

Florida Department of Environmental Protection



Bureau of Watershed Management

Wekiva BMAP Basin Working Group Meeting Draft BMAP Review

March 1, 2013





Welcome and Introductions

Charles Gauthier – Administrator
Watershed Planning and Coordination Section

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and

Kathleen Harrigan, Facilitator



Welcome

- Wekiva Basin Working Group Meeting
- Finalization stage for the Wekiva BMAP
- Meeting Goals
 - Review **Draft BMAP**
 - Identify next steps for Basin Working Group Members
 - Discuss timeline for BMAP adoption



Introductions

- Name, Organization, Role in BMAP
 - Elected Officials
 - DEP
 - Basin Working Group members
 - Other interested parties
- Sign in - Verify (or provide) contact information



Meeting Protocol

- Discussion time allocated for each topic
 - BWG, then Public comment, then back to BWG
- Agenda review - times are approximate
 - Draft BMAP
 - Next Steps
 - Timeline for BMAP adoption
- Meeting materials will be posted on DEP ftp site



Overview of Wekiva River, Rocks Springs Run and Little Wekiva Canal BMAP

Kathleen Harrigan



Summary of the BMAP

- Overview of BMAP development process
- Review of key aspects of the BMAP
 - Planning area
 - Basin Working Group
 - Major components
 - Major accomplishments



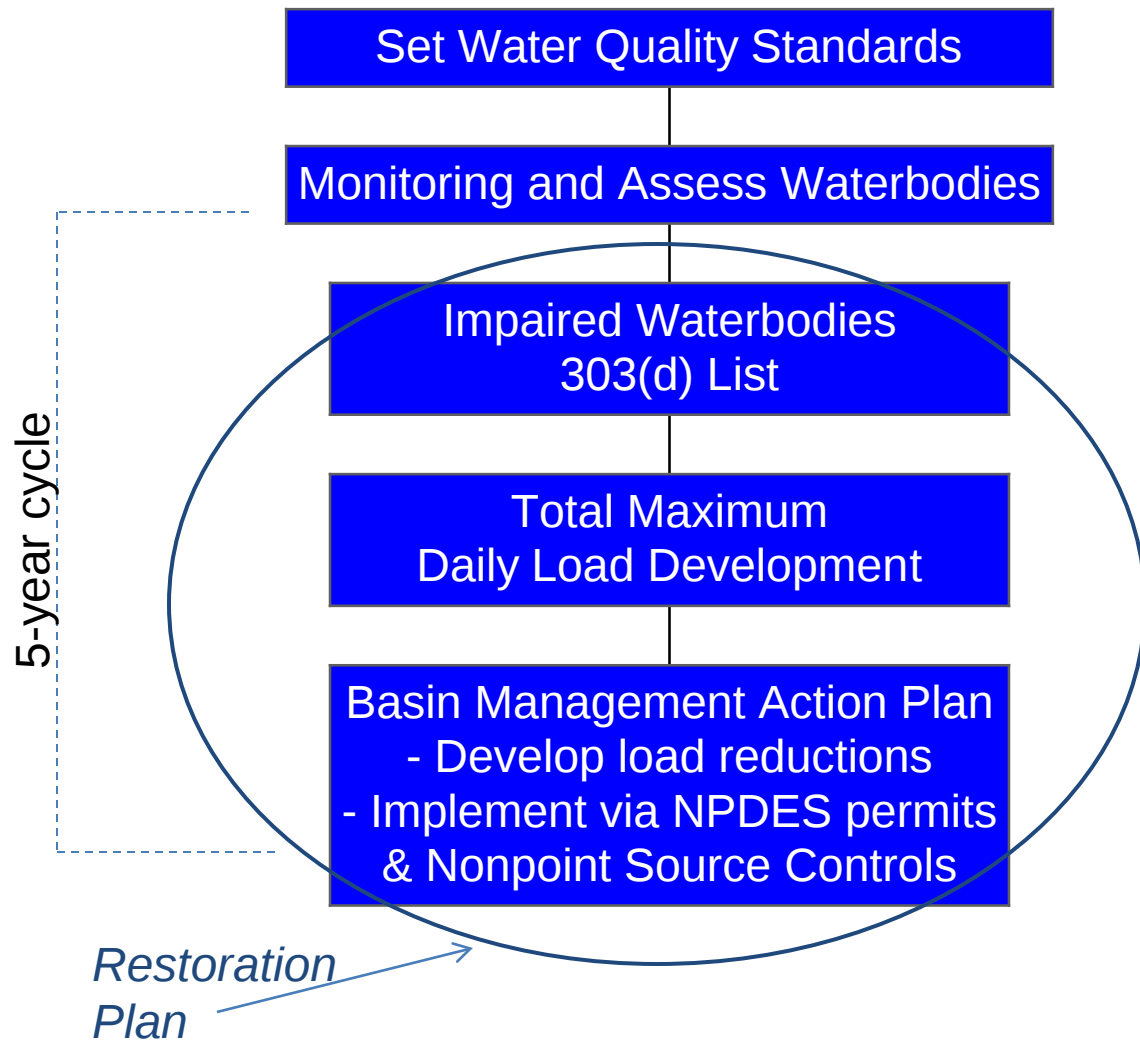
BMAP Process

- The Department's method for restoring water quality to an impaired waterbody.
- Prepared upon adoption of a TMDL
- BMAPs are prepared using a watershed management approach



Watershed Management Approach

- Management framework that coordinates and integrates programs and activities
- Resource- or place-oriented along hydrologic lines rather than program centered





