Treasure Coast Regional Planning Council

2013 Lower East Coast Water Supply Plan Update

Mark Elsner, P.E.
Section Administrator
Water Supply Development

July 19, 2013
What is a Regional Water Supply Plan?

- Current and future look at water needs
- Strategies and sources to meet future water demands and the needs of the environment
- Based on at least a 20-year future planning horizon
- Updated every 5 years
- Local governments required to respond with updates to water facilities element of comprehensive plan
Public Participation

- Water Resources Advisory Commission (WRAC)
  - Serves as overall forum
- Five WRAC Issues Workshops held to date
- Meetings held with stakeholders, local governments and utilities
- Contacted/presentations to local governments and other entities
- Draft LEC documents distributed/posted June 5
  - Discussed at: WRAC meeting on June 6
    Stakeholder meeting on June 27
    Governing Board on July 11
Planning Horizon 2010 – 2030

► Population:
  • 2010  5,637,725
  • 2030  6,666,866 (projected)
    18% population increase

► Irrigated agricultural acreage:
  • 2010  575,316
  • 2030  575,897
    Slight increase (< 1%) in ag acres

► Gross water demands:
  • 2010  1,719 MGD
  • 2030  1,933 MGD
    12% water demand increase
2010 & 2030 Percentage of Use by Water Use Category

2010 DEMAND (1,719 MGD)
- Public Water Supply: 49%
- Domestic Self-Supply: 9%
- Agricultural Self-Supply: 38%
- Industrial/Commercial/Institutional Self-Supply: 1%
- Recreational/Landscape Self-Supply: 1%
- Power Generation Self-Supply: 2%

2030 DEMAND (1,933 MGD)
- Public Water Supply: 52%
- Domestic Self-Supply: 8%
- Agricultural Self-Supply: 34%
- Industrial/Commercial/Institutional Self-Supply: 3%
- Recreational/Landscape Self-Supply: 2%
- Power Generation Self-Supply: 1%
### History of Public Water Supply Demand Projections (Finished Water)

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</thead>
<tbody>
<tr>
<td>2000 Plan</td>
<td>784</td>
<td>870</td>
<td>956</td>
<td>1,042</td>
<td>1,128</td>
<td>1,215</td>
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<td>2005 Plan</td>
<td>857</td>
<td>869</td>
<td>945</td>
<td>1,021</td>
<td>1,097</td>
<td>1,175</td>
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<td>2013 Plan</td>
<td>784</td>
<td>822</td>
<td>860</td>
<td>901</td>
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### Finished Water Demand (MGD)

- 2000 Plan
- 2005-2006 Plan
- 2013 Plan
Water Source Options

- Aquifer Storage & Recovery
- Reclaimed Water
- Reservoirs
- Surface Water
- Seawater
- Fresh Ground Water
- Saline Ground Water
- Conservation
Reuse & Brackish Water Development in LEC

**LEC Brackish Water Use (2003-2011)**

- Use in MGD

**LEC Planning Area Reuse History (1994-2011)**

- Use in MGD
## How Will Future Demands Be Met? (PWS, Ag and Rec/Landscaping)

<table>
<thead>
<tr>
<th>Category</th>
<th>Surface Water</th>
<th>Fresh Groundwater</th>
<th>Brackish Groundwater</th>
<th>Reclaimed Water</th>
<th>Storage</th>
<th>Conservation</th>
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<tbody>
<tr>
<td>Public Water Supply</td>
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<td>✓</td>
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<tr>
<td>Agricultural Irrigation</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
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<td>✓</td>
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<tr>
<td>Recreation/Landscape Irrigation</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Conservation

- Year-round rule savings
- All water sources should be used efficiently by all users

*The cheapest gallon of water is the gallon we don't use*

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</thead>
<tbody>
<tr>
<td>LEC Planning Area - PWS</td>
<td>184</td>
<td>176</td>
<td>163</td>
<td>142</td>
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<td>(gallons per capita per day)</td>
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Environmental Water Needs

- Implementation of CERP and other projects
- Regulatory protection of water resources
  - Water Use Permitting Program
  - Minimum Flows and Levels*
  - Water Reservations
  - Restricted Allocation Area Rules
  - Water Shortage Criteria

* Recovery & prevention strategies rely on CERP implementation
Conclusion

The future water demands of the region can be met through the 2030 planning horizon with appropriate management, conservation and implementation of projects in this Plan.

Dependent on completion of:

- Water supply development projects by 7 utilities
- Completion of USACE Herbert Hoover Dike Rehabilitation Project and subsequent revision to the Lake Okeechobee regulation schedule
- CERP and other projects to meet environmental needs
Future Direction (Excerpts)

- Continue aquifer monitoring program
- Construct CERP and related projects
- Promote local storage projects
- Continue to evaluate the feasibility of the C-51 Reservoir Project
- Promote water reuse and conservation measures
- Identify the potential impact of sea level rise on utilities and other users
- Complete East Coast Floridan Model
- Coordinate with local governments and utilities on water supply related elements
After the District updates the water supply plan:

► All local governments must amend their comprehensive plan to incorporate a water supply facilities work plan within 18 months of water supply plan update

► Utilities identify the projects to be developed

► Utility Annual Progress Reports
Further information including LEC Plan documents, can be found at:

www.sfwmd.gov/watersupply
<table>
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<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>July 26</td>
<td>Comment period ends – <em>written comments to Brenda Mills</em> (<a href="mailto:bmills@sfwmd.gov">bmills@sfwmd.gov</a>)</td>
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<td>August</td>
<td>Sixth Stakeholder Workshop (if necessary)</td>
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<td>Sept 5</td>
<td>Final Plan to SFWMD WRAC</td>
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<tr>
<td>Sept 12</td>
<td>Final Plan to SFWMD Governing Board</td>
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<tr>
<td>June-Sept</td>
<td>Presentations to local governments and others</td>
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QUESTIONS?

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