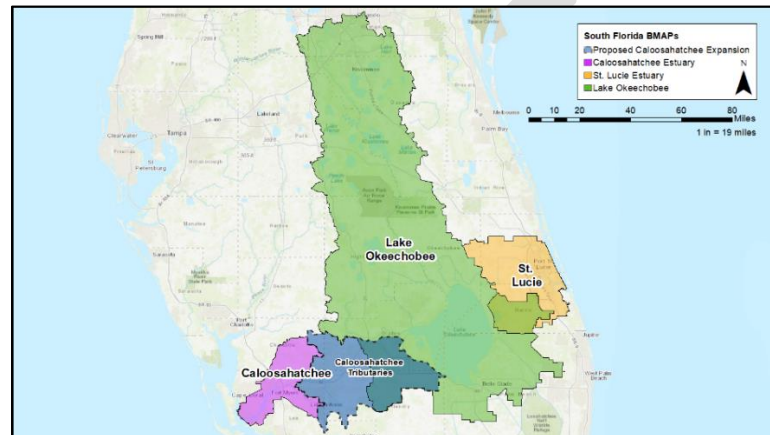


ACHIEVING MORE, NOW

- New, more data-driven approach
- Focusing on smaller subdivisions called **“targeted restoration areas”** (e.g., basins, sub-basins, or tributaries) in each BMAP
- Evaluating TN, TP¹, and flow in all BMAPs
- Comparing water quality to appropriate benchmarks
- Using the latest information from SFWMD² evaluations, identify projects tailored to each targeted restoration area
- Soliciting stakeholders, local governments, and the public through an RFI³ for additional projects



APPROACH

1. Identify smaller areas (e.g., basins, sub-basins, or tributaries) for focused restoration
2. Delineate each area and locate relevant water quality stations
 - a. Obtain existing data for TN, TP, and flow
 - b. Recommend additional monitoring where data are lacking
 - c. Supplement with information from water quality models where appropriate
3. Determine benchmarks for evaluating water quality and water storage
 - a. Lake Okeechobee— applicable numeric nutrient criteria (e.g., peninsular for streams), and consult LOWCP⁴ for indications of water quality and/or flow issues
 - b. Caloosahatchee—applicable numeric nutrient criteria
 - c. St. Lucie— applicable numeric nutrient criteria, TMDL⁵ target concentrations
 - d. Rely on existing SFWMD information for water storage needs for each BMAP
4. Review measured data
 - a. Calculate most recent 5-year average TN and TP concentrations (WY14-WY18)
 - b. Compare concentrations to established benchmarks
 - c. Consult flow-weighted mean (FWM) concentrations and unit area loads, where appropriate to better understand conditions.

¹ Total Nitrogen, Total Phosphorus

² South Florida Water Management District

³ Request for Information

⁴ Lake Okeechobee Watershed Construction Project

⁵ Total Maximum Daily Load, a water quality restoration target



5. Identify criteria for implementation and funding, and describe restoration types (e.g., water quality, flow) recommended for each targeted restoration area
 - a. Calculate expected reductions from existing and recommended projects using measured data wherever possible
 - b. Identify where additional projects are necessary
6. Prioritize areas where new projects would be most impactful to overall restoration
 - a. Use water quality (TN and TP) and flow data
 - b. Compare to benchmarks for each basin
7. Publish an RFI for each BMAP to solicit for additional projects and evaluate responses based on criteria established for each targeted restoration area
8. Evaluate progress in targeted restoration areas annually by comparing measured data to:
 - a. Benchmarks
 - b. TMDL targets for subwatersheds or basin as defined in BMAP
9. Use responses from RFIs and existing project lists, combined with the prioritized areas and recommended restoration need to inform future budget requests for the agency
10. Update existing water quality models based on expanded monitoring efforts

OUTCOMES

- Identify data needs and revised monitoring plans for TN, TP, and flow
- Establish benchmarks and comparison metrics
- Prioritize targeted restoration areas and selection criteria
- List projects and project types needed by targeted restoration area
- Establish timeline for implementation to assist with meeting milestones
- Provide recommendations to inform the department's regulatory efforts
 - o Where to prioritize inspections
 - o When to conduct detailed permit reviews

SCHEDULE FOR UPDATING THE BMAPs

- Present approach to stakeholders:
 - o Lake Okeechobee—July 30 meeting
 - o **St. Lucie—September 16 meeting**
 - o Caloosahatchee—August 27 meeting
- Present status and results to date of Steps 1-6:
 - o Lake Okeechobee—July 30 meeting
 - o **St. Lucie— October meeting**
 - o Caloosahatchee— late September/early October meeting
- Publish RFI (Step 7):
 - o Lake Okeechobee — early September
 - o **St. Lucie – Early October**
 - o Caloosahatchee—late October
- Release draft BMAPs to stakeholders for comment:
 - o Lake Okeechobee—early November
 - o **St. Lucie—late November/early December**
 - o Caloosahatchee— late November/early December
- Updated **all BMAPs by end of January 2020**