Planning Area

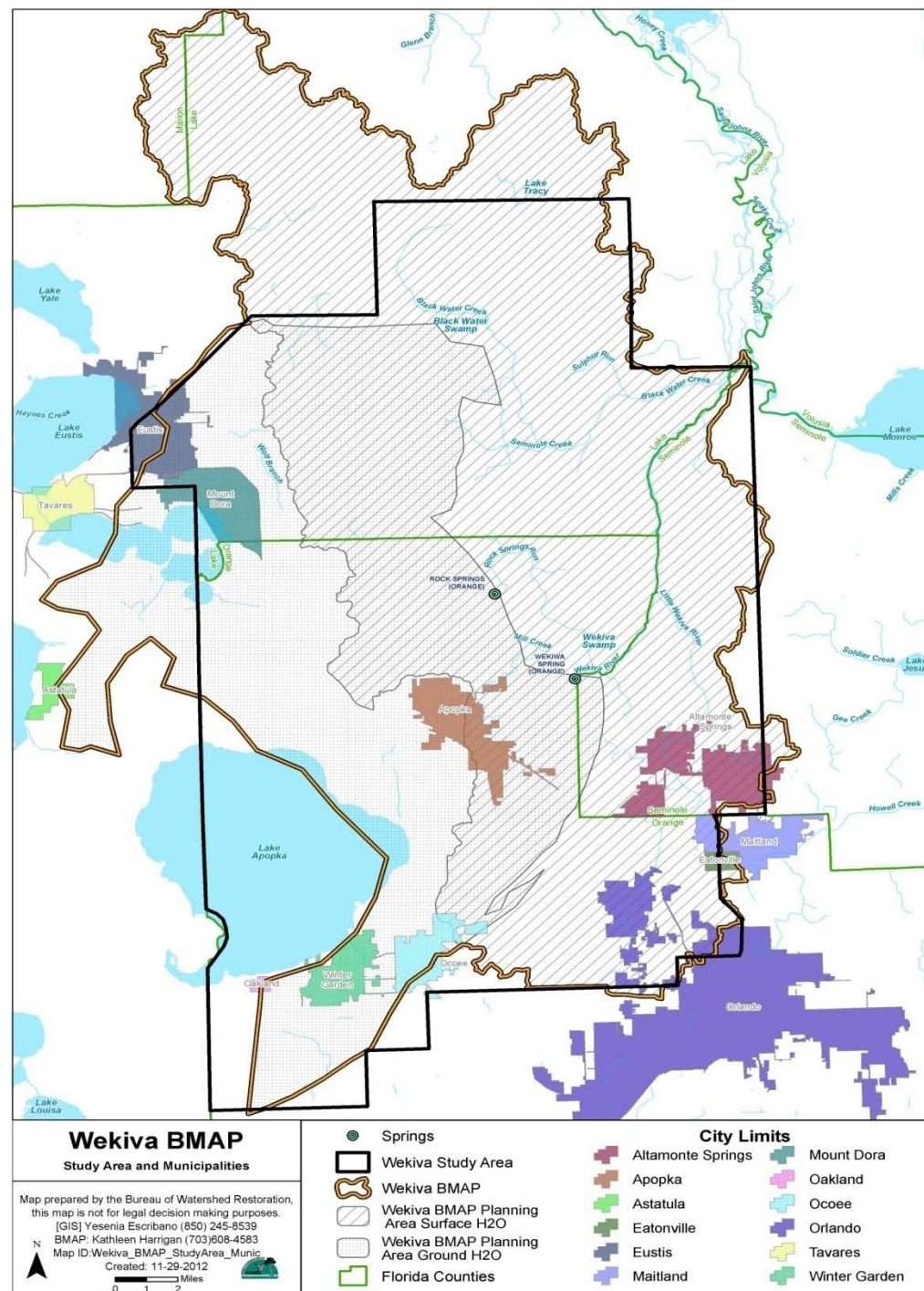
Surface Watershed

- Wekiva River
- Rock Springs Run
- Little Wekiva Canal
- Black Water Creek

And

Springshed (e.g.

- Wekiwa Springs
- Rock Springs)





Basin Working Group

Type of Member	Member
Cities and Towns	Altamonte Springs Apopka, Astatula, Eustis, Maitland, Mt. Dora, Oakland, Ocoee, Orlando, Tavares, Winter Garden
Counties	Lake, Orange, Seminole (including Health Department from each)
State Agencies	FDEP, FDACS, Wekiva State Park , Wekiva Aquatic Preserve , FDOT District 5, Florida Expressway, Florida Turnpike
Environmental	Friends of Wekiva
Utility	Utility Inc. / Wekiva Hunt Club WWTF



Major BMAP Components

- Chapter 1 – Context, Scope & Purpose of Plan
- Chapter 2 – Wekiva River, Rock Springs Run and Little Wekiva Canal Basin Setting
- Chapter 3 – Pollutant Sources and Anticipated Outcomes
- Chapter 4 – Management Actions
- Chapter 5 – Assessing Progress and Making Changes
- Chapter 6 – Commitment to Plan Implementation



Major Accomplishments

- Financial Investment:
 - >\$50 M collection system projects
 - >\$500 M non-collection system efforts
- Nutrient Load Reduction Efforts
 - TP reductions: >49,509 lbs per year
 - TN reductions: >351,420 lbs per year
 - Nitrate reductions: >239,778 lbs per year
- Land Conservation and Preservation Efforts
 - 2,589 acres in addition to State Park and Aquatic Preserve



Next Steps

- ↓ BWG comments (March 15)
 - Accuracy and clarity of factual information
 - Completeness and correctness of management actions and monitoring plan details
- ↓ DEP development of Final Draft for Public Review
- ↓ Public Comment Period
- ↓ Public Meeting
- Adoption of BMAP by DEP Secretarial Order



