



Florida Department of Environmental Protection
Division of Environmental Assessment and Restoration

***Lakes Harney and Monroe and
Middle St. Johns River Basin
Management Action Plan
(BMAP)***

2016 Progress Report

**Moira R. Homann
October 20, 2016**





Agenda

- Welcome and Introductions
- BMAP Annual Progress Report
- Water Quality Trends in the Basin (*St. Johns River Water Management District [SJRWMD]*)
- Other Updates/Public Comments
- Questions and Wrap Up



Background on the BMAP

- The Total Maximum Daily Loads (TMDLs)
 - Total Nitrogen (TN) and Total Phosphorus (TP) adopted for the Lakes Harney and Monroe and the Middle St. Johns River (MSJR) Basin in December 2009
 - TP for Smith Canal adopted in September 2009
- BMAP adopted in August 2012
- Detailed allocations made to responsible stakeholders to achieve 50 % of the reductions over a 5-year period



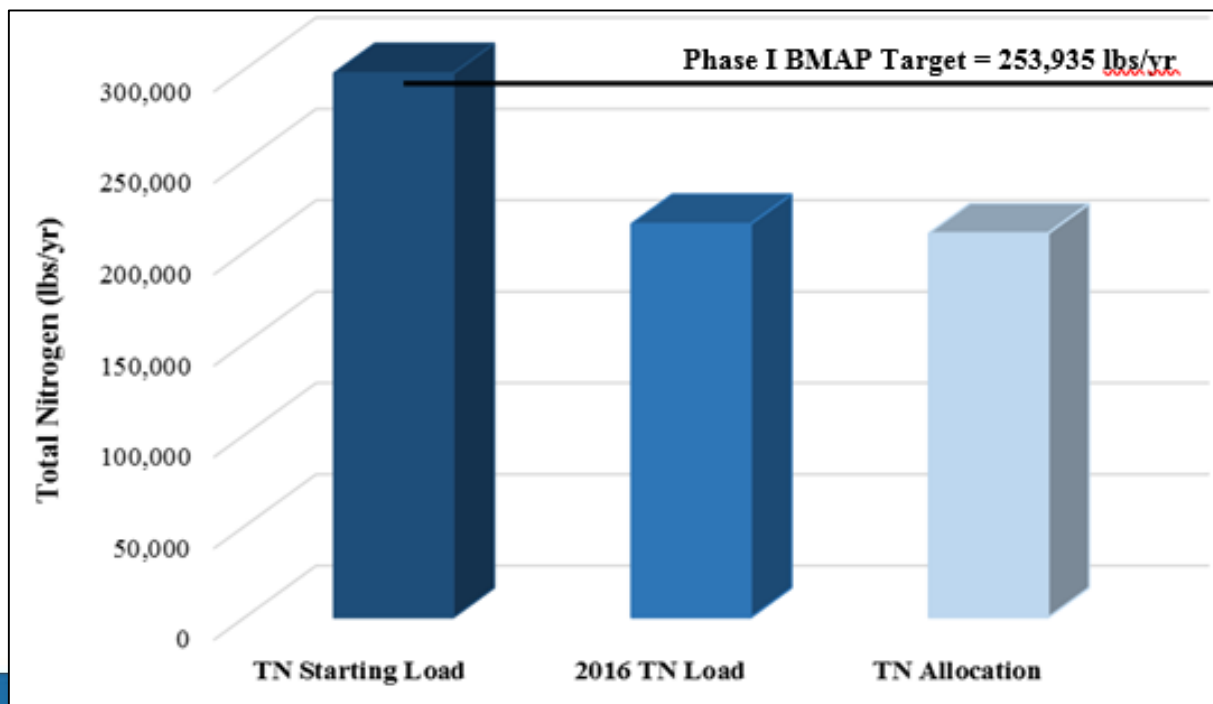
Annual Report Overview

- The fourth annual progress report on the BMAP activities
- Information was provided by the stakeholders on activities from September 1, 2015 through August 31, 2016
- Report includes updates on the following:
 - Project implementation
 - Compliance
 - Water quality and biological monitoring
- Report is posted for stakeholder review
 - [Draft Lakes Harney and Monroe BMAP 2016 Progress Report](#)
 - Please provide comments back to DEP by November 10, 2016



