

Florida Department of Environmental Protection



Division of Environmental Assessment and Restoration

Basin Management Action Plan Weeki Wachee Basin

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May 2014



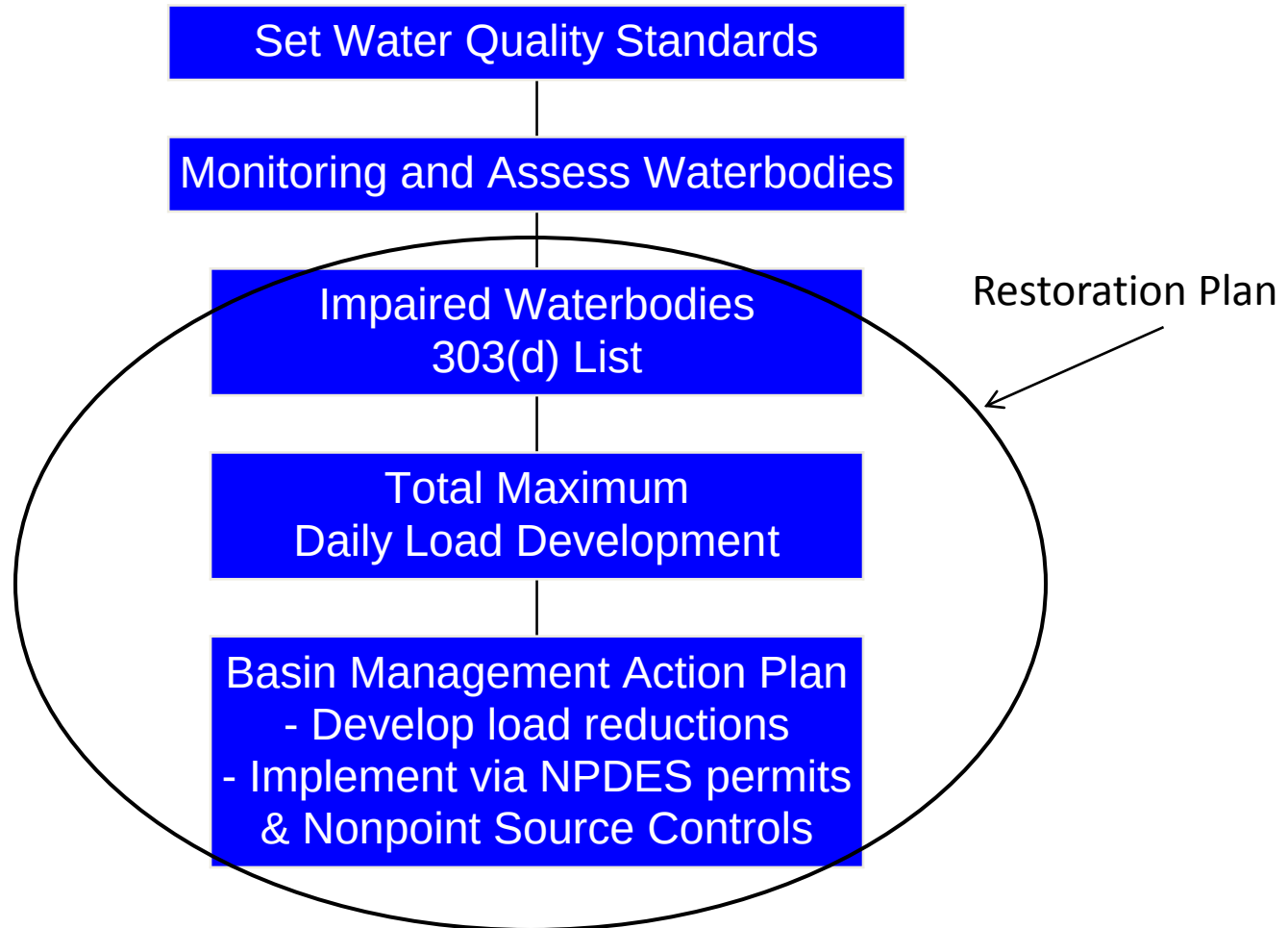


WELCOME

- Introductions
- TMDL review FDEP
- Break
- BMAP process FDEP
- Questions



CWA/TMDL Process





Basin Management Action Plan

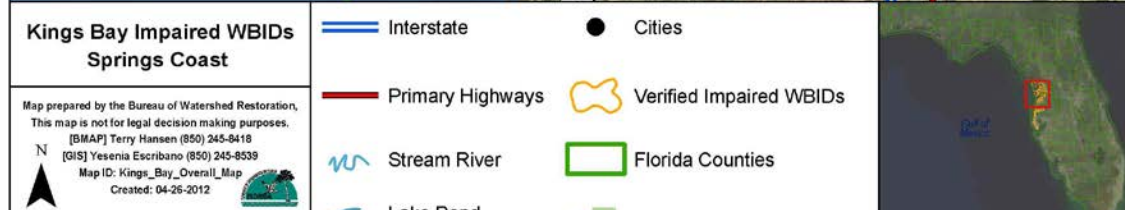
- The Department's method for restoring water quality to an impaired water body.
- BMAPs are adopted by FDEP through a Secretarial Order.
- BMAPs are enforceable.



