



Florida Department of Environmental Protection

Water Quality Restoration Program

Lake Okeechobee Basin Management Action Plan (BMAP) Annual Meeting

May 3, 2016

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Agenda

- Overview of the Lake Okeechobee BMAP Annual Progress Report
- Lake Tohopekaliga Nutrient Reduction Plan Update
- South Florida Water Management District (SFWMD) Updates
- Florida Department of Agriculture and Consumer Services (FDACS) Updates
- Watershed Assessment Model (WAM) Update
- Comments and Next Steps



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Overview of the Lake Okeechobee BMAP 2015 Annual Progress Report





2015 Lake Okeechobee Report

- Total maximum daily load (TMDL) adopted in 2001
- Lake Okeechobee BMAP adopted in 2014
- First annual progress report compiled
- Reporting period: January 2015 - December 2015





2015 Completed Efforts

- FDOT: Began construction on six projects. Added two new projects (FDOT5-26, FDOT5-27)
- Orlando: Completed Project ORL-6
- Orange County: Added four new projects
- Spring Lake Improvement District: Proposed one new project (SLID-2)
- Various on-going efforts continue





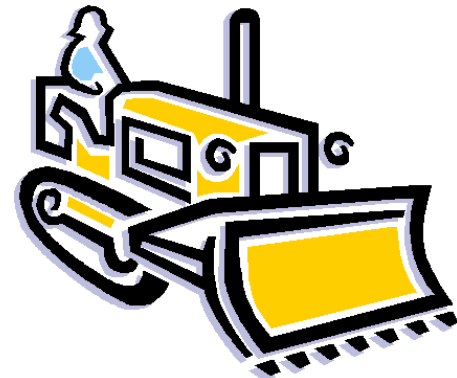
Coordinating Agencies

- Coordinating Agency Initiatives
 - Comprehensive Everglades Restoration Plan (CERP) Planning
 - Owner-implemented best management practice (BMP) verification
 - Cost-share BMP effectiveness verification
 - WAM revisions
 - Water quality monitoring
 - Alternative BMP nutrient reduction projects
 - In-lake strategies muck scraping and tilling



Coordinating Agencies

- Projects Under Development
 - Istokpoga Marsh Watershed Improvement District-Phase II
 - Lakeside Ranch Stormwater Treatment Area (STA) Phase II
 - MacArthur Agro-Ecology Research Center "Buck Island" Ranch/Rafter T Realty, Inc.
 - Brighton Valley - Lykes
 - Rolling Meadows Wetland Restoration - Phase II
 - Inactive Dairies- Lagoon Remediation
 - PL-566 Funded/Fisheating Creek Structure
 - State Road (S.R.) 710 Regional Project
 - Legislative Cost-Share Appropriation Program





South Florida Water Management District (SFWMD) Projects



Taylor Creek STA
(photo by SFWMD,
November 2015).

