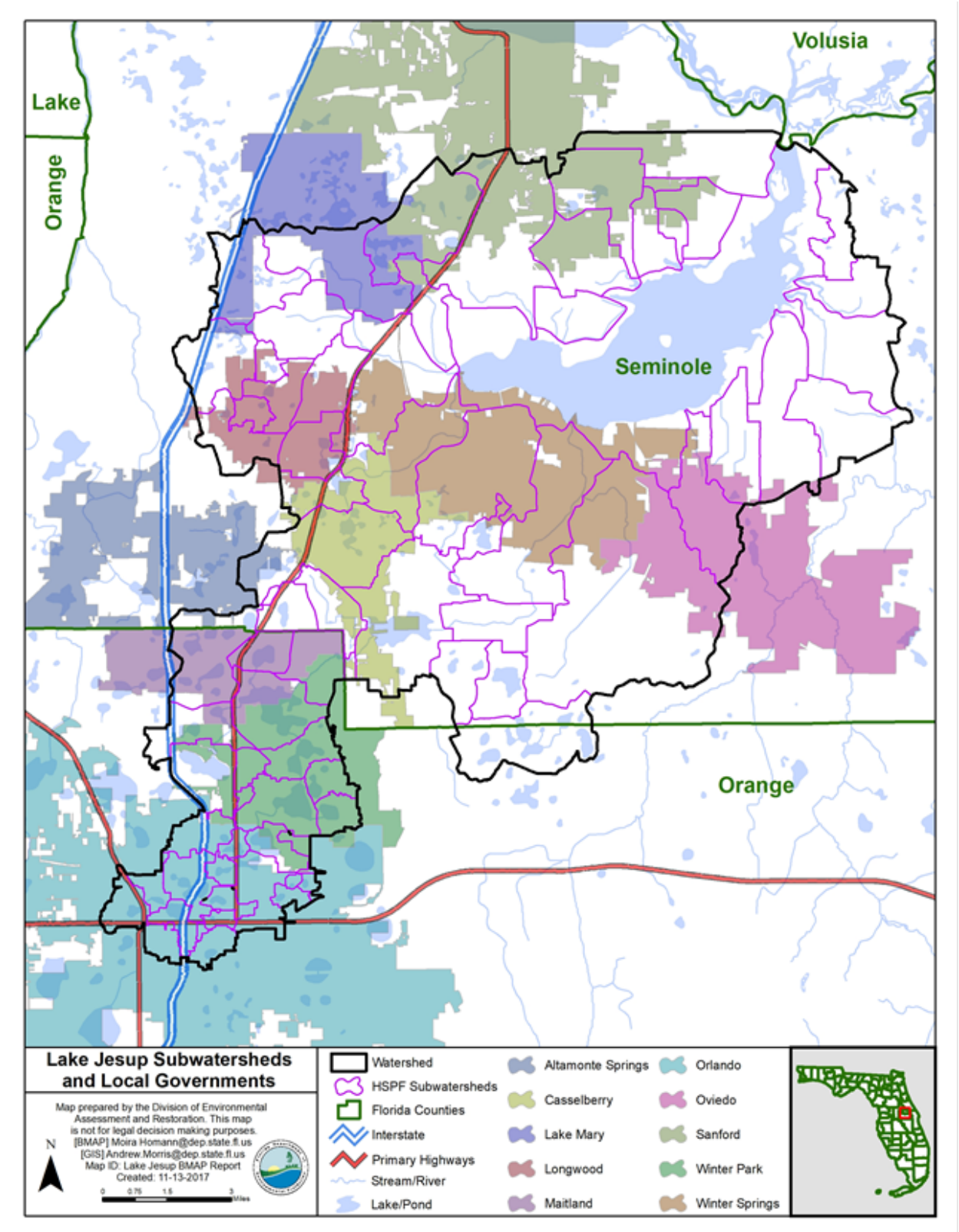

Figure 1. Lake Jesup and local government jurisdictions in the basin

1.1 TMDLs

The Lake Jesup nutrient TMDL, adopted in 2006 (Gao 2006), identified the TP and TN loads that the lake could receive and still maintain designated uses for Class III waters. The 2010 BMAP focused on achieving TP reductions from the watershed. At the time of BMAP development, there were uncertainties about the TN contributions to the lake, especially the amount of TN loading from nitrogen fixation and sediment flux within the lake itself. As many of the management actions to reduce external TP loads also reduce TN loads, this approach to the BMAP partially addressed the TN TMDL.

To address the uncertainties related to the TN loads and the internal loads within the lake, the stakeholders and SJRWMD collected additional monitoring data and conducted studies to better understand the system dynamics. SJRWMD also developed a Hydrological Simulation Program–FORTRAN (HSPF) model for the watershed and Environmental Fluid Dynamics Code (EFDC) and Water Quality Analysis Simulation Program (WASP) models for the in-lake dynamics. These models were then refined by DEP with support from Tetra Tech, Inc. for use in evaluating the adopted TP and TN TMDLs and revising the BMAP allocations.

Table 1 lists the Lake Jesup TMDLs for waterbody identification (WBID) number 2981, including 2981A. The TMDLs are adopted in rule, into Chapter 62-304.505(1), Florida Administrative Code (F.A.C.), as a load (see **Table 1**). To determine if these loads are being met, the target in-lake concentrations listed in the table need to be achieved. These concentrations are not part of the adopted rule but are the expected in-lake concentrations after the TMDLs have been attained.

Table 1. TMDLs for Lake Jesup

lbs/yr = Pounds per year; mg/L = Milligrams per liter

WBID Number	Parameter	TMDL (lbs/yr)	Target Concentration (mg/L)	NPDES Stormwater Wasteload Allocation (% reduction)	Load Allocation (% reduction)
2981 (including 2981A)	TP	41,888	0.096	34	34
2981 (including 2981A)	TN	545,203	1.27	50	50

1.2 Stakeholder Involvement

Local stakeholders have been engaged in the process of updating the watershed and in-lake models and in determining the revised load reduction allocations. Their input informed and shaped the direction taken by DEP in revising the models and allocating the load reductions. Public meetings to discuss the model updates and allocation approach were held on September 9, 2015; December 8, 2015; February 11, 2016; February 19, 2016; June 22, 2016; April 13, 2017; and September 21, 2017. The purpose of these meetings was to solicit comments from all interested parties, disseminate information, and allow for public discussion. The public meetings

were formally noticed in the *Florida Administrative Register*. A public meeting was held on September 13, 2018, to present and receive public comment on the 2018 BMAP Amendment.

1.3 Key Elements of the 2018 BMAP Amendment

The 2018 BMAP Amendment addresses the key elements required by the Florida Watershed Restoration Act (FWRA), Chapter 403.067, F.S., including the following:

- The appropriate management strategies to achieve TMDLs (**Chapter 4** and **Appendix B**).
- A description of best management practices (BMPs) adopted by rule (**Chapter 4** and **Appendix B**).
- A list of projects in priority ranking with a planning-level cost estimate and estimated date of completion for each listed project (**Appendix B**).
- The source and amount of financial assistance to be made available by DEP, a water management district, or other entity for each listed project, if applicable (**Appendix B**).
- A planning-level estimate of each listed project's expected load reduction (**Appendix B**).
- Milestones for implementation and water quality improvement (**Chapter 1** and **Section 6.2**).
- Water quality monitoring component sufficient to evaluate whether reasonable progress in pollutant load reductions is being achieved over time (**Chapter 5**).

Chapter 2: Model Update

During the development of the 2010 BMAP, the stakeholders raised concerns about the BATHTUB water quality model used to develop the TMDLs. The main concerns were that the model did not account for the attenuation of nutrients in the watershed and that in-lake processes, such as nitrogen fixation and sediment flux, were not included. To address these concerns, DEP and SJRWMD committed to developing a new model during the first BMAP iteration to better represent Lake Jesup and its watershed.

After BMAP adoption, SJRWMD developed three models for Lake Jesup to set the pollutant load reduction goal (PLRG) for the lake. These models included the watershed HSPF model, in-lake hydrodynamics EFDC model, and in-lake water quality dynamics WASP model. These models provided more detailed watershed loading, updated land use coverage, updated urban BMPs coverage, and in-lake water quality dynamics, which were all improvements from the original BATHTUB model. SJRWMD completed the development of these models in 2015.

To develop the PLRG, SJRWMD focused on calibrating the HSPF model to the total watershed loading to the lake and including a general representation of the in-lake processes in the EFDC and WASP models. However, for BMAP purposes, DEP needed further model refinement to better represent the distribution of nutrient loading throughout the watershed and to account for the in-lake nutrient loading. DEP contracted with Tetra Tech, Inc. to evaluate and revise the models to meet the needs of the BMAP Program. The details for the model revisions are provided in the Lake Jesup modeling report (Tetra Tech 2017).

The updated models were calibrated using data collected by stakeholders through research projects and monitoring, and then run to determine the loading from various sources to Lake Jesup. **Table 2** summarizes the annual loading to Lake Jesup from the watershed, atmospheric deposition onto the lake, groundwater seepage to the lake, and sediment flux. **Figures 2** and **3** show the TP and TN loads by source, respectively.

Table 1. Loading to Lake Jesup by source

Parameter	Watershed Load (lbs/yr)	Atmospheric Deposition Load (lbs/yr)	Groundwater Seepage Load (lbs/yr)	Sediment Flux Load (lbs/yr)
TP	24,217	9,600	10,907	24,000
TN	329,421	84,000	103,175	83,800

