

[YEAR] ANNUAL UPDATE

For the Basin Management Action Plan
Adopted by the Florida Department of Environmental Protection

for the

[Name] Basin
Addressing **[Impairment(s)]**
BMAP Report Year **[Year]**

Developed by the
Florida Department of Environmental Protection
Division of Environmental Assessment and Restoration
Bureau of Watershed Restoration

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LIST OF ACRONYMS

BMAP	Basin Management Action Plan
BMP	Best Management Practice
DO	Dissolved Oxygen
EMC	Event Mean Concentration
EPA	U. S. Environmental Protection Agency
F.A.C.	Florida Administrative Code
FDACS	Florida Department of Agriculture and Consumer Services
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
F.S.	Florida Statutes
FWC	Florida Fish and Wildlife Conservation Commission
FWRA	Florida Watershed Restoration Act
GIS	Geographic Information System
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
OSTDS	On-Site Sewage Treatment and Disposal Systems
PLRG	Pollutant Load Reduction Goal
QA	Quality Assurance
QC	Quality Control
RA	Reasonable Assurance
SJRWMD	St. Johns River Water Management District
STORET	STorage and RETrieval (Database)
SWIM	Surface Water Improvement and Management
SWMP	Stormwater management program
TAC	Technical Advisory Committee
TMDL	Total Maximum Daily Load
TN	Total Nitrogen
TP	Total Phosphorus
TSI	Trophic State Index
TSS	Total Suspended Solids
UF-IFAS	University of Florida-Institute of Food and Agricultural Sciences
USACE	U. S. Army Corps of Engineers
USDA	U. S. Department of Agriculture
WBID	Waterbody identification
WWTF	Wastewater Treatment Facility

EXECUTIVE SUMMARY

TOTAL MAXIMUM DAILY LOADS

[Briefly describe the basin and the TMDLs that are addressed by the BMAP]

ALLOCATION APPROACH

[Describe the BMAP allocation approach that was used to achieve the TMDL]

WATER QUALITY MONITORING

[Summarize the monitoring efforts and trend information for the year]

PROJECT IMPLEMENTATION STATUS

[Summarize the status of project implementation for each source type in the basin]

FUNDING FOR IMPLEMENTATION

[Summarize types of funding sources, summarize any funding information received for the projects implemented in the report year]

NEXT STEPS

[Include information on research activities, modifications to the TMDL model, revisions to the TMDL or BMAP allocations, describe project implementation and monitoring efforts for the next year]

CONCLUSIONS

[Summarize progress made towards meeting the TMDL targets during the report year, lessons learned, and challenges for the upcoming year.]

CHAPTER 1: INTRODUCTION

1.1 TOTAL MAXIMUM DAILY LOAD FOR [NAME] BASIN

[Provide a brief description of the basin - including a basin map as Figure 1, the TMDLs for the basin - add information to Table 1, describe what phase of the TMDL cycle this basin is in, what year the BMAP is in and what impact that may have on the BMAP process]

[Add basin map]

FIGURE 1: LOCATION OF THE [NAME] BASIN

TABLE 1: TMDLS IN THE [NAME] BASIN

WBID(s)	TMDL (KG/YR)	TMDL BASELINE LOAD (KG/YR)	WASTELOAD ALLOCATIONS		LOAD ALLOCATION (KG/YR)	OVERALL NEEDED REDUCTION (KG/YR)
			WASTEWATER (KG/YR)	NPDES STORMWATER (KG/YR)		

TABLE 2: PHASES OF THE WATERSHED MANAGEMENT CYCLE

Phase 1	Preliminary evaluation of water quality
Phase 2	Strategic monitoring and assessment to verify water quality impairments
Phase 3	Development and adoption of TMDLs for waters verified as impaired
Phase 4	Development of management strategies to achieve the TMDL(s)
Phase 5	Implementation of TMDL(s), including monitoring and assessment

1.2 ALLOCATION APPROACH

[Describe the BMAP approach for meeting the TMDL]

1.3 RESPONSIBLE PARTIES AND KEY STAKEHOLDERS

[Include information on the responsible entities and other key stakeholders in the BMAP, add list of stakeholders to Table 3]

TABLE 3: RESPONSIBLE BMAP ENTITIES

<i>Wastewater Treatment Facilities</i>
<i>MS4s</i>
<i>Non-MS4 Stormwater</i>
<i>Nonpoint Sources</i>
Agriculture
FDOT

<i>Other Key Stakeholders</i>
FDEP
WMD
FWC
FDACS

1.4 BMAP ACTIVITIES

1.4.1 ACTIVITY HIGHLIGHTS FROM REPORT YEAR

[For each responsible entity, briefly summarize project and monitoring efforts from the past year – number of projects started, number of projects completed, entities involved in the monitoring plan, number of monitoring stations, funding received for project or monitoring implementation. improvements in water quality or biological indices, etc.]

