Florida Department of Environmental Protection

Division of Environmental Assessment and Restoration

Jackson Blue Spring and Merritt's Mill Pond BMAP

Management Strategies Collection

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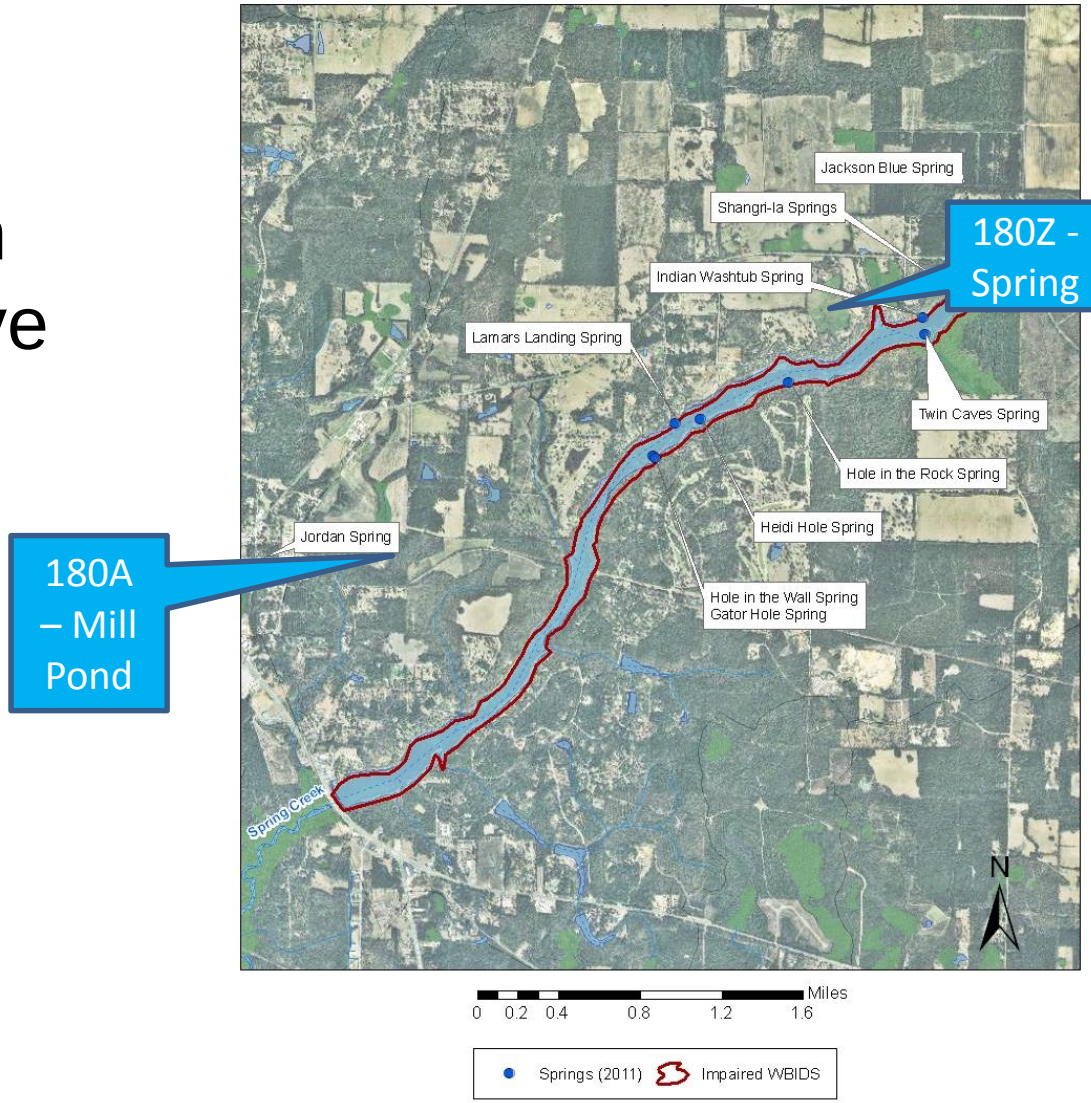
Blue Spring – Mill Pond Impairments

- Impaired Water.
- Pollutant of concern nitrate and excessive algae.
- Purpose of BMAP achieve nitrogen reduction present activities.



Example Strategies
(Requirements – Technology – Education)

- Residential/Commercial Fertilizer.
- Strategies for Septic Systems.
- Strategies for Stormwater.
- Education and Ordinances Strategies.
- Agriculture – FDACS/DEP BMP implementation required.

Potential Strategies for Agriculture

- Techniques to apply fertilizer more precisely to reduce the amount of fertilizer used and potential loss to subsurface:
  - Banding equipment.
  - Global Positioning System (GPS) guidance units.
  - Soil sensor equipment.

- Improvements in irrigation systems to reduce the amount of runoff from the site to surface and ground waters:
  - Water use optimization (utilize Mobile Irrigation Lab).
  - Surface and subsurface drip irrigation.
  - Overhead irrigation.
  - Center pivot retrofits.
  - Fertigation systems.
  - Soil moisture sensors/probe.
  - Regional water reuse.

Potential Agricultural Strategies (cont.)

- Advanced Ag management practices (BMPs):
  - Karst-specific BMPs to reduce nutrient loading from animal waste and fertilizers.
  - **Controlled Release Fertilizer Use.**
  - Water control structures.
  - Water retention/detention.
  - Sod rotation.
  - Tailwater recovery.
  - Dairy remediation.

Estimated Nitrogen Reduction from Farms Using Crop Tools- SantaFe BMAP

- The 15 farms participating in the Progressive Farms (PF)
- PF Data show 50 lbs. N/acre reduction
- 162 Crop farms District-wide using tools on 103,563 acres
- At 50 lbs applied - N/acre reduction
  - Estimated reduction in lbs of N applied per year 5,178,150 (2,589 tons)

Cost Savings from Use of Ag BMPs Growers within Lower St. John River BMAP

- Growers experiences - February 27, 2014 LSJR BMAP meeting:
  - Switching from fertilizer spreader to banding equipment saved three trailer loads of fertilizer, 60-75 tons;
  - Previous irrigation for six to eight weeks, 24/7. Subsurface irrigation, system runs for 8 hrs/wk - then shut off. Huge water savings; and
  - Use of banding machine resulted in 10%-15% reduction in fertilizer use. In addition, one pass to fertilize rows, saveing money in labor and also reduces carbon emissions.

Strategies Submittal

- Example spreadsheets available from coordinator, should be sent to: Steve Cioccia Stephen.Cioccia@dep.state.fl.us.
- Information is due by Friday, August 29th.
- Stakeholders can request meetings with the Department to discuss potential management strategies.
- Purpose strategies collection: match reduction activities with reduction shown needed by source inventory

Questions?