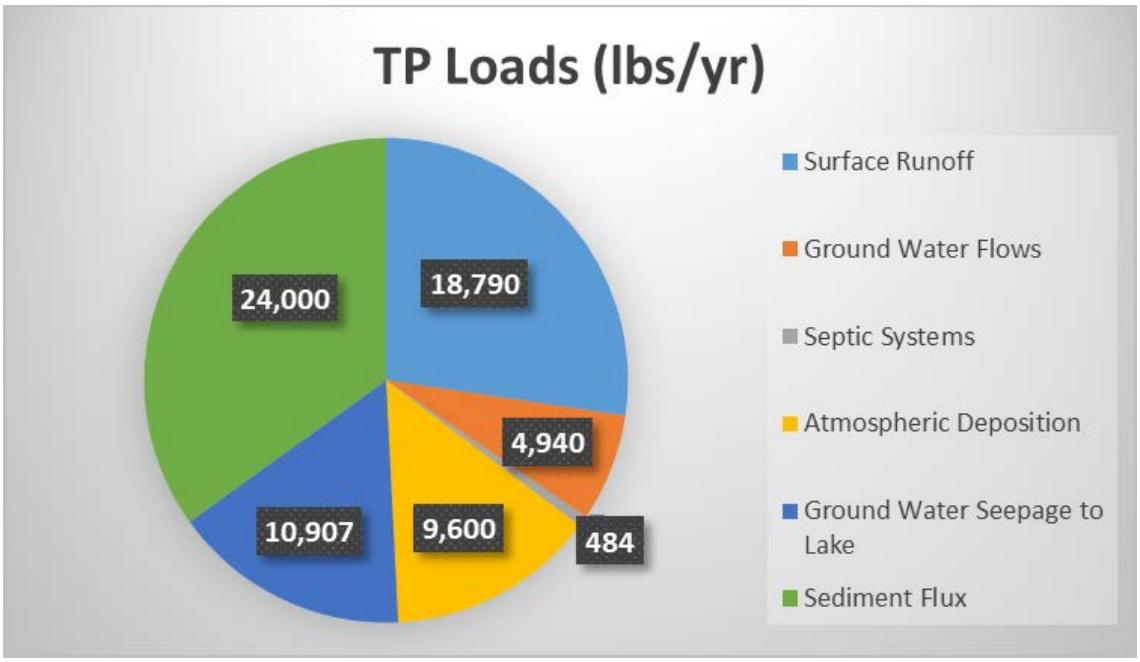

Figure 1. TP loading by source

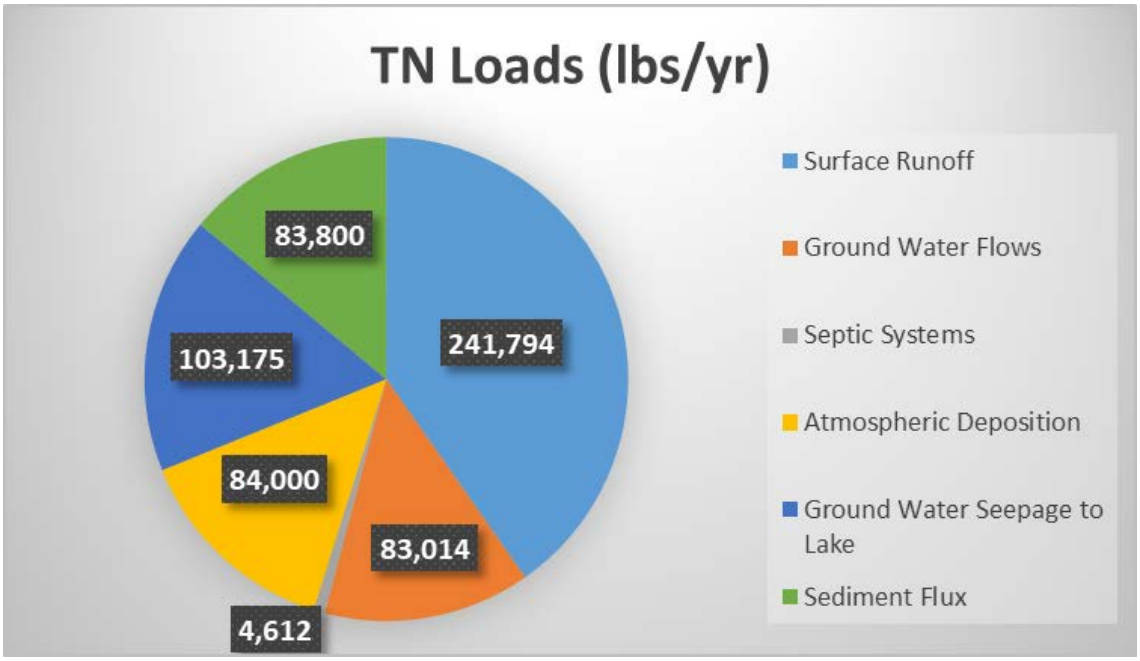

Figure 2. TN loading by source

Chapter 3: Calculating and Allocating Load Reductions

As noted in **Section 1.1**, the Lake Jesup TMDLs are adopted in rule as a load, with an allowable TP load from all sources of 41,888 lbs/yr and an allowable TN load from all sources of 545,203 lbs/yr. To determine if these loads are being met, in-lake concentrations of 0.096 mg/L of TP and 1.27 mg/L of TN need to be achieved. 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 to calculate the load reductions needed to achieve the TMDL loads and to allocate the load reduction requirements to the responsible stakeholders.

3.1 Calculating Load Reductions

The TMDL allowable loads for TP and TN were compared with the total model loads from the watershed, groundwater, direct atmospheric deposition, nitrogen fixation, and sediment flux. The first step in calculating the load reductions was to account for the reduction in nitrogen fixation that would result from the nutrient reductions from other sources. Based on information in the TMDL document, as well as from studies by Dobberfuhl (2003), Huber et al. (1982), Paerl et al. (1987), and Phlips et al. (2004), there should be a 95 % reduction in nitrogen fixation loads associated with reducing the watershed loading to the TMDL targets. This reduction is caused by the decrease in phytoplankton and nitrogen fixation biomass resulting from decreased nutrient inputs. In addition, the decrease in TP loading may make the system less nitrogen limited.

With this reduction in nitrogen fixation applied, DEP calculated that a reduction of 16.7 % in TN loading and 45.5 % in TP loading from the watershed, groundwater, and sediment flux would be needed to achieve the TMDL loads, which was a change from the original TMDL reductions of 50 % for TN and 34 % for TP (**Table 3**). The direct atmospheric deposition loads are not assigned a reduction per the TMDL. The TMDLs included a reduction to the St. Johns River loads. However, in the model update, Lake Jesup was determined to have a net export in loading to the river, and thus no reductions were assigned to the river in this iteration. Load reductions from the river will occur as part of upstream TMDL implementation.

The EFDC and WASP models were then run with the reductions in the watershed, groundwater, sediment flux, and nitrogen fixation loads. The resulting in-lake TN and TP concentrations were then compared with the TMDL target concentrations. The average TN concentration over a 7-year period in the TMDL scenario run was 1.25 mg/L, which meets the target TMDL concentration of 1.27 mg/L. The average TP concentration over a 7-year period in the TMDL scenario run was 0.073 mg/L, which meets the target TMDL concentration of 0.096 mg/L. Therefore, meeting the TMDL TN and TP loads will be expected to achieve the target in-lake concentrations. The BMAP will continue to be re-evaluated and adaptively managed to achieve the goal of restoring the lake to meet its designated uses.

Table 3. Required reductions by source

Source	TN Existing Load (lbs/yr)	TN Allowable Load (lbs/yr)	TN % Reduction	TP Existing Load (lbs/yr)	TP Allowable Load (lbs/yr)	TP % Reduction
Watershed	329,421	274,407	16.7	24,217	13,197	45.5
Groundwater Seepage to Lake	103,175	85,945	16.7	10,907	5,944	45.5
Atmospheric Deposition	84,000	84,000	0.0	9,600	9,600	0.0
Nitrogen Fixation	633,894	31,695	95.0	0	0	0.0
Sediment Flux	83,800	69,852	16.7	24,000	13,080	45.5
Total Load	**1,234,290**	**545,899**		**68,724**	**41,821**	

3.2 Allocations

The outputs from the HSPF model for the watershed loads were used to calculate the TN and TP loads associated with each responsible stakeholder. The stakeholders provided updated jurisdictional boundary files that reflected changes made since the 2010 BMAP; these were used to clip (or assign) the model area to each entity's area of responsibility. The entities were clipped out as follows: (1) Florida Department of Transportation (FDOT) District 5 roads, swales, and rights-of-way; (2) Turnpike Authority roads, swales, and rights-of-way; (3) natural land uses, water, and wetlands; (4) agricultural lands; (5) Site 10 (owned by the City of Sanford); (6) each city and town; and (7) each county. **Table 4** summarizes the resulting area and loading assigned to each entity.

Table 4. Acres and starting loads by entity

Entity	Area (acres)	TN Load (lbs/yr)	TP Load (lbs/yr)
Agriculture	5,733	36,797	2,813
City of Altamonte Springs	235	289	11
City of Casselberry	3,257	14,643	986
City of Lake Mary	2,091	4,966	325
City of Longwood	2,064	5,550	326
City of Maitland	1,229	3,200	247
City of Orlando	3,813	282	26
City of Oviedo	2,504	23,309	1,866
City of Sanford	3,997	21,286	2,399
City of Winter Park	3,981	4,616	309
City of Winter Springs	5,540	43,969	2,993
FDOT District 5	1,030	4,645	402
Orange County	1,680	3,648	126
Seminole County	14,432	96,303	6,300
Town of Eatonville	112	95	9
Turnpike Authority	668	5,107	466
Site 10	532	3,835	266
Natural Lands	32,360	56,881	4,347
Totals	**85,258**	**329,421**	**24,217**

The allowable loading to meet the TMDLs was calculated by multiplying the total starting load by the percent required reduction for TN and TP (**Table 5**). While reductions to attain the TMDLs may come from any source, the focus is on reductions from anthropogenic sources. Therefore, the loads associated with the natural lands were subtracted from the allowable watershed loads to determine the allowable loads for anthropogenic (urban and agricultural) lands. **Table 6** summarizes the anthropogenic allowable loads.

Table 5. Allowable watershed loads

Parameter	Watershed Starting Load (lbs/yr)	% Reduction	Allowable Watershed Load (lbs/yr)
TN	329,421	16.7	274,408
TP	24,217	45.5	13,198

Table 6. Anthropogenic allowable loads

Load Source	TN Load (lbs/yr)	TP Load (lbs/yr)
TMDL allowable load	274,408	13,198
Natural areas load	56,881	4,347
Anthropogenic target load	217,527	8,851

Required reductions were then assigned to the stakeholders based on the percentage of the starting load from each stakeholder. This approach keeps the loading from each entity proportionate, so that each entity receives the same percent reduction requirement. **Table 7** lists the total required reductions to meet the TMDL target loads. The percent reductions in TN and TP listed in this table are greater than the calculated percentages because all reductions are assumed to come from anthropogenic sources. The same allocation approach was used in the 2010 BMAP.

Table 7. Required reductions by entity

Entity	TN Starting Load (lbs/yr)	TN Required Reduction (lbs/yr)	% TN Reduction	TP Starting Load (lbs/yr)	TP Required Reduction (lbs/yr)	% TP Reduction
Agriculture	36,797	7,428	20.2	2,813	1,560	55.5
City of Altamonte Springs	289	58	20.2	11	6	55.5
City of Casselberry	14,643	2,956	20.2	986	547	55.5
City of Lake Mary	4,966	1,002	20.2	325	180	55.5
City of Longwood	5,550	1,120	20.2	326	181	55.5
City of Maitland	3,200	646	20.2	247	137	55.5
City of Orlando	282	57	20.2	26	14	55.5
City of Oviedo	23,309	4,705	20.2	1,866	1,035	55.5
City of Sanford	21,286	4,297	20.2	2,399	1,330	55.5
City of Winter Park	4,616	932	20.2	309	171	55.5
City of Winter Springs	43,969	8,875	20.2	2,993	1,660	55.5
FDOT District 5	4,645	938	20.2	402	223	55.5
Orange County	3,648	736	20.2	126	70	55.5
Seminole County	96,303	19,439	20.2	6,300	3,494	55.5
Town of Eatonville	95	19	20.2	9	5	55.5
Turnpike Authority	5,107	1,031	20.2	466	258	55.5
Site 10	3,835	774	20.2	266	148	55.5
Totals	**272,540**	**55,013**		**19,870**	**11,019**	

DEP is requiring each entity to achieve at least 50 % of its required TN and TP reductions within the next 5 years (**Table 8**).

Table 8. Required reductions for next five years by entity

Entity	TN Required Reduction (lbs/yr)	TP Required Reduction (lbs/yr)
Agriculture	3,714	780
City of Altamonte Springs	29	3
City of Casselberry	1,478	273
City of Lake Mary	501	90
City of Longwood	560	90
City of Maitland	323	68
City of Orlando	28	7
City of Oviedo	2,353	517
City of Sanford	2,148	665
City of Winter Park	466	86
City of Winter Springs	4,438	830
FDOT District 5	469	111
Orange County	368	35
Seminole County	9,720	1,747
Town of Eatonville	10	2
Turnpike Authority	515	129
Site 10	387	74
Totals	**27,507**	**5,507**

3.2.1 Low-Priority Ranking Determination

Several stakeholders contribute less than 1 % of both the TP and TN loading from the watershed to Lake Jesup. The contribution to the overall nutrient loading from these stakeholders is low enough that reductions from these areas would have essentially no impact on the required reductions for the BMAP at this time. Therefore, these entities are currently considered a low priority for implementing reductions.

Tables 9 and **10** summarize the priority evaluation, and those stakeholders meeting the classification requirements for low priority are highlighted in green. Stakeholders that met the low-priority classification include the City of Altamonte Springs, the City of Orlando, and the Town of Eatonville. These entities are not required to meet the first five-year reduction target for TP and TN but must continue to adhere to all requirements of their municipal separate storm sewer system (MS4) permits.

