

2014 PROGRESS REPORT

**for the St. Lucie River and Estuary
Basin Management Action Plan**

**prepared by the
Division of Environmental Assessment and Restoration
Water Quality Restoration Program
Florida Department of Environmental Protection
Tallahassee, FL 32399**

**in cooperation with the
St. Lucie River and Estuary
Technical Stakeholders**

October 2014

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This 2014 Progress Report for the St. Lucie River and Estuary Basin Management Action Plan 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 cooperation with the St. Lucie River and Estuary stakeholders.



North St. Lucie River Water Control District

Hobe St. Lucie Conservancy District

Pal Mar Water Control District

Troup Indiantown Water Control District

Copper Creek Community Development District

Tradition Community Development District

Verano Community Development District

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LIST OF ACRONYMS AND ABBREVIATIONS

ArcNLET	ArcGIS-Based Nitrate Load Estimation Toolkit (model)
BMAP	Basin Management Action Plan
BMP	Best Management Practice
BOD	Biochemical Oxygen Demand
CDD	Community Development District
CDS	Continuous Deflective Separation
Department	Florida Department of Environmental Protection
DO	Dissolved Oxygen
EMC	Event Mean Concentration
EPA	United States Environmental Protection Agency
EWIP	Eastern Watershed Improvement Project
FDACS	Florida Department of Agriculture and Consumer Services
FDOT	Florida Department of Transportation
FYN	Florida Yards and Neighborhoods
HWTT	Hybrid Wetland Treatment Technology
lbs/yr	Pounds Per Year
mg/L	Milligrams per Liter
MS4	Municipal Separate Storm Sewer System
MT/yr	Metric Tons per Year
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NSLRWCD	North St. Lucie River Water Control District
NTU	Nephelometric Turbidity Units
PSA	Public Service Announcement
SFWMD	South Florida Water Management District
SLRIT	St. Lucie River Issues Team
SLRWPP	St. Lucie River Watershed Protection Plan
STA	Stormwater Treatment Area
SU	Standard Units
TMDL	Total Maximum Daily Load
TN	Total Nitrogen
TP	Total Phosphorus
WBID	Waterbody Identification
WaSh	Watershed (model)
WCD	Water Control District
WCS	Water Control Structure

SUMMARY

TOTAL MAXIMUM DAILY LOADS

The St. Lucie River and Estuary Basin Management Action Plan was adopted in June 2013 to implement the nutrient TMDLs within the basin. The BMAP includes stormwater management strategies or projects that have been put in place since 2000 or will be implemented by the responsible entities during the first five years of implementation (June 2013–June 2018). This 2014 Progress Report is the first annual progress report for the St. Lucie River and Estuary BMAP, and it describes the implementation activities that occurred during the reporting period from June 11, 2013 (BMAP adoption), through June 30, 2014.

ACCOMPLISHMENTS DURING THE REPORTING PERIOD

During the reporting period, the city of Fort Pierce completed one project, the city of Stuart completed one project, Florida Department of Transportation District 4 completed two projects in conjunction with Martin County, Martin County completed one project, and the town of Sewall's Point completed two projects. The total nitrogen (TN) reductions associated with septic tank phaseouts within the city of Port St. Lucie, city of Stuart, and Martin County were quantified during the reporting period. The city of Stuart was able to quantify the reductions associated with several completed projects that were previously not quantified in the BMAP. In addition, the reductions associated with Florida Department of Agriculture and Consumer Services enrollment of agricultural producers in best management practices was quantified. These projects resulted in an estimated reduction of 160,511.2 pounds per year (lbs/yr) of TN and 25,112.3 lbs/yr of total phosphorus (TP). These reductions are in addition to those projects given credit before BMAP adoption. Therefore, the total reductions to date are 477,789 lbs/yr of TN and 130,542 lbs/yr of TP, which are greater than the required reductions in the first BMAP iteration of 316,024.2 lbs/yr of TN and 121,249.8 lbs/yr of TP. These reductions, in addition to those shown as completed in the BMAP, equal 45.4% of the TN required reductions and 32.3% of the TP required reductions. **Figure ES-1** and **Figure ES-2** shows the progress towards the load reductions for the TN and TP TMDLs in the St. Lucie River and Estuary Basin.

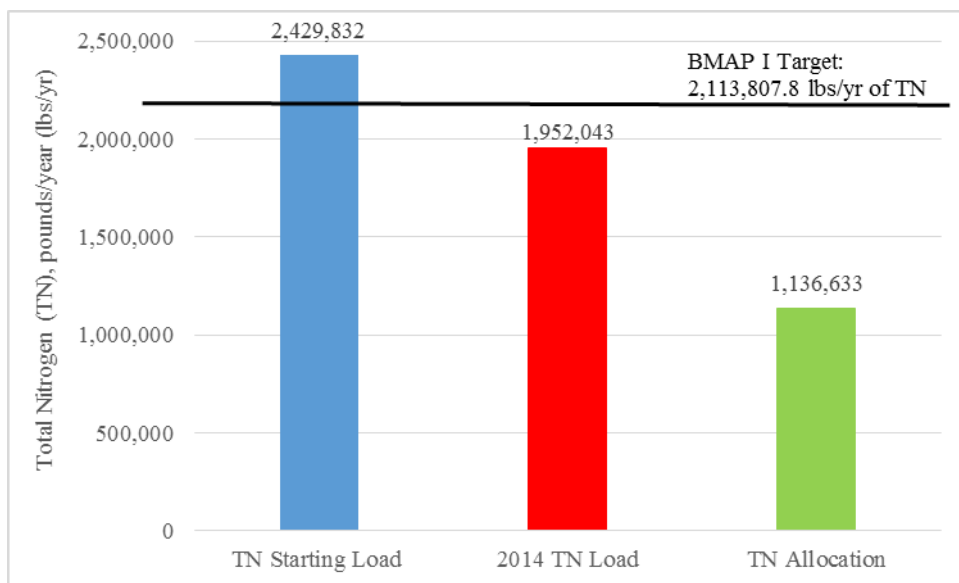


FIGURE ES-1: PROGRESS TOWARDS THE ST. LUCIE RIVER AND ESTUARY TN TMDL THROUGH JUNE 30, 2014

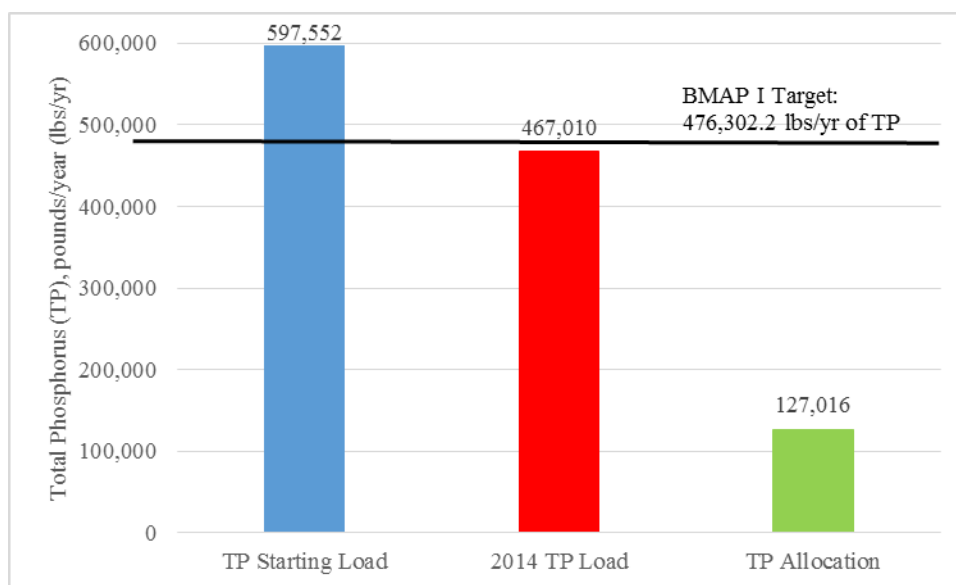


FIGURE ES-2: PROGRESS TOWARDS THE ST. LUCIE RIVER AND ESTUARY TP TMDL THROUGH JUNE 30, 2014

WATER QUALITY EVALUATION

The Department conducted an analysis of TN and TP data collected by the South Florida Water Management District at the Roosevelt Bridge, which is the TMDL compliance point, from 2000–2014. In all years except 2014, the TN TMDL (0.72 milligrams/liter [mg/L]) was exceeded. For all of the years analyzed, the TP TMDL (0.081 mg/L) was exceeded. Although the targets have not been achieved, TN and TP have decreased over time at this station.

Section 1: INTRODUCTION

1.1 PURPOSE OF THE REPORT

This is the first annual progress report for the St. Lucie River and Estuary Basin Management Action Plan. **Section 2** describes the accomplishments during the period from June 11, 2013 (BMAP adoption), through June 30, 2014. **Section 3** summarizes the evaluation of progress towards achievement of the Total Maximum Daily Load. A summary of planned efforts for the upcoming year (July 1, 2014, through June 30, 2015) and management strategies for the second BMAP iteration are included in **Section 4**.

1.2 ST. LUCIE RIVER AND ESTUARY BASIN

The St. Lucie River and Estuary Basin is located in southeast Florida in Martin, St. Lucie, and Okeechobee Counties (**Figure 1**). The St. Lucie Estuary is a major tributary to the southern Indian River Lagoon. The basin is an economically important area where water quality is affected by freshwater runoff from agricultural and urban sources in the watershed, as well as from Lake Okeechobee.

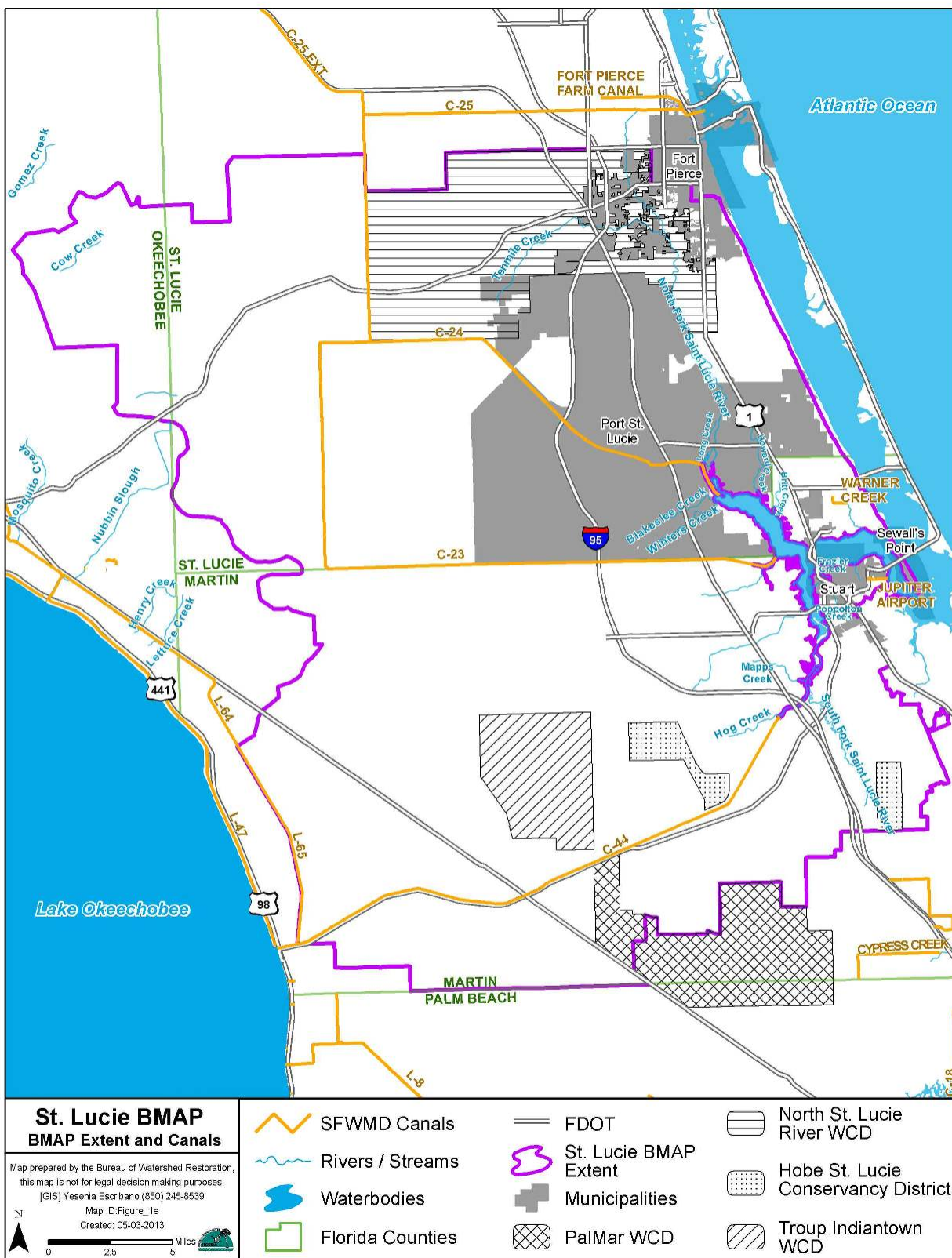


FIGURE 1: ST. LUCIE RIVER AND ESTUARY BASIN

1.3 ST. LUCIE RIVER AND ESTUARY TMDLS

TMDLs are water quality targets that are based on state water quality standards for specific pollutants, such as excessive nitrogen and phosphorus. The Florida Department of Environmental Protection identified nine segments with waterbody identification (WBID) numbers in the St. Lucie River and Estuary Basin as impaired by nutrients. This determination was made based on concentrations of chlorophyll-*a*, dissolved oxygen (DO), and/or biochemical oxygen demand (BOD) in each of the WBIDs.

