WATER ISSUES AND CITRUS – PLANNING FOR THE FUTURE

Staci Braswell, Florida Farm Bureau Federation
Florida Farm Bureau Federation

- State’s largest general-interest agricultural association with over 140,000 member-families.

- Represents all agricultural commodity sectors in the State of Florida, including but not limited to: apiculture, aquaculture, livestock production, citrus, environmental horticulture, equine, forestry, peanuts, cotton, sod, sugar, fruits and vegetables.
The state of Florida has nearly **24 million acres** (36,000 square miles) in forests, croplands, and ranches.

- **621,373 acres** of *citrus* production.

Florida agricultural and natural resources industries offer **1.6 million jobs**.
Florida Ag is Setting Records

- **1st** in the U.S. in the value of production of oranges, grapefruit, foliage and squash.
- **2nd** in the production of tangerines, tangelos, bell peppers, cucumbers, eggplant, snap beans, tomatoes, strawberries, sugarcane, nursery, floriculture, sod, and horses.
- **3rd** in the production of watermelons.
Water Quantity Concerns

- Dover Frost/Freeze Event of 2010
- Suwannee River Water Management District Water Supply Planning
January 2010 Dry Well Complaints Near the Dover Area
### Multiple-Complaint Referrals

<table>
<thead>
<tr>
<th>Number of Complaints</th>
<th>Permit Holders</th>
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<tbody>
<tr>
<td>More than 140 dry well complaints</td>
<td>1</td>
</tr>
<tr>
<td>75-139 dry well complaints</td>
<td>2</td>
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<tr>
<td>40-74 dry well complaints</td>
<td>2</td>
</tr>
<tr>
<td>20-39 dry well complaints</td>
<td>2</td>
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<tr>
<td>10-19 dry well complaints</td>
<td>6</td>
</tr>
<tr>
<td>2-9 dry well complaints</td>
<td>24</td>
</tr>
<tr>
<td>1 dry well complaint</td>
<td>22</td>
</tr>
<tr>
<td>2010 Frost/Freeze Event Timeline</td>
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<td>----------------------------------</td>
<td></td>
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<tr>
<td><strong>January</strong></td>
<td>11 Consecutive Day Freeze</td>
</tr>
<tr>
<td><strong>February</strong></td>
<td>Public Workshop</td>
</tr>
<tr>
<td><strong>March – June</strong></td>
<td>Series of 3 Technical Work Sessions</td>
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<tr>
<td><strong>June</strong></td>
<td>Governing Board Review</td>
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<tr>
<td><strong>July – August</strong></td>
<td>Outreach, Stakeholders Meetings</td>
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<tr>
<td><strong>July</strong></td>
<td>Initiate Rulemaking</td>
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<td><strong>September – October</strong></td>
<td>Rulemaking Workshops</td>
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<tr>
<td><strong>November</strong></td>
<td>Final Rule Adoption</td>
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</table>
SWFWMD Proposals

- Well Construction Standards
- Enhance Communication
- Optimizing Water Use
- Expand Data Collection
- Increase Alternative Freeze Protection Methods
- Allocation Procedure For Well Complaints
- Limit Additional Quantities
Well Construction Standards

- Well Construction Standards approved by Governing Board at May Governing Board Meeting

- N. Dover = 105’ casing 100’ pump depth

- S. Dover = 147’ casing 142’ pump depth
Well Construction Standards

January 2010 Dry Well Complaints Near the Dover Area

Legend:
- January 2010 Dry Wells
- North Dover
- South Dover
- Agricultural Water Use Permits
- Plant City

Southwest Florida Water Management District

REG GIS 1/25/2010
Enhance Communication

- Letter to permittees at beginning of cold season
- News Media Alert
- Automated Telephone Calls
- Information on how to report dry wells
- Timely communication with complaints and permittees
Optimizing Water Use

- Florida Automated Weather Network (FAWN)
- Mobile Irrigation Labs (MIL)
- IFAS Research
- Automated Meter Reading (AMR)
Expand Data Collection

- 11 additional monitor wells @ existing sites owned by district
- 9 additional monitor wells @ 3 new sites to be purchased by district
- Install meters on all wells in Plant City & Dover area
Increase Use of Alternative Freeze Protection Methods

- Tailwater recovery ponds
- Covers
- Foams
- Tunnel houses
Increased Cost-Share Funding

- 75% cost-share funding available through FARMS program.