BMAP progress will be reviewed over time, and reduction requirements, including for those stakeholders with this low-priority status, will be updated in a future BMAP amendment, as needed. TP and TN reductions may be needed from the low-priority entities in the future. Therefore, although they do not currently have a reduction responsibility, these stakeholders are not exempt from such requirements in future BMAP amendments. Any actions taken by these

entities that result in TP and TN reductions will be documented for credit against any reduction requirements allocated in subsequent BMAP amendments.

Table 9. Summary of low-priority ranking for TP loads

Note: Green highlighting and boldface type indicate jurisdictions meeting the classification requirements for low priority.

Entity	TP Load (lbs/yr)	% of Total TP Load
Seminole County	6,300	31.7
City of Winter Springs	2,993	15.1
Agriculture	2,813	14.2
City of Sanford	2,399	12.1
City of Oviedo	1,866	9.4
City of Casselberry	986	5.0
Turnpike Authority	466	2.3
FDOT District 5	402	2.0
City of Longwood	326	1.6
City of Lake Mary	325	1.6
City of Winter Park	309	1.6
Site 10	266	1.3
City of Maitland	247	1.2
Orange County	126	0.6
City of Orlando	26	**0.1**
City of Altamonte Springs	11	**0.1**
Town of Eatonville	9	**0.0**
Totals	**19,870**	**100.0**

Table 10. Summary of low-priority ranking calculations for TN loads

Note: Green highlighting and boldface type indicate jurisdictions meeting the classification requirements for low priority.

Entity	TN Load (lbs/yr)	% of Total TN Load
Seminole County	96,303	35.3
City of Winter Springs	43,969	16.1
Agriculture	36,797	13.5
City of Oviedo	23,309	8.6
City of Sanford	21,286	7.8
City of Casselberry	14,643	5.4
City of Longwood	5,550	2.0
Turnpike Authority	5,107	1.9
City of Lake Mary	4,966	1.8
FDOT District 5	4,645	1.7
City of Winter Park	4,616	1.7
Site 10	3,835	1.4
Orange County	3,648	1.3
City of Maitland	3,200	1.2
City of Altamonte Springs	289	**0.1**
City of Orlando	282	**0.1**
Town of Eatonville	95	**0.0**
Totals	**272,540**	**100.0**

3.3 In-Lake Reductions

Reductions in loads from in-lake sources are also needed to achieve the TMDLs. **Table 11** summarizes the total and five-year required TN and TP reductions.

Table 11 Required in-lake reductions

Source	TN Required Reduction (lbs/yr)	TP Required Reduction (lbs/yr)	Five-Year TN Required Reduction (lbs/yr)	Five-Year TP Required Reduction (lbs/yr)
Groundwater Seepage to Lake	17,230	4,963	8,615	2,482
Sediment Flux	13,948	10,920	6,974	5,460
Totals	**31,178**	**15,883**	**15,589**	**7,942**

Chapter 4: Management Actions

Management actions refer to the suite of structural and nonstructural activities that the Lake Jesup BMAP entities will be conducting to achieve their required TP and TN reductions. The projects submitted by the entities to achieve at least their five-year required 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 time frame. 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 Urban BMPs and Eligibility

Management actions were required to meet certain criteria to be considered eligible for credit in the BMAP. The management actions must reduce TN and/or TP loads. The HSPF model included urban structural BMPs completed as of the 2013 Lake Jesup BMAP Progress Report. Therefore, urban structural projects completed since January 1, 2013, 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 since permit conditions are established to prevent impacts from the 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 HSPF model. 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.

Table 12 summarizes the total required reductions and the credits for completed and planned projects for each entity. **Appendix B** includes the project details.

Table 12. Urban TN and TP load reductions

* Low-priority entity that does not have to achieve the required reductions for this BMAP amendment.

Entity	TN Full Required Reduction (lbs/yr)	TN Completed and Planned Project Credits (lbs/yr)	% of TN Reductions Achieved	TP Full Required Reduction (lbs/yr)	TP Completed and Planned Project Credits (lbs/yr)	% of TP Reductions Achieved
City of Altamonte Springs*	58	50	86.2	6	13	216.7
City of Casselberry	2,956	2,398	81.1	547	850	155.4
City of Lake Mary	1,002	593	59.2	180	97	53.9
City of Longwood	1,120	2,191	195.6	181	323	178.5
City of Maitland	646	407	63.0	137	290	211.7
City of Orlando*	57	147	257.9	14	97	692.9
City of Oviedo	4,705	3,027	64.3	1,035	517	50.0
City of Sanford	4,297	13,667	318.1	1,330	2,849	214.2
City of Winter Park	932	743	79.7	171	321	187.7
City of Winter Springs	8,875	5,182	58.4	1,660	937	56.4
FDOT District 5	938	1,807	192.6	223	901	404.0
Orange County	736	1,002	136.1	70	182	260.0
Seminole County	19,439	43,019	221.3	3,494	5,485	157.0
Town of Eatonville*	19	1	5.3	5	0	0.0
Turnpike Authority	1,031	1,003	97.3	258	131	50.8
Site 10	774	1,150	148.6	148	146	98.6
Totals	**47,585**	**76,387**	**160.5**	**9,459**	**13,139**	**138.9**

4.2 Agricultural BMPs

Agricultural BMPs were eligible for BMAP credit regardless of when they were implemented because these BMPs were not included in the HSPF model. Agricultural nonpoint sources in a BMAP area are required by state law (Subsection 403.067[7], F.S.) either to submit a notice of intent (NOI) and implement the Florida Department of Agriculture and Consumer Services (FDACS)-adopted BMPs, which provide a presumption of compliance with water quality standards, or to conduct water quality monitoring prescribed by DEP or SJRWMD. Failure either to implement BMPs or conduct monitoring may result in enforcement action by DEP or SJRWMD.

FDACS identified potential land that could be enrolled in the BMP Program in the Lake Jesup Basin by creating a composite agricultural land use coverage using a combination of the HSPF modeled land use, 2009 SJRWMD land use, and Florida Statewide Agricultural Irrigation Demand (FSAID) geodatabase IV. **Table 13** summarizes the composite land use data for agriculture in the Lake Jesup Basin. The total agricultural land in the watershed is 4,567 acres,

which is slightly less than the 4,824 acres shown in the 2010 BMAP. This difference is because of the updated information from the land use and FSAID IV data.

Table 13. Agricultural land use in the Lake Jesup Basin

Land Use	Acres
Citrus	538
Field Crops	185
Horse Farms	344
Nursery	1,088
Ornamentals	53
Row Crops	112
Sod	258
Tree Crops	3
Vegetables	7
Woodland Pastures	227
Improved Pastures	1,752
Total	**4,567**

During the next five years, FDACS will proactively seek the further enrollment of producers in the BMAP area. As of June 30, 2018, NOIs cover 1,022 agricultural acres in the Lake Jesup BMAP area (**Table 14** and **Figure 2**). In the 2010 BMAP, 209 acres had NOIs. No producers are conducting water quality monitoring in lieu of implementing BMPs at this time.

Table 14. Agricultural acreage and BMP enrollment as of June 30, 2018

Related FDACS BMP Programs	NOI Acreage Enrolled	Composite Agricultural Land Use Acres within NOIs
Citrus	449	112
Cow/Calf Operations	3,869	169
Equine	18	17
Nurseries	539	507
Sod Operations	234	210
Multiple Commodities	7	7
Totals	**5,116**	**1,022**

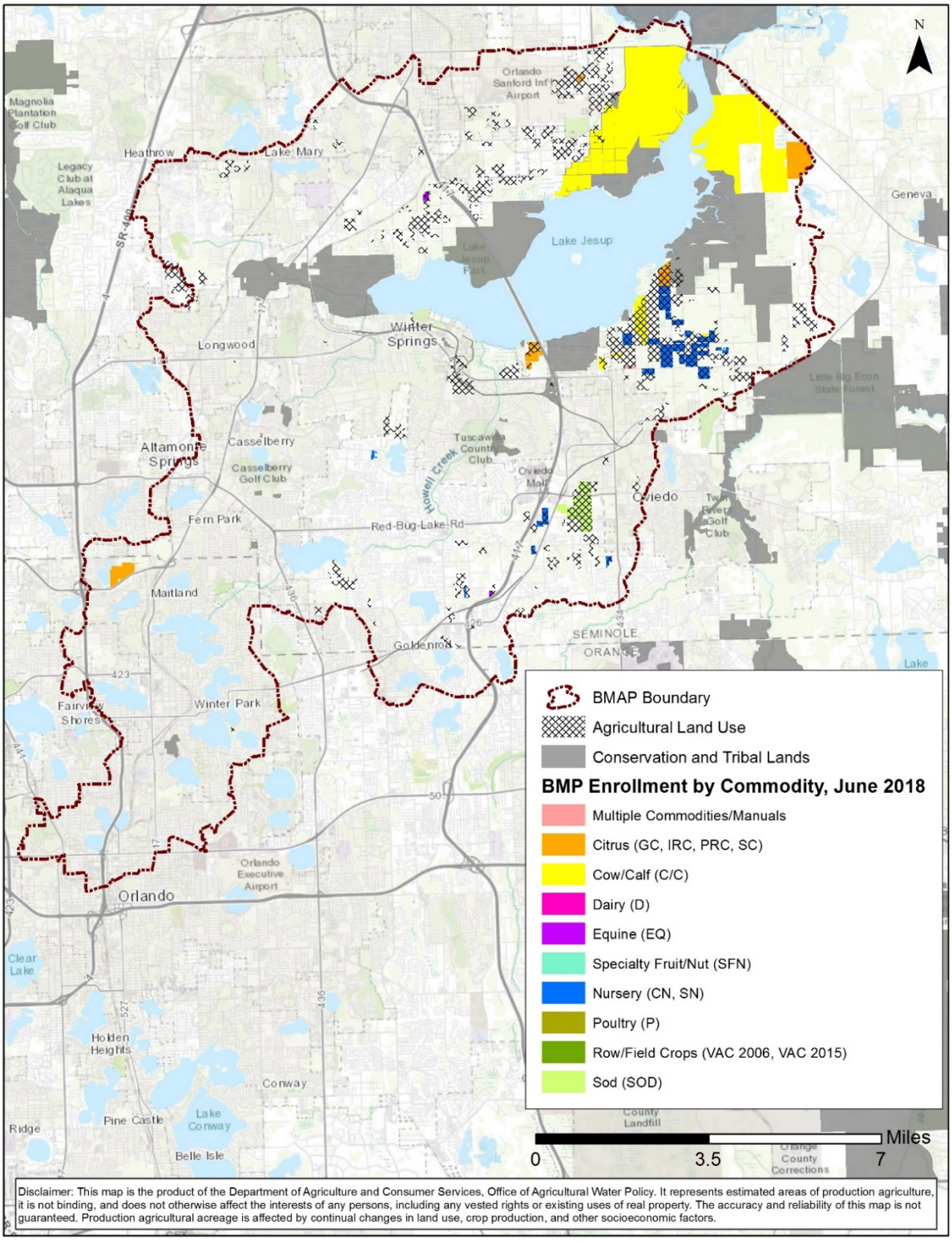

Figure 4. Agricultural BMP enrollment in the Lake Jesup Basin

4.3 Description of BMPs Adopted by Rule

Table 15 identifies the adopted BMPs and BMP manuals relevant to this BMAP.