In March 2009, the Department adopted the St. Lucie Basin TMDL for total phosphorus (TP), total nitrogen (TN), and BOD. **Table 1** lists the TMDLs and pollutant load allocations adopted by rule for the WBIDs in the St. Lucie River and Estuary Basin. TMDL loads in upstream WBIDs were calculated based on achieving the same target concentrations (0.72 milligrams per liter [mg/L] for TN and 0.081 mg/L for TP) as in the St. Lucie Estuary. The TMDLs were used as the basis for the BMAP targets and allocation calculations.

TABLE 1: TMDLS IN THE ST. LUCIE RIVER AND ESTUARY BASIN

NPDES = National Pollutant Discharge Elimination System

WBID	WATERBODY	PARAMETER	ANNUAL TMDL TARGET (POUNDS OR [CONCENTRATION])	NPDES STORMWATER (% REDUCTION)	LOAD ALLOCATION (% REDUCTION)
3193	St. Lucie Estuary	TN	[0.720]	21.4%	21.4%
3193	St. Lucie Estuary	TP	[0.081]	41.3%	41.3%
3194	North Fork	TN	140,134	25.0%	25.0%
3194	North Fork	TP	15,765	42.2%	42.2%
3194	North Fork	BOD	[2.0]	74.0%	74.0%
3194B	North Fork	TN	103,747	28.8%	28.8%
3194B	North Fork	TP	11,672	58.1%	58.1%
3197	C-24 Canal	TN	348,957	51.8%	51.8%
3197	C-24 Canal	TP	39,258	72.2%	72.2%
3197	C-24 Canal	BOD	[2.0]	33.3%	33.3%
3200	C-23 Canal	TN	242,202	51.7%	51.7%
3200	C-23 Canal	TP	27,248	78.6%	78.6%
3210	South Fork	TN	24,463	38.4%	38.4%
3210	South Fork	TP	2,752	57.2%	57.2%
3210A	South Fork	TN	90,471	47.1%	47.1%
3210A	South Fork	TP	10,178	61.8%	61.8%
3211	Bessey Creek	TN	29,981	23.9%	23.9%
3211	Bessey Creek	TP	3,373	51.2%	51.2%
3218	C-44 Canal	TN	242,929	51.2%	51.2%
3218	C-44 Canal	TP	27,330	55.0%	55.0%
3218	C-44 Canal	BOD	[2.0]	69.7%	69.7%

1.4 RESPONSIBLE PARTIES AND KEY STAKEHOLDERS

The St. Lucie River and Estuary BMAP identified municipal separate storm sewer systems (MS4s), urban nonpoint sources, and agricultural sources of TN and TP in the basin. Those entities that are responsible for achieving the load reductions are as follows:

- *Agriculture.*
- *City of Fort Pierce.*
- *City of Port St. Lucie.*
- *City of Stuart.*
- *Copper Creek Community Development District (CDD).*
- *Florida Department of Transportation (FDOT) District 4.*
- *Florida Turnpike.*
- *Hobe St. Lucie Conservancy District.*
- *Martin County.*
- *North St. Lucie River Water Control District (WCD).*
- *Okeechobee County.*
- *Pal Mar WCD.*
- *St. Lucie County.*
- *Town of Sewall's Point.*
- *Tradition CDD.*
- *Troup-Indiantown WCD.*
- *Verano CDD.*

In addition to these entities, the Florida Department of Agriculture and Consumer Services (FDACS), Department, South Florida Water Management District (SFWMD), Florida Fruit and Vegetable Association, Florida Oceanographic Society, and Harbor Branch Oceanographic Institute are integral partners in the St. Lucie River and Estuary BMAP process.

1.5 BMAP ALLOCATIONS

When determining the allocations during the BMAP process, entities whose total TN and TP loads were less than 0.5% of the total starting load for both TN and TP were identified and considered *de minimus*. **Table 2** presents the TN and TP starting loads for all of the responsible entities, and the shaded cells signify the *de minimus* load contributions. Seven entities were considered *de minimus*: Copper Creek CDD, Okeechobee County, Pal Mar WCD, Tradition CDD, Sewall's Point, Turnpike, and Verano CDD. Combined, they contribute approximately 1% of the total load for TN and 1% of the total load for TP. The *de minimus* entities were not assigned an allocation for either TN or TP for the first phase of the BMAP, and the loads associated with these entities were not reallocated to the other stakeholders in the basin. The *de minimus* status is only for the first BMAP iteration and will be reviewed with each subsequent BMAP cycle.

TABLE 2: TN AND TP *DE MINIMUS* DETERMINATION

ENTITY	TN STARTING LOAD (POUNDS PER YEAR [LBS/YR])	% OF TOTAL TN STARTING LOAD	TP STARTING LOAD (LBS/YR)	% OF TOTAL TP STARTING LOAD
Agriculture	1,563,122	70.6%	390,312	72.8%
North St. Lucie River WCD	197,403	8.9%	45,884	8.6%
Port St. Lucie MS4	156,481	7.1%	35,016	6.5%
Martin County MS4	100,813	4.6%	22,369	4.2%
Troup-Indiantown WCD	62,219	2.8%	12,623	2.4%
Hobe St. Lucie Conservancy District	24,193	1.1%	5,252	1.0%
St. Lucie County Non-MS4	23,760	1.1%	6,072	1.1%
St. Lucie County MS4	18,114	0.8%	4,127	0.8%
Fort Pierce MS4	17,041	0.8%	3,879	0.7%
Stuart MS4	13,998	0.6%	3,106	0.6%
FDOT District 4 MS4	12,514	0.6%	2,542	0.5%
Pal Mar WCD – <i>de minimus</i>	6,780	0.3%	1,910	0.4%
Tradition CDD – <i>de minimus</i>	7,089	0.3%	1,012	0.2%
Turnpike – <i>de minimus</i>	4,777	0.2%	975	0.2%
Okeechobee County – <i>de minimus</i>	3,305	0.1%	925	0.2%
Sewall's Point MS4 – <i>de minimus</i>	1,771	0.1%	384	0.1%
Verano CDD – <i>de minimus</i>	257	0.0%	63	0.0%
Copper Creek CDD – <i>de minimus</i>	14	0.0%	3	0.0%

The BMAP provides for phased implementation, which allows for the implementation of projects designed to achieve incremental reductions, while simultaneously monitoring and conducting studies to better understand the water quality dynamics in the watershed. The total required reductions from the TMDLs are spread over a 15-year period. For this first BMAP iteration, the stormwater entities are required to achieve 30% of the total required reductions, which are 316,024.2 lbs/yr or 143.4 metric tons per year (MT/yr) of TN and 121,249.8 lbs/yr (55.0 MT/yr) of TP, over a five-year period. The required TN and TP reductions are shown in **Table 3** and **Table 4**, respectively.

TABLE 3: TN ALLOCATIONS AND TOTAL REQUIRED REDUCTIONS

- = Empty cell/no data

ENTITY	TN ALLOCATION (LBS/YR)	TN ALLOCATION (METRIC TONS [MT]/YR)	TOTAL TN REQUIRED REDUCTION (LBS/YR)	TOTAL TN REQUIRED REDUCTION (MT/YR)
Agriculture	750,198	340.28	812,924	368.74
FDOT District 4	7,408	3.36	5,106	2.32
Fort Pierce MS4	10,562	4.79	6,479	2.94
Hobe St. Lucie Conservancy District	14,731	6.68	9,462	4.29
Martin County MS4	68,655	31.14	32,158	14.59
North St. Lucie River WCD	109,557	49.69	87,846	39.85
Port St. Lucie MS4	103,380	46.89	53,101	24.09
St. Lucie County MS4	11,386	5.16	6,728	3.05
St. Lucie County Non-MS4	14,394	6.53	9,756	4.43
Stuart MS4	9,238	4.19	4,760	2.16
Troup-Indiantown WCD	37,125	16.84	25,094	11.38
Copper Creek CDD – <i>de minimus</i>	-	-	-	-
Okeechobee County MS4 – <i>de minimus</i>	-	-	-	-
Pal Mar WCD – <i>de minimus</i>	-	-	-	-
Sewall's Point MS4 – <i>de minimus</i>	-	-	-	-
Tradition CDD – <i>de minimus</i>	-	-	-	-
Turnpike – <i>de minimus</i>	-	-	-	-
Verano CDD – <i>de minimus</i>	-	-	-	-
TOTAL	1,136,633	515.57	1,053,414	477.82

TABLE 4: TP ALLOCATIONS AND TOTAL REQUIRED REDUCTIONS

- = Empty cell/no data

ENTITY	TP ALLOCATION (LBS/YR)	TP ALLOCATION (MT/YR)	TOTAL TP REQUIRED REDUCTION (LBS/YR)	TOTAL TP REQUIRED REDUCTION (MT/YR)
Agriculture	83,253	37.76	307,059	139.28
FDOT District 4	833	0.38	1,709	0.78
Fort Pierce MS4	1,186	0.54	2,693	1.22
Hobe St. Lucie Conservancy District	1,732	0.79	3,520	1.60
Martin County MS4	7,779	3.53	14,590	6.62
North St. Lucie River WCD	12,250	5.56	33,634	15.26
Port St. Lucie MS4	11,585	5.25	23,431	10.63
St. Lucie County MS4	1,278	0.58	2,849	1.29
St. Lucie County Non-MS4	1,572	0.71	4,500	2.04
Stuart MS4	1,044	0.47	2,062	0.94
Troup-Indiantown WCD	4,504	2.04	8,119	3.68
Copper Creek CDD – <i>de minimus</i>	-	-	-	-
Okeechobee County MS4 – <i>de minimus</i>	-	-	-	-
Pal Mar WCD – <i>de minimus</i>	-	-	-	-
Sewall's Point MS4 – <i>de minimus</i>	-	-	-	-
Tradition CDD – <i>de minimus</i>	-	-	-	-
Turnpike – <i>de minimus</i>	-	-	-	-
Verano CDD – <i>de minimus</i>	-	-	-	-
TOTAL	127,016	57.61	404,166	183.33

Section 2: ACCOMPLISHMENTS DURING THE REPORTING PERIOD

During the reporting period, the city of Fort Pierce completed one project, the city of Stuart completed one project, FDOT District 4 completed two projects in conjunction with Martin County, Martin County completed one project, and the town of Sewall's Point completed two projects. The TN reductions associated with septic tank phaseouts in the city of Port St. Lucie, city of Stuart, and Martin County were quantified during the reporting period. The city of Stuart was able to quantify the reductions associated with several completed projects that were previously not quantified in the BMAP. In addition, the reductions associated with FDACS enrollment of agricultural producers in best management practices (BMPs) was quantified. These projects resulted in an estimated reduction of 160,511.2 lbs/yr of TN and 25,112.3 lbs/yr of TP. The accomplishments over the past year are described in **Section 2.1** and **Section 2.2**, and the individual project tables are included in **Appendix A**.