Progress to the TN TMDL

- Reductions:
 - Reductions from projects completed during the fourth annual BMAP reporting period: 998.5 lbs/yr* of TN
 - Total BMAP project reductions to date: 82,581 lbs/yr* of TN
 - Required TN reduction for the first BMAP iteration: 43,828.2 lbs/yr
 - Reductions are 94.2% of the required TN reductions to meet the TMDL
 - Reductions to date are greater than the reductions required for the first BMAP iteration



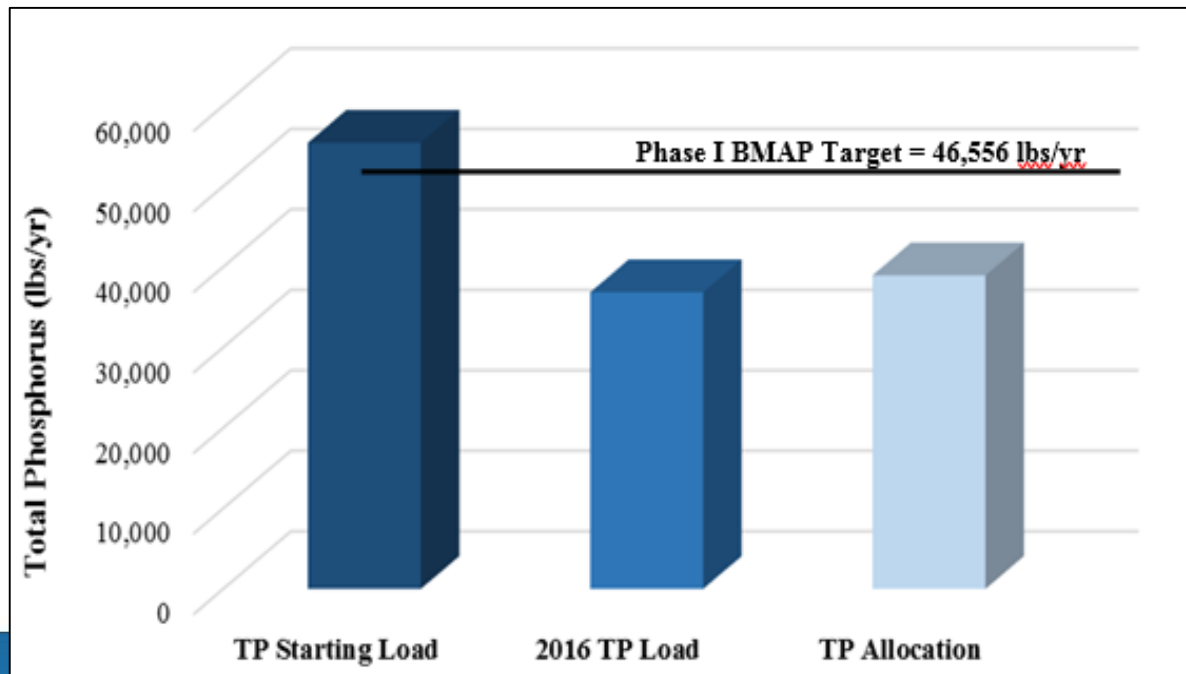
*These numbers do not reflect the most recent estimated load reductions from agricultural BMP implementation. These numbers were not calculated at the time the draft document was distributed for stakeholder review; these numbers will be included in the final version of this report.