Table 15. BMPs and BMP manuals adopted by rule as of June 2019

Agency	F.A.C. Chapter	Chapter Title
FDACS Office of Agricultural Water Policy (OAWP)	5M-6	Florida Container Nursery BMP Guide
FDACS OAWP	5M-8	BMPs for Florida Vegetable and Agronomic Crops
FDACS OAWP	5M-9	BMPs for Florida Sod
FDACS OAWP	5M-11	BMPs for Florida Cow/Calf Operations
FDACS OAWP	5M-12	Conservation Plans for Specified Agricultural Operations
FDACS OAWP	5M-13	BMPs for Florida Specialty Fruit and Nut Crop Operations
FDACS OAWP	5M-14	BMPs for Florida Equine Operations
FDACS OAWP	5M-16	BMPs for Florida Citrus
FDACS OAWP	5M-17	BMPs for Florida Dairies
FDACS OAWP	5M-18	Florida Agriculture Wildlife BMPs
FDACS OAWP	5M-19	BMPs for Florida Poultry
FDACS Division of Agricultural Environmental Services	5E-1	Fertilizer
FDACS Division of Aquaculture	5L-3	Aquaculture BMPs
FDACS Florida Forest Service	5I-6	BMPs for Silviculture
FDACS Florida Forest Service	5I-8	Florida Forestry Wildlife BMPs for State Imperiled Species
DEP	62-330	Environmental Resource Permitting

4.4 Restoration Projects

In addition to the stakeholder projects to reduce nutrient loads to Lake Jesup, there are also restoration projects that have been completed or are planned. While these projects may not result in quantifiable nutrient load reductions, they will help to improve the health of the lake and other waterbodies in the watershed. **Table 16** summarizes these restoration projects.

Table 16. Lake Jesup restoration projects

TBD = To be determined; N/A = Not applicable.

Entity	Project Name	Project Description	Start Date	Completion Date	Cost
City of Casselberry	North Lake Triplet Shoreline Revegetation	Remove existing nuisance vegetation from north and west shores of North Lake Triplet and replace with beneficial species; install reverse berm and swale.	12/1/2007	9/1/2015	$80,000
City of Casselberry	Middle Lake Triplet Shoreline Revegetation	Remove existing nuisance vegetation from north shore of Middle Lake Triplet and replace with beneficial species.	2/1/2014	9/1/2014	$140,000
Orange County	Winter Park Pines Outfall Bank Stabilization (E-3-B)	Project involves enclosing 1,100 feet of open canal with new conveyance pipe (541 feet of 42-inch reinforced concrete pipe and 520 feet of 48-inch reinforced concrete pipe).	N/A	2017	$498,094
Orange County	Winter Park Pines Outfall Bank Stabilization (E-3-H)	Project involves installing stepped sheet pile weir with concrete cap and regrading of side slopes upstream of proposed weir. Project also includes installing concrete ditch pavement, riprap, and permanent turf reinforcement matting.	TBD	2019	$600,000
Seminole County	Lake Jesup Submerged Aquatic Vegetation (SAV) Restoration	Planted 2 acres of eel grass near Marlbed Flats.	4/1/2012	3/1/2013	$10,000
Seminole County	Lake Howell Restoration Events	In-lake revegetation of submersed and emergent plants by residents and volunteers; 7 events held to date.	2011	Ongoing	$10,000
Seminole County	Lake Burkett/ Martha Restoration Events	In-lake revegetation of submersed and emergent plants by residents and volunteers; 3 events held to date.	2013	Ongoing	$1,000

Entity	Project Name	Project Description	Start Date	Completion Date	Cost
Seminole County	Bear Gully Lake Restoration Events	In-lake revegetation of submersed and emergent plants by residents and volunteers; 2 events held to date.	2011	Ongoing	$10,000
Seminole County	Lake Jesup SAV Restoration	Planting of 2 acres of eel grass within containment, to reestablish SAV in lake; completed by staff and volunteers; multiple events have been completed to date.	2011	Ongoing	$10,000
Seminole County	Lake Jesup Shoreline Restoration at 2 County Parks (Jesup and Overlook)	In-lake revegetation of shoreline emergent plants by contractors that is monitored by county staff and maintained with herbicides for invasive plant management.	2011	Ongoing–2 County park lands completed to date	$50,000
Seminole County	Lake Jesup Shoreline Restoration	In-lake revegetation of shoreline emergent plants by contractors.	2011	Ongoing–17,000 linear feet of shoreline completed to date	$90,000
Seminole County	Lake Jesup Shoreline Restoration at Black Hammock Fish Camp	In-lake revegetation of submersed emergent plants by residents and volunteers; 2 events held to date.	2016	Ongoing	$2,000
Seminole County	Lake Jesup Shoreline Restoration	Herbicide and removal of invasive vegetation along north and south shore.	2015	Ongoing	$100,000
Seminole County	Lake Tuskawilla Restoration Events	In-lake revegetation of submersed and emergent plants by residents and volunteers; 6 events held to date.	2011	Ongoing	$5,000
Seminole County	Lake Jesup Shoreline Restoration at County Park (Overlook)	In-lake revegetation of shoreline emergent plants by staff and volunteers; 1 event held to date.	2017	Ongoing	$1,000
Seminole County	Lake Jesup Shoreline Restoration	In-lake revegetation of shoreline emergent plants by staff and volunteers (north shore).	2018	Ongoing	$5,000

Entity	Project Name	Project Description	Start Date	Completion Date	Cost
Seminole County	Kids House Pond (Ronald Reagan Blvd, Sanford)	In-pond revegetation of submersed and emergent plants by staff and volunteers; 3 events held.	2015	2016	$500
Seminole County	English Estates Pond	In-pond revegetation of submersed and emergent plants by residents and volunteers; 1 event held to date.	2018	Ongoing	$500
Seminole County	Soldier's Creek Park Pond	In-pond revegetation of submersed and emergent plants by staff and volunteers; 1 event held to date.	2017	Ongoing	$1,000
Seminole County	Red Bug Lake Park Shoreline Restoration	In-lake revegetation of emergent plants by volunteers; 3 events held to date.	2015	ongoing	$1,500
Seminole County	Lake Kewannee Restoration Event	In-lake revegetation of submersed and emergent plants by county contractor; 3 events held to date.	2013	Ongoing	$1,500
Seminole County	Lake of the Woods Restoration Events	In-lake revegetation of submersed and emergent plants by residents and volunteers; 3 events held to date.	2014	Ongoing	$1,500
Seminole County and City of Winter Springs	Solary Canal Shoreline Replanting	Replant shoreline with beneficial natives.	Planned	TBD	$80,000

4.5 Studies

To continue to learn more about the dynamics in the watershed, several stakeholders have studies planned or underway, as described in **Table 17**.

Table 17. Studies in the Lake Jesup Basin

N/A = Not applicable

Entity	Project Name	Project Description	Start Date	Completion Date	Cost	Comments
Orange County	Lake Burkett Hydrologic and Nutrient Pollutant Assessment	Assessment characterizes sources and their relative contribution to nutrient pollutant budget. Data and information in report are used to produce ranked list of BMPs intended to improve water quality.	4/5/2016	10/30/2018	$181,839	Stakeholders can use data and information from assessment to inform TMDL, provide allocation information in watershed, and identify potential BMP effectiveness.
Orange County	Lake Martha Hydrologic and Nutrient Pollutant Assessment	Assessment characterizes sources and their relative contribution to nutrient pollutant budget. Data and information in report are used to produce ranked list of BMPs intended to improve water quality.	4/5/2016	10/30/2018	$176,444	Stakeholders can use data and information from assessment to inform TMDL, provide allocation information in watershed, and identify potential BMP effectiveness.
Seminole County	Cassel Creek Reginal Stormwater Facility (RSF) Phase II	Investigate Cassel Creek RSF area for projects to increase pollutant load removal.	1/1/2016	Ongoing	Not provided	N/A
Seminole County	Howell Creek Nutrient Removal Pilot Project	Install and monitor bioreactor with biosorptive media to treat baseflow.	2018	2018	$45,000	N/A
Seminole County	Lake Tuskawilla Hydrologic and Nutrient Budget	Assessment characterizes sources and their relative contribution to nutrient pollutant budget. Data and information in report are used to produce ranked list of BMPs intended to improve water quality.	2015	2019	$129,469	Stakeholders can use data and information from assessment to inform TMDL, provide allocation information in watershed, and identify potential BMP effectiveness.
Seminole County	Lake Clear and Lake Tony Hydrologic and Nutrient Budget	Assessment characterizes sources and their relative contribution to nutrient pollutant budget. Data and information in report are used to produce ranked list of BMPs intended to improve water quality.	2015	2019	$110,490	Stakeholders can use data and information from assessment to inform TMDL, provide allocation information in watershed, and identify potential BMP effectiveness.

Entity	Project Name	Project Description	Start Date	Completion Date	Cost	Comments
Seminole County	Crow's Creek Nutrient Study and Management Plan	Assessment characterizes sources and their relative contribution to nutrient pollutant budget. Data and information in report are used to produce ranked list of BMPs intended to improve water quality.	2015	2016	$21,216	Stakeholders can use data and information from assessment to inform TMDL, provide allocation information in watershed, and identify potential BMP effectiveness.
Seminole County	Navy and Cameron Ditch Efficiency Study	Determine removal efficiency of RSFs.	2011	2013	$100,000	N/A
Seminole County	Deer Run/Red Bug RSF Stormwater Efficiency Study	Determine removal efficiency of RSFs.	2014	2016	$125,000	N/A
Seminole County	Lake Jesup Groundwater Seepage Study	Phase I and II to quantify groundwater and sediment loading in Lake Jesup.	2010	2013	$127,000	These first quantified internal loading from groundwater and sediments. These data were used to update in-lake loading.

4.6 In-Lake Treatment Projects

Over the past six years, SJRWMD completed several diagnostic studies to gather more information about the unique water and sediment interactions in Lake Jesup. More recently, SJRWMD has focused its efforts to evaluate different cost-effective methods to remove water column phosphorus or permanently sequester sediment phosphorus in Lake Jesup.

In 2017, a comprehensive review of phosphorus reduction methods was undertaken. SJRWMD contracted with CDM Smith, Inc. to conduct a literature review to capture the existing knowledge of phosphorus reduction in lake systems. The review of phosphorus treatment technologies also included a workshop and a request for information for potential technologies. The evaluation and rating of the submitted technologies included a preliminary method screening, a water quality assessment of lake management techniques in Florida, and a final evaluation and ranking of treatment methods.

The results of the evaluation suggest several chemical and physical treatment technologies have the highest potential to remove phosphorus from Lake Jesup, based on the performance, economic, and operational criteria used for the final evaluation of the technologies. The ranking scores were close and there were process limitations (i.e., a lack of actual in-lake testing, reliance on vendor information). Therefore, it was recommended to first implement laboratory bench

analyses of highly ranked technologies to determine their effectiveness and cost for reducing the sediment phosphorus internal load in Lake Jesup. Currently, funding has been identified in the 2020 SJRWMD proposed budget to fund the Sediment Phosphorus Inactivation Pilot Project. Depending on the outcome of these analyses, in-lake demonstration projects could follow. Discussions with DEP are ongoing to determine needs and state funding opportunities for the in-lake demonstration projects.

Once the results of the proposed demonstration projects are available, the most feasible technologies for full-scale implementation will be identified. DEP, SJRWMD, and the stakeholders will then coordinate to determine how best to implement the recommended project(s) to achieve the required in-lake nutrient reductions. Although this effort focuses on TP, it is anticipated that the project(s) will also provide a TN reduction.

As the in-lake projects are new technologies, time is needed to test the feasibility of the proposed projects and to design, permit, and implement the selected projects. Although more than 5 years may be needed to achieve 50 % of the in-lake required reductions, the full reductions will be achieved by the 2030 deadline for the BMAP. DEP and SJRWMD are working together to identify the most feasible projects to achieve the full required reductions.