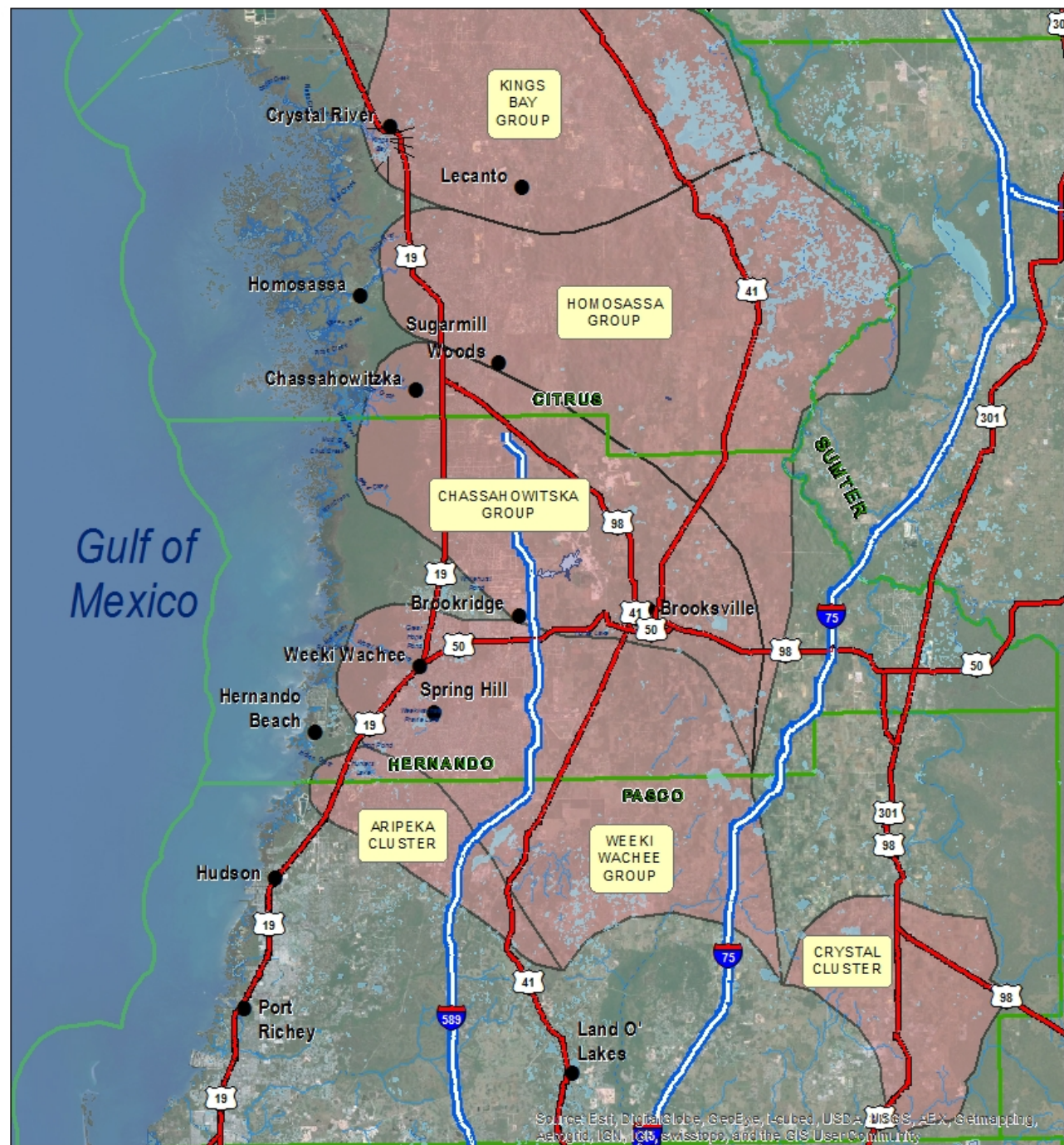
Regulatory Framework

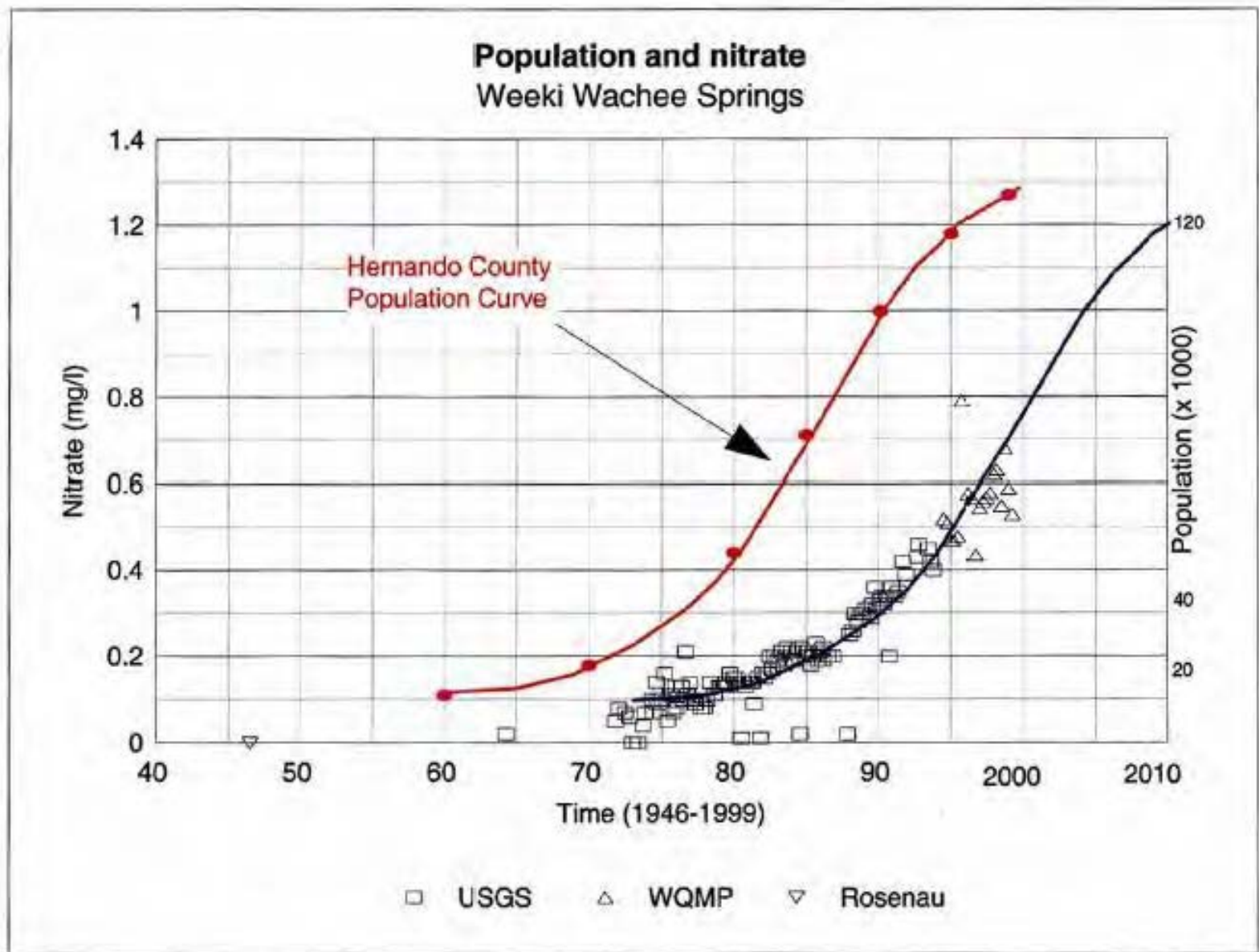
- The process for preparing BMAPs is found in:
 - Section 403.067, Florida Statutes (F.S.), known as the Florida Watershed Restoration Act (FWRA).
 - Spells out issues that are addressed within a BMAP.