Progress to the TP TMDL

- Reductions:

- Reductions from projects completed during the fourth annual BMAP reporting period: 5.1 lbs/yr* of TP
- Total BMAP project reductions to date: 18,585 lbs/yr* of TP
- Required TP reduction for the first BMAP iteration: 8,854.9 lbs/yr
- Reductions are 112.9% of the required TP reductions to meet the TMDL
- Reductions to date are greater than the reductions required for the first BMAP iteration



*These numbers do not reflect the most recent estimated load reductions from agricultural BMP implementation. These numbers were not calculated at the time the draft document was distributed for stakeholder review; these numbers will be included in the final version of this report.



New – Compliance Section

- Progress report Compliance Section (Section 3) provides tables with:
 - Number of projects that each entity committed to in the 2012 BMAP and the status of those projects, and
 - Summaries of the allocations and reductions achieved to date by each entity in the BMAP



New – Compliance Section (cont'd)

Table 3. Summary of Completed Projects Identified in the BMAP by Entity

Entity	Projects Listed in 2012 BMAP	Completed	Cancelled	Underway
City of DeBary	2	2	-	-
City of DeLand	1	1	-	-
City of Deltona	5	5	-	-
City of Lake Helen	1	1	-	-
City of Lake Mary	2	2	-	-
City of Sanford	1	1	-	-
City of Orange City	4	4	-	-
FDOT	41	39	-	2
Seminole County	6	6	-	-
Turnpike Authority	1	1	-	-
Volusia County	6	6	-	2
Total	70	68	0	2

Table 4: Summary of Allocations and Reduction Status by Entity

Entity	TN Allocation (lbs/yr)	Phase I TN Required Reduction (lbs/yr)	Current TN Reduction (lbs/yr)	TP Allocation (lbs/yr)	Phase I TP Required Reduction (lbs/yr)	Current TP Reduction (lbs/yr)
FDACS	87,886	21,141	32,506	16,200	6,885	6,218
City of DeBary	16,146	1,880	13,562	2,976	86	2,207
City of DeLand	-	-	9	-	-	9
City of Deltona	18,182	3,609	7,151	3,352	388	1,230
City of Lake Helen	-	-	31	-	-	5
City of Lake Mary	-	-	371	1,311	-	59
City of Sanford	20,678	10,360	14,454	3,812	1,340	5,339
City of Orange City	-	-	1	-	-	0
FDOT	7,648	1,232	3,211	1,410	-	625
Seminole County	26,158	3,974	7,638	4,822	155	1,906
Turnpike Authority	-	-	22	-	-	14
Volusia County	23,246	1,633	3,581	4,285	-	974



Activities During the Reporting Period

- *City of Deltona*

- Trainings

- Florida Stormwater, Erosion, and Sedimentation Control Inspector Certification class

- Projects

- Completed Leland Drive retention pond project (DEL-7)
 - TN and TP reductions have not been quantified
 - Monitored the Gleason control structure (Project DEL-4)
 - Monitoring verified that the structure allows Lake Gleason to provide additional storage and fewer discharges



Activities (cont'd)

- *City of Orange City*
 - Focused on education, training and outreach
 - Progress on a number on ongoing projects
 - Cooperative agreement on water resources impacts with Volusia County
 - Working to adopt a fertilizer ordinance
 - Issuing a notice to proceed for the Mill Lake Park Stormwater Treatment
 - Adoption of Project Blue Spring – a comprehensive and fully integrated water resource protection program
- *City of Sanford*
 - Developing four new water quality improvement projects to benefit Cloud Branch, Mill Creek, North Star and Pump Branch Creek



Activities (cont'd)

- *Florida Department Of Transportation (FDOT)*
 - Added and completed two wet detention pond projects (FDOT-43 and FDOT-44)
 - Projects improved drainage and treated the new and existing impervious areas along State Road (SR) 400 (from SR 44 to east of I-95)
 - Completed construction of three wet detention ponds (Projects FDOT-36, FDOT-37, and FDOT-39), and one exfiltration trench system (Project FDOT-38) along SR 415
 - Reduced TN loading in the basin by 962 lbs/yr, through fertilizer cessation
- *Seminole County*
 - Continued biological and ambient water quality monitoring
 - Aired public service announcements (PSA) for proper use of fertilizers