4.6.1 Enhanced Flow and Wetland Treatment System

SJRWMD contracted with Jones Edmunds to analyze the potential water quality and habitat effects of constructing a channel under the eastern span of the State Road (SR) 46 bridge at the confluence of the St. Johns River and Lake Jesup. The analysis also included an assessment of any potential downriver impacts that might result from the project. The project focuses on improving water clarity and providing habitat enhancements by introducing additional flow from the St. Johns River into the eastern portion of Lake Jesup. By increasing the amount of light reaching the lake bottom, the chances of increased growth of beneficial underwater plants is improved. The project is in the assessment phase.

In addition, SJRWMD is assessing a project that will pump water from Lake Jesup into a treatment system made up of ponds and wetlands. This project will remove phosphorus, nitrogen, and suspended solids from the lake, improving light penetration into the water column and encouraging beneficial underwater plant growth. The proposed project site is located on the northwestern edge of Lake Jesup on the Little Cameron Ranch parcel owned by SJRWMD.

Chapter 5: Monitoring Strategy

The Lake Jesup BMAP monitoring plan is described in detail in the 2010 BMAP. The primary and secondary objectives of the monitoring strategy were modified for the 2018 BMAP Amendment, as noted below. Primary objectives are necessary to evaluate the success of the BMAP. Secondary objectives contribute to this evaluation and can help interpret the data collected.

Primary Objectives

1. Track trends in TP and TN loads in Lake Jesup and its tributaries through the ambient monitoring network.

2. Determine inputs to Lake Jesup.

Secondary Objectives

1. Identify areas in the watershed that exhibit unusually high loadings of TN and/or TP ("hot spots") to better focus management efforts.

2. Track ecological and limnological responses to BMAP implementation.

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 are directly related to the parameters causing impairment in the lake and its tributaries and include the following:

- Chlorophyll *a* (corrected).
- TP (as P).
- Orthophosphate as P.
- Ammonium as N.
- Nitrate/nitrite as N.
- Total Kjeldahl nitrogen (TKN).
- Biochemical oxygen demand (BOD).

Supplemental indicators are monitored primarily to support the interpretation of core water quality parameters and include the following:

- Specific conductance.
- Dissolved oxygen (DO).
- pH.
- Temperature.
- Total suspended solids (TSS).

The following stations were removed from the BMAP monitoring network since the adoption of the 2010 BMAP:

- DEP station at Cameron Avenue and Kentucky Street was removed because of low-flow conditions.
- Lake Mary station at the outlet of Big Lake Mary was removed because of low-flow conditions.
- Seminole County Station HCCB on Howell Creek at the county border was moved slightly downstream because of access issues once the new weir was installed in the creek.
- Seminole County/City of Sanford Station CHUBB at Chub Creek at East Lake Mary Boulevard was removed because of low-flow conditions.
- SJRWMD Station T-5 at Howell Creek Delta on the southwest end of Lake Jesup was removed in 2008.
- SJRWMD Station T-8 at Gee and Soldier Creeks delta west of Lake Jesup was removed in 2008.
- Seminole County storm event stations on Howell Creek, Solary Canal, Gee Creek, Soldiers Creek, and Six Mile Creek were removed because of cost constraints.
- U.S. Geological Survey (USGS) Station 2234435 at the Lake Jesup outlet near Sanford, Florida, was removed because of cost constraints.

The following stations had a change in frequency since the 2010 BMAP:

- Seminole County/City of Altamonte Springs Station PRA at Prairie Lake is now sampled quarterly.
- Seminole County/DEP Station SALT at Salt Creek at Packard Avenue is now sampled quarterly.

Table 18 lists the stations that were added to the BMAP monitoring network since the adoption of the 2010 BMAP.

Table 18. BMAP monitoring network

Entity	Station Identification	Station Description	Station Type	Sampling Frequency	Year Site Established	Sampling Parameters
Seminole County	HOWIN	Howell Creek just downstream of weir at Lake Howell Road	Water Quality	Quarterly	2007	Core and supplemental parameters
Seminole County/ Sanford	SIX	Six Mile Creek at Myrtle Street	Water Quality	Monthly	2000	Core and supplemental parameters
Seminole County	HOWC	Howell Creek at SR 434	Water Quality	Monthly	2000	Core and supplemental parameters
Seminole County/FDOT	SOL	Soldiers Creek	Water Quality	Monthly	1998	Core and supplemental parameters
Seminole County	GEE	Gee Creek	Water Quality	Monthly	1998	Core and supplemental parameters
SJRWMD	T-6	Howell Creek at SR 434 south of Whites Lodge on Lake Jesup	Water Quality	Monthly	1995	Field parameters, water chemistry, metals
SJRWMD	T-9	Gee Creek at SR 419 off southwest end of Lake Jesup	Water Quality	Monthly	1995	Field parameters, water chemistry, metals
SJRWMD	T-10	Soldier Creek at SR 419 off west end of Lake Jesup	Water Quality	Monthly	1995	Field parameters, water chemistry, metals

In addition to the BMAP monitoring network, the stakeholders are also conducting sampling that will provide supplemental data to meet the monitoring strategy objectives. This additional monitoring is described in detail in the 2010 BMAP. The following modifications were made to the supplemental monitoring stations since the 2010 BMAP:

- Seminole County biology stations TUS, PRA, GRA, BUR, TON, JES, BGU, HOW, FAR, FLO, GAR, SEM, ML02, and LOW are now sampled for the Lake Vegetation Index.
- In addition to the parameters listed in the 2010 BMAP, Seminole County water quality stations BERC, BGC, BGSL, HCRB, HCTF, HCWS, LKC, NW-N, and NW-S are now sampled for DO percent saturation, total dissolved solids, turbidity, BOD, TSS, and true color.
- In addition to the parameters listed in the 2010 BMAP, Seminole County water quality stations BGU, FAR, FLO, GAR, HAY, KEW, LOW, RED, ANN, HOW, ML01, SALT, JES, and PRA are now sampled for DO percent saturation and turbidity. Flow is also recorded at the SALT station.

Chapter 6: Commitment to Plan Implementation

6.1 Adoption Process

The 2018 BMAP Amendment is adopted by Secretarial Order and assigns TP and TN load reductions to the responsible stakeholders in the Lake Jesup Basin.

6.2 Tracking Reductions

The required loading reductions are expected to be met by 2030, and the load reduction status will be re-evaluated in 2023. Each entity responsible for implementing management actions 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. The FWRA 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:

- 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.

Tracking implementation, monitoring water quality and pollutant loads, and holding periodic meetings to share information and expertise are key components of adaptive management.

Appendices

References

Dobberfuhl, D.R. 2003. *Cylindrospermopsis raciborskii* in three central Florida lakes: population dynamics, controls, and management implications. *Lake and Reservoir Management* 19(4): 341–348.

Florida Stormwater Association. 2012. *Methodology for calculating nutrient load reductions using the FSA assessment tool.*

Gao, X. 2006. *Nutrient and un-ionized ammonia TMDLs for Lake Jesup, WBIDs 2981 and 2981A.* TMDL report. Tallahassee, FL: Florida Department of Environmental Protection.

Huber, W.C., P.L. Brezonik, and J.P. Heaney. 1982. *A classification of Florida lakes*. Report ENV-05-82-1. Prepared for the Florida Department of Environmental Regulation.

Paerl, H.W., and L.E. Prufert. 1987. Oxygen-poor microzones as potential sites of microbial N2 fixation in nitrogen-depleted aerobic marine waters. *Appl. Environ. Microbiol.* 53:1078–1087.

Phlips, E.J., J. Frost, N. Yilmaz, and M. Cichra. 2004. *Factors controlling the abundance and composition of blue-green algae in Lake Griffin.* Project # SF669AA. Final report to the St. Johns River Water Management District.

Tetra Tech, Inc. 2017. *Final hydrology and water quality modeling report for the Lake Jesup Watershed, Florida.* Prepared for the Florida Department of Environmental Protection.

Projects to Reduce Nutrient Sources

Prioritization of Management Strategies

The management strategies in **Table B-1** are ranked with a priority of high, medium, or low. In 2016, the Florida Legislature amended the FWRA (Section 403.067, F.S.), creating additional requirements for all new or revised BMAPs. BMAPs must now include planning-level details for each listed project, along with its priority ranking.

Project status was selected as the most appropriate indicator of a project's priority ranking. Projects with a "completed" status were assigned a low priority. Projects classified as "underway" were assigned a medium priority because some resources have been allocated to these projects, but some work still needs to be completed. A high priority was assigned to projects listed as "proposed" or "conceptual." These are typically projects that need to be funded and implemented to achieve substantial reductions or studies that need to be completed to appropriately plan for additional load reduction remedies.

There are exceptions to the assignment of priority based on project status. For example, pollution prevention projects such as street sweeping and good housekeeping measures were assigned a high priority, regardless of their status, because they are cost-effective and require continuing effort. Public outreach projects have a high priority because they are an integral component of BMAPs and are focused on preventing nutrient pollution, which is much more economical than deploying treatment efforts.

Table B-1. Agriculture projects

TBD = To be determined; N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual Operations and Maintenance (O&M)	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
FDACS	N/A	AG-01	BMP Implementation	Existing NOIs.	Agricultural BMPs	Completed	N/A	7,084	491	1,171	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017
FDACS	N/A	AG-02	Loss of Agricultural Production Acreage (credit)	Change in land use from agricultural to nonagricultural.	Land Use Change	Completed	N/A	1,327	101	768	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017
FDACS	N/A	AG-03	Remainder of Agricultural Lands Enrolled	Enrollment of remaining agricultural lands in BMP Programs.	Agricultural BMPs	Planned	TBD	4,517	349	3,800	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	12,928	941
Required reductions	7,428	1,560
Remaining reductions	-5,500 (credit)	619

Table B-2. City of Altamonte Springs projects

N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
City of Altamonte Springs	N/A	A-02	Street Sweeping	Street Sweeping of 4.4 miles, twice monthly.	Street Sweeping	Completed	N/A	35	12	N/A	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017
City of Altamonte Springs	N/A	A-03	Education Efforts	Florida Yards and Neighborhoods (FYN) Program, irrigation and fertilizer ordinances, public service announcements (PSAs), pamphlets, presentations, website, Illicit Discharge Program.	Education Efforts	Completed	N/A	14	1	N/A	N/A	$6,000	Stormwater Fee	$6,000	N/A	Nonstructural	2017
City of Altamonte Springs	N/A	A-04	Credits for Missing BMPs	BMPs missing from model.	BMPs	Completed	N/A	1	0	N/A	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017
City of Altamonte Springs	Seminole County Public Schools/ Seminole State College/ University of Central Florida/ DEP	A-05	Altamonte Springs Science Incubator	Program that promotes career readiness in high-tech, high-demand fields of science, technology, engineering, and math.	Enhanced Public Education	Completed	2012	N/A	N/A	N/A	$110,000	$372,819	Private Donations/ In-kind Services	Duke Energy–$150,000 Adventist Health–$25,000 In-kind services–$50,000	N/A	Nonstructural	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	50	13
Required reductions	58	6
Remaining reductions	8	-7 (credit)