Regional Setting for Impaired WBIDs



TMDLs are being completed for all the springs in the Springs Coast Area.

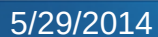






BMAP Process

- The Weeki Wachee BMAP will be developed collaboratively with local stakeholders.
 - Through open meetings with public involvement.
 - Joint decision making with local partners.
 - Our local partners include Hernando & Pasco Counties, municipalities, SWFWMD, agriculture interests, environmental interests, community interests and others.





Key BMAP Components

- TMDLs being addressed.
- Defines area addressed by BMAP.
- Future growth impacts.
- Projects to meet the TMDL including:
 - Implementation timeline;
 - Commitment to project; and
 - Expected water quality improvement.

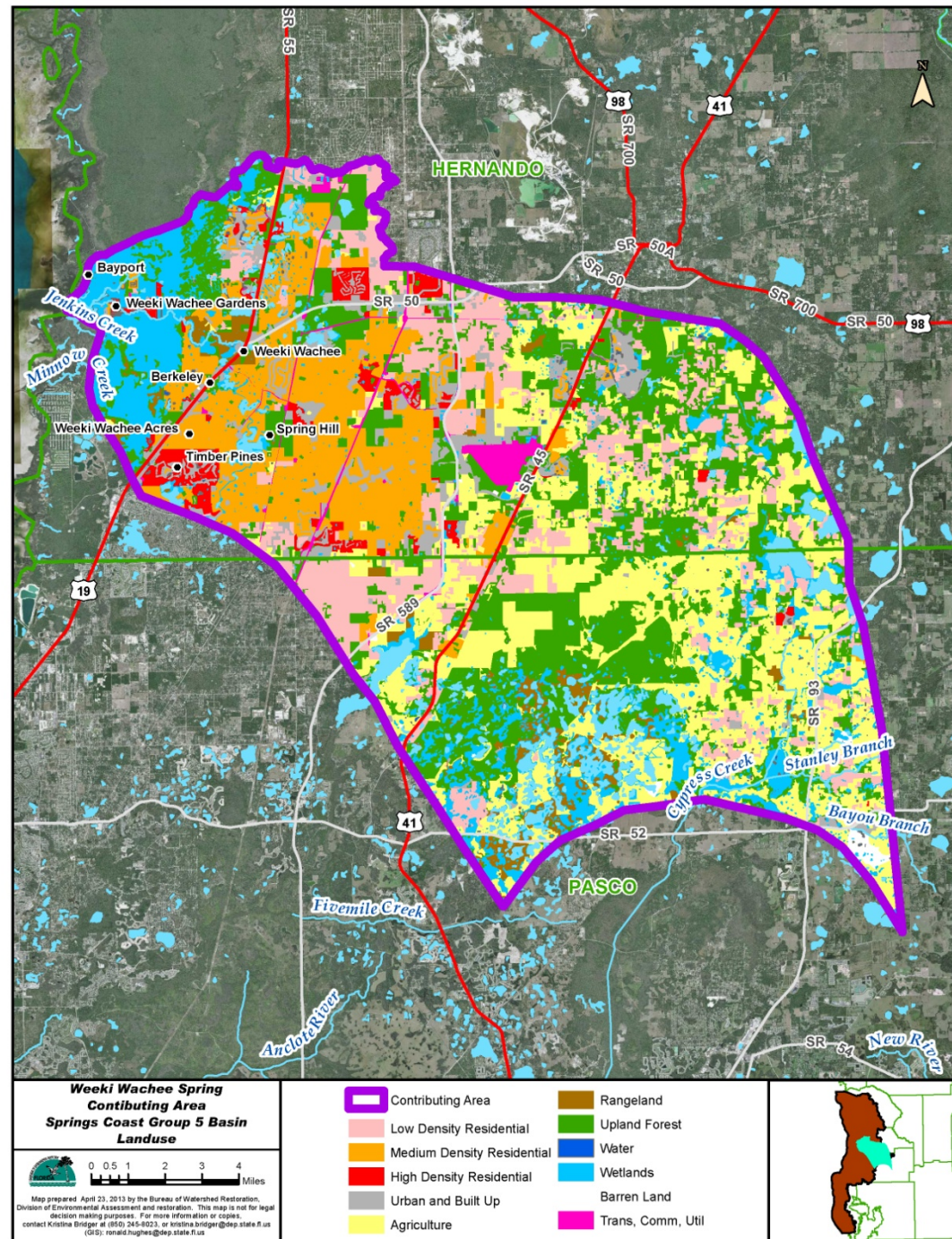


Key BMAP Components (cont)

- Process to assess progress towards achieving the TMDL, and includes:
 - Monitoring plan;
 - Project reporting; and
 - Periodic follow-up meetings.

WW area land use 2009

- 27% residential
- 23% forest
- 23% agriculture
- 15% wetlands



Sources of Nitrogen in BMAP area

➤ **Atmospheric Deposition**



➤ **Fertilizers (cropland, pasture, turfgrass)**



➤ **Land application of treated wastewater/ biosolids**



➤ **Septic Tanks**



➤ **Animal wastes**



➤ **Stormwater runoff**



Estimating Nitrogen Loads to Ground Water

A multi-step process:

1. Estimate the inputs of nitrogen to the land surface from the source inventory information **(a work in progress)**.
2. Apply attenuation factors based on the various environmental processes that could transform the various forms of nitrogen in the subsurface (such as denitrification, nitrification of ammonia, uptake by vegetation, mineralization of organic nitrogen).
