



*Florida Department of  
Environmental Protection*

# *Central Indian River Lagoon Basin Management Action Plan*

Briefing to the Treasure Coast League of Cities

September 19, 2012



## *Central Indian River Lagoon (IRL) Subbasin*

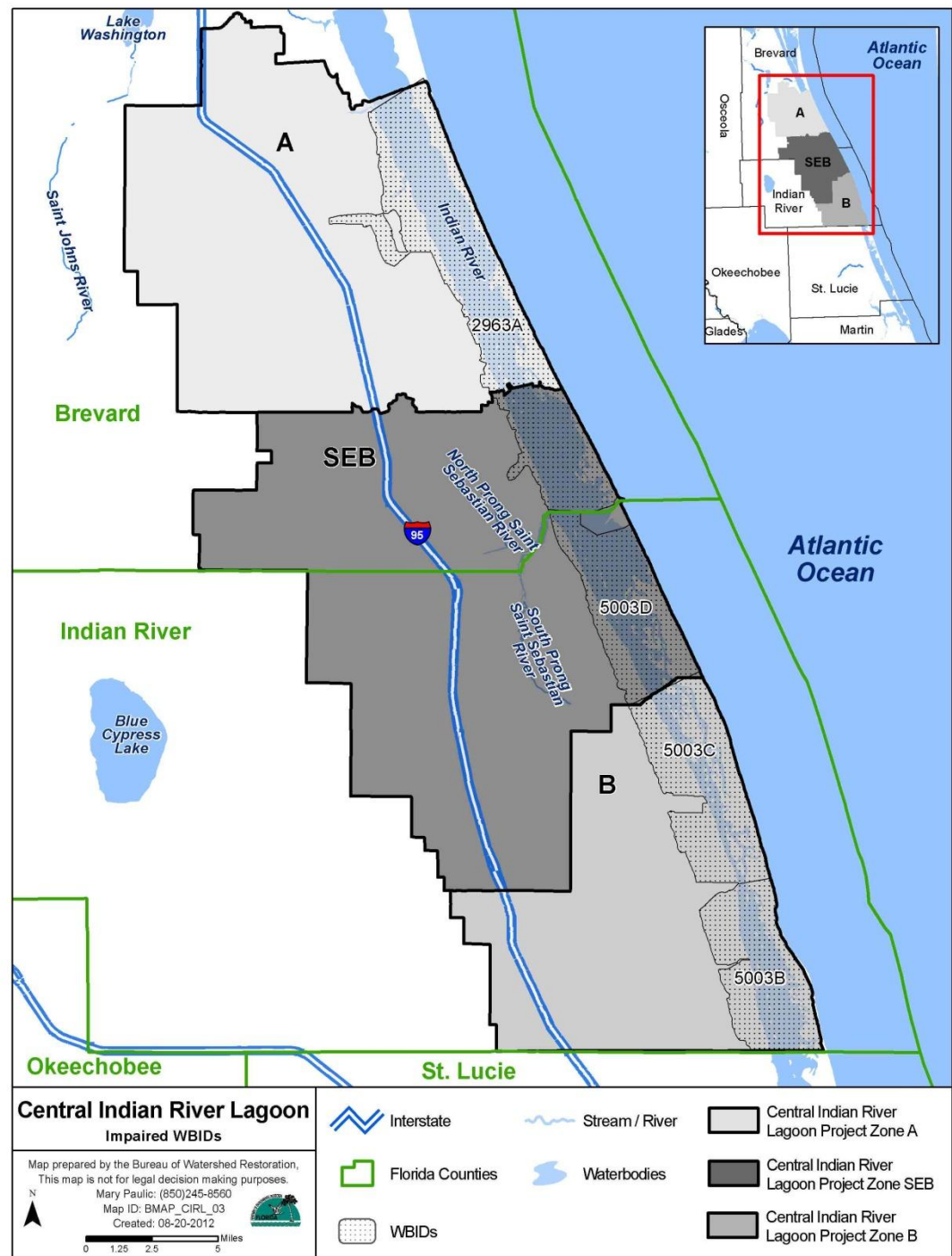
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- Listed as impaired due to seagrass loss in the lagoon compared to historical depths. Nutrient loadings identified as cause.
- FDEP adopted total maximum daily loads (TMDLs) in March 2009 to reduce total nitrogen (TN) and total phosphorus (TP).
- Basin Management Action Plan (BMAP) meetings with stakeholders began in June 2009.



- The Central IRL subbasin extends from the Melbourne Causeway (U.S. 192) to the boundary between Indian River County and St. Lucie County.