Table B-3. City of Casselberry projects

TBD = To be determined; N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
City of Casselberry	N/A	C-17	530 South Lake Triplet Drive Bioswales	Construct bioswales and other drainage improvements.	Bioswales	Completed	2016	1	0	1	$163,000	N/A	Stormwater Utility	$163,000	N/A	Structural	2017
City of Casselberry	TBD	C-20	Park Drive Drainage/Wetland Improvements	Retention area on Lots 10A and 11 on north side of Park Drive.	100 % Onsite Retention	Planned	TBD	1	0	2	$229,000	N/A	TBD	TBD	N/A	Structural	2017
City of Casselberry	N/A	C-21	Whole Lake Alum Treatment	Execute whole-lake alum treatments to directly treat Queens Mirror Lake and Triplet Lake chain to address loads caused by groundwater seepage and internal recycling.	Alum Injection Systems	Completed	2015	121	185	102 (lake acreage only)	$170,000	$0	Stormwater Utility	$170,000	N/A	Structural	2017
City of Casselberry	N/A	C-27	Street Sweeping	Monthly street sweeping, 25,704 cubic feet of material collected annually based on 2015 values.	Street Sweeping	Completed	N/A	434	285	0	$0	$67,612	Stormwater Utility	N/A	N/A	Nonstructural	2017
City of Casselberry	N/A	C-28	Education Efforts	FYN, landscape and irrigation ordinances, PSAs, pamphlets/presentations, website, illicit discharge program.	Education Efforts	Completed	N/A	732	49	0	$0	$4,000	Stormwater Utility/ Water/ Sewer Utility Fund	N/A	N/A	Nonstructural	2017
City of Casselberry	N/A	C-30	Structures Cleaning	729 cubic feet of solids collected from catch basins, baffle boxes, and other structures per year.	BMP Clean Out	Completed	N/A	15	9	0	$0	$0	Stormwater Utility Fund	N/A	N/A	Nonstructural	2017
City of Casselberry	TBD	C-31	Queens Mirror Nutrient Reduction Facility	Treat runoff from upstream areas prior to entering Queens Mirror Lake.	Alum Injection Systems	Planned	9/30/2020	867	173	1,528	$800,000	$100,000	Stormwater Utility (TMDL/ 319/ SJRWMD grants if awarded)	$800,000/ $100,000/ year	N/A	Structural	2017
City of Casselberry	N/A	C-32	Lake Concord Park (South Phase)	New development with wet detention.	Wet Detention Pond	Completed	2017	0	0	15	$7,324,162	N/A	Local	$7,324,162	N/A	Structural	2017
City of Casselberry	N/A	C-33	Triplet Lake Drive Signature Street	New stormwater treatment for existing road.	Dry Retention Pond	Completed	2017	3	0	11	$3,092,425	N/A	Local	$3,092,425	N/A	Structural	2017
City of Casselberry	N/A	C-34	North Oxford Road Complete Street Improvements	Road diet with addition of bioswales.	Bioswales	Completed	2018	1	0	2	$2,134,100	N/A	Sales Tax/ Stormwater Utility/ Water/Sewer Utility	$2,134,100	N/A	Structural	2017
City of Casselberry	N/A	C-35	Concord Drive Improvements	New stormwater treatment for existing road, including wet detention and bioswales.	Wet Detention Pond	Planned	2020	9	0	5	$1,264,584	N/A	Sales Tax/ Stormwater Utility/ Water/Sewer Utility	TBD	N/A	Structural	2017
City of Casselberry	N/A	C-36	Credits for Missing BMPs	BMPs missing from model.	Stormwater System Rehabilitation	Completed	Prior to 2017	33	30	N/A	$0	$0	N/A	N/A	N/A	Nonstructural	2017

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
City of Casselberry	N/A	C-37	Enhanced Street Sweeping	Additional street sweeping once/month for first 5 months of each year (heavy leaf fall season) beyond base level.	Street Sweeping	Completed	N/A	181	119	0	$0	$31,719	Stormwater Utility	$31,719/yr	N/A	Nonstructural	2017
City of Casselberry	N/A	C-38	Lake Jesup Basin Nitrogen Removal Projects	TBD BMPs or facilities to target TN reduction in Lake Jesup Basin.	TBD	Planned	TBD	TBD	TBD	TBD	$300,000	TBD	Stormwater Utility	$300,000	N/A	TBD	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	2,398	850
Required reductions	2,956	547
Remaining reductions	558	-303 (credit)

Table B-4. City of Lake Mary projects

N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
City of Lake Mary	N/A	LM-02	Street Sweeping	140,895 lbs/yr of material removed.	Street Sweeping	Completed	N/A	29	18	6,286	N/A	$13,000	City of Lake Mary Stormwater Fund	$13,000	N/A	Nonstructural	2017
City of Lake Mary	Seminole County	LM-03	Education Efforts	FYN, ordinances (landscape, irrigation, pet waste, fertilizer), PSAs, pamphlets, presentations, website, Illicit Discharge Program.	Public Education Efforts	Completed	N/A	298	20	N/A	N/A	$5,500	City of Lake Mary Stormwater Fund	$5,500	N/A	Nonstructural	2017
City of Lake Mary	N/A	LM-05	Catch Basin Clean Out	Removal of 1,620 cubic feet of material per year.	BMP Clean Out	Completed	N/A	35	20	6,286	N/A	Not provided	City of Lake Mary Stormwater Fund	Not provided	N/A	Nonstructural	2017
City of Lake Mary	N/A	LM-06	Credits for Missing BMPs	BMPs missing from model.	Stormwater System Rehabilitation	Completed	N/A	231	39	N/A	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	593	97
Required reductions	1,002	180
Remaining reductions	409	83

Table B-5. City of Longwood projects

TBD = To be determined; N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
City of Longwood	N/A	L-01	Fairy Lake Outfall	Design and construct 62 linear feet of 4x7 box culvert with headwalls and 1,200-square-foot retaining wall system.	Control Structure	Completed	2013	0	0	N/A	$300,000	Not provided	Not provided	$300,000	N/A	Structural	2017
City of Longwood	N/A	L-03	BMP Clean Out	Clean out of BMPs, averaging 700 cubic feet of material per year.	BMP Clean Out	Completed	N/A	15	8	N/A	Not provided	Not provided	Not provided	Not provided	N/A	Nonstructural	2017
City of Longwood	N/A	L-04	Street Sweeping	Quarterly street sweeping of 11.1 miles—50,300 lbs of material collected annually.	Street Sweeping	Completed	N/A	10	6	N/A	Not provided	Not provided	Not provided	Not provided	N/A	Nonstructural	2017
City of Longwood	N/A	L-05	Education Efforts	FYN, irrigation ordinance, pamphlets, presentations, website, Illicit Discharge Program.	Education Efforts	Completed	N/A	250	15	N/A	Not provided	Not provided	Not provided	Not provided	N/A	Nonstructural	2017
City of Longwood	SJRWMD/ DEP	L-07	Florida Central Commerce Park Wastewater Interconnect Program	Expand stormwater treatment and storage to augment irrigation sources. Project will improve wastewater effluent quality by routing flow from small plant that will be decommissioned to Seminole County plant to provide higher level of treatment, maximize reuse availability, and abandon existing irrigation wells for urbanized area in City of Longwood.	WWTF Diversion to Reuse	Completed	Not provided	1,173	280	272	$1,345,309	Not provided	City of Longwood/ SJRWMD/ DEP	$1,900,309	28430 SJRWMD shares with DEP	Structural	2017
City of Longwood	SJRWMD/ DEP	L-08	South Longwood Septic Tank Abatement project	240 septic tanks will be removed and converted to central sewer.	OSTDS Phase Out	Completed	Not provided	168	0	100	$5,247,830	N/A	City of Longwood/ SJRWMD/ DEP	$5,247,830	319(h)–NF010	Structural	2017
City of Longwood	SJRWMD/ DEP	L-09	North County Road (CR) 427 and Lake Ruth Septic Tank Removal	103 septic tanks will be removed and converted to central sewer.	OSTDS Phase Out	Underway	TBD	72	0	67	$2,500,000	N/A	City of Longwood/ SJRWMD/ DEP	$3,129,160	NF013	Structural	2017
City of Longwood	N/A	L-10	Island Lake Septic Tank Abatement	100 septic tanks will be removed and converted to central sewer.	OSTDS Phase Out	Canceled	N/A	0	0	0	N/A	N/A	N/A	N/A	N/A	Structural	2017
City of Longwood	SJRWMD/ DEP	L-11	Longdale Septic Tank Abatement–Phase 1 project	218 septic tanks will be removed and converted to central sewer.	OSTDS Phase Out	Planned	TBD	153	0	49	$4,313,251	Not provided	Not provided	Not provided	N/A	Structural	2017
City of Longwood	SJRWMD/ DEP	L-12	East Longwood Septic Tank Abatement–Phase 1 project	118 septic tanks will be removed and converted to central sewer.	OSTDS Phase Out	Planned	TBD	83	0	33	$3,123,424	Not provided	Not provided	Not provided	N/A	Structural	2017

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
City of Longwood	N/A	L-13	Credits for Missing BMPs	BMPs missing from model.	Stormwater System Rehabilitation	Completed	N/A	162	14	N/A	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017
City of Longwood	SJRWMD/ DEP	L-14	South Longwood Septic Tank Abatement– Phase 2 project	50 septic tanks will be removed and converted to central sewer.	OSTDS Phase Out	Completed	June 2018	105	0	20	$1,131,479	N/A	City of Longwood/ SJRWMD/ DEP	$1,131,479.00	NF010	Structural	2018

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	2,191	323
Required reductions	1,120	181
Remaining reductions	-1,071 (credit)	-142 (credit)

Table B-6. City of Maitland projects

TBD = To be determined; N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
City of Maitland	Not provided	M-02	Lake Gem/Park Lake COOP BMP	Construct 2nd-generation baffle box	Baffle Boxes–2nd Generation	Canceled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Structural	2017
City of Maitland	Not provided	M-03	Lake Gem/Park Lake COOP BMP	Construct 2nd-generation baffle box	Baffle Boxes–2nd Generation	Canceled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Structural	2017
City of Maitland	Not provided	M-04	Lake Gem/Park Lake COOP BMP	Construct 2nd-generation baffle box	Baffle Boxes–2nd Generation	Canceled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Structural	2017
City of Maitland	Not provided	M-05	Lake Gem/Park Lake COOP BMP	Construct 2nd-generation baffle box	Baffle Boxes–2nd Generation	Canceled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Structural	2017
City of Maitland	Not provided	M-06	Lake Gem/Park Lake COOP BMP	Construct 2nd-generation baffle box	Baffle Boxes–2nd Generation	Canceled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Structural	2017
City of Maitland	Not provided	M-14	Horatio Avenue Infiltration Trench	Construct infiltration trenches.	Exfiltration Trench	Canceled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Structural	2017
City of Maitland	Not provided	M-16	Street Sweeping	Street sweeping once every 2 weeks of 71 miles.	Street Sweeping	Completed	N/A	311	283	N/A	N/A	$100,000	Not provided	Not provided	N/A	Nonstructural	2017

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
City of Maitland	Not provided	M-17	Education Efforts	Landscaping, irrigation, fertilizer, and pet waste ordinances; PSAs, presentations/ pamphlets, website, illicit discharge program.	Education Efforts	Completed	N/A	96	7	N/A	Not provided	Not provided	Not provided	Not provided	N/A	Nonstructural	2017
City of Maitland	Not provided	M-20	Park Lake Baffle Boxes	Construct 2nd-generation baffle box.	Baffle Boxes–2nd Generation	Canceled	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Structural	2017
City of Maitland	Not provided	M-21	Minnehaha Circle Baffle Box	Construct 2nd-generation baffle box.	Baffle Boxes–2nd Generation	Completed	2014	0	0	8	Not provided	Not provided	Not provided	Not provided	N/A	Structural	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	407	290
Required reductions	646	137
Remaining reductions	239	-153 (credit)