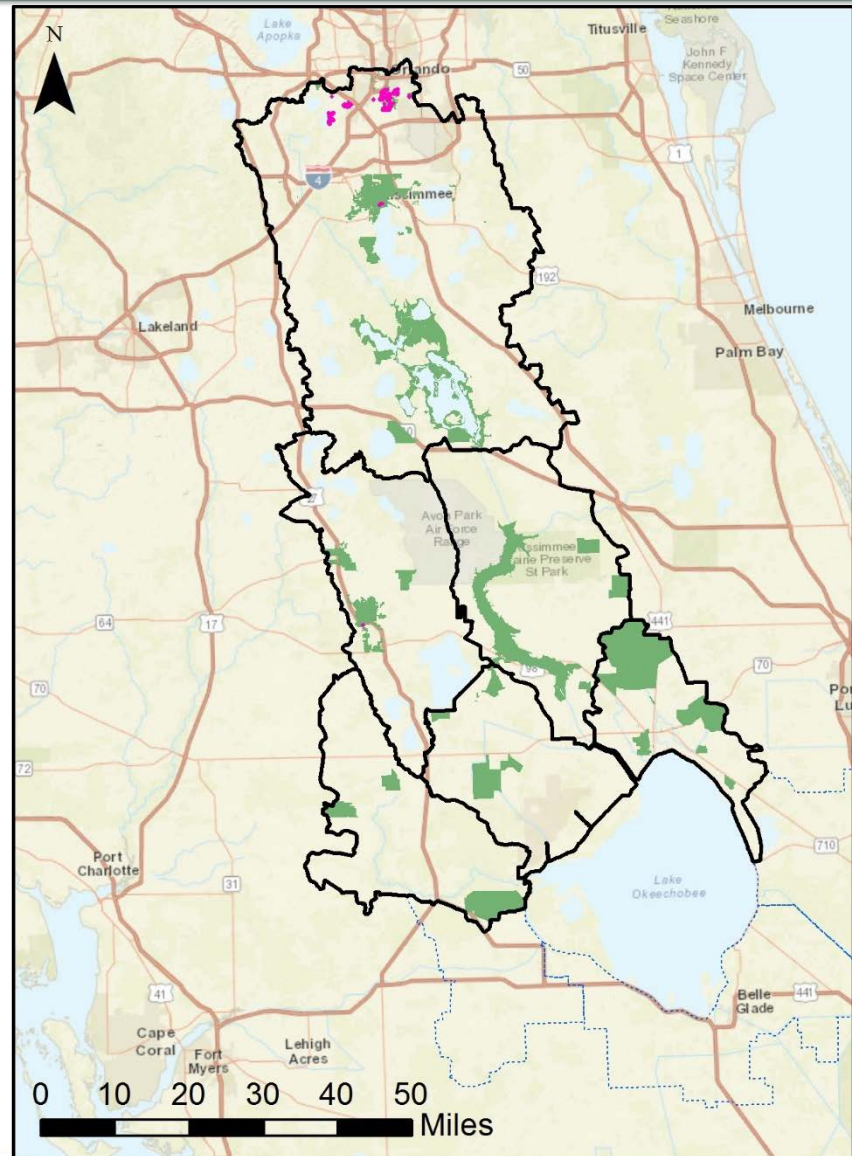
Lakeside Ranch STA
(photo by SFWMD,
November 2015).