Review and Discussion on Major Elements of the BMAP



Wekiva River, Rock Springs Run and Little Wekiva Canal Basin Setting

Impaired Waters and Restoration Targets

Pollutant Sources and Delivery

Rick Hicks – PG Administrator

Ground Water and Springs Management Section

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Information on Impaired Waters and Their TMDLs



Wekiva River System Nutrient TMDLs

- **Wekiva River, Wekiwa Springs, and Rock Springs Run**
 - April 2008
 - Nitrate nitrogen and TP
- **Little Wekiva Canal**
 - June 2008
 - TN and BOD, which caused impairment for DO



Setting

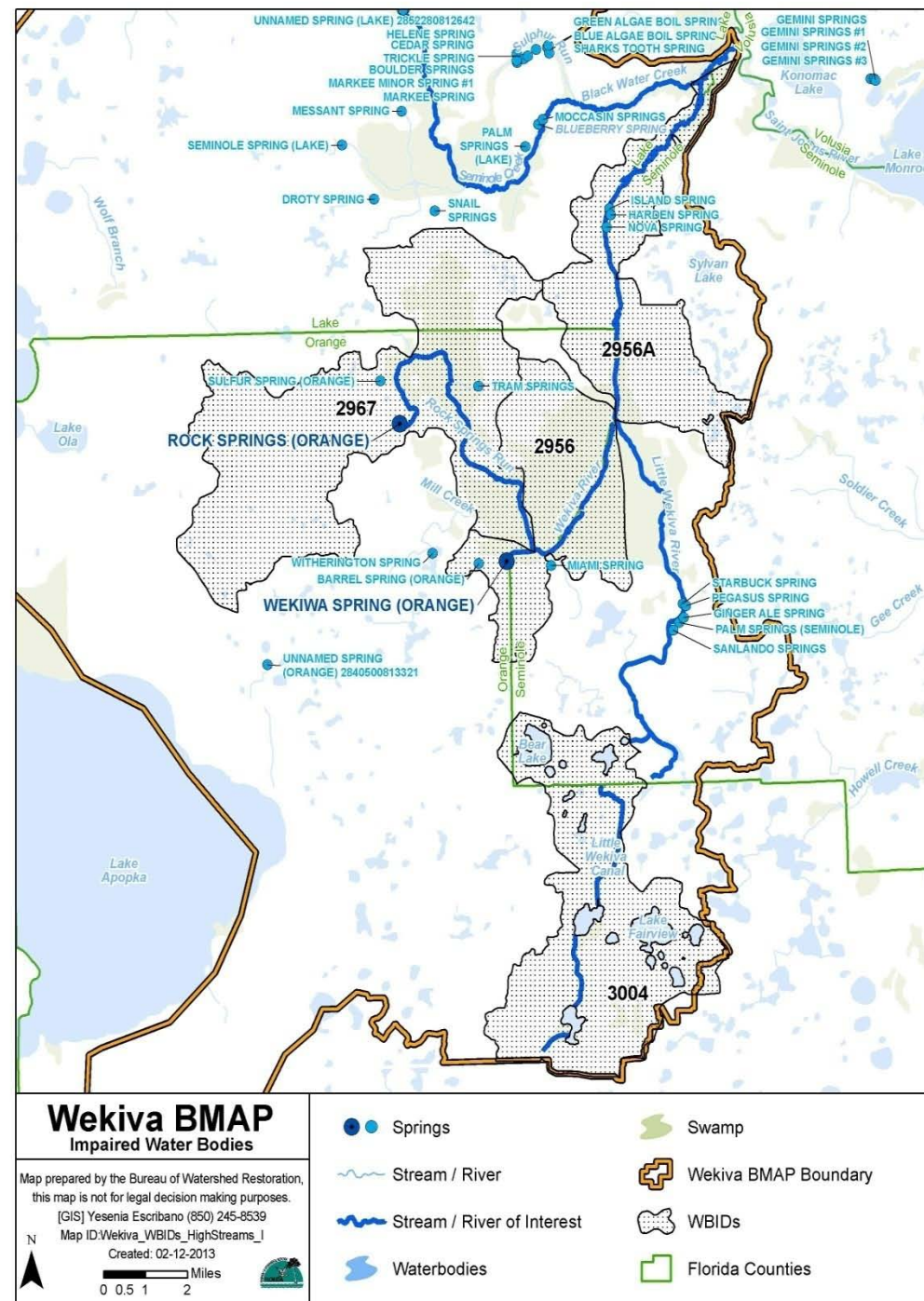


Basin Hydrology

Map illustrates relationship between streams in the Wekiva Basin and the impaired waters

Direct runoff to streams is limited.

Primary source of flow is via ground water discharge to springs.





Wekiva BMAP
Geopolitical

Map prepared by the Bureau of Watershed Restoration,
this map is not for legal decision making purposes.
[GIS] Yessenia Escibano (850) 245-9539
Map ID: Wekiva_Geopolitical_1
Created: 02-13-2013
0 1.25 2.5 5 Miles

Legend:

- Springs
- Stream / River
- Swamp
- Waterbodies
- Modeled Spring Recharge Area 1995
- WBIDs
- Wekiva Spring Cluster Springshed
- City Limits
- Wekiva BMAP