Activities (cont'd)

- *SJRWMD*
 - Continued to monitor TP trends to determine where to concentrate potential future efforts; part of the TP reduction planning in the Deep Creek watershed



Ongoing Activities

- Education and outreach
 - City of DeLand
 - City of Deltona
 - City of Lake Helen
 - City of Lake Mary
 - City of Orange City
 - City of Sanford
 - Seminole County
 - Volusia County
- Street sweeping
 - City of Lake Mary
 - City of Sanford
 - FDOT
 - Seminole County
 - Turnpike Authority
 - Volusia County



Biological Monitoring

- *Seminole County*
 - Lake Monroe and Lake Harney
 - Lake Vegetation Index (LVI)
 - Shannon-Weaver Index
 - Smith Canal
 - Stream Condition Index (SCI)
 - Biological and vegetative monitoring data uploaded to the Storage and Retrieval (STORET) database via the Seminole Watershed Atlas
- *SJRWMD*
 - Continued phytoplankton sampling in the basin



Water Quality Monitoring

- The monitoring plan consists of the following:
 - Ambient water quality sampling
 - Storm event sampling
 - Biological monitoring
- Information gathered through the monitoring plan:
 - Measures progress toward achieving the TN and TP TMDLs
 - Provides a foundation for continued improvement in cost-effective project implementation
- All responsible stakeholders participated in the monitoring plan in the fourth year of BMAP implementation

ENTITY
City of Deltona
Seminole County
St. Johns River Water Management District
Volusia County

- Local stakeholders continue to use their existing water atlas or the Florida STORage and RETrieval (STORET) database platform to store and disseminate data



Water Quality Analysis – Next Steps

- BMAP calls for a detailed water quality evaluation after the fourth year of BMAP implementation
- Prior to next year's annual meeting, DEP is planning the following activities:
 - Start compiling data
 - Start outreach to stakeholders to organize data
 - Obtain all data, address errors, and locate missing data
 - Outreach for more data
 - Begin analysis
 - Present draft results
 - Get feedback



Florida Department of Environmental Protection

Watershed Information Network (WIN) Project

**Office of Watershed Services
October 2016**





WIN Project Schedule

- WIN Construction is going well!
- Phase 1a, Data Uploads to Staging and Migrated
 - Open for data uploads in early 2017
- Phase 1b, Data Reporting and Extraction
 - Open for data extraction in April 2017



Florida STORET Schedule

- **Florida STORET will remain open for data uploads until December 2017**
- After December 2017, Florida STORET will be closed to addition of new data and to correction of existing data
- Existing data that do not meet WIN Standards should be brought to Florida STORET by December 2017
- Corrections for data already in Florida STORET should be made by December 2017
- STORET Public Access (SPA) will remain open for reporting of data from Florida STORET after December 2017
 - SPA: <http://prodenv.dep.state.fl.us/DearSpa>





WIN and Florida STORET

- DEP will accept migrations of data from Florida STORET to WIN any time after WIN comes on-line
 - Data must meet WIN Standards and be brought to WIN by the provider
 - DEP will remove those data from Florida STORET
 - We recommend not migrating data until after you have established flow of new data to WIN
- Changes to data in Florida STORET or WIN will be provided to U.S. EPA Water Quality Exchange (WQX) by DEP
- For data collections occurring now, we strongly encourage data providers to make process changes (collection and/or data recording) necessary to meet WIN Standards



Getting Ready for WIN

- Information for mapping to WIN is provided at ftp://ftp.dep.state.fl.us/pub/outgoing/STORET/WIN_Communication/
 - Includes WIN Standards, Standard Values Lists (SVLs), example data files, frequently asked questions (FAQs), a flow diagram, and the Physical Data Model (PDM) of WIN migrated
- Contact your STORET/WIN Coordinators with questions on WIN implementation



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Questions?