- Increased funding available in Plant City/Dover area, or for projects that reduce withdraws from Upper Floridian aquifer by a minimum of 50%.
FARMS Qualification Requirements

1. Must be located in the area of responsibility.

2. Use alternative water supply or technology to reduce groundwater use.

3. Improve irrigation water quality and watershed ecology by reducing reliance on lower quality groundwater.

4. Restore or augment water resources and ecology in priority areas.
Allocation Procedure For Well Complaints Considers:

- All permittees within water use caution area
- Year Consumptive Use Permit (CUP) was allocated
- Impact on nearby domestic wells
- Year domestic well was installed
- Ratio of nearby CUP holders
Potential Cap Area
Reduction Goals

Simulated Water Level @ DV-1 with Percentage Reductions

- Calibrated DD
- 10% Reduction
- 20% Reduction
- 40% Reduction

Water Level (NGVD)

Date / Time

1/3/10:00
1/4/10:00
1/5/10:00
1/6/10:00
1/7/10:00
1/8/10:00
1/9/10:00
1/10/10:00
1/11/10:00
1/12/10:00
1/13/10:00
1/14/10:00
1/15/10:00
1/16/10:00
1/17/10:00
1/18/10:00
1/19/10:00
1/20/10:00
SRWMD Water Supply Planning
Regional Groundwater Level Declines (through 1980)
The Springs Heartland

- 253 known springs
- Springs provide 70% of flow
White Springs
White Springs
White Springs
White Springs
Groundwater Flow Divide (1947)
Groundwater Flow Divide (1952)
Groundwater Flow Divide (1961)
Groundwater Flow Divide (1990)
The decline in the size of the groundwater basin from 1936 to 2005 was over 2000 square miles (19.7%).
Desalination = $180,000,000
Reservoir = $275,000,000
Canals/Stormwater Treatment = $20,000,000,000
Agriculture Irrigation Conservation

- Provide cost share for irrigation system efficiency improvements and related practices
  - Irrigation system conversion (emphasis on efficient systems)
  - Irrigation system nozzle package upgrades (end gun shutoffs)
  - Pump and power unit upgrades
  - Crop Tools (Soil moisture probes, irrigation monitoring and control) across District boundaries
  - Increase Conservation Tillage/Sod Based Rotation Incentive
Water Quality
Floridians have spent **over $20 million** evaluating water quality.

Florida has put in place scientifically reviewed practices that are effective in improving the state’s surface waters.

Florida is a national leader in the collection of water quality data.

Agricultural producers need clean water and support a **science-based** effort to further protect Florida’s waters.
1999 - TMDL program began with the passage of the Florida Watershed Restoration Act.

TMDLs must be developed for all waters that are not meeting their designated uses and are defined as “impaired waters.”

The TMDL process has been successful, is site-specific and continues to apply the best available science.
Best Management Practices

- Practical, cost-effective actions that agricultural producers can take to reduce the amount of pesticides, fertilizer, animal waste, and other pollutants entering our water resources.

- Benefits both the farmer and the environment, and demonstrates agriculture’s commitment to water resource protection.
Best Management Practices

- Implemented by proactive farmers who submit a Notice of Intent to FDACS or a site-specific conservation plan.

- Technical and educational assistance is provided to farmers implementing BMPs.

- Implementation of rule-adopted BMPs provides a presumption of compliance with state water quality standards for those pollutants addressed by the practices.
Best Management Practices

- FDACS Office of Agricultural Water Policy has spent approximately **$55 million** on cost-share for agricultural operations statewide.

- As of August 2010, over **2 million acres** of agricultural land has been enrolled in an agricultural BMP.
  - It is estimated that approximately **1.4 million acres** of the total acreage is irrigated.
Summer of 2008, several Florida environmental organizations filed a lawsuit in federal court against EPA alleging that the agency failed to comply with its responsibilities under the Clean Water Act.

