

Florida Department of Environmental Protection



Lake Jesup BMAP 2014 Progress Report

**Basin Working Group Meeting
July 31, 2014**





Annual Report Overview

- This is the fourth annual progress report on the basin management action plan (BMAP) activities
- Information was provided by the stakeholders on activities from June 1, 2013 through May 31, 2014
- The report includes:
 - Accomplishments
 - Upcoming year activities



Background on the BMAP

- The total maximum daily loads (TMDLs) for Lake Jesup were adopted in April 2006 for total phosphorus (TP) and total nitrogen (TN)
- The BMAP was adopted by the Florida Department of Environmental Protection Secretary in May 2010
- The BMAP focused on achieving the TP reductions over a 15-year period
- Detailed allocations were made to the responsible stakeholders to achieve the first one-third of the reductions over a 5-year period



Accomplishments

- *City of Casselberry*
 - Completed a total of eight whole lake alum treatments over the past year and has two more planned in the coming year. A total of 14 treatments have been completed so far
 - Concluded field work on the effectiveness evaluation of multiple baffle boxes, inlet filter baskets, and a continuous deflective separation (CDS) unit
 - Substantial progress was made on the North and Middle Lake Triplet Shoreline Revegetation
- *City of Orlando*
 - Developed a complete inventory of all structures and pipes within the Howell Branch basin



Casselberry bioswale/bioretention area for North Lake Triplet

Accomplishments, continued

- *City of Oviedo*
 - Adopted a pet waste ordinance
 - Conducted revisions to the Land Development Code - Environmental Preservation Chapter to include inlet marking by developers and installation of pet waste stations
 - Conducted a Geographic Information Systems septic tank assessment inventory
 - Substantially completed the Aulin Avenue Stormwater/Roadway Improvement Project
- *City of Winter Park*
 - Completed the Canton Avenue retrofit project
 - Completed the Park North exfiltration treatment project



**City of Winter Park Canton
Baffle Box**



**City of Winter Park North Exfiltration
Treatment Project**



Accomplishments, continued

- *Orange County*
 - Pressure transducer at Lake Burkett continues to transmit data real-time to the Water Atlas
 - Installed 40 curb inlet baskets
- *Seminole County*
 - Had success with the submerged aquatic vegetation plantings of Suwannee narrow leaf eelgrass in two, one-acre plots in the lake
 - Continued with lake restoration events, and biological and vegetative monitoring
- *Florida Department of Agriculture and Consumer Services*
 - Continued to sign up producers for best management practices
 - Estimated load reductions to date are 72.5 lbs/yr of TP



Accomplishments, continued

- Several of the stakeholders have successfully continued with other activities
 - BMAP street sweeping
 - BMP clean outs projects
 - Education and outreach efforts



City of Maitland Street Sweeper

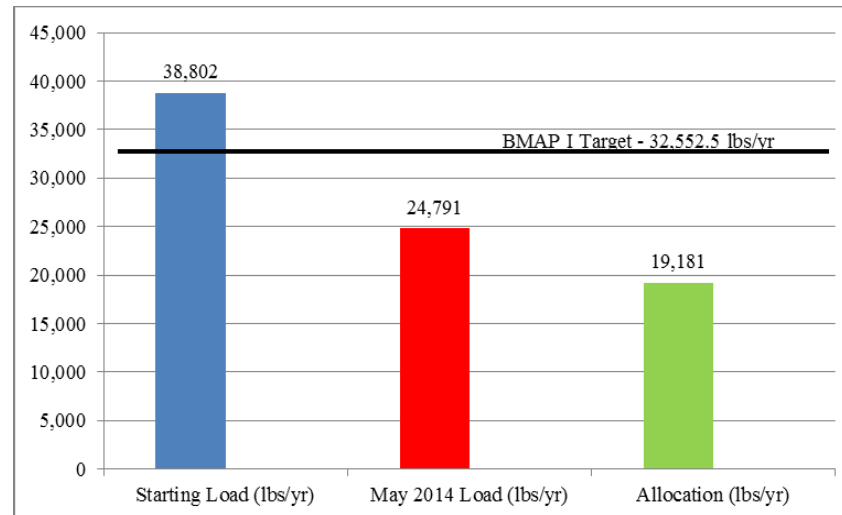


Seminole County Lake Restoration Event with Volunteers



Progress to the TMDL

- Reductions
 - Total BMAP project reductions, including those shown as completed in the BMAP and the projects completed during the first four years of implementation: 12,975.6 lbs/yr TP
 - The required reduction for the first BMAP iteration was 6,249.5 lbs/yr TP
 - Total reductions, including those from completed projects to date and the load within noncontributing areas to the lake: 14,010.6 lbs/yr of TP
 - This is a 74.1% reduction from starting load





Monitoring Accomplishments

- The BMAP monitoring plan was designed to enhance the understanding of basin loads, track project implementation, and identify long-term water quality trends
- All responsible stakeholders participated in the monitoring plan in the fourth year of BMAP implementation
- Information gathered through the monitoring plan measures progress toward achieving the TP TMDL and provide a foundation for continued improvement in cost-effective project implementation



Research Accomplishments

- *Orange County*
 - Continued its efforts to determine the pollutant loads being discharged through Lake Burkett
- *Seminole County*
 - Initiated several monitoring projects for in-lake vegetation and biological bioassessments
 - Initiated efficiency monitoring on the Cassel Creek RSF
 - Planned studies
 - Update the QUAL2K model to reflect the additional research and ongoing monitoring results
 - Extend the Red Bug RSF vegetative efficiency study for an additional year
- *SJRWMD*
 - Work on the Lake Jesup Pollutant Load Reduction Goal to provide support for the Lake Jesup TMDL update
 - Planned studies
 - March 2014 - Preliminary assessments of developing a marsh to treat lake water on the northwest shore of Lake Jesup. Conceptual design to be presented early fall 2014 discussion
 - July 2014 – Study will measure changes in the unconsolidated sediment layer of the lake

A photograph of a sunset over a body of water. The sun is a bright, glowing orb in the center of the frame, casting a long, shimmering reflection down the middle of the water. The sky is filled with soft, orange and yellow clouds. In the foreground, several dark, vertical wooden posts or pilings are visible, partially submerged in the water. The overall mood is serene and peaceful.

Questions and Discussion on the 2014 Progress Report