Florida Department of Environmental Protection

Water Quality Restoration Program

Upper Ocklawaha River Basin Working Group May 28, 2015

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Agency Updates

TMDL Water Quality Grant

- TMDL Water Quality Restoration Grant Opportunity
  - Request for proposals.
- Deadline for grant application submission is July 1, 2015.
- Contact Katie Britt at Katherine.britt@dep.state.fl.us.

Technical Discussions Overview

- Teleconferences held May 5 and May 19.
- Notes available at publicfiles.dep.state.fl.us -/DEAR/BMAP/Upper_Ocklawaha/Meetings/Technical discussion/
- Summary
  - Other impaired waterbodies.
    - Two segments of the Ocklawaha River.
    - Not yet scheduled for TMDLs.

Technical Discussion (cont)

- Key summary points from teleconferences:
  - Identify any missing stakeholders.
    - Industrial or business.
    - Local government.
    - Strategy for engaging.
  - Potential differences in TMDL models.
    - Preparing summary paper.
    - Comparison of Trout and Lake Eustis TMDLs.
  - Project crediting standardization.

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Upper Ocklawaha BMAP

BMAP Approach for Lake Roberts, Marshall Lake, Lake Denham, and Lake Weir





New TMDLs Status

- Marshall Lake, Lake Roberts, Lake Denham, Lake Weir.
  - Workshops held in February and March.
- Lake Weir:
  - Revised TMDL to better reflect number of OSTDS.
  - Second workshop held May 27.
  - Comments due by June 12.

TMDL Rule Adoption

- Pathway to adoption:
  - TMDL report to EPA in late June.
  - Address any comments from EPA.
  - Approval by EPA late July.
  - Final rulemaking tentatively late summer/early fall.

BMAP Strategy

- Marshall, Roberts, and Denham in current BMAP boundary.
  - Input from stakeholders - Include in Upper Ocklawaha BMAP.
  - Next steps:
    - Identify and engage stakeholders.
    - Identify projects and loading reductions.