2.1 ACTIVITIES BY ENTITY

2.1.1 AGRICULTURE

FDACS currently has five field staff in the SFWMD region who work with producers on BMP enrollment and implementation. Some of FDACS' activities include initial enrollment, follow-up to provide technical assistance, BMP cost-share, BMP implementation assurance visits, management of water quality- and water supply-related projects and contracts, and coordination with the SFWMD on agriculture-related permitting questions. These staff also participate in the development of the various BMAPs within the SFWMD region.

Landowners who sign Notices of Intent (NOIs) are agreeing to implement applicable BMPs on their enrolled properties. In the St. Lucie River and Estuary Basin, FDACS has a five-year enrollment goal of 193,304.4 acres (90%), which includes acreage in the agricultural areas of Hobe St. Lucie Conservancy District, North St. Lucie River WCD, Pal Mar WCD, and Troup-Indiantown WCD. While there already is significant enrollment within some of these WCDs, no new BMP enrollments occurred during the reporting period.

As of June 30, 2014, producers throughout the basin have submitted 229 NOIs representing 132,240.4 acres, or 62% of the adjusted agricultural acreage (**Table 5**). The implementation of these BMPs will result in an estimated reduction of 24,788.5 lbs/yr of TP and 108,158.2 lbs/yr of TN. FDACS' staff will work to enroll the remaining 61,064 acres in the next few years to meet their 90% goal (**Table 6**). However, errors in land use data, changes in land use over time from agriculture to urban, agricultural

lands not in production, and other factors may affect enrollment acreage. For example, citrus enrollment in the basin decreased by 10,855.7 acres during the first year of BMAP implementation, due to the loss of citrus production acreage. A decrease of 921 acres in Lake Okeechobee Protection Program enrollment resulted when these acres were reenrolled under the appropriate BMP manuals (*e.g.*, cow/calf manuals), which had not been adopted at the time of the initial enrollments. As reenrollment continues, acreages will shift from the Lake Okeechobee Protection Program category to commodity-specific BMP programs.

It is also important to note that more acres are enrolled in FDACS agricultural BMPs than are reported in this document. This is because a significant number of enrolled acres (about 20,000) are not classified as agricultural land use, even though they are part of an agricultural operation (*e.g.*, lands classified as wetlands that are part of a ranch). Only enrolled lands that fall within the mapped areas of agricultural land uses are included in the BMAP figures.

TABLE 5: AGRICULTURAL ACREAGE AND BMP ENROLLMENT FOR THE ST. LUCIE RIVER AND ESTUARY BMAP AREA

N/A = Not applicable

¹ FDACS staff-adjusted acreage for purposes of enrollment is based on a review of more recent aerial imagery in the basin and local staff observations.

² Some properties include pasture and other agricultural lands outside the operation footprint, on which BMPs are implemented—hence, the additional enrolled acres.

2004 SFWMD Land Use	2004 Acres	FDACS Adjusted Acres ¹	Related FDACS BMP Programs	Acreage Enrolled	Related NOIs
Pasture and Mixed Rangeland	152,299.6	151,232.9	Cow/Calf; Future (hay)	66,284.5	52
Row/Field/Mixed Crops	16,368.8	16,219.1	Vegetable/Agronomic Crops	6,784.8	10
Sod Farms	294.1	294.1	Statewide Sod	54.0	2
Horse Farm	784.4	814.2	Equine	28.5	1
Citrus	113,672.8	43,694.6	Ridge Citrus; Flatwoods Citrus ²	58,865.6	116
Fruit Orchards/Other Groves	60.5	51.3	Specialty Fruit and Nut	0.0	1
Tree Nurseries	480.1	480.1	Future Nursery; Specialty Fruit and Nut	38.8	N/A
Ornamentals	1,252.1	1,251.7	Container Nursery	183.1	46
Specialty Farms	132.6	132.6	Conservation Plan Rule	1.0	N/A
Dairies	404.5	404.5	Lake Okeechobee Protection Program	0.0	1
Cattle Feeding Operations	100.9	100.9	Conservation Plan Rule	N/A	N/A
Poultry Feeding Operations	106.8	106.8	Conservation Plan Rule	N/A	N/A

TABLE 6: AGRICULTURAL FUTURE ENROLLMENT GOALS FOR THE ST. LUCIE RIVER AND ESTUARY BMAP AREA

¹ See the discussion on BMP enrollment goals in Section 2.1.1.

Category	Acres
Total Adjusted Acres	214,782.7
Five-Year Enrollment Goal (90%)	193,304.4
Acreage Enrolled (as of June 30, 2014)	132,240.4
Remaining Acres to Enroll ¹	61,064.0

2.1.2 CITY OF FORT PIERCE

The city of Fort Pierce began construction of the Heathcote Botanical Gardens Treatment Train, also known as the Indian Hills Recreation Area Stormwater Improvements Project (Project FP-1), during the reporting period. These improvements include the expansion of the lake (**Figure 2**) and the construction of a stabilized coquina shell walking trail, bioswale, timber pedestrian bridge, and lake outfall structure. A floating littoral island (**Figure 3**) and an alum treatment plant will also be installed. Project construction began in April 2014 and is expected to be completed in June 2015. Construction is estimated at \$2,787,588. Fort Pierce received \$900,000 in TMDL grant money and \$510,000 in United States Environmental Protection Agency (EPA) Section 319(h) grant money to fund the project. The city of Fort Pierce also enacted a fertilizer ordinance on June 1, 2014 (Project FP-5).



Indian Hills Recreation Area Stormwater Improvements - Lake Expansion - 06/26/14

FIGURE 2: CITY OF FORT PIERCE INDIAN HILLS RECREATION AREA STORMWATER IMPROVEMENT PROJECT



Indian Hills Recreation Area Stormwater Improvements - First Floating Island Installed - 06/26/14

FIGURE 3: CITY OF FORT PIERCE FLOATING ISLAND INSTALLATION AT INDIAN HILLS RECREATION AREA STORMWATER IMPROVEMENT PROJECT

2.1.3 CITY OF PORT ST. LUCIE

The city of Port St. Lucie phased out 265 septic tanks from July 1, 2013, through June 30, 2014 (Project PSL-9). The total reductions associated with the phaseout will be calculated and provided in a future annual progress report. Previously, the city of Port St. Lucie phased out approximately 5,600 septic tanks, with an associated reduction of 34,206.5 lbs/yr TN. This reduction estimate was determined using the ArcGIS-Based Nitrate Load Estimation Toolkit (ArcNLET) model developed by Florida State University for the Department. As a result of the septic tank phaseout, the city met its full required reductions for TN.

The city of Port St. Lucie also passed a revised fertilizer ordinance and created an educational video and web page. It aired stormwater educational videos that were shown on PSLTB20 and YouTube (Project PSL-13). Additionally, the city commenced installing five second-generation baffle boxes (Projects PSL-25 through PSL-29) in May 2014, and completion is expected in November 2014.

St. Lucie West Services District, located within Port St. Lucie's city limits, plans to improve a wetland detention pond to increase retention time, which will increase nutrient reductions (Project PSL-30). Construction is anticipated to begin in November 2014, and completion is anticipated in March 2015. Nutrient reductions associated with this project will be calculated and provided in a future annual progress report.

2.1.4 CITY OF STUART

The Amerigo Avenue Drainage Improvements (Project S-16), completed in April 2014, include the construction of a dry detention pond to replace an existing dual pump flood control system, which previously provided no water quality treatment for the 9.9-acre drainage basin. The dry detention pond will provide one acre-foot of storage as well as water quality treatment for the drainage basin.

In October 2013, the city began Phase 1 of the Heart of Haney Creek wetland restoration project (Project S-17) to eradicate exotic vegetation, mainly Brazilian pepper plants, on 17 acres of a 53-acre tract of property. The property was purchased by the city in 2011 for conservation and is located within minutes of downtown Stuart. In October 2012, the city was awarded a Coastal Zone Management Program grant administered by the Department. The grant award was officially finalized in October 2012, and project work was completed in November 2013. The exotic vegetation was chipped and mulched on site utilizing a tracked machine outfitted with a cutter head attached to the boom. Approximately 11 acres of dense exotic vegetation were eradicated within the budget allowed by the grant. The ultimate goal of the project

is to provide stormwater treatment, ground water recharge, public trail access, and educational opportunities (**Figure 4**).

In addition, the city provided information to quantify reductions from existing baffle boxes (Project S-19) and continuous deflective separation (CDS) units (Project S-20) that were completed since January 1, 2000 (the start of the BMAP project collection period). The city also identified closed basins in its jurisdiction that do not discharge to the St. Lucie River and Estuary (Project S-18). Since these areas do not contribute a load to the river or estuary, the city received a nutrient reduction credit because its starting load included a load from these areas.

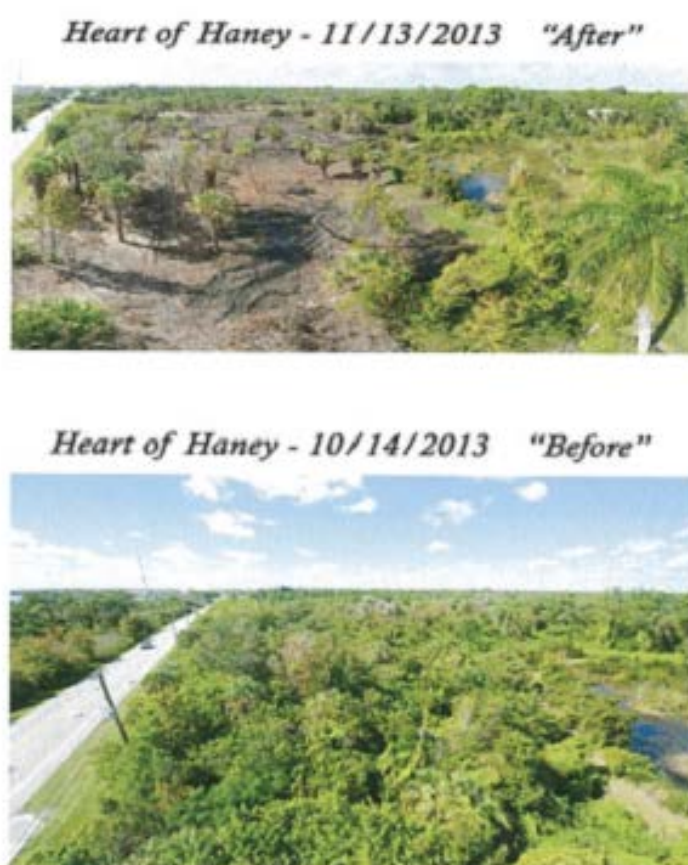


FIGURE 4: “BEFORE” AND “AFTER” PICTURES OF CITY OF STUART HEART OF HANEY CREEK PROJECT

2.1.5 FDOT DISTRICT 4

FDOT District 4 continued its street sweeping activities (Project FDOT-18) and educational efforts (Project FDOT-19). FDOT District 4 also completed the Indian Street Bridge project (Projects FDOT-20 and FDOT-21) in January 2014.

2.1.6 FLORIDA TURNPIKE AUTHORITY

The Florida Turnpike Authority was classified as a *de minimus* stakeholder in the first iteration of the BMAP. However, it has several ongoing projects in the St. Lucie River and Estuary Basin. Both dry detention ponds, Project 420735-1 Port St. Lucie Interchange Pond A (Project T-1) and Thomas B. Manuel Bridger North Pond (Project T-3), continued to operate as expected, as did Port St. Lucie Interchange Pond B, a wet retention pond (Project T-2).