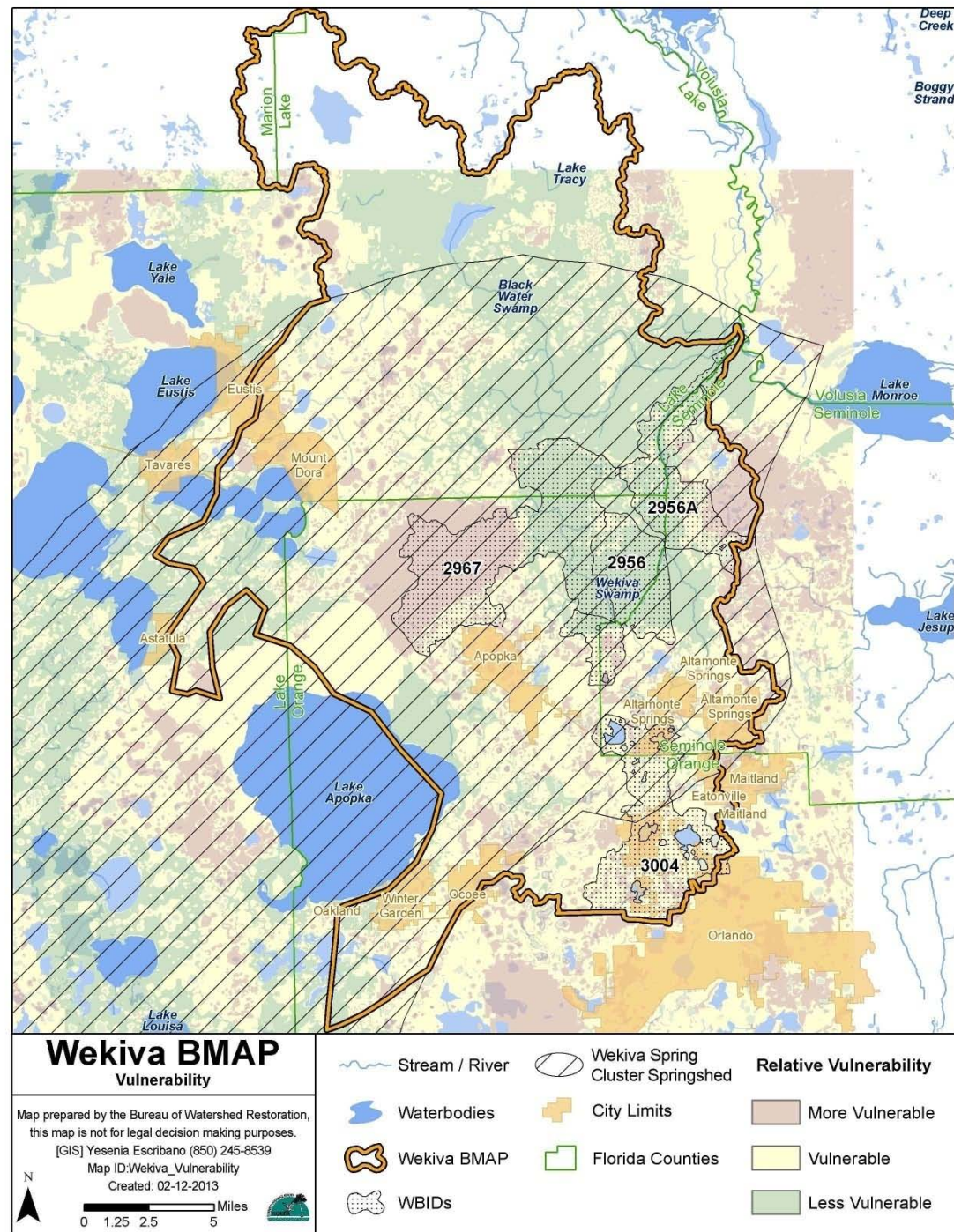
Aquifer Vulnerability

Wekiva Aquifer Vulnerability Assessment model created by Florida Geological Survey

Pink = more vulnerable

Yellow = vulnerable

Green = Less vulnerable





Information on TMDLs



Nitrate and Total Nitrogen TMDLs

WBID NAME	PARAMETER	TMDL TARGET	TMDL (% REDUCTION)	WLA NPDES WASTEWATER (LBS/MONTH)	WLA NPDES STORMWATER (% REDUCTION)	LA (% REDUCTION)
Wekiwa Spring	Nitrate	0.286	79%	N/A	79%	79%
Wekiva River (upstream)	Nitrate	0.286	68%	2,805	68%	68%
Wekiva River (downstream)	Nitrate	0.286	47%	N/A	47%	47%
Wekiwa Spring	Nitrate	0.286	79%	N/A	79%	79%
Rock Springs Run	Nitrate	0.286	63%	N/A	63%	63%
Rock Spring	Nitrate	0.286	81%	N/A	81%	81%
Black Water Creek	Nitrate	0.286	52%	N/A	52%	52%
Little Wekiva River	Nitrate	0.286	59%	N/A	59%	59%
Little Wekiva Canal	TN	-	45.2%	N/A	45.2%	45%

Sources: Table 6.1 Gao (2008) and Table 6.1 Bailey (2008)



Total Phosphorus TMDL

WBID NAME	PARAMETER	TMDL TARGET	TMDL (% REDUCTION)	WLA NPDES WASTEWATER (LBS/MONTH)	WLA NPDES STORMWATER (% REDUCTION)	LA (% REDUCTION)
Wekiwa Spring	TP	0.065	64%	N/A	64%	64%
Upstream Wekiva River Main Stem	TP	0.065	61%	40	61%	61%
Downstream Wekiva River	TP	0.065	57%	191	57%	57%
Wekiwa Spring	TP	0.065	64%	N/A	64%	64%
Rock Springs Run	TP	0.065	58%	N/A	58%	58%
Rock Spring	TP	0.065	23%	N/A	23%	23%
Black Water Creek	TP	0.065	36%	N/A	36%	36%
Little Wekiva River	TP	0.065	78%	N/A	78%	78%

Sources: Table 6.1 Gao (2008) and Table 6.1 Bailey (2008)