January 2009, EPA issued a determination letter to the Florida DEP basically requiring that it meet a strict deadline for adopting such standards or the EPA would step in and establish federal criteria.
August 2009, EPA and environmental litigants entered into a consent decree, setting a firm schedule to federally propose and finalize numeric nutrient criteria for Florida.

<table>
<thead>
<tr>
<th>Numeric Nutrient Criteria</th>
<th>Propose</th>
<th>Finalize</th>
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<tbody>
<tr>
<td>Flowing waters, lakes, canals, and streams</td>
<td>January 2010</td>
<td>October 2010</td>
</tr>
<tr>
<td>Estuaries and coastal waters</td>
<td>January 2011</td>
<td>October 2011</td>
</tr>
</tbody>
</table>
Litigation

- January 2010, EPA proposes numeric nutrient criteria for all of Florida’s lakes, streams, springs, and canals.

- June 2010, EPA and environmental litigants extend several timeframes in the consent decree and will subject the scientific underpinnings for the derivation of canal, estuarine, and coastal waters to peer review by EPA’s Science Advisory Board.
# Deadlines for NNC

<table>
<thead>
<tr>
<th></th>
<th>2009 Consent Decree: Original Deadlines</th>
<th>June 2010 Amendment: New Deadlines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Proposed</td>
<td>Finalized</td>
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<tr>
<td>Lakes, Streams &amp; Springs</td>
<td>January 2010</td>
<td>October 2010</td>
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<tr>
<td>Canals</td>
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</tr>
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<td>Coastal Waters</td>
<td>January 2011</td>
<td>October 2011</td>
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</table>
## Concerned Florida Businesses and Associations

- Associated Industries of Florida
- Florida Nursery, Growers & Landscape Association
- Florida Section AWWA
- Florida Forestry Association
- Florida Pulp and Paper Association
- Florida Cattlemen's Association
- Gulf Citrus Growers Association
- Florida Beverage Association
- Florida Fertilizer & Agrichemical Association
- Florida Farm Bureau Federation
- Florida Water Quality Coalition, Inc.
- Florida Association of Counties
- Florida League of Cities
- Association of Florida Community Developers
- Florida Land Council
- Florida Recycling Partnership
- Florida Poultry Federation
- Manufacturers Association of Florida
- Florida Fruit & Vegetable Association
- The Fertilizer Institute
- Florida Rural Water Association
- CF Industries
- Southeast Milk Inc.
- Palm Beach County Water Utilities
- Florida Electric Cooperatives Association
- Florida Crystals Corporation
- Florida Water Environment Association Utility Council
- Florida Chamber of Commerce
Economic Impact

- **13.6 million acres** of agricultural land will be directly impacted by the implementation of numeric nutrient criteria.

- The total initial costs for implementing both typical BMPs and on-farm storm water treatment and retention practices for all agricultural sectors in Florida is estimated to be **$3.069 billion**.
Economic Impact

- Approximately 10% agricultural land will need to be taken out of production to construct the facilities, with a total annual revenue loss of $631 million.

- Direct loss of 7,780 full-time and part-time employment opportunities in the state’s agricultural industry.

- The state economy would lose approximately 14,545 jobs.
Competitive Disadvantage

- Agriculture is not able to pass along increased costs to its consumers.

- Florida agriculture will be placed at a competitive disadvantage with the rest of the country, where federal numeric nutrient criteria do not exist.
Requested Outcome

- EPA consider withdrawal of the proposed numeric nutrient criteria rule and allow the FDEP to develop scientifically defensible criteria.
In the alternative, we ask that the EPA consider the following:

- Correct technical deficiencies within the proposed rule,
- Provide clear and concise implementing provisions,
- Provide viable alternative regulatory approaches, and
- Recognize the state’s existing TMDLs as SSAC.
The information provided in this presentation is intended for informational purposes only and shall not be construed as legal advice or a legal opinion of Florida Farm Bureau Federation.