2.1.7 HOBE ST. LUCIE CONSERVANCY DISTRICT

No changes were reported for the Hobe St. Lucie Conservancy District, and FDACS did not enroll any additional landowners in BMP programs during this reporting period. Hobe Sound Polo Club (Project HSL-1), a wet/dry detention project, continued to operate as designed.

2.1.8 MARTIN COUNTY

In May 2014, Martin County completed the Rio Water Quality Retrofit project (Project MC-29), which includes the installation of an exfiltration trench and second-generation baffle boxes (**Figure 5**). The exfiltration trench was installed within the county road's right-of-way along Northeast Rio and Sumner Avenues; Northeast Stuart, Bernard, Spencer, and Alice Streets; Northeast Waverly Terrace; and Northeast St. Lucie Boulevard to provide one inch of water quality treatment over an approximately 45-acre basin. The nutrient separating baffle boxes were placed at the east and west ends of Northeast River Terrace and the south end of the collector swale at Northeast St. Lucie Boulevard before water discharges directly into the St. Lucie River. This project received a TMDL grant in 2013 for \$240,000.

The Old Palm City Beemats project (Project MC-30) was also completed in September 2013. Beemats are a floating island technology. This pilot effort was installed at the Old Palm City Stormwater Treatment Area to assess the added water quality improvement from the technology. The county will gather water quality data to determine the nutrient reduction benefits of the project for the BMAP. Through this pilot program, the Ecosystem Restoration and Management Division (Ecosystem Division) and the Martin County Engineering Department's Field Operations Division will collectively determine the maintenance needs and assess the possibility of implementing this technology in other stormwater treatment areas (STAs) in the county to improve water quality. The Ecosystem Division purchased 11 Beemats totaling 3,667 square feet, or about 8,440 plants.

In addition, since 2000, Martin County has phased out 1,084 septic tanks, which removed 15,369.2 lbs/yr of TN. This reduction estimate was determined using the ArcNLET model developed by Florida State University for the Department.



FIGURE 5: MARTIN COUNTY RIO WATER QUALITY RETROFIT PROJECT

2.1.9 NORTH ST. LUCIE RIVER WATER CONTROL DISTRICT (NSLRWCD)

The Ideal Grove Hybrid Wetland Treatment Technology (HWTT) project (Project NSLRWCD-8) continued to operate and achieved slightly higher TN reductions and slightly lower TP reductions than previously reported. HWTT projects combine wetland and chemical treatment to achieve nutrient reductions. The project is funded by the SFWMD. There were changes in agricultural land uses within the NSLRWCD, mainly for citrus lands, reducing the acreage eligible for enrollment in FDACS BMPs. This change reduced the reductions associated with BMP implementation on 90% of the agricultural lands, and the reduction is reflected in the project table in **Appendix A** (Project NSLRWCD-6).

The district continued to collect water quality data on a quarterly basis, and this monitoring is included in the BMAP monitoring plan. The NSLRWCD's data from the reporting period are shown in **Table 7**.

2.1.10 PAL MAR WCD

Landowners enrolled in BMP programs continued to operate agricultural BMPs. No additional projects were reported at this time.

TABLE 7: NSLRWCD WATER QUALITY MONITORING DATA, JULY 2013–APRIL 2014

SU = Standard unit; NTU = Nephelometric turbidity unit

DATE	STATION	DO (MG/L)	TN (MG/L)	TP (MG/L)	pH (SU)	TURBIDITY (NTU)	NITRATE (MG/L)	NITRITE (MG/L)	TRANSPARENCY (FEET)	CHLOROPHYLL-A (MG/L)	SUSPENDED SOLIDS (MG/L)
July 2013	1	6.80	0.58	0.11	6.80	4.41	0.13	0.03	2.00	0.01	5.00
July 2013	2	6.76	1.20	0.34	7.00	8.35	0.26	0.03	1.50	0.01	14.60
July 2013	3	4.94	1.10	0.27	7.10	10.50	0.23	0.03	1.50	0.01	20.40
July 2013	4	4.26	1.70	0.46	6.90	11.40	0.26	0.03	1.50	0.01	24.60
July 2013	6	5.92	1.00	0.15	7.10	17.80	0.18	0.03	1.50	0.01	18.00
July 2013	7	5.64	1.40	0.39	7.00	5.04	0.21	0.03	2.00	0.01	9.50
July 2013	8	5.43	1.50	0.42	7.10	7.61	0.17	0.03	1.50	0.02	16.60
July 2013	9	5.22	1.40	0.63	6.90	5.66	0.11	0.03	1.75	0.02	12.60
October 2013	1	6.14	0.86	0.11	7.00	4.50	0.07	0.04	1.50	0.01	7.40
October 2013	2	5.08	0.60	0.18	7.30	4.46	0.20	0.07	3.00	0.01	6.30
October 2013	3	5.30	1.30	0.36	7.30	42.70	0.17	0.07	1.00	0.02	193.00
October 2013	4	4.20	0.76	0.12	7.20	12.30	0.22	0.18	2.00	0.01	30.10
October 2013	6	5.51	0.27	0.08	7.30	16.80	0.19	0.07	1.50	0.00	9.20
October 2013	7	3.82	0.52	0.20	7.30	2.41	0.22	0.18	2.00	0.00	5.00
October 2013	8	6.05	0.18	0.15	7.50	3.28	0.22	0.18	4.00	0.01	5.80
October 2013	9	4.59	0.75	0.19	7.10	4.01	0.16	0.07	1.50	0.00	9.30
January 2014	1	7.33	0.53	0.05	7.20	13.20	0.14	0.07	1.50	0.02	10.80
January 2014	2	9.81	0.35	0.07	7.50	24.90	0.23	0.18	1.00	0.01	6.50
January 2014	3	10.23	0.32	0.05	7.50	8.19	0.22	0.18	1.00	0.01	10.80
January 2014	4	8.16	0.54	0.10	7.50	4.79	0.22	0.18	2.00	0.01	27.40
January 2014	6	9.76	0.66	0.05	7.90	7.04	0.17	0.07	2.00	0.01	15.60
January 2014	7	6.61	0.28	0.05	7.30	1.74	0.12	0.01	6.00	0.00	5.00
January 2014	8	8.38	0.28	0.05	7.60	1.26	0.04	0.01	5.50	0.00	5.00
January 2014	9	8.67	0.03	0.05	7.70	3.48	0.05	0.01	1.50	0.02	8.20
April 2014	1	7.56	0.54	0.05	7.70	6.14	0.03	0.01	3.00	0.01	7.80
April 2014	2	6.34	0.48	0.12	7.40	6.84	0.06	0.01	2.50	0.03	10.30
April 2014	3	6.45	0.55	0.12	7.50	16.00	0.03	0.01	1.50	0.01	3.40
April 2014	4	4.01	0.44	0.05	7.30	4.04	0.03	0.01	3.00	0.00	5.00
April 2014	6	7.51	0.43	0.05	7.70	20.20	0.03	0.01	1.50	0.01	15.70
April 2014	7	3.62	0.28	0.10	7.30	1.68	0.06	0.01	6.00	0.01	5.20
April 2014	8	4.55	0.38	0.08	7.50	4.04	0.03	0.01	4.00	0.00	9.20
April 2014	9	6.11	0.32	0.09	7.60	3.47	0.09	0.01	1.50	0.01	7.20

2.1.11 ST. LUCIE COUNTY

St. Lucie County initiated construction of its White City–Citrus Seager Stormwater Improvement Project (Project SLC-9) (**Figure 6**). It includes the construction of a 4.01-acre detention lake and the installation of mechanisms (Pond Doctor™ type of BMP) to pump water through polyacrylamide “floc logs” that will be used to reduce erosion and nutrient loads. The stormwater conveyance system will also be upgraded. The project will be completed in December 2015 and is expected to cost \$1,862,859. The Department contributed \$500,000 towards the project through an EPA Section 319(h) grant.



FIGURE 6: ST. LUCIE COUNTY WHITE CITY–CITRUS SEAGER STORMWATER IMPROVEMENT PROJECT

2.1.12 TOWN OF SEWALL’S POINT

The town of Sewall’s Point completed the High Point Exfiltration project (Project SP-26), which eliminated an uncontrolled discharge outfall into the Indian River Lagoon/St. Lucie Estuary at the south end of the town. The project provides stormwater treatment through a 260-linear-foot exfiltration system with roadside swales installed within the existing town right-of-way (see **Figure 7**). The treated stormwater overflows out of the exfiltration system into an existing swale system that eventually discharges through a baffle box along West High Point Road.

The town also completed the Indialucie project (Project SP-30), which added treatment to a system that overflows a long, shallow weir directly into the Indian River Lagoon. The project provided additional stormwater treatment by adding 300 linear feet of exfiltration trenches (see **Figure 8**) on a waterfront lot that provides water quality treatment for the Indialucie subdivision. The subdivision was built in the 1960s without retention. The project also eliminated the flooding on North Sewall’s Point Road that happened regularly in the wet season. During the recent work, the town cleaned out the retention area and all storm

pipes throughout the system, added exfiltration under the retention area, and added wetland-type plants in the retention area.



FIGURE 7: TOWN OF SEWALL'S POINT HIGH POINT EXFILTRATION PROJECT UNDER CONSTRUCTION



FIGURE 8: TOWN OF SEWALL'S POINT INDIALUCIE PROJECT UNDER CONSTRUCTION

2.1.13 TROUP-INDIANTOWN WCD

Since all of the land within the district boundaries is agricultural, Troup-Indiantown WCD mailed letters to all landowners to sign up for a NOI for the appropriate FDACS BMP program. Additional information about the program was provided at the Troup-Indiantown WCD annual board meeting on June 16, 2014.

Producers, representing approximately 90% of the agricultural land in the WCD, have submitted NOIs for the relevant FDACS BMP programs. FDACS will begin to reach out to the remaining operations in this area to assist with enrollment.

2.2 SUMMARY OF ACCOMPLISHMENTS

Table 8 summarizes the projects completed during the first annual BMAP reporting period. These resulted in an estimated reduction of 160,511.2 lbs/yr of TN and 25,112.3 lbs/yr of TP. The reductions

are in addition to those projects given credit before BMAP adoption. Therefore, the total reductions to date are 477,789 lbs/yr of TN and 130,542 lbs/yr of TP, which are greater than the required reductions in the first BMAP iteration of 316,024.2 lbs/yr of TN and 121,249.8lbs/yr of TP. These reductions, in addition to those shown as completed in the BMAP, are 45.4% of the required TN reductions and 32.3% of the required TP reductions.

The progress towards the TMDL TN and TP load reductions in the St. Lucie River and Estuary Basin are shown in **Figure 9** and **Figure 10**, respectively. The first bar in these figures shows the baseline load for stormwater runoff. The second bar shows the current estimated loading with the implementation of projects. The third bar shows the total allocation for stormwater runoff to meet the TMDLs. The line shows the target for the first BMAP iteration.