Nutrient Concentrations

WBID	WATERBODY NAME	NO ₂ NO ₃ (MG/L) MEDIAN ¹	NO ₂ NO ₃ (MG/L) RECENT MEDIAN ²	TP (MG/L) MEDIAN ¹	TP (MG/L) RECENT MEDIAN ²
2956	Wekiva River	0.67	0.55	0.109	0.105
2956A	Wekiva River	0.3	0.178	0.111	0.11
2956C	Wekiwa Spring	0.97	0.917	0.12	0.113
2967	Rock Springs Run	0.96	0.98	0.087	0.083
2987	Little Wekiva River	0.31	0.38	0.139	0.142
2929A	Black Water Creek	0.20	0.28	0.05	0.052
-	TMDL TARGETS	0.286 mg/L	0.286 mg/L	0.065 mg/L	0.065 mg/L
WBID	WATERBODY NAME	TN (MG/L) MEDIAN ¹	TN (MG/L) RECENT MEDIAN ²	BOD (MG/L) MEDIAN ¹	BOD (MG/L) RECENT MEDIAN ²
3004	Little Wekiva Canal	1.14	0.85	2.1	2.0
-	TMDL TARGETS	42,624 lbs/yr	42,624 lbs/yr	76,554 lbs/yr	76,554 lbs/yr

Notes:

1 – 1995 – 2012

2 – 2011 – 2012



Pollutant Sources and Delivery Mechanisms



Point and Nonpoint Sources

- Point Sources- NPDES discharges to surface waters
 - Minor contributions and being addressed
 - WWTP discharges would be “emergency only”
- Nonpoint Sources- Everything else
 - Discharges to ground water, land uses that allow nutrients to leach to ground water
 - Stormwater discharges not covered by a permit



Nutrient Sources

- Domestic Wastewater (point and nonpoint)
- Fertilizer (current and legacy)
- Septic Systems (OSTDS)
- Animal Waste
- Atmospheric Deposition
- Natural Sources (of phosphorus)



Spring Discharge

- Ground water discharge accounts for approximately 80% of the flow in the Wekiva River system, mainly via springs
- Pollutants from nonpoint sources reach springs via seepage to ground water
- Wekiwa and Rock springs account for 70% of nitrate load and 60% of TP load to Wekiva River



Loads from Spring Discharge

SPRINGS	NO3/NO2 (LBS/YR)	NO3/NO2 (%)	TP (LBS/YR)	TP (%)
Wekiwa	188,959	36.9%	36,999	46.9%
Rock	171,032	33.4%	9,122	11.6%
Seminole	94,967	18.6%	5,546	7%
Sanlando	22,773	4.5%	6,948	8.8%
Starbuck	10,983	2.1%	4,506	5.7%
All Springs with Data	511,433	-	78,952	-

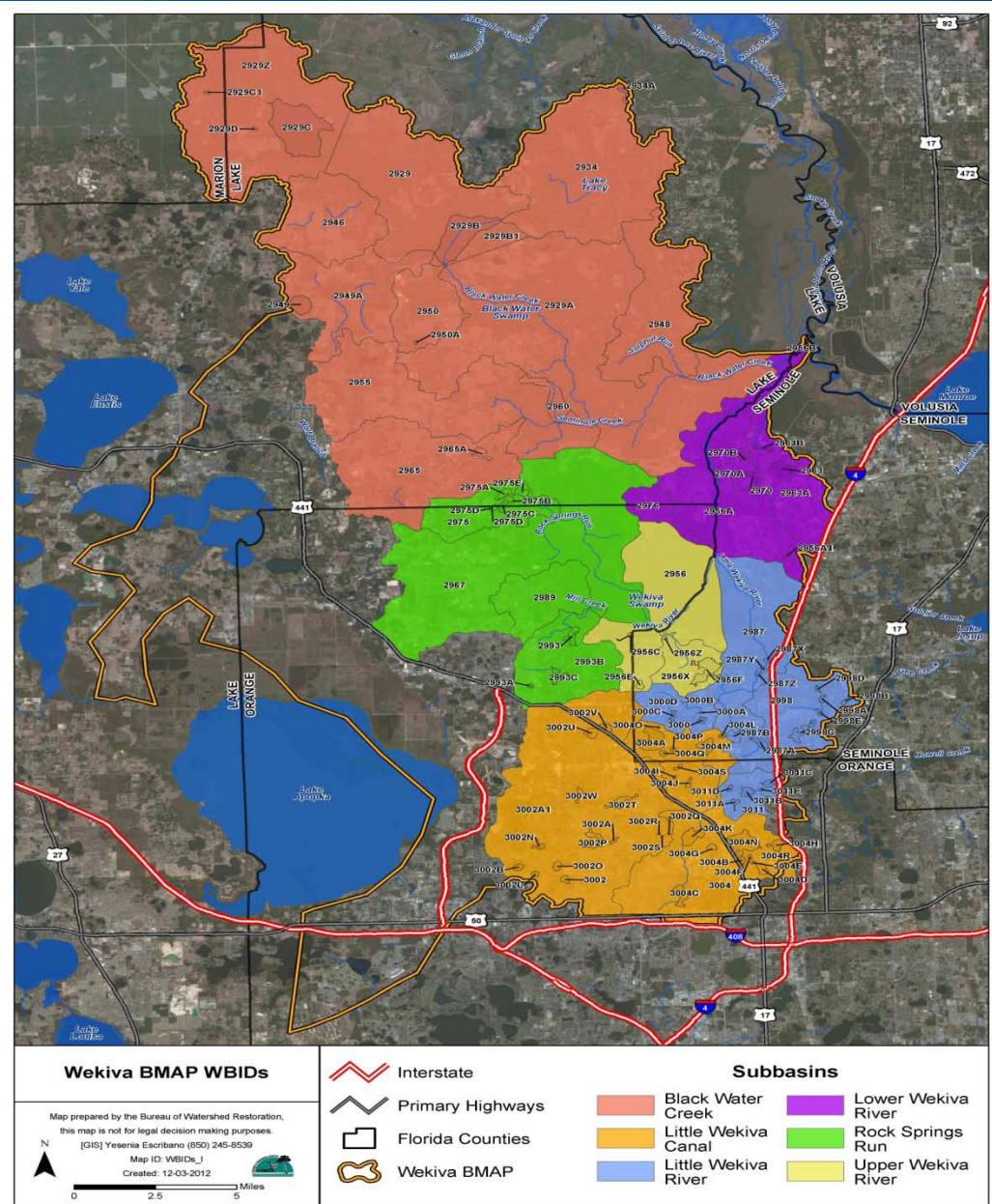
Source – Table 4.12, Gao (2008)