Table B-7. City of Orlando projects

TBD = To be determined; N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
City of Orlando	N/A	ORL-19	Street Sweeping	Sweep twice/month. 8,371.95 cubic yards (or 226,042 cubic feet) of material collected.	Street Sweeping	Completed	N/A	119	90	N/A	N/A	N/A	Stormwater Utility	N/A	N/A	Nonstructural	2017
City of Orlando	N/A	ORL-25	Educational Component	FYN, ordinances (fertilizer, landscape, irrigation, pet waste), PSAs, pamphlets, presentations, website, Illicit Discharge Program.	Education Efforts	Completed	N/A	17	2	N/A	$51,500	N/A	Stormwater Utility	$51,500	N/A	Nonstructural	2017
City of Orlando	DEP	ORL-26	Lake Concord Alum Treatment and Baffle Box	Construct alum injection system into existing box culvert on North Hughey Avenue to treat runoff from 2 sub-basins in downtown Orlando area.	Alum Injection System	Completed	2014	5	1	88	TBD	$9,141	DEP	$291,323	TBD	Structural	2017
City of Orlando	N/A	ORL-29	Catch Basin Clean Out	Inlet baskets–207 cubic yards of material collected.	BMP Clean Out	Completed	N/A	4	3	N/A	N/A	N/A	Stormwater Utility	N/A	N/A	Nonstructural	2017
City of Orlando	N/A	ORL-30	BMP Clean Out	101.2 cubic yards of material collected.	BMP Clean Out	Completed	N/A	2	1	N/A	N/A	N/A	Stormwater Utility	N/A	N/A	Nonstructural	2017
City of Orlando	DEP	ORL-31	Lake Concord Alum Treatment and Baffle Box	Construct 2nd-generation baffle box on West Concord Street to treat runoff from residential and industrial area; 16.5 cubic yards of material collected.	Baffle Boxes–2nd Generation	Completed	2014	0	0	78	TBD	TBD	DEP	$259,560	TBD	Structural	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	147	97
Required reductions	57	14
Remaining reductions	-90 (credit)	-83 (credit)

Table B-8. City of Oviedo projects

TBD = To be determined; N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
City of Oviedo	Not provided	OV-01	Aulin Regional Stormwater Pond	Aulin Regional Stormwater Pond.	Wet Detention Pond	Completed	2013	2	0	3	Not provided	Not provided	Not provided	Not provided	N/A	Structural	2017
City of Oviedo	Not provided	OV-03	Sweetwater Creek Project	Sweetwater Creek project.	Dry Detention Pond	Completed	Not provided	87	19	32	Not provided	Not provided	Not provided	Not provided	N/A	Structural	2017
City of Oviedo	City of Winter Springs/ Seminole County	OV-04	Solary Canal Stormwater Treatment Area (STA)–missing from model	Regional stormwater treatment facility consisting of 8.0-acre wet pond and 4.8-acre wetland.	Regional Stormwater Treatment	Completed	2011	730	147	1,471	$1,700,000	$25,000	SJRWMD Grant	$1,700,000	N/A	Structural	2017
City of Oviedo	Not provided	OV-05	Street Sweeping	528,111 lbs/yr of material collected.	Street Sweeping	Completed	N/A	244	152	N/A	Not provided	Not provided	Not provided	Not provided	N/A	Nonstructural	2017
City of Oviedo	Not provided	OV-06	Education Efforts	FYN; landscape, irrigation, and pet waste ordinances; illicit discharge program, Adopt A Pond Program, Fats Oils and Grease ordinance.	Education Efforts	Completed	N/A	1,282	103	N/A	Not provided	Not provided	Not provided	Not provided	N/A	Nonstructural	2017
City of Oviedo	Not provided	OV-08	Inlets and Pipe Cleaning	Routine cleaning of inlets and pipes–435 lbs/yr of material collected.	BMP Clean Out	Completed	N/A	0	0	N/A	Not provided	Not provided	Not provided	Not provided	N/A	Nonstructural	2017
City of Oviedo	Not provided	OV-09	Aulin Avenue North	Construct stormwater conveyance system and treatment area.	Bioswales	Planned	TBD	3	0	3	$50,000	Not provided	Not provided	Not provided	N/A	Structural	2017
City of Oviedo	Not provided	OV-10	Oviedo Regional Pond	Construct retention pond to receive and treat drainage from commercial sites and treat surrounding runoff prior to being discharged to Sweetwater Creek.	Wet Detention Pond	Planned	TBD	192	35	95	Not provided	Not provided	Not provided	Not provided	N/A	Structural	2017
City of Oviedo	N/A	OV-11	Credits for Missing BMPs	BMPs missing from model.	Stormwater System Rehabilitation	Completed	N/A	454	27	N/A	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017
City of Oviedo	N/A	OV-12	Magnolia Ave.	Sweetwater Creek water quality analysis and nutrient separator box install at culvert.	Baffle Boxes–2nd Generation	Planned	2021	33	2	32	$400,000	TBD	TBD	TBD	N/A	Structural	2017
City of Oviedo	TBD	OV-13	Phosphorus Removal Project(s)	Projects to achieve additional TP reductions–will be provided for first annual progress report.	Stormwater System Rehabilitation	Planned	TBD	TBD	32	TBD	TBD	TBD	TBD	TBD	N/A	TBD	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	3,027	517
Required reductions	4,705	1,035
Remaining reductions	1,678	518

Table B-9. City of Sanford projects

TBD = To be determined; N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
City of Sanford	N/A	S-01	Street Sweeping	Weekly street sweeping–removes 17,347 cubic feet of material annually.	Street Sweeping	Completed	N/A	426	267	N/A	N/A	$23,256	Stormwater Utility	$23,256	N/A	Nonstructural	2017
City of Sanford	N/A	S-02	Education Efforts	FYN program; pet waste, irrigation, and fertilizer ordinances; PSAs, and Illicit Discharge Program.	Education Efforts	Completed	N/A	1,171	132	N/A	N/A	$2,000	Stormwater Utility	$2,000	N/A	Nonstructural	2017
City of Sanford	TBD	S-04	Cameron Baffle Box	Install 2nd-generation baffle box.	Baffle Boxes–2nd Generation	Planned	TBD	261	24	242	$500,000	$10,000	TBD	TBD	N/A	Structural	2017
City of Sanford	TBD	S-05	Pine Way Baffle Box	Install 2nd-generation baffle box.	Baffle Boxes–2nd Generation	Planned	TBD	490	43	N/A	$750,000	$15,000	TBD	TBD	N/A	Structural	2017
City of Sanford	DEP	S-06	WWTF Reclaim Water Nutrient Reduction	Upgrade to WWTF treatment process that will reduce concentration of TN from 20 mg/L to 4 mg/L and TP from 4 mg/L to 1 mg/L in reclaimed water. 1 million gallons per day (mgd) delivered to Jesup Basin–0.29 mgd to Site 10 and 0.71 mgd for irrigation.	WWTF Nutrient Reduction	Underway	2018	10,966	2,056	3,800	$16,000,000	$100,000	City/ DEP State Revolving Fund	N/A	N/A	Structural	2017
City of Sanford	N/A	S-07	Credits for Missing BMPs	BMPs missing from model.	Stormwater System Rehabilitation	Completed	N/A	353	327	N/A	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	13,667	2,849
Required reductions	4,297	1,330
Remaining reductions	-9,370 (credit)	-1,519 (credit)

Table B-10. City of Winter Park projects

TBD = To be determined; N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
City of Winter Park	N/A	WP-34	Street Sweeping	Street sweeping twice/month of 130 miles–124,200 cubic feet of material collected annually.	Street Sweeping	Completed	N/A	433	301	0	Not provided	Not provided	Not provided	N/A	N/A	Nonstructural	2017
City of Winter Park	N/A	WP-35	Education Efforts	FYN, landscape and fertilizer ordinances, pamphlets, presentations, website, Illicit Discharge Program.	Education Efforts	Completed	N/A	231	15	0	Not provided	Not provided	Not provided	N/A	N/A	Nonstructural	2017
City of Winter Park	DEP	WP-40	Park North Exfiltration	Exfiltration trench.	Exfiltration Trench	Completed	2014	10	1	9	$703,000	$2,500	DEP	$421,000	GO340	Structural	2017
City of Winter Park	DEP	WP-41	Canton Avenue Outfall Retrofit	Suntree baffle box.	Baffle Boxes–2nd Generation	Completed	2013	6	0	23	$129,000	$1,000	DEP	$77,000	GO337	Structural	2017
City of Winter Park	DEP	WP-44	Howard Drive Outfall Retrofit	Continuous deflective separation (CDS), detention, Beemats.	Hydrodynamic Separators	Completed	2015	1	0	29	$411,000	$1,500	DEP	$249,000	GO354	Structural	2017
City of Winter Park	N/A	WP-45	West Fawsett Road Outfall Retrofit	CDS.	Hydrodynamic Separators	Completed	2015	0	0	22	$50,000	$1,500	Self-Funded	$50,000	N/A	Structural	2017
City of Winter Park	N/A	WP-46	Dixie Parkway Outfall No. 3	Exfiltration.	Exfiltration Trench	Planned	2017	40	3	22	$300,000	$1,500	Self-Funded	$300,000	N/A	Structural	2017
City of Winter Park	Orange County	WP-47	Lake Killarney Sediment Phosphorus Deactivation	Alum–whole lake, partnered with Orange County.	Alum Injection System	Underway	2017	TBD	TBD	N/A	$340,000	N/A	Self-Funded	$340,000	N/A	Structural	2017
City of Winter Park	N/A	WP-48	Howell Branch Pond Modifications	Upgrade existing pond to provide treatment volume.	Wet Detention Pond	Underway	2017	22	1	28	$689,598	$2,000	Self-Funded	$689,598	N/A	Structural	2017
City of Winter Park	N/A	WP-49	Nicolet Avenue Regional Pond	Regional pond to treat discharges to Lake Killarney.	Wet Detention Pond	Underway	2017	TBD	TBD	108	$400,000	$1,500	Self-Funded	$400,000	N/A	Structural	2017
City of Winter Park	N/A	WP-50	Lee Road (SR 423) Stormwater Outfall Water Quality Structure with Diversion Structure	CDS device.	Hydrodynamic Separators	Underway	2018	0	0	25	$187,000	$1,500	Self-Funded	Not provided	N/A	Structural	2017
City of Winter Park	N/A	WP-51	Lake Sylvan Outfall Water Quality Structure with Diversion Structure	CDS device.	Hydrodynamic Separators	Underway	2018	0	0	10	$195,000	$1,500	Self-Funded	Not provided	N/A	Structural	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	743	321
Required reductions	932	171
Remaining reductions	189	-150 (credit)

Table B-11. City of Winter Springs projects

TBD = To be determined; N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
City of Winter Springs	City of Oviedo/ Seminole County	WS-01	Solary Canal STA–missing from model	Regional stormwater treatment facility consisting of 8.0-acre wet pond and 4.8-acre wetland.	Regional Stormwater Treatment (RST)	Completed	2011	730	147	1,471	$1,700,000	$25,000	SJRWMD Grant	$1,700,000	N/A	Structural	2017
City of Winter Springs	N/A	WS-06	Education Efforts–Update Local Codes and Ordinances (Fertilizer Rule, etc.), FYN	FYN, PSAs, distribution of pamphlets, presentations to various groups, and inspection program on illicit discharges.	Education Efforts	Completed	N/A	2,638	180	N/A	$4,000	$4,000	Stormwater Utility Fund	$4,000	N/A	Nonstructural	2017
City of Winter Springs	N/A	WS-07	Street Sweeping	Quarterly street sweeping–14,674 cubic feet of material collected.	Street Sweeping	Completed	N/A	486	316	N/A	$40,000	N/A	Stormwater Utility Fund	$40,000	N/A	Nonstructural	2017
City of Winter Springs	SJRWMD	WS-09	Solary Canal Water Quality Improvements	Retrofit outflow to include nutrient removal filtration system.	Wet Detention Pond	Completed	TBD	850	213	1,471	$200,000	TBD	Stormwater Utility Fund/ SJRWMD Grant	$207,564	N/A	Structural	2017
City of Winter Springs	N/A	WS-10	North Tuskawilla Outfall Drainage and Water Quality Improvements	Dual baffle boxes and repair of outfall weir structure.	Baffle Boxes–2nd Generation	Planned	TBD	14	3	20	$200,000	Not provided	Not provided	Not provided	N/A	Structural	2017
City of Winter Springs	N/A	WS-11	Credits for Missing BMPs	BMPs missing from model.	Stormwater System Rehabilitation	Completed	N/A	464	78	N/A	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	5,182	937
Required reductions	8,875	1,660
Remaining reductions	3,693	723