TABLE 8: SUMMARY OF PROJECTS COMPLETED IN THE REPORTING PERIOD (JULY 1, 2013–JUNE 30, 2014) IN THE ST. LUCIE RIVER AND ESTUARY BASIN

* This project is located in the Mid Coastal subbasin, which is outside the current BMAP boundary. However, it will be considered for credit in the next BMAP iteration.
N/A = Not applicable

ENTITY	PROJECT NUMBER	PROJECT NAME	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
Agriculture	N/A	Agricultural BMP Enrollment through June 30, 2014	108,158.2	24,788.5
City of Fort Pierce	FP-5	Fertilizer Ordinance	85.2	19.4
City of Port St. Lucie	PSL-9	Water and Wastewater Expansion	34,206.5	Not quantified
City of Stuart	S-14	Neighborhood Initiated Sewer Expansion Program	1,340.7	Not quantified
City of Stuart	S-16	Amerigo Avenue Drainage Improvements	37.4	7.3
City of Stuart	S-18	Nondischarge Areas	1,038.2	233.3
City of Stuart	S-19	Baffle Boxes Throughout the City	10.8	10.5
City of Stuart	S-20	CDS Units Throughout the City	0.0	6.4
FDOT District 4	FDOT-20	FM# 230978-1 Indian Street Bridge (Pond East)	1.7	0.4
FDOT District 4	FDOT-21	FM# 230978-1 Indian Street Bridge (Pond West)	0.1	0.0
Martin County	MC-16	Septic to Central Sewer Conversions	15,396.2	Not quantified
Martin County	MC-21	FM# 230978-1 Indian Street Bridge (Pond East)	5.1	1.1
Martin County	MC-22	FM# 230978-1 Indian Street Bridge (Pond West)	0.2	0.1
Martin County	MC-29	Rio Water Quality Retrofit	162.9	36.1
Town of Sewall's Point	SP-16	Pedway/Greenway	6.2	1.4
Town of Sewall's Point	SP-26*	High Point Exfiltration	Not quantified	Not quantified
Town of Sewall's Point	SP-30	Indialucie – Exfiltration	61.8	7.8
Total	N/A	Total Reductions in Reporting Period	160,511.2	25,112.3

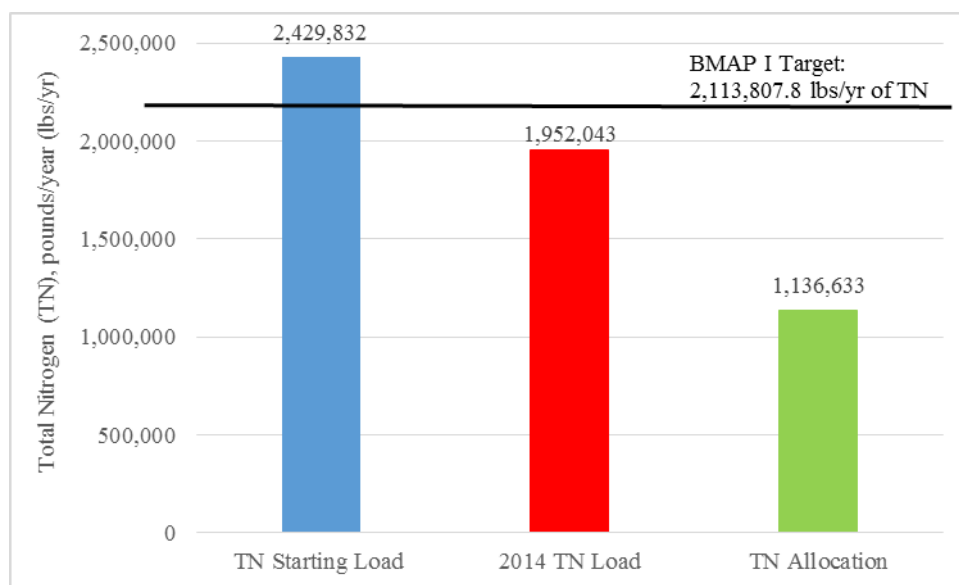


FIGURE 9: PROGRESS TOWARDS THE ST. LUCIE RIVER AND ESTUARY TN TMDL THROUGH JUNE 30, 2014

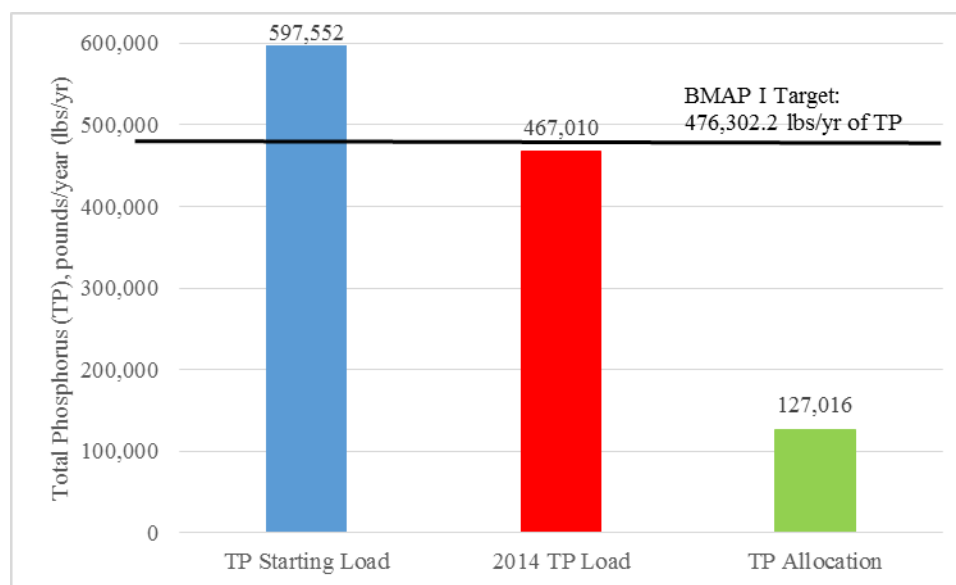


FIGURE 10: PROGRESS TOWARDS THE ST. LUCIE RIVER AND ESTUARY TP TMDL THROUGH JUNE 30, 2014

Section 3: WATER QUALITY EVALUATION

The goal of the TMDLs is to restore the St. Lucie River and Estuary Basin. The SFWMD monitors water quality data at Roosevelt Bridge (Station SE 03) for TN and TP. Roosevelt Bridge is the compliance point for the TMDL. **Table 9** lists the minimum, maximum, and arithmetic mean data for TN and TP from calendar years 2000 through 2014. **Figure 11** shows the yearly mean TN concentrations at the bridge. The red line indicates the TMDL value of 0.72 mg/L. In all years except 2014, the TMDL has been exceeded. **Figure 12** shows the yearly mean TP concentrations at the bridge. The red line indicates the TMDL value of 0.081 mg/L. In all years reported, the TMDL has been exceeded. A more detailed water quality analysis will be conducted and provided as part of the fourth annual progress report.

TABLE 9: TN AND TP DATA (2001–14) AT ROOSEVELT BRIDGE

YEAR	TN SAMPLE SIZE	TN MINIMUM (MG/L)	TN MAXIMUM (MG/L)	TN MEAN (MG/L)	TP SAMPLE SIZE	TP MINIMUM (MG/L)	TP MAXIMUM (MG/L)	TP MEAN (MG/L)
2000	15	0.418	1.423	0.829	15	0.116	0.25	0.1738
2001	12	-0.089	1.631	0.959	12	0.072	0.508	0.220
2002	12	0.317	1.380	0.883	12	0.095	0.418	0.177
2003	11	0.192	1.214	0.947	10	0.081	0.556	0.205
2004	12	0.479	2.688	1.141	12	0.074	0.579	0.229
2005	13	0.042	1.472	1.062	10	0.084	0.496	0.220
2006	12	0.670	1.675	1.116	12	0.086	0.355	0.1915
2007	12	0.476	1.605	0.895	12	0.099	0.384	0.2015
2008	12	0.554	1.847	0.833	12	0.103	0.285	0.1555
2009	12	0.375	2.215	0.879	12	0.091	0.299	0.184
2010	12	0.077	1.391	0.769	12	0.071	0.23	0.1335
2011	13	0.375	1.628	0.845	13	0.067	0.352	0.183
2012	12	0.403	1.600	0.770	12	0.078	0.391	0.157
2013	12	0.385	1.554	0.828	12	0.073	0.312	0.144
2014	6	0.426	0.733	0.553	6	0.09	0.154	0.113

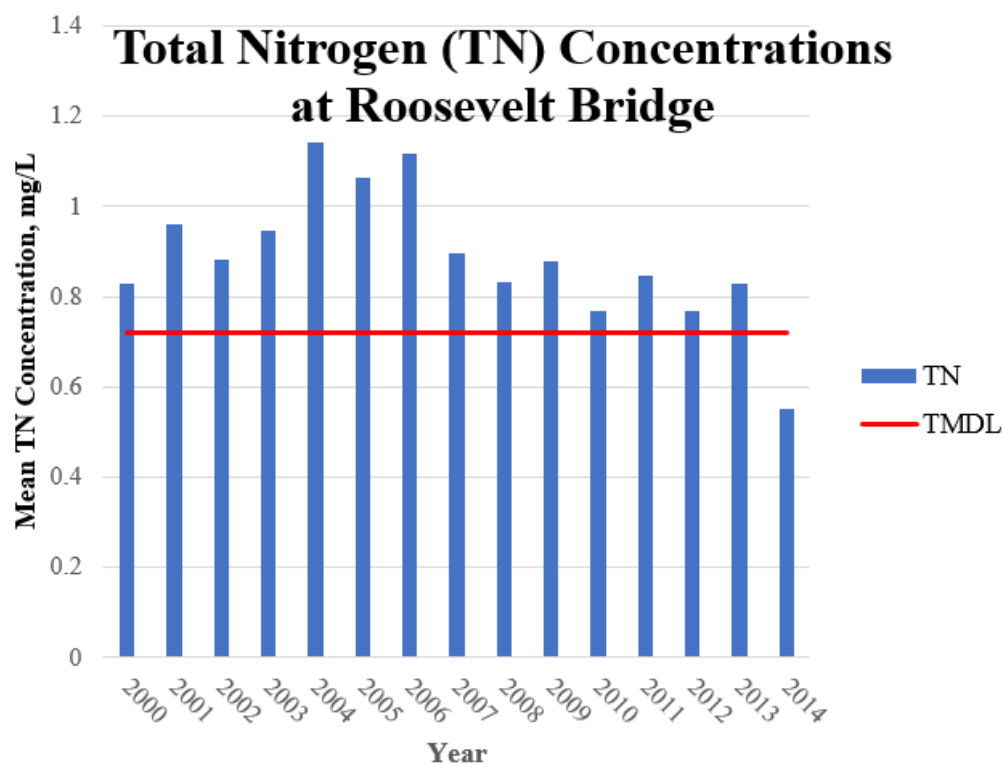


FIGURE 11: TN CONCENTRATIONS AT ROOSEVELT BRIDGE

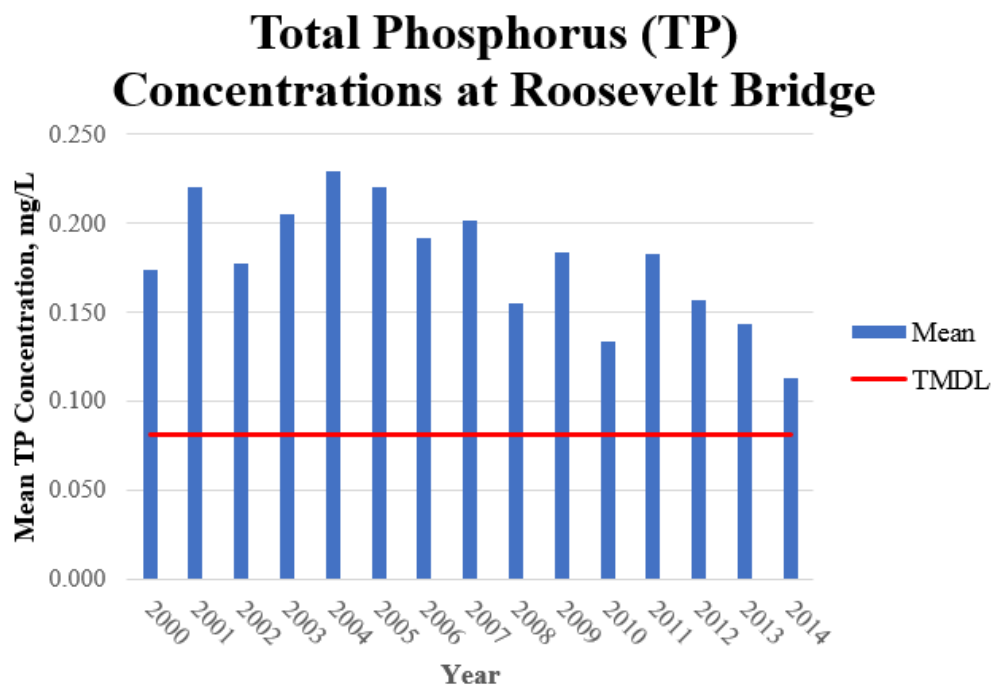


FIGURE 12: TP CONCENTRATIONS AT ROOSEVELT BRIDGE

Section 4 : UPCOMING ACTIVITIES

4.1 ACTIVITIES IN THE UPCOMING REPORTING PERIOD AND FUTURE PLANNING

The second annual progress report will encompass the period from July 1, 2014, through June 30, 2015. The activities that will occur during this time are summarized below.