Landuse Loading

- Loading occurs as direct runoff to surface waters as well as runoff to closed depression, which then percolates to ground water
- Runoff-based loading numbers calculated using land use and EMCs; may need to be revised for final BMAP
- Runoff and spring loadings overlap
- However, runoff loads do serve a purpose to help direct attention to specific regions

Subbasins





Estimated Loads from Runoff

<i>Wekiva BMAP Planning Area Subbasins</i>	Acres in Subbasin	Nitrate baseline load	TP baseline load
Blackwater Creek	127,911	140,441	72,846
Little Wekiva Canal	47,609	134,571	78,165
Little Wekiva River	28,284	83,667	48,750
Rock Springs Run	38,240	59,375	30,587
(Upstream) Wekiva River	29,805	53,376	30,263
(Downstream) Wekiva River	24,616	31,617	17,066
Total BMAP Planning Area	296,465	503,047	277,675



Management Actions

Kathleen Harrigan



Criteria for Management Actions

- Address nutrient loads (TN, TP, or both)
- Be located in the Wekiva River, Rock Springs Run, or Little Wekiva Canal BMAP planning area.
- Completed since January 1, 2000
- Load reductions were only noted for management actions where the load reduction was over and above any permit requirements (and only the “extra” reduction was noted in the BMAP).



Point Source Management Actions

- Wastewater facilities discharging to impaired surface waters:
 - Treatment plant upgrades
 - Elimination/reduction of surface water discharge
- Stormwater
 - BMP installation
 - Stormwater system rehabilitation
 - Street sweeping



Nonpoint Source Management Actions

- Agricultural BMPs
- Wastewater facilities discharging to ground water
 - Treatment plant upgrades
 - Collection system rehabilitation
 - Water reuse projects
 - Septic tanks (connection to central sewer)
- Other
 - Road paving with added treatment
 - Streambank protection and restoration
 - Land conservation and preservation
 - Local ordinances for landscaping, fertilizer, etc.
 - Public education



WWTFs & WRFs

- New Permit Limits and Estimated Load Reductions
- Potential difference assumes Nitrate and TN concentration limits are equivalent

PERMIT NUMBER	FACILITY NAME	PERMITTED CAPACITY (MGD)	2006 NITRATE LIMIT (MG/L)	WEKIVA TN LIMIT (MG/L)	FLOW 2012 (MGD)	NITRATE LOAD (LBS/DAY) BASED ON 2006 LIMIT	TN LOAD (LBS/DAY) BASED ON WEKIVA TN LIMIT	POTENTIAL DIFFERENCE (LBS/DAY) ¹
FLA010795	Conserv II Distribution Center	68.2	10	10	29.91	2,498	2,498	0
FL0033251	Altamonte Springs Regional WRF	12.5	NM	10	5.66	N/A	473	NA
FL0020141	Sanford North WWTF	9.2	NM	10	4.797	N/A	401	NA
FLA010798	Orange Northwest WRF	7.5	12	3	5.269	528	132	-396
FLA010818	Apopka WRF, Project Arrow	4.5	NM	10	2.634	N/A	220	N/A
FLA010815	Ocoee WRF	3.0	12	10	1.594	160	133	-27
FLA011086	Greenwood Lakes WWTP	3.0	12	3	1.9810	199	50	-149
FL0036251	Wekiva Hunt Club WWTP	2.9	12	10	1.74	174	145	-29
FL0042625	Seminole County, Yankee Lake WWTP	2.5	12	3	1.993	200	50	-150
FLA010507	Eustis/Bates St.	2.4	12	10	1.114	111	93	-19
FL0020109	Winter Garden WRF	2.0	12	3	2.38	239	60	-179
FLA010508	Lake Mt. Dora WRF	1.5	12	10	0.734	74	61	-12
FLA268542	Mt. Dora Snell WWTF #2	1.25	NM	10	0.425	N/A	35	N/A
FLA011080	Woodland/Des Pinar WRF	0.5	12	6	0.242	24	12	-12
FLA295965	Lake Eustis Main and Eastern WRF	0.3	12	10	0.0855	9	6	-3
FLA010871	Rock Springs MHP	0.15	12	6	0.115	12	6	-6
-	-	-	-	-	-	-	Estimated Total Reduction Based on Available Data (lbs/yr)	350,698



Sanitary Collection System

(9 BWG members, 47 Projects)

Collection System Projects	Little Wekiva Canal and Little Wekiva River	Wekiva River	Springshed	Total
Improve Reuse System	Altamonte (2)		Apopka (2)	4
Expand Collection System	Altamonte (2) Orlando (5)	Wekiva S.P. (1) Altamonte (1)	Apopka (6) Mt. Dora (1)	16
Rehabilitate / Upgrade System	Altamonte (1) Orlando (8)	Seminole Co.(4)	Apopka (3) Mt. Dora (2) Ocoee (1) Orange Co. (3) Winter Garden (2)	24
Inspect System	Orlando (1)		Mt. Dora (1)	2
Studies	Altamonte (1)			1
TOTAL	20	6	21	47