3 project zones





# *Central IRL Stakeholders in Indian River County*

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- The stakeholders in the Central IRL subbasin located within the Treasure Coast area include:
  - Indian River County;
  - City of Fellsmere;
  - City of Sebastian;
  - City of Vero Beach;
  - Town of Indian River Shores;
  - Florida Department of Transportation (FDOT) District 4;
  - Fellsmere Water Control District (WCD);
  - Indian River Farms WCD;
  - Sebastian River Improvement District;
  - Vero Lakes WCD; and
  - St. Johns River Water Management District.





## *Central IRL Seagrass Evaluation*

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- As part of the BMAP process, FDEP evaluated the seagrass depths based on newer data than provided for the TMDLs.
  - These data were collected in 2003, 2005, 2006, 2007, and 2009.
- The Central IRL is meeting seagrass depth targets for 2003-2007 and 2005-2009.
- Therefore, nutrient reductions beyond planned activities are not required of the stakeholders for the next 5 years.
- About 2017 seagrass growth will be reevaluated.





## *Water Quality and Seagrass Success*

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- Seagrass success is due in large part to completed projects in the subbasin:
  - Local stormwater projects; Baffle boxes;
  - Wastewater treatment facility upgrades;
  - Street sweeping; outreach; ordinances; and
  - Regional projects (C-54 and C-1 projects).
- However, the recent algal blooms indicate water quality problems still may exist.



## *Importance of Seagrass in the IRL*

- Seagrass are an important part of the lagoon's ecology; foundation of food web for many of the animals that live in the lagoon.
- Based on a study for the IRL National Estuary Program, seagrass value was estimated as \$329 million (for 72,400 acres in 2007).
- The IRL is a valuable economic, recreational, and ecological asset for state and local governments.
  - Therefore, improvements in water quality and seagrass are not only environmentally important but economically important as well.





## *Economic Value*

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- The IRL provided \$3.725 billion in benefits to residents and visitors for 2007.
- This is broken out to the county level as:

| County       | Value         |
|--------------|---------------|
| Volusia      | \$658,000,000 |
| Brevard      | \$934,000,000 |
| Indian River | \$438,342,000 |
| St. Lucie    | \$545,041,000 |
| Martin       | \$370,240,000 |

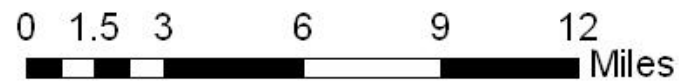
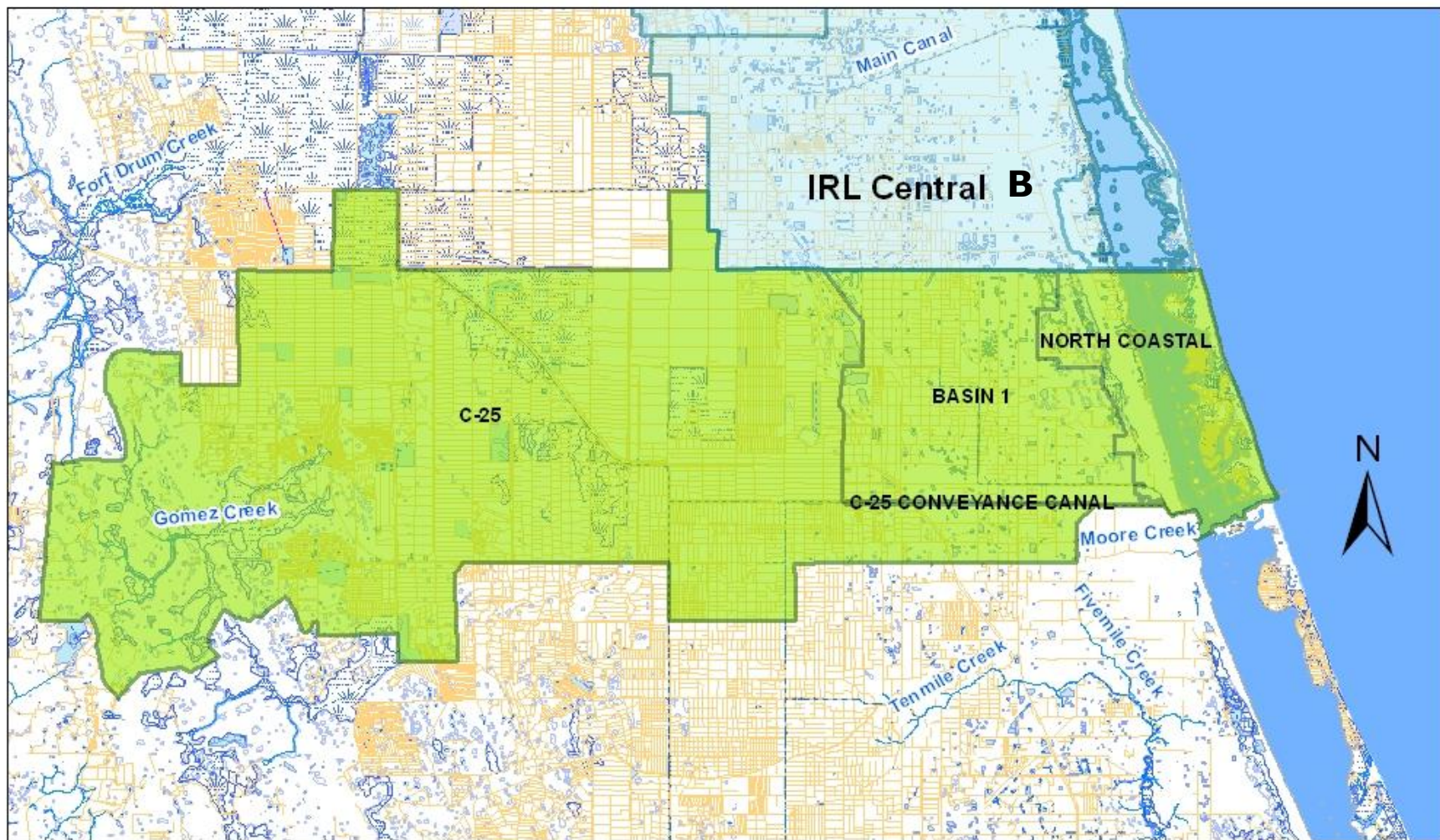