BMAP Projects

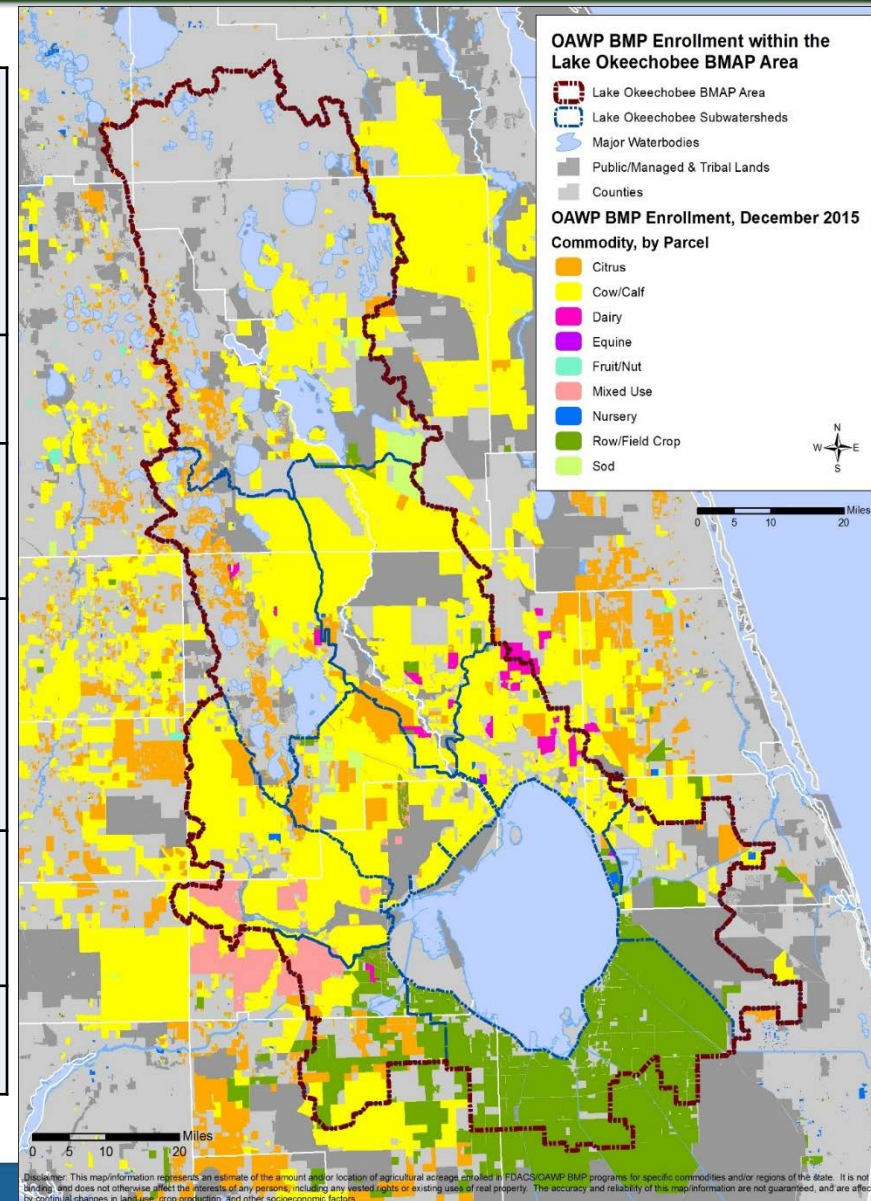
Note: Street sweeping, public education, ordinances, and Agricultural BMP enrollments not shown.





Agricultural Lands Enrollment

	Fisheating Creek	Indian Prairie	Lake Istokpoga	Lower Kissimmee	Taylor Creek Nubbin Slough	Upper Kissimmee	Total
Total 2009 Acres	174,548	218,191	130,513	216,258	140,906	275,011	1,155,426
Acreage Enrolled as of December 31, 2008	26,307	8,100	25,137	80,488	46,033	14,031	200,097
Acreage Enrolled January 1, 2009- December 31, 2015	118,765	154,562	71,306	82,862	66,622	215,436	709,553
Total Acreage Enrolled (as of December 31, 2015)	145,072	162,663	96,443	163,350	112,655	229,467	909,650
Remaining Acres To Enroll	29,476	55,528	34,069	52,908	28,251	45,544	245,776





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Monitoring Program Update





Monitoring

Water quality monitoring is being conducted by:

City of Orlando
City of Kissimmee
Orange County
Osceola County
SFWMD



- **We need to work together to get all pertinent data uploaded for use in future analyses**