Local BMAP stakeholders are continuing the design and implementation of projects to reduce nutrient loading into the St. Lucie River and Estuary Basin and planning for the second cycle of the BMAP. Frequent meetings will be held over the next several years to keep stakeholders apprised of the Department's efforts and to coordinate with stakeholders on activities regarding the St. Lucie River and Estuary BMAP. In addition, stakeholders have identified opportunities to revise the BMAP, including updating land uses, revising basin boundaries, updating jurisdictional boundaries, verifying CDD responsibilities, updating event mean concentration (EMC) and runoff coefficients, evaluating legacy loads, and determining what percentage of the C-23 and C-24 subbasin runoff affects the river and estuary. In particular, the Department is working with the SFWMD to use the St. Lucie Estuary Watershed Model, known as the WaSh Model, which is thought to be the best-suited model for use in the BMAP. This model will address some of the suggested revisions identified in the BMAP.

4.1.1 AGRICULTURE

FDACS will continue to enroll landowners in applicable BMP programs to meet the 90% enrollment goal.

4.1.2 CITY OF FORT PIERCE

The city of Fort Pierce will continue the construction of the Heathcote Botanical Gardens Treatment Train Project, also known as the Indian Hills Recreation Area Stormwater Improvements (Project FP-1). The project is slated for completion in June 2015, with estimated reductions of 232.7 lbs/yr of TN and 98.9 lbs/yr of TP.

4.1.3 CITY OF PORT ST. LUCIE

The city of Port St. Lucie will continue septic tank phaseout activities (Project PSL-9). In November, the city will complete the five baffle box projects (Projects PSL-25 through PSL-29), which are estimated to reduce TN by 543.8 lbs/yr and TP by 98.9 lbs/yr. St. Lucie West Services District will complete its Water Management Improvement Project towards the end of 2014 (Project PSL-30).

4.1.4 ST. LUCIE COUNTY

St. Lucie County will continue the construction of the White City–Citrus Seager Project, which is expected to be completed in December 2015.

4.1.5 TOWN OF SEWALL’S POINT

The town of Sewall’s Point intends to install one second-generation baffle box and 124 linear feet of exfiltration trench to provide more water quality treatment in the Quail Run Basin within the coming year. The town has approval to install an additional eight inlet treatment boxes within the next three years: two second-generation baffle boxes, three first-generation baffle boxes, and three inlet baskets.

APPENDIX A: BMAP PROJECTS

The BMAP project tables below show the implementation status of the BMAP projects as of June 30, 2014. The tables provide information on the nutrient reduction attributed to each individual project, shown in lbs/yr. These projects were submitted to provide reasonable assurance to the Department that each entity has a plan on how to meet its allocation; however, this list of projects is meant to be flexible enough to allow for changes that may occur over time, provided that the reduction is still achieved within the specified period.

TABLE A-1: CITY OF FORT PIERCE PROJECTS

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

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	PROJECT COST	ANNUAL O&M COSTS	END DATE	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
FP-1	Heathcote Botanical Gardens Treatment Train, also known as Indian Hills Recreation Area Stormwater Improvements	Treatment train	1,242	\$ 2,787,588	Undetermined	6/2015	Construction start April 2014	232.7	98.9
FP-2	Moore's Creek Retrofit – Phases 3 and 4	Wet detention	71.9	\$825,000	N/A	3/2008	Completed	102.1	38.5
FP-3	Street Sweeping – 2,433 Cubic Yards	Street sweeping	N/A	N/A	N/A	Ongoing	Ongoing	3,141	2,014
FP-4	Inlet Cleaning – 385 Cubic Yards	Inlet cleaning	N/A	N/A	N/A	Ongoing	Ongoing	599	368
FP-5	Fertilizer Ordinance, Stormwater Education Shows, Pamphlets, Presentations, Storm Drain Stenciling, Illicit Discharge Program	Education and outreach	N/A	N/A	N/A	Ongoing	Ongoing	255.6	58.2
FP-6	Virginia Avenue Outfall Canal	Wet detention	161.4	\$3,462,572	\$1,500	02/2008	Completed	233.1	99.1

TABLE A-2: CITY OF FORT PIERCE SUMMARY OF REDUCTIONS

CATEGORY	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
Total Project Reductions	4,563.5	2,676.7
Total BMAP I Required Reductions	1,943.7	807.9
Credit for Future BMAPs	2,619.8	1,68.8

TABLE A-3: CITY OF PORT ST. LUCIE MS4 PROJECTS

N/A = Not applicable

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	PROJECT COST	END DATE	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
PSL-1	Woodstork Trail Design Districts 7, 8, and 9	First-generation baffle box	228.8	\$3,300,000	7/2007	Completed	3.8	4.0
PSL-2	Wood Stork Trail Design District 6	First-generation baffle box	81.0	\$825,500	11/2008	Completed	2.7	2.3
PSL-3	Howard Creek STA	Wet detention	435.8	Included in PSL-4	12/2010	Completed	523.0	212.2
PSL-4	Eastern Watershed Improvement Project (EWIP)	Wet detention ponds	849.5	\$36,000,000	12/2011	Completed	618.3	360.9
PSL-5	B-1 and B-2 Water Control Structures (WCSs)	Water control structure	1,747.5	\$1,800,000	5/2007	Completed	2,526.6	993.8
PSL-6	B-3 WCS	Water control structure	1,640.6	Included in PSL-5	5/2007	Completed	2,372.3	931.7
PSL-7	E-8 Waterway Phase 1 Water Quality Retrofit	Wet detention – STAs	1,610.2	\$400,000	11/2010	Completed	763.7	664.0
PSL-8	E-17 Canal WCS	Water control structure	983.6	\$437,000	7/2008	Completed	181.2	0.0
PSL-9	Water and Wastewater Expansion	Septic tank phaseout	N/A	\$91,075,666	Varies	Ongoing	34,206.5	Not quantified
PSL-10	Street Sweeping	Street sweeping	N/A	N/A	Ongoing	Ongoing	676.0	434.0
PSL-11	Swale Maintenance	Sediment removal	N/A	N/A	Ongoing	Ongoing	7,649.0	3,097.0
PSL-12	Catch Basin Cleaning	Catch basin cleaning	N/A	N/A	Ongoing	Ongoing	21.0	13.0
PSL-13	Florida Yards and Neighborhoods (FYN); Fertilizer, Landscaping, Irrigation, and Pet Waste Ordinances; Public Service Announcements (PSAs), Stormwater Educational Shows, Website, Outreach Programs, Stencil Program, Stormwater Pollution Hotline	Education and outreach	N/A	N/A	Ongoing	Ongoing	9,388.9	2,100.9
PSL-14	Tiffany Channel	Stormwater reuse	N/A	N/A	Ongoing	Ongoing	32.9	7.6
PSL-15	Patio STA	Stormwater reuse	N/A	N/A	Ongoing	Ongoing	11.4	2.6
PSL-16	Mary STA	Stormwater reuse	N/A	N/A	Ongoing	Ongoing	7.6	1.7
PSL-17	Leithgow STA	Stormwater reuse	N/A	N/A	Ongoing	Ongoing	7.4	1.7
PSL-18	Cane Slough 1/Elks STA	Stormwater reuse	N/A	N/A	Ongoing	Ongoing	33.2	7.3
PSL-19	Cane Slough 2/Azzi STA	Stormwater reuse	N/A	N/A	Ongoing	Ongoing	23.9	5.2
PSL-20	Loutus STA	Stormwater reuse	N/A	N/A	Ongoing	Ongoing	22.5	4.8

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	PROJECT COST	END DATE	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
PSL-21	Howard Creek STA	Stormwater reuse	N/A	N/A	Ongoing	Ongoing	33.9	7.1
PSL-22	Bur St. STA	Stormwater reuse	N/A	N/A	Ongoing	Ongoing	0.6	0.1
PSL-23	St. Lucie West Services District Aquatic Harvesting	Aquatic harvesting	N/A	\$669,600	Ongoing	Ongoing	Not quantified	Not quantified
PSL-24	St. Lucie West Services District Catch Basin Cleaning	Catch basin cleaning	N/A	\$185,600	Ongoing	Ongoing	84.0	52.0
PSL-25	Atlantis Basin	Second-generation baffle box	115.8	\$628,000	11/2014	Construction started May 2014	91.1	16.6
PSL-26	Evergreen Basin	Second-generation baffle box	241.4	Included in PSL-25 cost	11/2014	Construction started May 2014	189.9	34.7
PSL-27	Lansdown Basin	Second-generation baffle box	115.2	Included in PSL-25 cost	11/2014	Construction started May 2014	89.8	16.3
PSL-28	Streamlet/Manth Basin	Second-generation baffle box	41.7	Included in PSL-25 cost	11/2014	Construction started May 2014	32.8	6.0
PSL-29	Walters Basin	Second-generation baffle box	179.5	Included in PSL-25 cost	11/2014	Construction started May 2014	140.2	25.3
PSL-30	St. Lucie West Services District Water Management Improvement Project	Wet detention pond	Not quantified	Not quantified	11/2014	Construction started May 2014	454.5	326.9

TABLE A-4: CITY OF PORT ST. LUCIE SUMMARY OF REDUCTIONS

CATEGORY	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
Total Project Reductions	60,188.7	9,329.7
Total BMAP I Required Reductions	15,930.3	7,029.3
Credit for Future BMAPs	44,258.4	2,300.4

TABLE A-5: CITY OF STUART PROJECTS

N/A = Not applicable

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	PROJECT COST	END DATE	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
S-1	Poppleton Creek – Phase II and III	Wet detention pond	629.1	\$4,371,250	10/2008	Completed	1,299.3	575.9
S-2	Airport Ditch Project	Retention/detention	893.7	\$766,756	8/2003	Completed	899.7	532.2
S-3	Crescent Basin Project	Stormwater retention	58.5	\$180,000	3/2003	Completed	197.6	41.6
S-4	Krueger Creek Project	First-generation baffle boxes	309.6	\$432,000	11/2001	Completed	7.0	6.8
S-5	Street Sweeping – 260 tons/yr	Street sweeping	N/A	N/A	Ongoing	Ongoing	275.0	176.0
S-6	Sediment Removal from Storm Systems – 50 tons/yr	BMP cleanout	N/A	N/A	Ongoing	Ongoing	54.0	33.0
S-7	FYN; Landscaping, Irrigation, Fertilizer, Pet Waste Ordinances; Brochure, Website, Information Inserts, City Calendar, Doggie Pot Stations, Neighborhood Cleanup Program	Education and outreach	N/A	FYN agreement - \$17,028; city stormwater calendars - \$11,530	Ongoing	Ongoing	839.9	186.4
S-8	North Point CRA Drainage Basin	First-generation baffle box	1,083.8	N/A	2002	Completed	24.0	22.8
S-9	Anchorage Drainage Basin	First-generation baffle box	21.3	N/A	2002	Completed	0.5	0.4
S-10	Downtown Drainage Basin	First-generation baffle boxes	116.6	N/A	2002	Completed	2.4	2.3
S-11	Hildebrad Basin	CDS unit	66.9	N/A	2009	Completed	0.0	6.1
S-12	Landfill Basin	Closed basin	71.0	N/A	N/A	Completed	167.3	25.9
S-13	South Fork Drainage Basin	First-generation baffle boxes	662.8	N/A	2002	Completed	16.0	16.2
S-14	Neighborhood Initiated Sewer Expansion Program	Removal of septic tanks	N/A	\$3,200,000	Ongoing	Ongoing	1,340.7	Not quantified
S-15	Eldorado Heights	Retention/closed basin	29.8	\$779,000	12/2012	Completed	133.6	27.1
S-16	Amerigo Avenue Drainage Improvements	Dry detention	9.9	\$772,000	4/2014	Completed	37.4	7.3
S-17	Haney Creek Project	Flow-through marsh, wetlands	626.4	Unknown	Unknown	Under way	513.7	207.3
S-18	Nondischarge Areas	Nondischarge (8 areas)	217.6	N/A	N/A	Completed	1,038.2	233.3
S-19	Baffle Boxes Throughout the City	First-generation baffle boxes (22 total)	474.9	Unknown	Various	Completed	10.8	10.5
S-20	CDS Units Throughout the City	CDS units (12 total)	65.9	Unknown	Various	Completed	0.0	6.4

TABLE A-6: CITY OF STUART SUMMARY OF REDUCTIONS

CATEGORY	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
Total Project Reductions	6,857.1	2,117.5
Total BMAP I Required Reductions	1,428.0	618.6
Credit for Future BMAPs	5,429.1	1,498.9

TABLE A-7: FDOT DISTRICT 4 PROJECTS

N/A = Not applicable

* These projects are located in the South Coastal sub-basin, which is outside the current BMAP boundary. However, they will be considered for credit in the next BMAP iteration.