1.4.2 SUMMARY OF UPCOMING ACTIVITIES

[Summarize efforts for the upcoming year – similar to the previous section (i.e., number of projects that will be started, number of projects that are projected to be completed, etc.)]

1.4.3 ISSUES AND CONSIDERATIONS FOR UPCOMING YEAR

[Describe any lessons learned from this year and how that will affect plan implementation for the upcoming year, any anticipated issues (e.g. funding problems) that could affect the plan]

CHAPTER 2: WATER QUALITY MONITORING

2.1 SUMMARY OF EFFORTS FROM REPORT YEAR

[Describe how many stations are included in the monitoring network – include map as Figure 2. Summarize monitoring information provided in Section 1.4.1, i.e. number of monitoring stations, types of monitoring (ambient, storm event, continuous, etc.), parameters sampled, number of samples taken, number of samples analyzed, percent data provided to FDEP etc.]

[Add map that shows the location of the stations in the monitoring network]

FIGURE 2: BMAP MONITORING NETWORK

2.2 WATER QUALITY TRENDS

[Summarize water quality data – possibly include data in Table 4, conduct statistical analysis to determine any trends in the water quality data towards meeting the TMDL and targets – possibly include figure of water quality trends as Figure 3, this may need to be multiple figures for different parameters, biological indicators, or other information pertinent to the basin.]

TABLE 4: SUMMARY OF WATER QUALITY DATA

Parameter	Mean Concentration
TN	
TP	
DO	
Chlorophyll a	
Fecal Coliform	
Etc.	

[Add figure with trend lines]

FIGURE 3: TRENDS IN [PARAMETER] FOR THE [NAME] BASIN

2.3 MODIFICATIONS TO THE MONITORING PLAN

[Describe any modifications that were made to the monitoring plan during the report year, any modifications that should or will be made for the upcoming year, overview of efforts for the upcoming year if they are likely to differ from those of the report year]

CHAPTER 3: COMPLIANCE AND PROJECT IMPLEMENTATION

[Include only the headings in this section that apply to the sources in the basin. Describe changes to estimated project reductions resulting from updated information or other reasons.]

3.1 BMAP ALLOCATIONS

[If detailed allocations were assigned include information about the allocations in Table 5, if no detailed allocations were assigned either include a discussion of how responsibility was assigned to the entities or delete this section]

TABLE 5: STARTING LOADS AND BMAP ALLOCATIONS

Source Category or Name of Facility	Starting Load (kg/yr)	Allocation (kg/yr)
<i>Wastewater Treatment Facilities</i>		
<i>MS4s</i>		
<i>Non-MS4 Stormwater</i>		
<i>Other Sources</i>		

3.2 WASTEWATER TREATMENT FACILITIES

3.2.1 DISCHARGE WATER QUALITY DATA

[Summarize data from the discharge monitoring reports (possibly include as Table 6) and compare to the allocations in Table 5 to show what progress has been made towards meeting the required reductions. Mention sources of discharge data, including District office, if applicable.]

TABLE 6: SUMMARY OF CURRENT LOADS FROM THE WASTEWATER TREATMENT FACILITIES

Wastewater Facility	Average Loading for [Year] (kg/yr)
Total wastewater facility load	[insert total load here]
Total wastewater facility TMDL allocation	[insert total allocated load here]
Net load from wastewater facilities	[insert amount above/(below) TMDL allocation]

3.2.2 PROJECT IMPLEMENTATION STATUS

[Describe the progress made in the last year related to the WWTFs projects, what projects were completed and the load reduction with those projects, include project table as Table 7]

TABLE 7: WASTEWATER TREATMENT FACILITY PROJECTS AND STATUS

Facility Name	Project Number	Description	Status	Project Reduction (kg/yr)
Total WWTF Reductions in [Year]				[Insert total here]

3.2.3 WATER QUALITY CREDIT TRADING STATUS

[Include this section as appropriate – only LSJR Basin currently, summarize pre- and post-BMAP trades and projects that were implemented to generate credits]