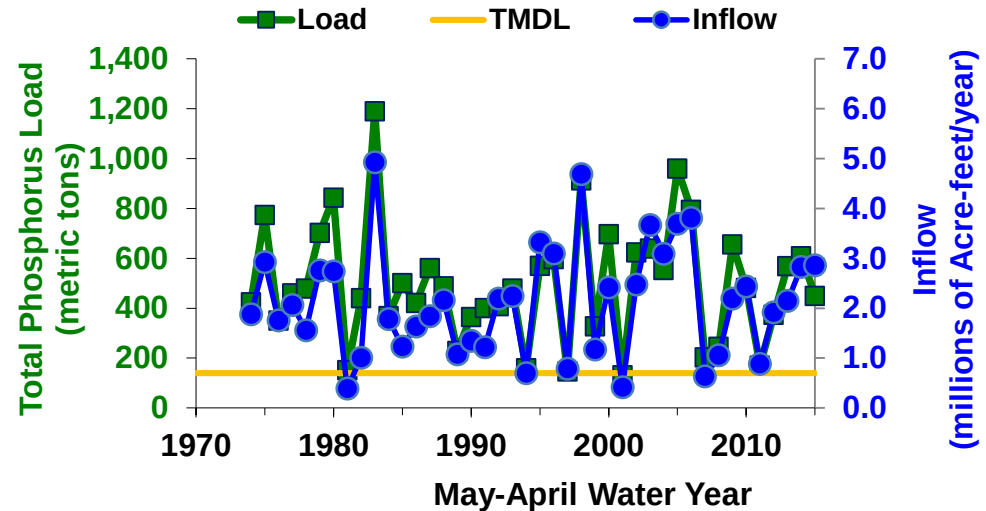
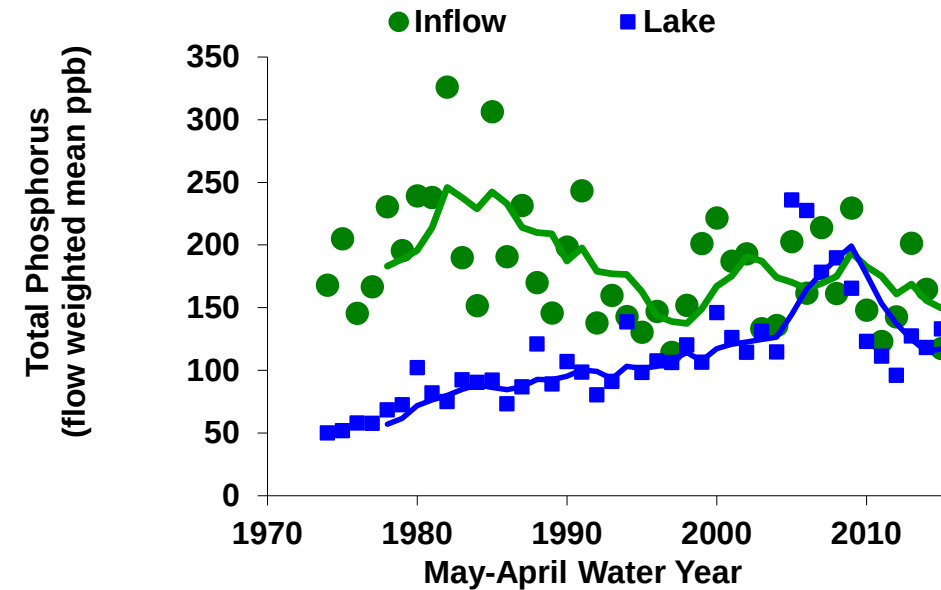
Water Quality Analyses

SUB-WATERSHED	BASIN	WY2006-2014 (TP)						WY2015 (TP)					
		Mean (parts per billion [ppb])	Median (ppb)	Std. Dev.	Number of Samples	Max ppb)	Min (ppb)	Mean (ppb)	Median (ppb)	Std. Dev.	Number of Samples	Max (ppb)	Min (ppb)
Lower Kissimmee	S-65A	74	66	40	413	271	23	63	58	29	36	168	29
	S-65BC	81	68	42	410	273	22	65	63	25	36	120	33
	S-65D	248	160	224	929	1494	11	197	100	211	89	1009	27
	S-65E	439	239.5	531	290	3330	23	446	157	763	56	4855	30
Taylor Creek/Nubbin Slough	S-154	604	520	434	300	2330	14	479	413	342	22	1514	101
	S-191TC (Taylor Creek)	395	329	290	2240	2909	14	360	277	254	191	1756	53
	S-191NS (Nubbin Slough)	427	391	256	853	2390	10	413	343	325	93	2270	57
Lake Istokpoga	Lake Istokpoga	110	86	70	477	474	26	123	111	58	105	414	43
Indian Prairie	C-41	280	186	263	206	1921	27	243	229	151	15	651	99
	C-41A	75	73	28	417	170	6	87	84	25	22	144	30
Fisheating Creek	Fisheating Creek	236	193	179	429	1283	17	199	177	81	20	417	114

