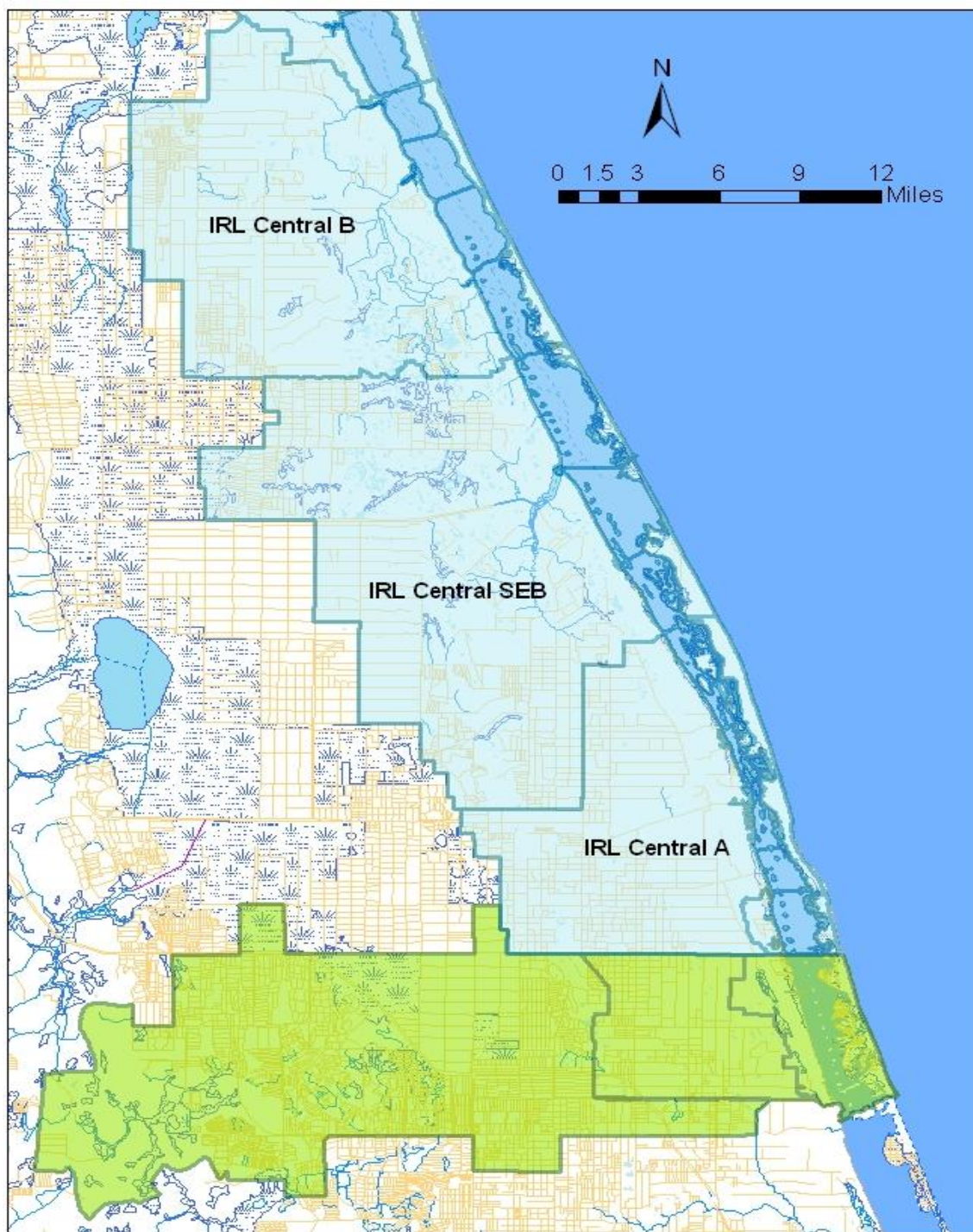


SOUTHERN BOUNDARY EXTENSION

March 1, 2012

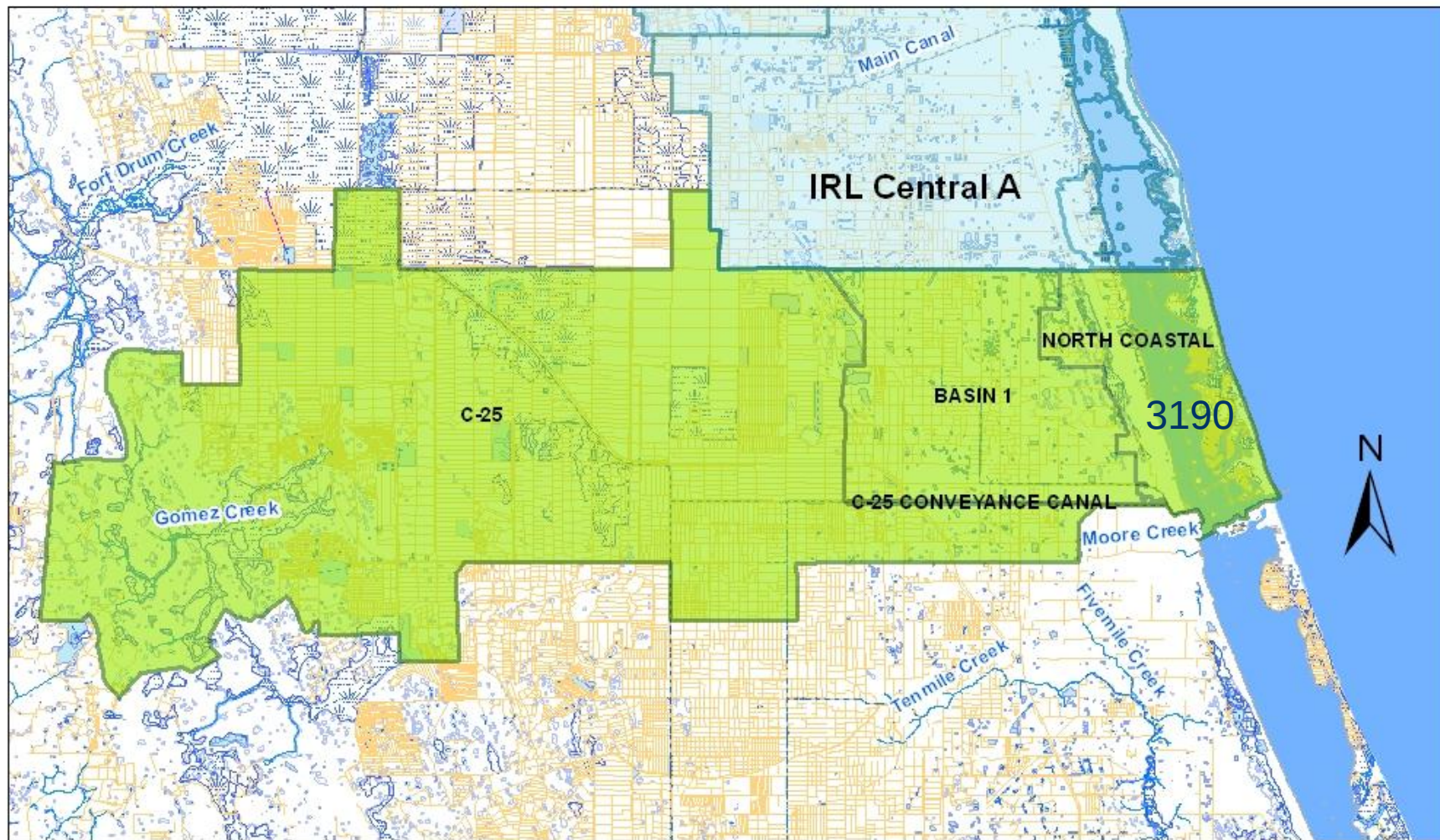
Central Indian River
Lagoon





Background

- TMDL development by DEP for C-25 and Ft. Pierce Farm Canal in progress. Listed for DO and nutrients.
 - EPA has finalized TMDLs as a result of Consent Decree. DEP wants to improve EPA TMDL.
 - DEP has to identify water quality target for TMDL
- Listing of WBID 3190, North Coastal Basin as impaired for DO and nutrients.
 - Have observed high chlorophyll a values, > 11 ug is required for listing. Uncertain of source.
- Dynamics of water movement between Ft. Pierce Inlet and Sebastian Inlet support inclusion.



0 1.5 3 6 9 12
Miles

Background (continued)

- Started with a simple premise
- Protect Central Indian River Lagoon by knowing what is happening south of the Indian River/St.Lucie Counties line.
 - Collect project information/document programs.

What We Have Learned

- DEP has talked with SFWMD, IRL estuary program and FPFWCD.
- Agriculture is large component of landuse.
- Influence of Ft. Pierce Inlet extends south of inlet a couple of miles.
- This is the SFWMD seagrass segment 22. Potential for seagrass depth as water quality target, but
 - Seagrass mapping and targets not finalized.

What We Have Learned (continued)

- SFWMD water quality segment 4 – homogeneous water quality; water quality in WBID 5003b similar to WBID 3190.
- Protection of seagrasses referenced by RECOVER component of CERP and SWIM Plan.