## *Southern IRL Subbasin*

- During BMAP discussions, FDEP noted a potential hydrologic connection with the part of the IRL located immediately to the south of the Central IRL subbasin.
- This is the area from the Indian River County/St. Lucie County boundary to the Fort Pierce Inlet. Typically included as part of the South IRL.
- There are impaired waterbodies in this area, but TMDLs have not been adopted by FDEP.







## *Stakeholders in the Southern IRL*

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- The stakeholders located in the southern IRL subbasin include:
  - St. Lucie County;
  - City of Fort Pierce;
  - Florida Department of Transportation (FDOT) District 4;
  - FDOT Turnpike Authority;
  - Fort Pierce Farms Water Control District (WCD);
  - North St. Lucie River WCD;
  - Town of St. Lucie Village;
  - Agricultural producers; and
  - South Florida Water Management District.





## *Southern IRL Subbasin*

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- Southern IRL stakeholders agreed to include their projects in the Central IRL BMAP, as projects will benefit the Central IRL subbasin.
- The projects are not a BMAP requirement. However, benefits of inclusion in a BMAP are:
  - Planning time to address future TMDLs;
  - Points added to grant application score; and
  - Voice in actions taken by other Central IRL stakeholders that influence water quality.





## *Future Actions South IRL*

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- FDEP will work with the southern IRL stakeholders as TMDLs for the waterbodies in this area are developed.
- After the first 5-year Central IRL BMAP iteration, FDEP will determine if a separate BMAP will be needed to address the southern IRL impairments.
  - This will depend on the seagrass or water quality targets selected for the impaired waterbodies and the status of these waters at that time.





## *First 5 Years of the BMAP*

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- At least one annual meeting – to track status of projects.
- Monitoring plan to measure water quality success and ensure continued seagrass restoration. New seagrass data collected in 2013.
- Encourage local governments to apply for grants for water quality improvement projects:
  - 319 grants; and
  - TMDL water quality restoration grants.
- Agriculture will implement BMPs on additional 4,600 acres – largely citrus and pasture.





## *Comments on the Draft Central IRL BMAP*

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- The BMAP is available on FDEP's website at:  
[http://publicfiles.dep.state.fl.us/DEAR/BMAP/IndianRiverLagoon/BMAP\\_Documents/Central\\_BMAP/](http://publicfiles.dep.state.fl.us/DEAR/BMAP/IndianRiverLagoon/BMAP_Documents/Central_BMAP/).
  - The plan for the southern IRL is described in Chapter 6 of the Central IRL BMAP.
  - Local projects are outlined in Appendix E.
- FDEP is holding a series of briefing and public meetings on the BMAP to obtain comments.





## *BMAP Comments, continued*

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- Comments are welcome on the draft BMAP document and can be submitted through December 7, 2012.
- Commitment by stakeholders to complete projects proposed in BMAP.
- The BMAP should be adopted by FDEP in early 2013.





## *FDEP Contacts*

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- To submit questions or comments on the BMAP, please contact:
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# *Questions and Comments*