Data Credit: South Florida Environmental Report, 2016



Water Quality Analyses

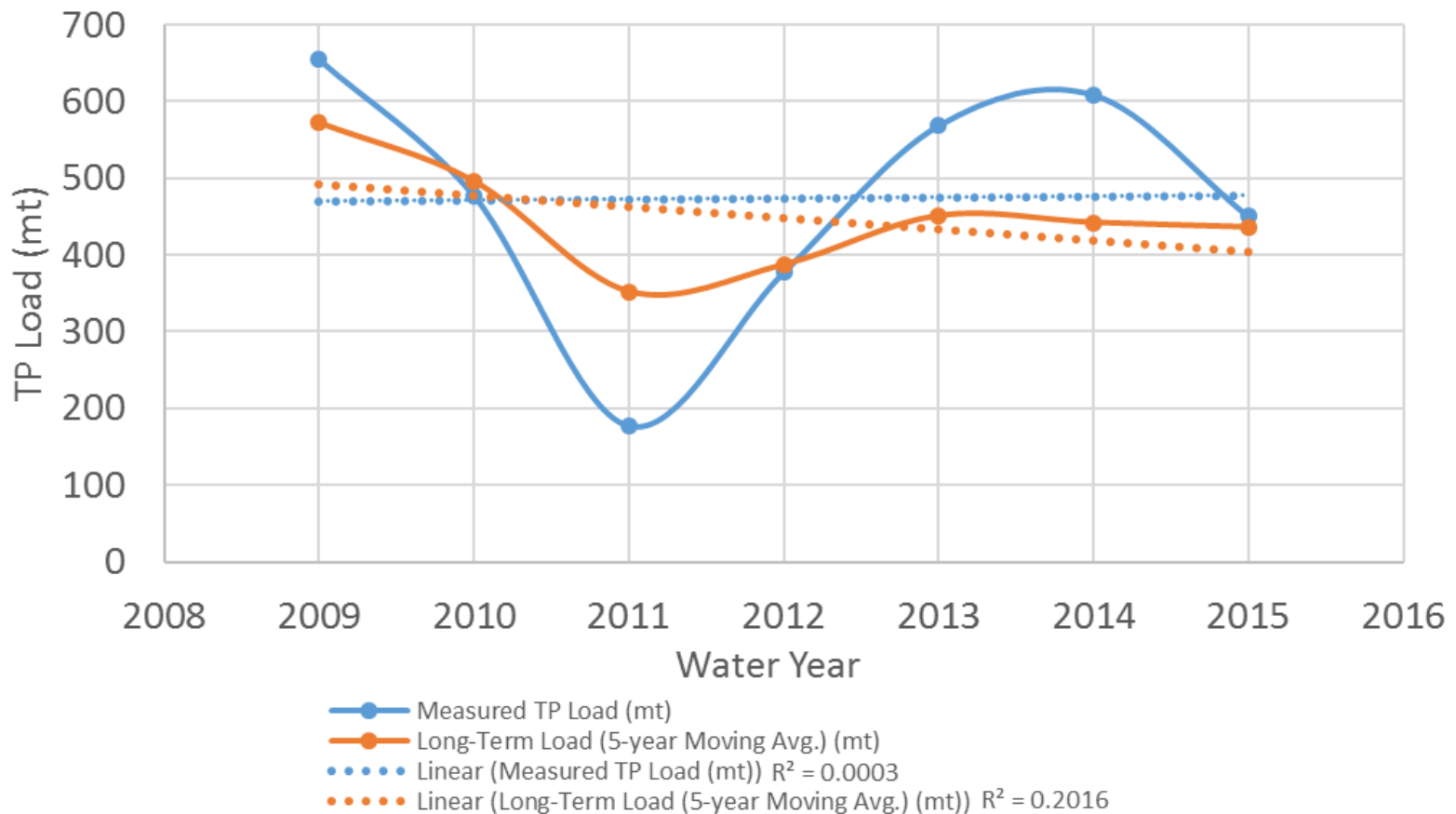


Data Credit: South Florida Environmental Report, 2016



Water Quality Analyses

Annual Total Phosphorus Loads to Lake Okeechobee
2009-2015



Data Credit: South Florida Environmental Report, 2016



Questions?