Seagrass evaluation

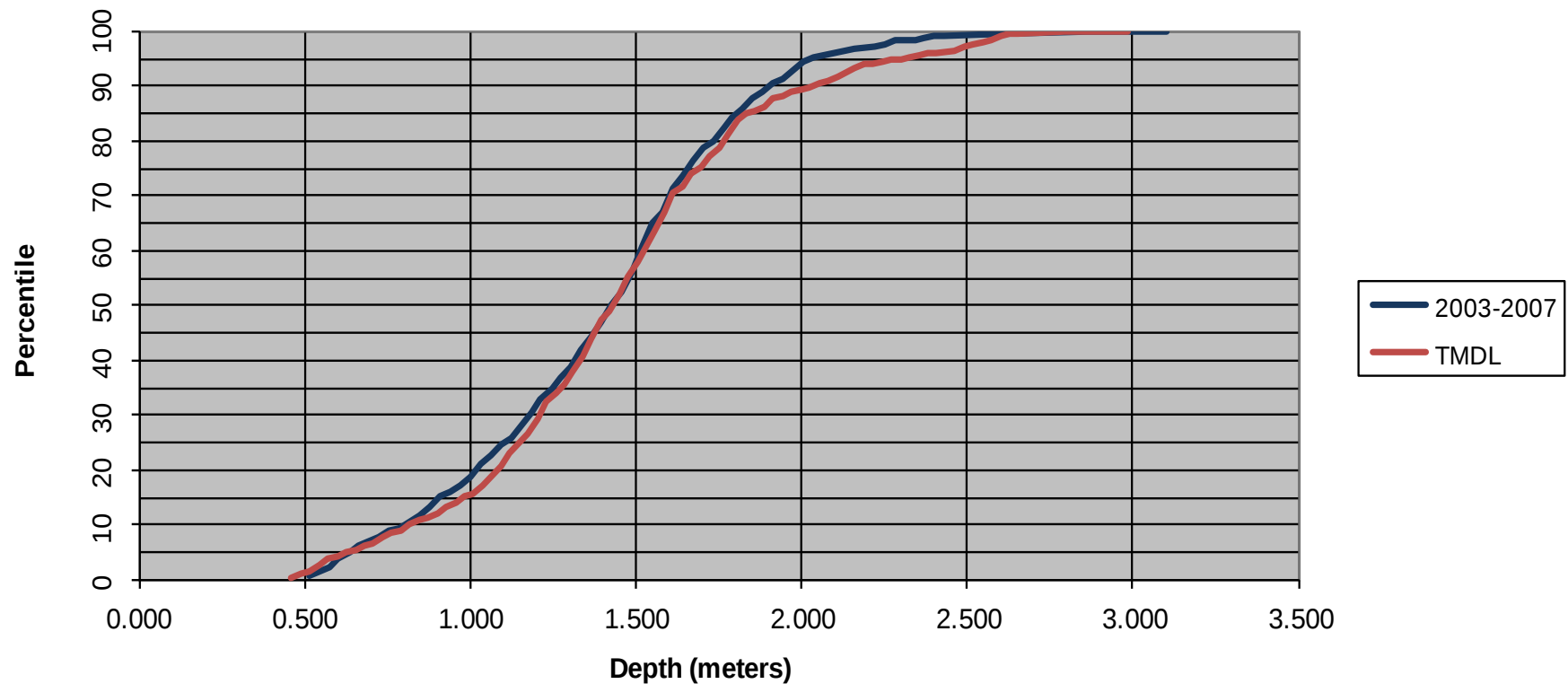
- Applied same methodology to segment 22 as was used for rest of Central IRL.
- DRAFT results that need further assessment.
- Currently SFWMD does not have final seagrass targets.

Seagrass Results (continued)

- TMDL Seagrass depth target greater than for Central seagrass segments to the north.
TMDL draft target 1.45 meter, but
 - Still need to add in 1940s data. This could change the TMDL target.
- Annual medians lower than TMDL target.
 - Ranged from 1.4 to 1.43 meters.

Seagrass Results

Ft. Pierce Inlet 2003-2007



Numeric Nutrient Criteria

- Numeric nutrient criteria have not been proposed for estuaries – really don't know what criteria could look like.
 - In general, changes in water quality criteria are applied to future 303(d) assessments.
- Next 303(d) listing for these waterbodies is in 2013.

What do we do?

- Option 1: Do nothing and wait and see what happens with TMDLs and next year's 303(d) list. This would take the typical route of adoption of TMDLs followed by BMAP.
 - Time frame unknown.
 - Still have issue of water quality targets.
 - Possible options are use Central IRL load /acre and seagrass target, or use St. Lucie TMDL targets.

What do we do?

- Option 2: Continue to collect project information and include in Central IRL BMAP. No obligation for load reductions or meeting seagrass depth target.
 - TMDL development for C-25 and Ft. Pierce Farm Canal continues.
 - Can include evaluation of BMP implementation on agricultural lands.

What do we do?

- Option 3: Restoration plan. Replaces TMDL and allocations. DEP management is receptive to this option.
 - Helpful in identifying additional projects and benefits.
 - Engages agriculture as a partner.
 - Could include as part of BMAP if they meet our schedule – otherwise separate action.

Summary

- At a minimum convene meeting with local parties to talk in detail about next steps.
- Option 2 keeps Segment 22 in Central BMAP.
- Options 1 and 3 separate segment 22 from the Central IRL BMAP.