Stormwater Projects

(11 BWG Members, 129 Projects)

Stormwater Projects	Black Water Cr.	Little W. Canal	Little Wekiva River	Rock Sp. Run	Wekiva River	Springshed	Total
Dirt Road Paving	Lake (1)	Orange(10)	Orange (1)	Orange (5)	Seminole (2)		19
System Inspections			Orlando (2)				2
System Rehab.			Orlando (1)			Mt. Dora (12)	13
Stormwater Treatment Systems	Seminole (1)	FDOT (1) Orlando (1) Orange (8) Seminole (2)	Altamonte (11) Apopka (1) FDOT (4) Orlando (9) Seminole (2)	Apopka (1) Orange (1)	Seminole (5)	Eustis (2) FDOT (3) Lake Co. (2) Mt. Dora (3) Oakland (1) Ocoee (19) Turnpike (4) W. Garden (4)	85
Street Sweeping		Orange (1)	Altamonte (1) Orlando (1) Maitland (1)	Apopka (1)	Seminole (1)	FDOT (1) Mt. Dora (1) Ocoee (1) W. Garden (1)	10
TOTAL	2	23	34	8	8	54	129



Nonpoint Source Projects

(12 BWG, 40 Projects – excluding Ag)

Nonpoint Source Proj.	Black Water Creek	Little W. Canal	Little Wekiva River	Rock Sp. Run	Wekiva River	Springshed	Total
Education, & ordinances			Orange (1)				1
Bank Stablization			Altamonte (2) Orange (8) Seminole (5)	Orange (1)	Seminole (2)		18
Exotic Veg. Removal			Seminole (4)				4
Land Pres. And Conservation	Lake (1)			Orange (4)	Altamonte (1)	Lake (3) W. Garden (1) Combined effort (FDEP, SJRWMD, OCEA, Orange) (1)	11
Studies	Lake (1)		Altamonte (2)	Orlando (1)			4
Wetland Restoration					Altamonte (1)	Mt. Dora (1)	2
TOTAL	2 T-4.5	0	22	6	4	6	40



Public Education & Ordinances

Basin Working Group (BWG) Member Organizations	FYN Program	Landscaping Ordinance	Irrigation Ordinance	Pet Waste Management	PSAs, Websites, Pamphlets, etc
Altamonte Springs	Yes	`	Yes	Yes	Yes
Apopka	-	Yes	Yes	-	Yes
Astatula	-	-	Yes	-	-
Eustis	-	Yes	Yes	-	Yes
Maitland	-	Yes	Yes	Yes	Yes
Mount Dora	-	-	Yes	Yes	Yes
Oakland	-	Yes	Yes	-	Yes
Ocoee	-	Yes	Yes	-	Yes
Orlando	Yes	Yes	Yes*	Yes	Yes
Tavares	-	Yes	Yes	-	Yes
Winter Garden	-	-	Yes	-	-
FDOT District 5	n/a	n/a	n/a	n/a	Yes
Friends of Wekiva					Yes
Lake County	-	Yes	Yes	-	Yes
Orange County	Yes	Yes	Yes	Yes	Yes
Seminole County	Yes	Yes	Yes	Yes	Yes
SJRWMD	n/a	n/a	District-wide watering restrictions	n/a	Yes



Agricultural BMP Goals

	FDACS- Adjusted Acres for Enrollment
Totals	50,062.1
Five-year enrollment goals (80%)	40, 049.6
Acreage Enrolled (as of Dec. 31, 2011)*	6,408.7
Remaining Acres to Enroll	33,641.0

* As of Dec. 31, 2011, approximately 201 producers have submitted NOIs covering 6,409 acres to implement FDACS-adopted BMPs:

- 3 cow/calf operations
- 3 row/field operations
- 19 citrus groves
- 2 sod farms
- 174 container nurseries



Estimated Nitrate and TP Loads

SOURCE CATEGORY	SUBBASIN	NITRATE LOAD (LBS/YR)	TP LOAD (LBS/YR)
Baseline Runoff ¹	Black Water Creek	140,441	72,846
Baseline Runoff ¹	Little Wekiva Canal	134,571	78,165
Baseline Runoff ¹	Little Wekiva River	83,667	48,750
Baseline Runoff ¹	Rock Springs Run	59,375	30,587
Baseline Runoff ¹	(Upstream) Wekiva River	53,376	30,263
Baseline Runoff ¹	(Downstream) Wekiva River	31,617	17,066
-	BaselineTotal	503,047	277,675
-	Spring Discharge²	511,433	78,952
-	Combined Load	1,014,480	356,627

1 – Calculated by Gao (2008) using SWMM and SJRWMD land uses

2 – Calculated by Gao (2008) using spring discharges and concentration



Est. Load Reductions (BMAP and WSA Projects)

PROJECT	NITRATE LOAD REDUCTIONS (LBS/YR)	TN LOAD REDUCTIONS (LBS/YR)	TP LOAD REDUCTIONS (LBS/YR)
WSA Domestic WWTP Upgrades	225,208	(225,208)	-
Wastewater Facility Collection System Projects	193	99,261	28,343
Wastewater Reuse	6,963	(6,963)	
Stormwater Projects	7,180	27,992	5,162
Road-Paving Projects	-	2,210	1,579
Shoreline Stabilization/ Erosion Control	234	3,712	264
Agricultural BMPs	TBD	TBD	14,161
TOTALS	239,778	351,420	49,509
Estimated Loads from Table 4.16	1,014,480	(1,014,480)	356,627
Load Reductions as % of Total Loads in Table 4.16	24%	35%	14%