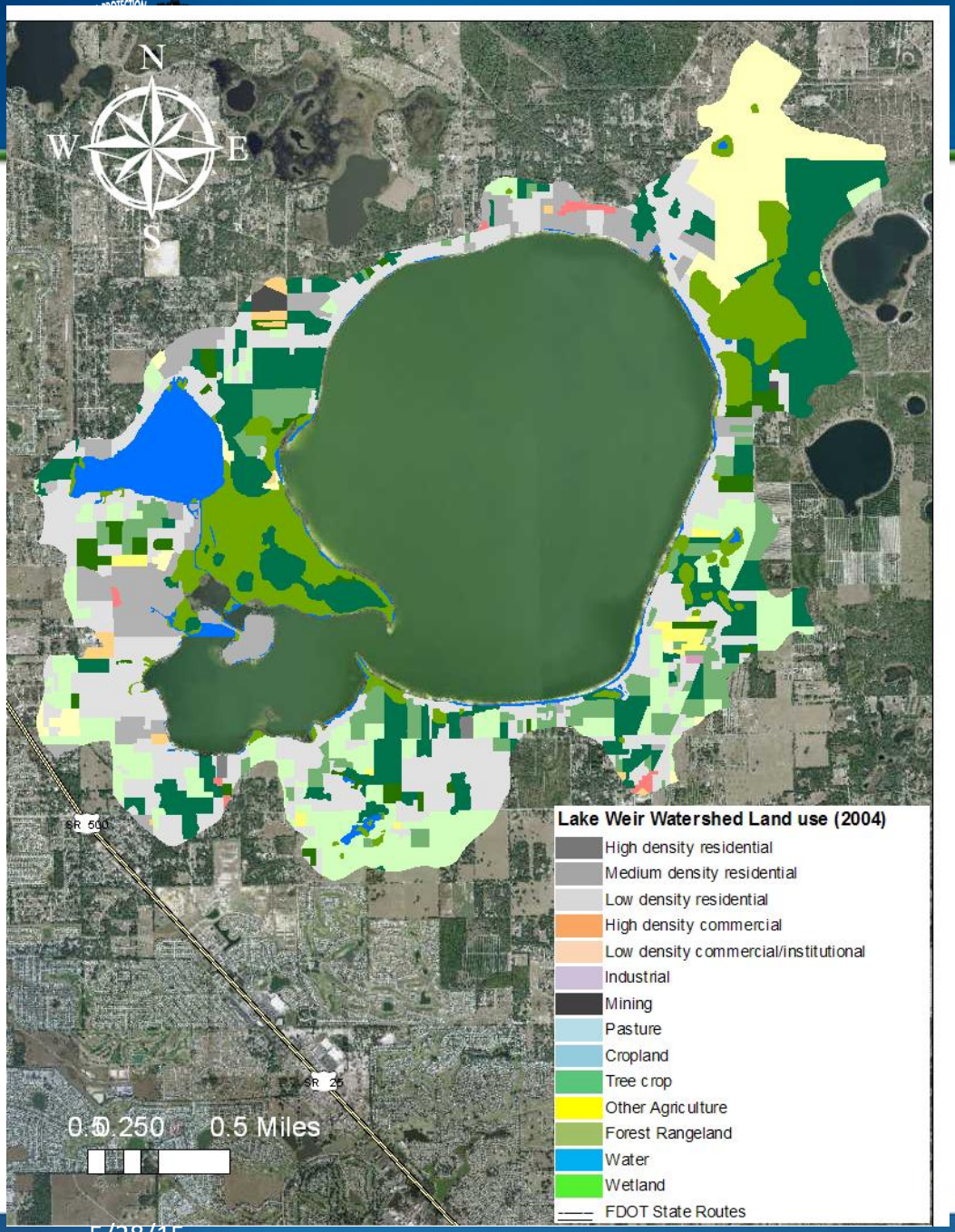
Lake Weir

- Based on stakeholder comment:
  - 3 potential options in consideration.
- Considered these factors:
  - Location, relation to other lakes.
  - Type of TMDL.
  - Stakeholder interest.
  - Other ongoing activities.

Lake Weir Options

- Include with Upper Ocklawaha BMAP.
- Include with Silver Springs BMAP.
- Separate Lake Weir Initiative.
  - Marion County Planning initiative.
  - Opportunities for reporting in progress.
  - Opportunity for stakeholder involvement.

Lake Weir Land Use




Any comments or questions???

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Upper Ocklawaha BMAP

Nutrient Sources, Budgets, and Responsible Parties





Nutrient Budgets

- Method established in 2005.
- Allows tracking of load reductions.
  - Accounts for projects.
  - Accounts for loading carried between lakes.
- Focused on TP reduction as the critical factor to restore lakes.
  - Newer TMDLs and Trout Lake have TMDLs for TN and TP.
- Continue focus on TP reduction?

Priority Waters Loadings

- Data Period (Harris, Yale, Carlton) 1991-2000.
- Trout Lake 1995-2000.
- Palatlakaha River compared 1991 to 2000.

Waterbody	TMDL TP Load (lbs/year)	Current TP Load (lbs/year) accounts for projects as of July 2014	Reduction of TP Load Needed (lbs/year)
Lake Carlton	195	717	522
Trout Lake	521	2,308	1,787
Lake Yale	2,844	3,597	753
Lake Harris	18,302	22,274	3,762
Palatlakaha River	2,207	2,683	476

New Lakes Loadings

Data Period: 2000-2012

Waterbody	TMDL TP Load (lbs/year)	Current TP Load (lbs/year)	Reduction of TP Load Needed (lbs/year)
Marshall Lake	231.5	800.5	569
Lake Roberts	202.8	304.8	101.9
Lake Denham	1570	3303	1,733
Lake Denham without internal load			1,005.6

Key Concepts

- Baseline Loading - existing or loading at time of development.
- Controllable Loading – sources derived from people.
  - Separate out natural sources.
- Proportional Loading – adjust for natural sources portion of TMDL.

Lake Yale Example

Sources of total phosphorus (loading in lbs/yr)	TMDL Baseline loading*	TMDL Controllable baseline loading	Controllable baseline % contribution	Proportional reduction needed to meet TMDL**	Expected load change from current projects	Remaining phosphorus load	Expected load change from future projects	Remaining phosphorus load	Estimated load change from growth (2001-2010)	Net estimated TP load
Atmospheric deposition (wet/dry)	1,442	0	0.0%	0		1,442		1,442	0	1,442
Point sources	109	109	7.9%	41	-109	0		0	0	0
Stormwater runoff								0		
Natural area runoff	547	0	0.0%	0		547		547	-47	500
Runoff from developed uses	768	768	55.8%	291		768	-58.2	710	298	1,008
YALE04 Lake Yale Priority Reuse							-58.2			
YALE02 Washington Avenue and Side Streets Dranage Improvements (phase 3and 4)										
YALE03 Old Chisholm Trail Drainage Improvement										
project 4										
project 5										
Hazardous waste sites										
Seepage/groundwater										
Septic tanks	292	292	21.2%	111		292		292	355	647
project 1										
Agriculture	207									
Loading information										
Total P-loading (lbs/yr)	3,365	1,169	85.0%	443	-109	3,049	-58	2,991	606	3,597
Total Maximum Daily Load (lbs/yr)	2,844					2,844		2,844		2,844
Reduction needed in P-loading (lbs/yr)	521					205		147		753

Definitions

- Stormwater Natural Sources:
  - Wetlands.
  - Water.
  - Forest/rangeland.
- Agriculture:
  - Pasture.
  - Row Crop.
  - Tree Crop.
  - Feeding Operation.
  - Other Agriculture.