** These projects are located in the Mid Coastal sub-basin, which is outside the current BMAP boundary. However, they will be considered for credit in the next BMAP iteration.

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	END DATE	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
FDOT-1	FM# 230108-1 (Pond 3)	Wet detention	2.0	2/2005	Completed	2.7	0.9
FDOT-2	FM# 230108-1 (Pond 4)	Wet detention	4.0	2/2005	Completed	2.9	1.3
FDOT-3	FM# 230262-4	Dry detention	102.0	7/2008	Completed	69.2	18
FDOT-4	FM# 230262-5	Dry detention	123.7	4/2010	Completed	60.0	15.3
FDOT-5	FM# 230262-3	Dry detention	195.1	5/2012	Completed	168.4	37.8
FDOT-6	FM# 230262-2	Dry detention	238.4	6/2014	Started	109.8	35.6
FDOT-7	FM# 230295-1	Dry detention	17.1	3/2003	Completed	8.6	1.6
FDOT-8	SPN 99004-1585	Dry detention	30.8	1/2003	Completed	15.5	2.9
FDOT-9	SPN 99004-1585 (Lake 3)	Wet detention	13.1	1/2003	Completed	14.4	5.2
FDOT-10	FM# 228819-1 (Basin A and B)	Wet detention	2.0	5/2007	Completed	0.2	0.1
FDOT-11	FM# 228821-1 (West 1 A)	Exfiltration trench	2.2	4/2001	Completed	5.1	1.1
FDOT-12	FM# 228821-1 (East)	Exfiltration trench	1.0	4/2001	Completed	1.8	0.4
FDOT-16	FM# 228831-1	Dry detention	9.1	3/2000	Completed	3.2	0.9
FDOT-14	FM# 228801-1	Dry detention	2.0	11/2003	Completed	1.0	0.2
FDOT-15	FM# 405504-1	Dry detention	53.6	2/2005	Completed	23.9	4.9
FDOT-16	FM# 230288-2	Wet detention	44.4	5/2009	Completed	62.9	22.3
FDOT-17	FM# 419890-1	Wet and dry detention	42.0	1/2010	Completed	1.9	1.7
FDOT-18	Street Sweeping	Street sweeping	N/A	Ongoing	Ongoing	1,419.0	910.0
FDOT-19	Pamphlets	Education	N/A	Ongoing	Ongoing	31.3	6.4
FDOT-20	FM# 230978-1 Indian Street Bridge (Pond East)	Dry detention	20.7	1/2014	Completed	1.7	0.4
FDOT-21	FM# 230978-1 Indian Street Bridge (Pond West)	Wet detention	33.6	1/2014	Completed	0.1	0.0

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	END DATE	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
FDOT-22	State Road 615 Midway Road to Edwards Road (Basin B-1)	Wet detention	7.8	10/2009	Completed	5.4	1.8
FDOT-23	State Road 615 Midway Road to Edwards Road (Basin E)	Wet detention	9.3	10/2009	Completed	5.8	2.0
FDOT-24	FM# 410717-1 State Road 70 Widening Kings Highway to Jenkins Road (West Basin)	Dry detention	6.2	11/2012	Completed	3.1	0.6
FDOT-25	State Road 713 (King's Highway) Turn Lanes	Swales	0.6	Unknown	Completed	0.0	0.0
FDOT-26	Johnson Honda of Stuart Turn Lane (Basin A and B)	Exfiltration trench	0.1	10/2010	Completed	0.1	0.0
FDOT-27	FM# 228852-1 State Road 76 Drainage Improvements at Cabana Point (Pond 9A)	Wet detention	4.8	1/2006	Completed	9.7	3.1
FDOT-28	FM# 228852-1 Osprey Ridge Planned Unit Development (PUD) – State Road 76 Improvements	Exfiltration trench	0.1	2/2007	Completed	0.1	0.0
FDOT-29	FM# 228852-1 State Road 76 Improvements – Kanner Professional Center	Exfiltration trench	0.4	3/2009	Completed	0.2	0.0
FDOT-30*	FM# 228851-1 (Basin A)	Dry detention	14.12	11/2004	Completed	Not quantified	Not quantified
FDOT-31*	FM# 228851-1	Dry detention	25.72	11/2004	Completed	Not quantified	Not quantified
FDOT-32**	FM# 230132-1 (System No. 1)	Dry detention	2.8	5/2001	Completed	Not quantified	Not quantified
FDOT-33**	FM# 228758-1	Dry detention	18.55	1/2006	Completed	Not quantified	Not quantified
FDOT-34**	FM# 228819-1 (Basin C)	Dry detention	16.2	5/2007	Completed	Not quantified	Not quantified
FDOT-35**	FM# 228819-1 (Basin D)	Exfiltration trench	4.41	5/2007	Completed	Not quantified	Not quantified
FDOT-36**	FM# 228819-1 (Basin E)	Exfiltration trench	4.79	5/2007	Completed	Not quantified	Not quantified
FDOT-37**	FM# 405167-1	Dry retention	30.07	4/2005	Completed	Not quantified	Not quantified
FDOT-38**	FM# 230296-1	Dry swales	88.91	3/2009	Completed	Not quantified	Not quantified
FDOT-39**	FM# 230297-1 State Road A1A Roadway Improvements Phase 3	Exfiltration trench	6.38	8/2010	Completed	Not quantified	Not quantified
FDOT-40**	FM# 228758-1 State Road 702 Jensen Beach Causeway	Dry detention	33.60	1/2008	Completed	Not quantified	Not quantified
FDOT-41	FM# 419250-2 State Road 710 Bridge Replacement – 100A, 100B, and 200	Dry detention	17.4	Unknown	Started	3.8	0.3
FDOT-42	FM# 419250-2 State Road 710 Bridge Replacement – 300 and 500	Dry detention	28.4	Unknown	Started	7.9	1.0
FDOT-43	FM# 413046-1 State Road 9 Widening	Dry retention	152.0	Unknown	Started	75.2	14.1
FDOT-44	FM# 423022-1 CR 68 Orange Avenue	Dry detention	5.62	Unknown	Started	Not quantified	Not quantified

TABLE A-8: FDOT DISTRICT 4 SUMMARY OF REDUCTIONS

CATEGORY	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
Total Project Reductions	2,114.9	1,089.9
Total BMAP I Required Reductions	1,531.8	512.7
Credit for Future BMAPs	583.1	577.2

TABLE A-9: TURNPIKE AUTHORITY PROJECTS

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
T-1	Project 420735-1 Port St. Lucie Interchange Pond A	Dry detention	3.6	Completed	1.8	0.3
T-2	Project 420735-1 Port St. Lucie Interchange Pond B	Wet retention	20.6	Completed	16	2.1
T-3	Thomas B. Manuel Bridge North Pond	Dry detention	9.8	Completed	5.4	1.0

TABLE A-10: TURNPIKE AUTHORITY SUMMARY OF REDUCTIONS

CATEGORY	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
Total Project Reductions	23.2	3.4
Total BMAP I Required Reductions	0.0	0.0
Credit for Future BMAPs	23.2	3.4

TABLE A-11: HOBE ST. LUCIE CONSERVANCY DISTRICT PROJECTS

N/A = Not applicable

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
HSL-1	Hobe Sound Polo Club	Wet detention, dry detention	1,736.3	Completed	3,097.2	1,013.8
HSL-2	Changes in Agricultural Land Uses	Land use change	N/A	Completed	7,000.0	2,258.8
HSL-3	90% Implementation Agricultural BMPs	Agricultural BMPs	N/A	Ongoing	191.0	29.5

TABLE A-12: HOBE ST. LUCIE CONSERVANCY DISTRICT SUMMARY OF REDUCTIONS

CATEGORY	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
Total Project Reductions	10,288.2	3,302.1
Total BMAP I Required Reductions	2,838.6	1,056.0
Credit for Future BMAPs	7,449.6	2,246.1

TABLE A-13: MARTIN COUNTY PROJECTS

N/A = Not applicable

* These projects are located in the South Coastal sub-basin, which is outside the current BMAP boundary. However, they will be considered for credit in the next BMAP iteration.

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	PROJECT COST	END DATE	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
MC-1	Cedar Point Water Quality Retrofit	Wet detention and swales	31.4	\$398,027	10/2004	Completed	71.5	33.6
MC-2	Indian River Drive Baffle Boxes	Second-generation baffle boxes	39.1	\$741,827	5/2010	Completed	30.8	5.6
MC-3	Warner Creek/Leilani Heights Water Quality Retrofit Phase I	Exfiltration trenches and swales	69.8	\$541,854	8/2011	Completed	229.9	49.3
MC-4	Warner Creek Phase II	Dry detention	15.1	\$1,750,338	7/2012	Completed	6.3	1.4
MC-5	Warner Creek Phase III – Beacon 21	Wet detention	1,353.8	\$2,122,935	7/2012	Completed	1,291.1	597.1
MC-6	Manatee Creek Water Quality Retrofit Phases I, II, and III	Wet detention	16.0	\$419,948	7/2012	Completed	6.0	3.8
MC-7	Rio/St. Lucie Water Quality Retrofit – Phase 1	Exfiltration trenches and swales	8.1	\$354,161	9/2006	Completed	41.1	11.0
MC-8	Rio/St. Lucie Water Quality Retrofit – Phase 2	Wet detention	119.8	\$998,170	9/2008	Completed	190.0	73.7
MC-9	Salerno Creek Water Quality Retrofit	Wet detention	207.9	\$4,715,074	6/2003	Completed	407.6	134.0