Assessing Progress and Making Changes

Kathleen Harrigan
and
Charlie Gauthier



Monitoring Plan

Kathleen Harrigan



BMAP Monitoring Partners

Entity	Surface Water		Springs	Ambient Ground Water	Biological	Flow
	Core	Supple- mental				
City of Altamonte Springs	X	X				
City of Apopka	X	X		X		
City of Maitland	X					
City of Mount Dora				X		
City of Orlando	X	X				
City of Winter Garden				X		
Lake County	X	X		X		
Orange County	X	X	X	X	X	X
Seminole County	X	X			X	
SJRWMD	X		X	X	X	X



Objectives

- **Primary Objective—Long-Term Trend Analysis:**
 - *Track inputs and concentration trends in nutrients (e.g., nitrate, TN, and TP) through ground water, surface water, and spring sampling, as well as biological assessments and flow measurements.*
- **Secondary Objective—Source Assessment:**
 - *Identify areas in the springshed and surface water basin with high loadings of nutrients to surface water and ground water to better focus management efforts.*



Definition of Core Stations

- All ambient **ground water** stations in the springshed of the BMAP planning area
- Selected **surface water or spring** monitoring stations in the surface watershed of the BMAP planning area monitored preferably monthly (but at least quarterly)



Water Quality Indicators

- ***Core indicators***
 - *Directly related to the parameters causing impairment in the Wekiva River and Rock Springs Run.*
- ***Supplemental indicators***
 - *Monitored primarily to support the interpretation of core water quality parameters.*



Surface Water Quality Parameters

Core Parameters	Supplemental Parameters
Nitrate as N (mg/L)	Total suspended solids (TSS)
Total Kjeldahl nitrogen (TKN)	Biochemical oxygen demand (BOD)
Total nitrogen (TN) as N (mg/L)	Color
Orthophosphate as P (dissolved) (mg/L)	Chlorophyll a (corrected) (mg/L)
Total phosphorus (as P) (TP) (mg/L)	Dissolved oxygen (DO) (mg/L) – field
	Temperature (°C) – field
	Specific conductance (umho/com) – field
	pH (SU) - field



Ground Water Quality Parameters

Core Parameters	Supplemental Parameters
Nitrate as N (mg/L)	Total dissolved solids (TDS)
Total Kjeldahl nitrogen (TKN)	Chloride as Cl (mg/L)
Total nitrogen (TN) as N (mg/L)	Temperature (°C) – field
Total phosphorus (as P) (TP) (mg/L)	Turbidity (NTU) - field
	Dissolved oxygen (DO) (mg/L) – field
	Specific conductance (umho/com) – field
	pH (SU) - field



Biological Monitoring

- The Lake Vegetation Index (LVI)
 - Multimetric index, evaluates how closely a lake's plant community resembles one that has very little human disturbance
- The Stream Condition Index (SCI)
 - Multimetric tool, assesses the macroinvertebrate communities and compares the results with "minimally disturbed" reference sites
- SAV/algal surveys
 - Quantitatively describes the distribution and spatial coverage of SAV and filamentous macroalgae



Other Monitoring Efforts

- Flow measurement
 - Data taken at surface water and springs concurrent with the water quality monitoring
- Monitoring and other reported data submitted as part of permit requirements:
 - WWTF (or WRF) permittees
 - MS4 permittees



Appendix F

- Surface water monitoring stations (core and supplemental)
- Spring monitoring stations (core)
- Ambient ground water monitoring stations (core)
- Biological monitoring stations (core)
- Flow monitoring stations (core)
- The tables provide:
 - Sampling entity; station number, name, and location description; Latitude and longitude; Sample frequency; and Sample parameters.



Additional Monitoring and Research Efforts

Tracking Implementation

Charles Gauthier



Additional Research Planned

- SJRWMD Springs Research
 - Multidisciplinary approach to improving management abilities
- Altamonte Springs – Little Wekiva River
 - City-wide pollutant model and H&H study
 - Evaluate sanitary sewer system and identify areas prone to I&I; develop a schedule for repair of system
- Lake County – Black Water Creek
 - Royal Trails Drainage and Water Quality Improvements



Additional Research Needs

- Agricultural Land Uses and Acreage Available for Enrollment in Ag BMPs
- Updated Land Uses and Load Reduction Estimates
- Nitrate and TP Loadings
 - Recharge Areas for Wekiva, Rock, Seminole (at Sorrento), Sanlando, and Starbuck Springs
- Septic Tank Loadings



Tracking Implementation - Annual Meetings

- Information Exchange
 - Project and monitoring plan implementation
 - Sharing new information (e.g., monitoring trends, pollutant reductions strategies)
 - Coordinating TMDL-Related Issues
- Adaptive Management
 - Identify implementation issues and consider new information, and,
 - Determine additional corrective actions are needed (if the Wekiva River, Rock Springs Run, and Little Wekiva Canal are not projected to meet the TMDLs)



Next Steps / Schedule for BMAP Adoption

Kathleen Harrigan



Proposed Schedule

- **BWG Comment Period Ends - March 15**
- **Final Draft - Mid April (approx. April 12)**
- **Public Meeting - End April (approx. April 26)**
- **Bring to the Secretary for Adoption - Early May (approx. May 10)**



BWG Assignments

- Review accuracy of scientific facts
- Confirm completeness and accuracy of:
 - List of management actions
 - Monitoring stations and parameters
- Include any additional monitoring and research efforts
- Letters of commitment are ***not needed, but are welcome***



Final Comments