Table B-12. FDOT District 5 projects

N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
FDOT	Seminole County	FDOT-02	Soldiers Creek Alum Treatment Facility	Flow-through alum system along CR 427 in Seminole County to reduce nutrient loads in Soldiers Creek.	Alum Injection System	Completed	2016	N/A	80	5,692	Not provided	Not provided	Legislative Appropriation	Not provided	N/A	Structural	2017
FDOT	N/A	FDOT-03	FM: 240196-1 SR 17-92 Basin C and D	Proposed widening of SR 15/600 (US 17/92) from Shepard Road to Lake Mary Boulevard; drainage improvements and treatment of existing impervious area.	Dry Detention Pond	Underway	2019	55	16	48	Not provided	Not provided	Legislative Appropriation	Not provided	N/A	Structural	2017
FDOT	N/A	FDOT-05	Street Sweeping	Monthly street sweeping–48,581 cubic feet of material collected.	Street Sweeping	Completed	N/A	1,166	736	0	Not provided	Not provided	Legislative Appropriation	Not provided	N/A	Nonstructural	2017
FDOT	N/A	FDOT-06	Education Efforts	Public education efforts–1 %.	Education Efforts	Completed	N/A	46	4	0	Not provided	Not provided	Legislative Appropriation	Not provided	N/A	Nonstructural	2017
FDOT	N/A	FDOT-08	FM 240216-2 SR 46 (add lanes and reconstruct from Mellonville Avenue to east of SR 415)	Pond 2 (also known as Pond A).	Wet Detention Pond	Underway	2018	64	0	25	Not provided	Not provided	Legislative Appropriation	Not provided	N/A	Structural	2017
FDOT	N/A	FDOT-09	Credits for Missing BMPs	BMPs missing from model.	Stormwater System Rehabilitation	Completed	N/A	476	65	N/A	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	1,807	901
Required reductions	938	223
Remaining reductions	-869 (credit)	-678 (credit)

Table B-13. Orange County projects

N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
Orange County	N/A	OC-04	Street Sweeping	Street sweeping for total of 971.93 curb miles per year–113,000 lbs/yr of material collected.	Street Sweeping	Completed	N/A	6	3	0	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017
Orange County	N/A	OC-05	Education Efforts	FYN, ordinances (landscaping, irrigation, fertilizer, pet waste), PSAs, pamphlets, presentations, website, Illicit Discharge Program.	Education Efforts	Completed	N/A	219	8	0	Not provided	Not provided	Not provided	Not provided	N/A	Nonstructural	2017
Orange County	N/A	OC-08	Lake Burkett Inlet Baskets Phase I	Curb inlet basket installation, operation, and maintenance–20,000 lbs/yr collected.	Catch Basin Inserts/Inlet Filter Cleanout	Completed	N/A	1	1	130	$41,600	$4,680	Orange County Board of County Commissioners (BOCC)	Orange County BOCC	N/A	Nonstructural	2017
Orange County	N/A	OC-09	Lake Burkett Inlet Baskets Phase II	Curb inlet basket installation, operation, and maintenance–17,000 lbs/yr collected.	Catch Basin Inserts/Inlet Filter Cleanout	Canceled	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017
Orange County	N/A	OC-10	Lake Killarney Inlet Baskets	Curb inlet basket installation, operation, and maintenance–6,000 lbs/yr collected.	Catch Basin Inserts/Inlet Filter Cleanout	Completed	N/A	1	1	62	$38,500	$3,960	Orange County BOCC	Orange County BOCC	N/A	Nonstructural	2017
Orange County	City of Winter Park/ SJRWMD/ Orange County	OC-11	Lake Killarney Sediment Inactivation	Surface treatments with alum bind nutrients to sediments.	Alum Injection System	Completed	2018	227	141	239	$300,00	$0	SJRWMD	$99,000	Reimbursement Agreement #28089	Nonstructural	2017
Orange County	N/A	OC-12	Credits for Missing BMPs	BMPs missing from model.	Stormwater System Rehabilitation	Completed	N/A	548	28	N/A	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	1,002	182
Required reductions	736	70
Remaining reductions	-266 (credit)	-112 (credit)

Table B-14. Seminole County projects

TBD = To be determined; N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
Seminole County	DEP	SC-01	Cassel Creek RSF	RSF to treat water in sub-basin upstream.	Wet Detention Pond	Completed	7/1/2013	996	157	830	$2,126,000	$8,500	SJRWMD/ Seminole County ad valorem tax	$2,126,000	N/A	Structural	2017
Seminole County	City of Oviedo/ City of Winter Springs	SC-07	Solary Canal STA–missing from model	Regional stormwater treatment facility consisting of 8.0-acre wet pond and 4.8-acre wetland.	Regional Stormwater Treatment (RST)	Completed	12/1/2011	730	147	1,471	$1,700,000	$5,000	SJRWMD Grant	$1,700,000	N/A	Structural	2017
Seminole County	N/A	SC-09	Street Sweeping	Street sweeping monthly of 66.8 miles and quarterly of 160.2 miles–14,364 cubic feet of material collected annually.	Street Sweeping	Completed	N/A	383	238	N/A	$130,000	0	Ad valorem tax	$130,000	N/A	Nonstructural	2017
Seminole County	City of Winter Springs/ City of Altamonte/ City of Longwood/ City of Casselberry/ City of Oviedo/ City of Lake Mary/ City of Sanford	SC-10	Education Efforts	FYN, ordinances (irrigation, landscaping, pet waste, fertilizer), PSAs, pamphlets, presentations, website, Illicit Discharge Program.	Education Efforts	Completed	N/A	5,778	378	N/A	$65,000	N/A	Cities/Ad valorem tax	$28,000 cities, $37,000 Seminole County	N/A	Nonstructural	2017
Seminole County	SJRWMD/ FDOT	SC-12	Soldiers Creek at CR 427 RSF	RSF with alum to treat water in sub-basin upstream.	Alum Injection System	Completed	3/30/2017	18,863	2,230	5,692	$7,500,000	$75,000	FDOT/ SJRWMD/ Seminole County sales tax	$6,500,000 FDOT, $800,000 SJRWMD, $200,000 Seminole County	N/A	Structural	2017
Seminole County	N/A	SC-13	Bear Gully Creek Diversion to Mikler Pond	Design and construct RSF to treat water from Bear Gully Canal sub-basin.	Wet Detention Pond	Planned	TBD	9,121	1,004	1,098	$800,000	N/A	N/A	N/A	N/A	Structural	2017
Seminole County	DEP/ SJRWMD	SC-17	Black Hammock Creek Reclamation and Floodplain Treatment System	Reconnection of historical meander and floodplain from channelized Salt Creek; restoration, muck, and vegetation removal from Sweetwater Creek in Black Hammock area.	Hydrologic Restoration	Underway	12/1/2018	4,854	1,160	5,619	$2,200,000	N/A	DEP TMDL grant, Seminole County sales tax	$2,200,000	S0636	Structural	2017

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
Seminole County	N/A	SC-20	BMP Clean Out	Clean out of BMPs, 6,936 cubic feet of material per year.	BMP Clean Out	Completed	N/A	295	116	N/A	N/A	$20,000	Transportation Trust	$20,000	N/A	Nonstructural	2017
Seminole County	N/A	SC-25	5 Points Access Road	Master stormwater facility for 5 Points area.	Wet Detention Pond	Planned	TBD	213	39	N/A	N/A	N/A	N/A	N/A	N/A	Structural	2017
Seminole County	N/A	SC-26	Howell Creek Erosion Control Project	Erosion control measures on Howell Creek.	Shoreline Stabilization	Underway	3/1/2018	0	0	N/A	$1,300,000	$2,000	Seminole County sales tax	$1,300,000	N/A	Structural	2017
Seminole County	N/A	SC-27	Credits for Missing BMPs	BMPs missing from model.	Stormwater System Rehabilitation	Completed	N/A	1,786	0	N/A	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017
Seminole County	Altamonte/ Casselberry/ Lake Mary/ Longwood/ Oviedo/ DEP	SC-28	Seminole County Fertilizer Ordinance	Reduce nitrogen and phosphorus sources through public education and restrictions on usage.	Regulations, Ordinances, and Guidelines	Completed	2017	TBD	TBD	14,267	$250,000	$65,000	Ad valorem taxes/ Florida Friendly Landscaping Cost-Share/ DEP 319 grant	City– $28,000/yr County– $37,000/yr DEP– $100,000	NF034	Nonstructural	2018
Seminole County	N/A	SC-29	Lake of the Woods Retention Pond	Construct retention pond to capture untreated runoff into Lake of the Woods.	100 % Onsite Retention	Planned	TBD	TBD	TBD	TBD	$500,000	N/A	TBD	TBD	N/A	Structural	2018
Seminole County	N/A	SC-30	Bear Gully Lake Upstream Shallow Wetland Treatment System	Implement upstream shallow wetland treatment system.	Wetland Treatment	Planned	TBD	TBD	16	TBD	$370,000	N/A	TBD	TBD	N/A	Structural	2018

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	43,019	5,485
Required reductions	19,439	3,494
Remaining reductions	-23,580 (credit)	-1,991 (credit)

Table B-15. Site 10 projects

N/A = Not applicable; O&M = Operations and maintenance

Site 10–City of Sanford	N/A	Site10-01	Credits for Missing BMPs.	BMPs missing from model	Stormwater System Rehabilitation	Completed	N/A	1,150	146	N/A	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	1,150	146
Required reductions	774	148
Remaining reductions	-376 (credit)	2

Table B-16. Town of Eatonville projects

N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
Town of Eatonville	N/A	E-01	Street Sweeping	Monthly street sweeping of 3.7 miles.	Street Sweeping	Completed	N/A	0	0	N/A	Not provided	Not provided	Not provided	Not provided	N/A	Nonstructural	2017
Town of Eatonville	N/A	E-04	Public Education	Brochures, newsletters, public displays, workshops, Illicit Discharge Program.	Education Efforts	Completed	N/A	1	0	N/A	Not provided	Not provided	Not provided	Not provided	N/A	Nonstructural	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	1	0
Required reductions	19	5
Remaining reductions	18	5

Table B-17. Turnpike Authority projects

N/A = Not applicable; O&M = Operations and maintenance

Lead Entity	Partners	Project Number	Project Name	Project Description	Project Type	Project Status	Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Acres Treated	Cost	Cost Annual O&M	Funding Source	Funding Amount	DEP Contract Agreement Number	Structural, Nonstructural, or Trade	Year Added
Turnpike Authority	N/A	T-02	Monthly Street Sweeping of 48 Miles	Street sweeping to remove 60,885 lbs/yr of material.	Street Sweeping	Completed	N/A	24	14	N/A	Not provided	Not provided	Not provided	Not provided	N/A	Nonstructural	2017
Turnpike Authority	N/A	T-03	Education Efforts	No fertilizer on rights-of-way, educational signage, illicit discharge training.	Education Efforts	Completed	N/A	77	7	N/A	Not provided	Not provided	Not provided	Not provided	N/A	Nonstructural	2017
Turnpike Authority	N/A	T-04	Credits for Missing BMPs	BMPs missing from model.	Stormwater System Rehabilitation	Completed	N/A	902	110	N/A	N/A	N/A	N/A	N/A	N/A	Nonstructural	2017

Category	TN Load (lbs/yr)	TP Load (lbs/yr)
Total project reductions	1,003	131
Required reductions	1,031	258
Remaining reductions	28	127