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	PROJECT COST	END DATE	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
MC-10	Coral Gardens Water Quality Retrofit	Wet detention	2,008.0	\$2,321,860	5/2005	Completed	1,376.1	936.2
MC-11	Fern Creek Water Quality Retrofit	Wet detention	607.1	\$2,660,200	4/2005	Completed	684.7	257.9
MC-12	Old Palm City Water Quality Retrofit Phases I, II, and III	Wet detention, swales	141.4	\$1,544,600	3/2004	Completed	244.4	95.5
MC-13	North River Shores Baffle Boxes	First generation baffle boxes	187.3	\$1,310,000	3/2002	Completed	3.6	3.8
MC-14	Palm Lake Park Water Quality Retrofit	Wet detention	80.1	\$1,741,098	2/2003	Completed	107.9	41.6
MC-15	Tropical Farms Water Quality Retrofit	Wet detention	469.8	\$4,045,470	12/2010	Completed	944.5	308.5
MC-16	Septic to Central Sewer Conversions	Septic to sewer conversion	N/A	\$28,678,946	Varies	Completed	15,369.2	Not quantified
MC-17	Danforth Creek – Phase 1	Wet detention	2,459.3	\$1,981,799	4/2013	Completed	2,434.7	1,010.7
MC-18	Street Sweeping	Street sweeping	N/A	N/A	Ongoing	Ongoing	108.0	69.0
MC-19	Baffle Box and Structure Cleanout	Clean out	N/A	N/A	Ongoing	Ongoing	397.0	161.0
MC-20	FYN; Landscaping, Irrigation, Fertilizer, and Pet Waste Ordinances; PSAs, Pamphlets, Website, Illicit Discharge Program	Education and outreach	N/A	N/A	Ongoing	Ongoing	6,048.7	1,342.1
MC-21	FM# 230978-1 Indian Street Bridge (Pond East)	Dry detention	20.7	Unknown	1/2014	Completed	5.1	1.1
MC-22	FM# 230978-1 Indian Street Bridge (Pond West)	Wet detention	33.6	Unknown	1/2014	Completed	0.2	0.1
MC-23*	Golden Gate Water Quality Retrofit Phases I, II	Dry detention	202	\$2,046,145	10/2003	Completed	Not quantified	Not quantified
MC-24*	Golden Gate Water Quality Retrofit Phase III	Second-generation baffle boxes and wet detention	27	\$584,371	3/2004	Completed	Not quantified	Not quantified
MC-25*	Hibiscus Park Water Quality Retrofit Phases I and II	Wet detention	4.5	\$757,085	7/2007	Completed	Not quantified	Not quantified
MC-26*	Poinciana Gardens Water Quality Retrofit Phases I and II	Wet detention	188	\$2,960,547	7/2003	Completed	Not quantified	Not quantified
MC-27*	Willoughby Creek Muck Dredging	Muck removal	N/A	\$13,200,000	7/2012	Completed	Not quantified	Not quantified
MC-28*	Manatee Pocket Dredging	Muck removal	N/A	\$1,000,000	7/2012	Completed	Not quantified	Not quantified
MC-29	Rio Water Quality Retrofit	Exfiltration and second-generation baffle boxes	45	\$696,800	5/19/14	Completed	162.9	36.1
MC-30	Old Palm City Beemats	Floating wetland vegetation islands		\$21, 996	9/26/13	Completed	Not quantified	Not quantified

TABLE A-14: MARTIN COUNTY SUMMARY OF REDUCTIONS

CATEGORY	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
Total Project Reductions	30,161.3	5,173.1
Total BMAP I Required Reductions	9,647.4	4,377.0
Credit for Future BMAPs	20,513.9	796.1

TABLE A-15: NORTH ST. LUCIE RIVER WCD PROJECTS

N/A = Not applicable

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	PROJECT COST	END DATE	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
NSLRWCD-1	St. Lucie River Issues Team (SLRIT) Grant 2000–01: Vegetation Control & Bank Restoration	Control structures	4,173	\$929,000	05/2003	Completed	982.9	0.0
NSLRWCD-2	SLRIT Grant 2007–08: Water Control Structure Retrofits	Control structure	4,701	\$77,000	03/2010	Completed	1,372.0	0.0
NSLRWCD-3	Canals 23 and 28 Retrofit for Stormwater Treatment and Attenuation	Control structure	44	Unknown	05/2009	Completed	11.0	0.0
NSLRWCD-4	Canal Maintenance Program	Vegetation harvesting	66,225	\$4,200,000	Ongoing	Ongoing	Not quantified	Not quantified
NSLRWCD-5	Changes in Agricultural Land Uses	Land use change	N/A	N/A	N/A	Completed	45,621.1	14,444.7
NSLRWCD-6	90% Implementation Agricultural BMPs	Agricultural BMPs	N/A	Unknown	Ongoing	Ongoing	11,057.3	3,752.4
NSLRWCD-7	Change from Agricultural to Urban	Land use change	N/A	N/A	N/A	Completed	839.2	208.0
NSLRWCD-8	Ideal Grove Hybrid Wetland Treatment Technology	Wetlands, chemical treatment	238	\$217,929	Ongoing	Ongoing	330.0	127.0

TABLE A-16: NORTH ST. LUCIE WCD SUMMARY OF REDUCTIONS

CATEGORY	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
Total Project Reductions	60,213.5	18,405.1
Total BMAP I Required Reductions	26,353.8	10,090.2
Credit for Future BMAPs	33,859.7	8,314.9

TABLE A-17: PAL MAR WCD PROJECTS

N/A = Not applicable

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	END DATE	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
PM-1	90% Implementation Agricultural BMPs	Agricultural BMPs	Ongoing	Ongoing	926.2	91.7

TABLE A-18: PAL MAR WCD SUMMARY OF REDUCTIONS

CATEGORY	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
Total Project Reductions	926.2	91.7
Total BMAP I Required Reductions	0.0	0.0
Credit for Future BMAPs	926.2	91.7

TABLE A-19: ST. LUCIE COUNTY MS4 PROJECTS

N/A = Not applicable

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	PROJECT COST	END DATE	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
SLC-1	Platt's Creek Stormwater Treatment Facility	Wet detention with alum injection	311.0	\$3,539,475	6/2008	Completed	676.0	306.4
SLC-2	Indian River Estates Stormwater Improvements (Phase I and II)	Wet detention with alum injection	1,004.4	\$4,471,114	1/2009	Completed	1,841.2	706.6
SLC-3	Prima Vista	Second-generation baffle box	96.8	\$323,483	11/2006	Completed	76.2	13.9
SLC-4	Bay Street	Second-generation baffle box	44.3	Included in SLC-3	11/2006	Completed	34.6	6.3
SLC-5	FYN; Pet Waste, Landscape, Irrigation, and Fertilizer Ordinances; PSAs, Website, Illicit Discharge Program, Eco-Center, Clean Stormwater–Clean River Program	Education and outreach	N/A	N/A	Ongoing	Ongoing	1,086.8	247.6
SLC-6	Street Sweeping	Street sweeping	N/A	N/A	Ongoing	Ongoing	210.6	135.2
SLC-7	Catch Basin Cleanout	Clean out	N/A	N/A	Ongoing	Ongoing	170.3	104.6
SLC-8	Platt's Creek Sump Cleanout	Clean out	N/A	N/A	Ongoing	Ongoing	1,181.6	511.5

TABLE A-20: ST. LUCIE COUNTY MS4 SUMMARY OF REDUCTIONS

CATEGORY	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
Total Project Reductions	5,277.3	2,032.1
Total BMAP I Required Reductions	2,018.4	854.7
Credit for Future BMAPs	3,258.9	1,177.4

TABLE A-21: ST. LUCIE COUNTY NON-MS4 PROJECTS

N/A = Not applicable

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	PROJECT COST	END DATE	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
SLC-1	Platt's Creek Stormwater Treatment Facility	Wet detention with alum injection	563.5	Included in MS4 table	6/2008	Completed	906.7	364.6
SLC-9	White City – Citrus/Seager Stormwater Improvement	Wet detention with polyacrylamide logs	38.9	\$1,862,859	12/2015	Under Construction	71.2	25.7
SLC-10	FYN; Pet Waste, Landscape, Irrigation, and Fertilizer Ordinances; PSAs, Website, Illicit Discharge Program, Eco-Center, Clean Stormwater–Clean River Program	Education and outreach	N/A	N/A	Ongoing	Ongoing	1,425.7	364.3
SLC-11	Street Sweeping	Street sweeping	N/A	N/A	Ongoing	Ongoing	113.4	72.8
SLC-12	Catch Basin Cleanout	Clean out	N/A	N/A	Ongoing	Ongoing	91.7	56.4
SLC-13	Platt's Creek Sump Cleanout	Clean out	N/A	N/A	Ongoing	Ongoing	1,566.4	600.5

TABLE A-22: ST. LUCIE COUNTY NON-MS4 SUMMARY OF REDUCTIONS

CATEGORY	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
Total Project Reductions	4,175.1	1,484.3
Total BMAP I Required Reductions	2,926.8	1,350.0
Credit for Future BMAPs	1,248.3	134.3

TABLE A-23: TOWN OF SEWALL'S POINT PROJECTS

N/A = Not applicable

* These projects are located in the Mid Coastal sub-basin, which is outside the current BMAP boundary. However, they will be considered for credit in the next BMAP iteration.

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	END DATE	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
SP-1	Ridgeland Court Retrofit	Baffle box	5.9	10/2002	Completed	0.1	0.1
SP-2	Palm Court/Knowles	Baffle box	12.9	9/2000	Completed	0.2	0.2
SP-3	Captain Cove	Baffle box	4.9	9/2000	Completed	0.1	0.1
SP-4	Quail Run Park	Dry detention	0.4	9/2000	Completed	0.1	0.0

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	END DATE	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
SP-5	Heritage Park	Dry retention	5.2	9/2000	Completed	7.0	1.5
SP-6	Via Lucindia	Exfiltration	2.7	9/2000	Completed	8.4	1.9
SP-7	Rio Vista Park	Baffle box	24.2	1/2002	Completed	0.5	0.5
SP-8	Indialucie	Wet retention	31.1	9/2003	Completed	43.6	17.8
SP-9	Indialucie	Baffle box	5.6	9/2006	Completed	0.1	0.1
SP-10	Periwinkle	Baffle box	15.7	9/2000	Completed	0.3	0.2
SP-11	Palm Road	Swales	0.8	12/2008	Completed	0.5	0.1
SP-12	Riverview	Baffle box	9.6	1/2002	Completed	0.2	0.2
SP-13	Pineapple Lane	Exfiltration	5.5	1/2002	Completed	0.0	0.0
SP-14	Copaire	Baffle box	1.8	10/2002	Completed	0.0	0.0
SP-15	Homewood Park/ Sewall's Point Road	Retention	13.9	6/2009	Completed	45.6	10.2
SP-16	Pedway/Greenway	Exfiltration/ pervious paver	1.6	6/2013	Completed	6.2	1.4
SP-17	State Road A1A	Exfiltration	12.1	1/2012	Completed	52.1	10.4
SP-18	Fertilizer Ordinance	Education	N/A	Ongoing	Ongoing	8.9	1.9
SP-19	Street Sweeping – 19 Cubic Yards	Street sweeping	N/A	Ongoing	Ongoing	25.0	16.0
SP-20*	Delano Lane	Exfiltration	1.2	8/2000	Completed	Not quantified	Not quantified
SP-21*	Town Commons Park	Dry detention	1.0	1/2002	Completed	Not quantified	Not quantified
SP-22*	Island Road	Baffle box	4.9	1/2002	Completed	Not quantified	Not quantified
SP-23*	Highpoint West	Baffle box	7.9	9/2000	Completed	Not quantified	Not quantified
SP-24*	Mandalay (Marguerita)	Baffle box	15.4	9/2000	Completed	Not quantified	Not quantified
SP-25*	Highpoint East	Baffle box	15.6	9/2000	Completed	Not quantified	Not quantified
SP-26*	High Point Exfiltration	Exfiltration/swales	6.4	4/2014	Completed	Not quantified	Not quantified
SP-27*	Extend Pedway/Greenway	Exfiltration/ pervious paver	28.2	Unknown	Planned	Not quantified	Not quantified
SP-28*	Mandalay (Marguerita)	Dry detention	15.4	Unknown	Planned	Not quantified	Not quantified
SP-29*	Baffle Boxes	First- and second-generation baffle boxes	18.0	Unknown	Planned	Not quantified	Not quantified
SP-30	Indialucie	Exfiltration	31.1	2014	Completed	61.8	7.8

TABLE A-24: TOWN OF SEWALL’S POINT SUMMARY OF REDUCTIONS

CATEGORY	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
Total Project Reductions	260.7	70.4
Total BMAP I Required Reductions	0.0	0.0
Credit for Future BMAPs	260.7	70.4

TABLE A-25: TROUP-INDIANTOWN WCD PROJECTS

N/A = Not applicable

PROJECT NUMBER	PROJECT NAME	PROJECT TYPE	ACRES TREATED	STATUS	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
TI-1	C-44 Conservation Area	Conservation	9,135.1	Completed	23,199.0	7,496.7
TI-2	90% Implementation Agricultural BMPs	Agricultural BMPs	N/A	Ongoing	1,856.3	445.8

TABLE A-26: TROUP-INDIANTOWN WCD SUMMARY OF REDUCTIONS

CATEGORY	TN REDUCTION (LBS/YR)	TP REDUCTION (LBS/YR)
Total Project Reductions	25,055.3	7,942.5
Total BMAP I Required Reductions	7,528.2	2,435.7
Credit for Future BMAPs	17,527.1	5,506.8