3. Apply an areal weighting factor that is based on the rate of recharge to ground water to get nitrogen loads to ground water.
4. Account for proximity of N source to spring. Fine-tune estimates after getting feedback from stakeholders.





Example Projects

COMPLETED by SWFWMD

- Weeki Wachee Restoration Project - 2009
 - Sediment & algae removal
- Weeki Wachee Stormwater Project – 2008
 - Captured and treated stormwater runoff



Example Projects

PROPOSED by SWFWMD

- Weeki Wachee Rogers Park LID Implementation
- US 19 Reclaimed Water Transmission Main Project



Schedule

- TMDL Adopted – April 2014
- Intergovernmental briefings
 - Pasco County BOCC meeting May
 - Hernando County BOCC meeting May
- Local Stakeholders meetings
 - May 2014 – Intro to BMAP Process



Questions

- Future meetings will include discussions on
 - Nutrient Source Inventory
 - WW Hydrogeology
 - Project Collection Process
- What background information is needed by the group.
- What other groups should be contacted?
- Presentations posted at:
http://publicfiles.dep.state.fl.us/DEAR/BMAP/SpringsCoast/BMAPs/CR_KB_BMAP/ (MONTH of meeting)



Questions?

- Be sure to add your name and email to sign in sheet.
- Please send me Interest Group Contacts
- Spread the word to other interested individuals
- Weeki Wachee BMAP process will begin in May
- Presentations posted at:
[http://publicfiles.dep.state.fl.us/DEAR/BMAP/Springs Coast/BMAPs/CR_KB_BMAP/](http://publicfiles.dep.state.fl.us/DEAR/BMAP/Springs%20Coast/BMAPs/CR_KB_BMAP/) (MONTH of meeting)



Basin Management Action Plan

BMAP

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<http://www.dep.state.fl.us/water/>
www.WaterMatters.org/springs