Definitions Continued

- Stormwater human derived sources:
  - Residential housing.
  - Commercial property.
  - Open land/recreation.
- Mining.
- Industrial.

Accounting

- Partition out these sources:
  - Atmospheric deposition.
  - Groundwater/seepage except septic systems.
  - Natural area stormwater runoff.
- No entity held responsible for remediating these sources.

Internal Loading

- Not directly accounted for with loading reductions.
  - Projects do address.
  - Quantification so far has been difficult.
- Role of internal loading:
  - Recycles nutrient stored in sediment.
  - May add new loading through algal activities.
  - What to do about.

Reductions

- Nutrient budget outlines loading by sources.
- FDACS works with agricultural producers.
  - Notice of Intent to cover BMPs.
- Focus on stormwater loading from developed areas.
- Next step allocate loading reductions by responsible party as appropriate.

Responsible Parties

Lake Harris	Palatlakaha River	Lake Denham
Lake County	Lake County	Private agriculture
LCWA	LCWA	Leesburg
Leesburg	Minneola	Lake County
FDOT District 5	Clermont	LCWA
FDACS	Groveland	SJRWMD
Howey-in-the-Hills	FDOT District 5	FDACS
Astatula	FDACS	FWC
SJRWMD	FWC	FDOH-Lake County
FWC	FDOH-Lake County	Environmental Interests/Audubon
FDOH-Lake County	FDEP	
FDEP	Environmental Interests/Audubon	
Environmental Interests/Audubon	Mascotte	
Tavares	SJRWMD	
Turnpike Enterprise		

Responsible Parties cont.

Lake Yale	Trout Lake	Lake Carlton
Lake County	Eustis	Orange County
LCWA	Lake County	Lake County
Marion County	SJRWMD	LCWA
FDOT District 5	Trout Lake Nature Center	SJRWMD
FDACS	Umatilla	FDEP
FWC	FDOT District 5	FDOH-Lake and Orange
FDOH-Lake County	FDACS	FWC
FDEP	SJRWMD	Environmental Interests/Audubon
SJRWMD	FDEP	FDACS
Umatilla	FDOH-Lake County	
Environmental Interests/Audubon	FWC	
Eustis	LCWA	
	Environmental Interests/Audubon	

Responsible Parties cont.

Marshal Lake	Lake Roberts
Apopka	Orange County
FDEP	FDEP
FDOT District 5	Turnpike Enterprise
FDACS	FDACS
SJRWMD	SJRWMD
FDOH-Orange	FDOH-Orange
Environmental Interests	Winter Garden
	Environmental Interests


Questions???

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Upper Ocklawaha BMAP

Reporting and Annual Meeting Preparation





Purpose

- Watershed Restoration Act requires:
  - at least annual reporting.
- Report progress on implementing projects.
- Opportunity to highlight accomplishments.
- Shift in time frame.
  - Covers year since BMAP adoption – July.
  - Previously used the calendar year.

Annual Meeting Prep

- Request for updates sent by June 8.

- Ask to report on project status.
  - Progress of current projects.
  - Proposed new projects

- Water quality update.
  - Confirm monitoring locations.
  - Water quality summary.

- Summary report prepared and distributed.

New Projects

- Potential future projects (such as low impact development, ordinances) that address second BMAP phase loading reductions.

- Focus on projects that address priority waterbodies.
  - Meet required allocations.

Schedule

Date	Entity	Activity
June 8	FDEP	Complete project collection materials and send out to stakeholders (current project updates and new project submittal form) describing a due date of July 8th.
June 8	FDEP	Complete monitoring update materials and send out to monitoring entities describing a due date of July 8th.
July 8	Management Entities	Project updates and new project information due to Mary Paulic, FDEP.
July 8	Monitoring Entities	Monitoring updates due to Mary Paulic, FDEP.
July 9 -31	FDEP	Prepare Annual Report; follow up with stakeholders if there are questions about their submittals.
August 1-14	FDEP	Internal review of report.
August 17-September 2	FDEP	Edits to the report based on internal comments.
September 3	FDEP	Send report to stakeholders (one week before the annual meeting).
September 10	All	Annual meeting and report review.
September 30	All	All comments due on report.
October 15	FDEP	Final version of the report is posted.

Information Request

- In addition to project information, additional information:
  - New ordinances adopted.
  - Guidance documents adopted.
  - Environmental protection programs.
  - Water or land restoration activities.
  - Management plans (stormwater studies).

New Information

- Any recent FDEP funding or plans to request?
  - Section 319 grant.
  - TMDL grant.
  - State Revolving Fund.
  - Other

Next Steps

- Questions?
- Follow-up assignments.
- Future meetings.