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Lake Tohopekaliga Nutrient Reduction Plan Update





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SFWMD Updates





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FDACS Updates





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WAM Update





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Next Steps





New Requirements

- Revisions to Section 373.4595, Florida Statutes (F.S.) during 2016 Legislative session
- New requirements for Northern Everglades watersheds
 - Lake Okeechobee
 - Caloosahatchee
 - St. Lucie
- Enhanced integration of WMD protection plans and BMAPs
- Additional reporting
 - 5-year BMAP progress reports
 - Annual Northern Everglades Coordinating Agencies Report



New Requirements

All New or Revised BMAPs

- Priority ranking of projects
- Planning-level estimates
 - Costs
 - Completion dates
 - Expected load reduction
- Source and amount of financial assistance
 - From the Florida Department of Environmental Protection (DEP)
 - From water management districts (WMDs)
 - From other entities



New Requirements

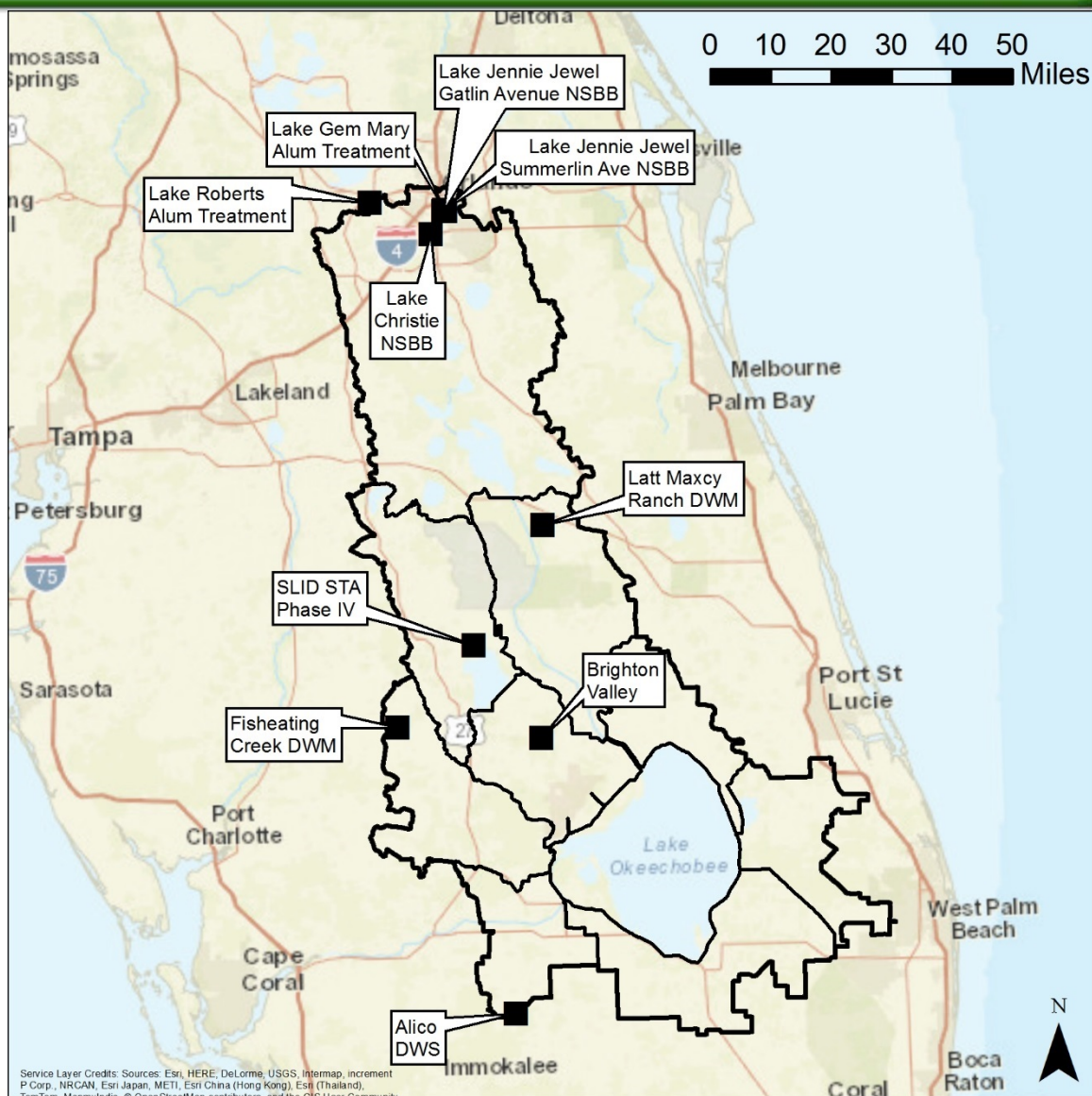
New Elements for Northern Everglades and Estuaries Protection Program (NEEPP) BMAPs