3.3 NONPOINT SOURCES

3.3.1 NEW AND UPDATED BMP EFFICIENCY VALUES

[Include updated efficiency information for provisional BMPs (street sweeping, CDS units, Stormceptor, educational efforts, septic tank phase out), new information for other urban BMPs, describe how the new or updated information affects the estimated project reductions in the BMAP and the project lists, describe new or revised agricultural BMP manuals that affect the basin]

3.3.2 MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)

3.3.2.1 Permit Requirements

[Describe if the MS4s in the basin have met their permit reporting and monitoring requirements, summarize any pertinent information from the MS4 annual reports]

3.3.2.2 Project Implementation Status

[Describe the progress made in the last year related to the MS4 projects, what projects were completed and the estimated load reduction with those projects, include project table as Table 8]

TABLE 8: MS4 PROJECTS AND STATUS

Entity	Project Number	Description	Status	Project Reduction (kg/yr)
Total MS4 Reductions in [Year]				[Insert total here]

3.3.3 NON-MS4s

3.3.3.1 Project Implementation Status

[Describe the progress made in the last year related to the non-MS4 projects, what projects were completed and the estimated load reduction with those projects, include project table as Table 9]

TABLE 9: NON-MS4 PROJECTS AND STATUS

Entity	Project Number	Description	Status	Project Reduction (kg/yr)
Total Non-MS4 Reductions in [Year]				[Insert total here]

3.3.4 AGRICULTURE

3.3.4.1 BMP Implementation Status

[Describe BMP implementation status in the basin, number of NOIs obtained, number of acres of each commodity type that is signed up for BMPs –include as Table 10, any growers that chose to implement water quality monitoring instead of BMPs and the results of the monitoring, any major changes in agricultural acreages]

TABLE 10: ACRES OF EACH COMMODITY ENROLLED IN A BMP PROGRAM

Commodity	Acreage
Total Acres	
Percent of Total Acreage in Basin	

CHAPTER 4: FUNDING FOR BMAP ACTIVITIES IMPLEMENTATION

[Include headings below as appropriate for the basin, include any details received on the total funding from each category that was used for implementation of BMAP efforts]

4.1 LOCAL FUNDING

4.2 FEDERAL FUNDING

4.3 SECTION 319 FUNDING

4.4 COMMUNITY BUDGET ISSUES REQUEST FUNDING

4.5 WATER MANAGEMENT DISTRICT FUNDING

4.6 STATE REVOLVING FUND

4.7 SPECIAL FUNDING AND OTHER SOURCES

CHAPTER 5: INFORMATION FOR FUTURE TMDL AND BMAP CYCLES

[Add additional headings as needed to reflect efforts that occurred in the basin for the report year]

5.1 RESEARCH ACTIVITIES

[If applicable, describe any research activities that occurred in the report year that can help refine the TMDL and/or BMAP allocations. Describe the data generated and the conclusions of those studies.]

5.2 INTENSIVE MONITORING RESULTS

[If applicable, include information on any intensive monitoring efforts that occurred during the report year, map of sampling locations, entities involved in the monitoring, what parameters were sampled, frequency of sampling, summary of water quality results, etc.]

5.3 MODIFICATIONS TO THE TMDL MODEL

[If applicable, describe any modifications that were made to the TMDL model (adjustments to the boundaries, updated water quality information included, use of newer version of the model, use of new model, etc.) and the benefits of these changes for the next cycle]

5.4 TMDL AND BMAP REVISIONS

[If applicable, describe any revisions made to the TMDL and/or efforts made to revise the BMAP allocations]

CHAPTER 6: NEXT STEPS

6.1 PROJECT IMPLEMENTATION

[Discuss any projects that are expected to begin or be completed in the next year, provide information on expected load reduction from the projects that are projected to be completed in the next year]

6.2 MONITORING PLAN

[Discuss the monitoring plan for the upcoming year including number of stations, responsible entities, parameters, and frequency of sampling]

6.3 FUNDING

[Discuss any funding requests and what projects that funding will go towards in the next year]

6.4 RESEARCH ACTIVITIES

[Describe any additional research activities that will be initiated in the next year and expected information that these studies will provide]

CHAPTER 7: CONCLUSIONS

[Describe what progress was made towards achieving the TMDL and targets during the report year, success of the BMAP for the year, and progress that will be made in the upcoming year. If applicable, describe differences in the measured annual rainfall for the year and the estimate used in establishing the TMDL and the potential impact of these differences on achieving targeted goals.]

Appendix A: WATER QUALITY DATA

[Add as much of the water quality data as possible to maintain a data record for the next TMDL cycle or provide specific reference to the existing location of the data within FDEP (i.e. STORET and quality summary).]