

EXTENSION WATER SUMMIT

PRIORITY: WATER QUALITY

Leadership Team Subcommittee:

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Water Quality – Situation (resources)

- Florida has extensive and diverse water resources
 - 54,836 miles of rivers and streams
 - 1.8 million acres of lakes, reservoirs and ponds
 - Over 1,000 springs including 33 first-magnitude springs
 - Extensive aquifers (Floridan, Biscayne)
 - 10.8 million acres of wetlands (freshwater and tidal)
 - 4,437 sq. miles of estuaries
 - 1,350/8,426 miles of coastal shoreline

- Intensive land use activity in the watersheds upstream of these water resources
 - Approximately 19 million people live in Florida
 - 87.3 million visitors
 - 4.7 million acres of urban area
 - 9.3 million acres of agriculture

Water Quality – Situation (condition)

- Monitoring of water resources show decline in quality and impacts to use.
 - 19.5% of the state's surface waters were impaired by pathogens
 - 13.1% impaired by nutrients
 - 91.8% impaired by mercury
 - An additional 44.6% (pathogens) and 62.3% (nutrients) of surface water bodies have insufficient data to determine attainment of designated use at this time.
 - Groundwater resources show localized nitrate impacts as well as increasing trends for saltwater encroachment mainly in coastal areas.

Water Quality – Situation (regulations)

- Regulations and policy related to water quality are extensive and complex
 - Federal
 - Clean Water Act
 - Designated uses and protective criteria (Numeric Nutrient Criteria)
 - Total Maximum Daily Loads and Basin Management Action Plans
 - National Pollution Discharge Elimination System Phase II
 - Non point source pollutant load reduction targeting urban area
 - State
 - Watershed Restoration Act 1999
 - Outlines responsibility of various stakeholders in TMDL watershed
 - BMP development and manuals
 - Stormwater Permitting and Statewide Stormwater Rule
 - Fertilizer rule
 - Local Governments
 - Fertilizer blackout

Water Quality - Situation

- There is an increasing and unmet demand to:
 - ▣ Clarify the often complex science behind these issues.
 - ▣ Work with stakeholders so that they are aware, adopt and maintain various practices that are known to be effective in reducing impacts on water quality.
 - ▣ Increase understanding of Floridians about the implications of degraded water quality on the economy and environmental resources.

Water Quality

- **Outcome 1) Increase implementation and effectiveness of agricultural water quality related BMPs**

PROGRAMS (examples)

- BMP implementation teams
 - AUDIENCES: all agriculture commodities
- Certified Crop Advisor training
 - AUDIENCES; crop advisors to agricultural community

Water Quality

- **Outcome 2) Increase understanding of water quality related impacts to natural systems**

PROGRAMS (examples)

- Water Schools (Polk, Pasco, Pinellas, Hillsborough)
 - AUDIENCES: community leaders, natural resource managers, decision makers
- Explore and Protect Springs (Marion County)
 - AUDIENCES: citizens living in karst regions and springsheds
- Florida Master Naturalist (statewide)
 - AUDIENCES: interested public

Water Quality

- **Outcome 3) Increase integration of urban water quality related BMPs and use of alternative development practices**

PROGRAMS (examples)

- Green industries BMP program (statewide)
 - AUDIENCES: lawn-care and landscape installation and maintenance services, grounds maintenance workers
- Florida Friendly Landscaping Program (statewide)
 - AUDIENCES: home owners, builders/developers, decision makers
- LID Local Government Workshops and LID Techniques Workshops (Program for Resource Efficient Communities)
 - AUDIENCES: local government staff and elected officials, developers, architects and stormwater engineers

Water Quality - Take-Away

- Florida has extraordinary water resources.
- Those resources are being impacted by human activity.
- Increased awareness and guidance to reduce and mitigate for these impacts is and can be offered by UF/IFAS Extension.
- We need to collectively clarify and coordinate that effort to be most effective.