- Projects to achieve the TMDL in 20 years
- 5-year milestones to measure progress
- 5-year progress report



Project Information Collection

- Solicitation in January 2016 for projects in South Florida BMAPs
- Lake Okeechobee BMAP area:
 - 10 projects submitted
 - Project types included STA, dispersed water management (DWM), alum treatment, nutrient separating baffle box





Project Information Collection

Project Name	Project Type	Projected Start Date	Projected Completion Date	Sponsor	Partners
Spring Lake Improvement District STA Phase IV	Stormwater Treatment Area	TBD	TBD	Spring Lake Improvement District	TBD
Lake Jennie Jewel Summerlin Avenue NSBB	Nutrient Separating Baffle Box	Apr-16	Sep-17	Orange County Environmental Protection Division (OC EPD)	Orange County Board of Commissioners (OCBCC)
Lake Roberts Alum Treatment	Alum Treatment	Dec-16	Jun-17	OC EPD	OCBCC, Lake Roberts Advisory Board, granting Agencies
Lake Christie NSBB	Nutrient Separating Baffle Box	Jun-18	Jun-19	OC EPD	OC EPD, City of Orlando, granting agencies
Lake Jennie Jewel Gatlin Avenue NSBB	Nutrient Separating Baffle Box	Oct-16	Mar-18	OC EPD	OCBCC
Lake Gem Mary Alum Treatment	Alum Treatment	Mar-17	Dec-17	OC EPD	OCBCC, City of Orlando, granting agencies
Brighton Valley	Regional Water Treatment/Dispersed Water Management	Jul-16	Jun-17	Lykes Bros. Inc.	SFWMD, Legislature
Latt Maxcy Ranch Dispersed Water Management	Water Management	Jul-17	Jun-28	Latt Maxcy/SFWMD/FDEP	Latt Maxcy Ranch/State Appropriation
Alico Dispersed Water Storage	Water Storage	Aug-16	Aug-26	SFWMD/Alico Inc.	Legislature
Fisheating Creek Watershed Passive Water Storage	Dispersed Water Management Project	Nov-16	TBD	S & C Cattle and Land Services	DEP/FDACS/or SFWMD, Legislature



Action Items

- Comments on the draft annual report due May 17, 2016
- Florida Storage and Retrieval (STORET) database uploads completed
- Continue water quality analyses
- WAM results in fall 2016
- Continue project information collection
- Next annual meeting spring/summer 2017



Contact Information

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