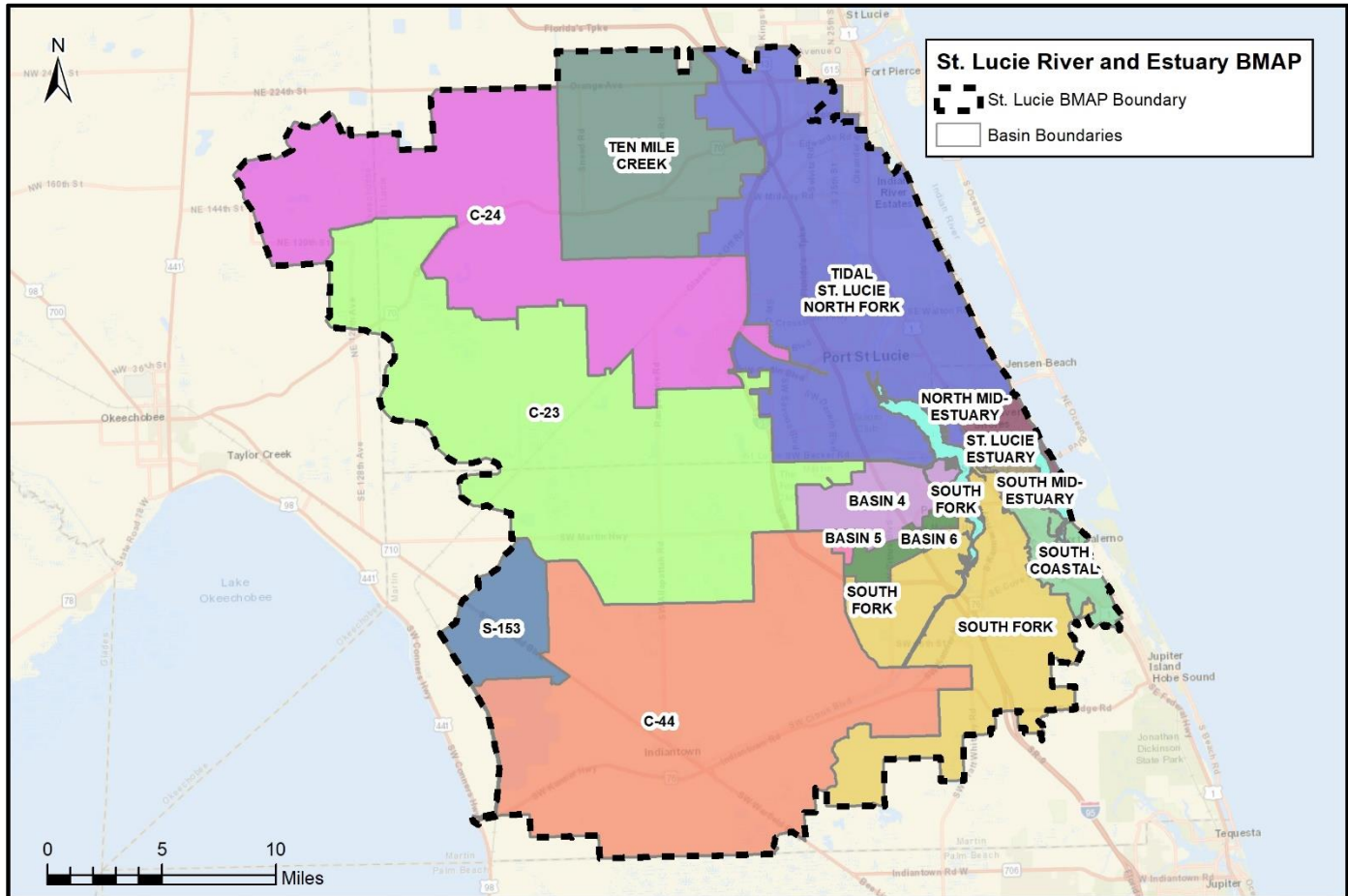
Prioritized and Data-Driven

DEP's Approach to Updating the Northern Everglades BMAPs



APPROACH

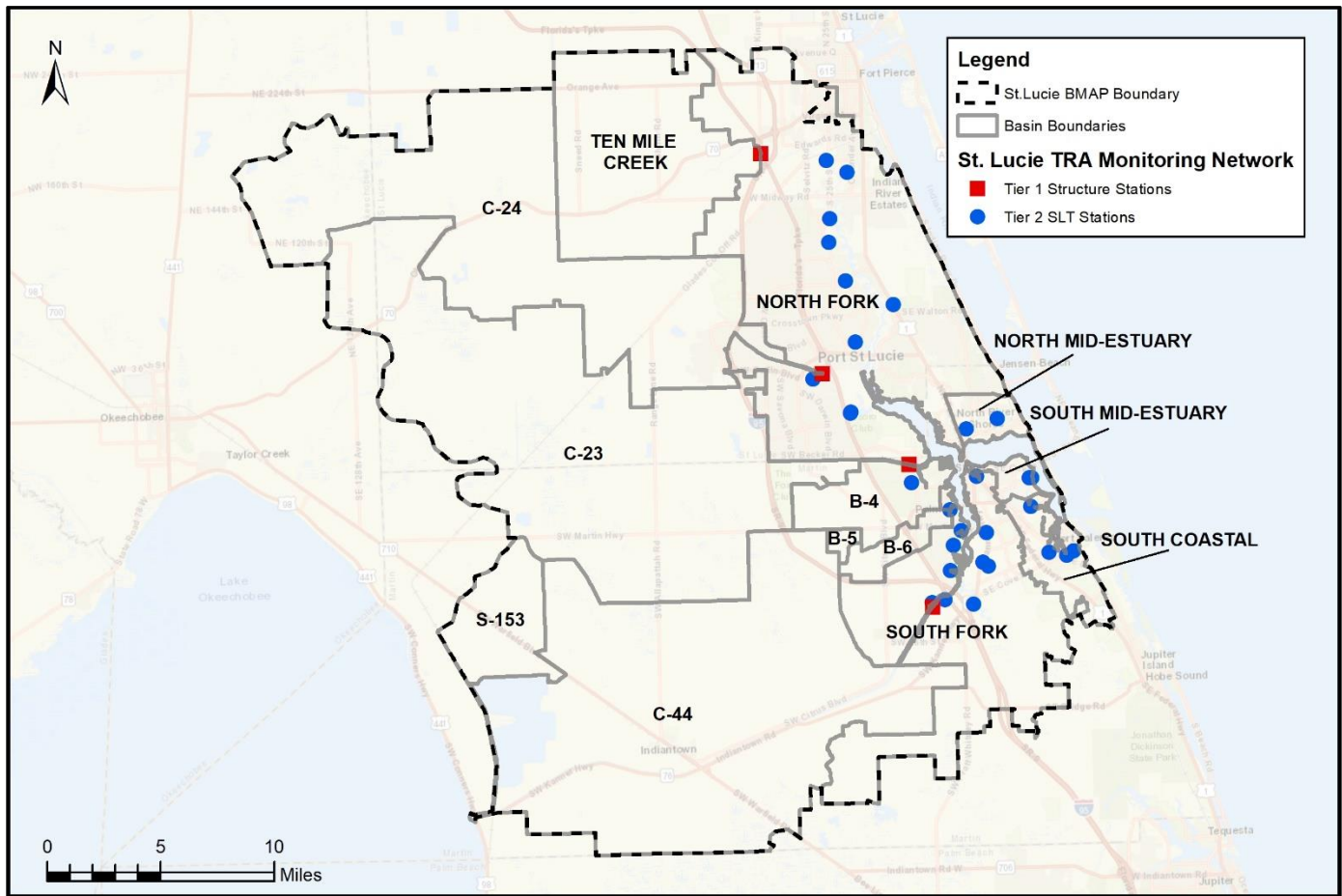
1. Identify smaller areas (e.g., basins, sub-basins, or tributaries) for focused restoration
 - a. *Currently established basins are ideal in terms of size and current monitoring network.*



2. Delineate each area and locate relevant water quality stations
 - a. Obtain existing data for TN, TP, and flow
 - b. Recommend additional monitoring where data are lacking
 - c. Supplement with information from water quality models where appropriate

Prioritized and Data-Driven

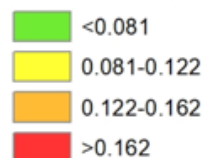
DEP's Approach to Updating the Northern Everglades BMAPs



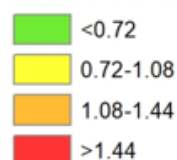
3. Determine benchmarks for evaluating water quality and water storage
 - a. St. Lucie — applicable numeric nutrient criteria and TMDL target concentrations will be considered
 - b. Rely on existing SFWMD information for water storage needs for each BMAP

Draft Prioritization Benchmarks

WY14-18 Average TP Concentration (mg/L)



WY14-18 Average TN Concentration (mg/L)



Prioritized and Data-Driven

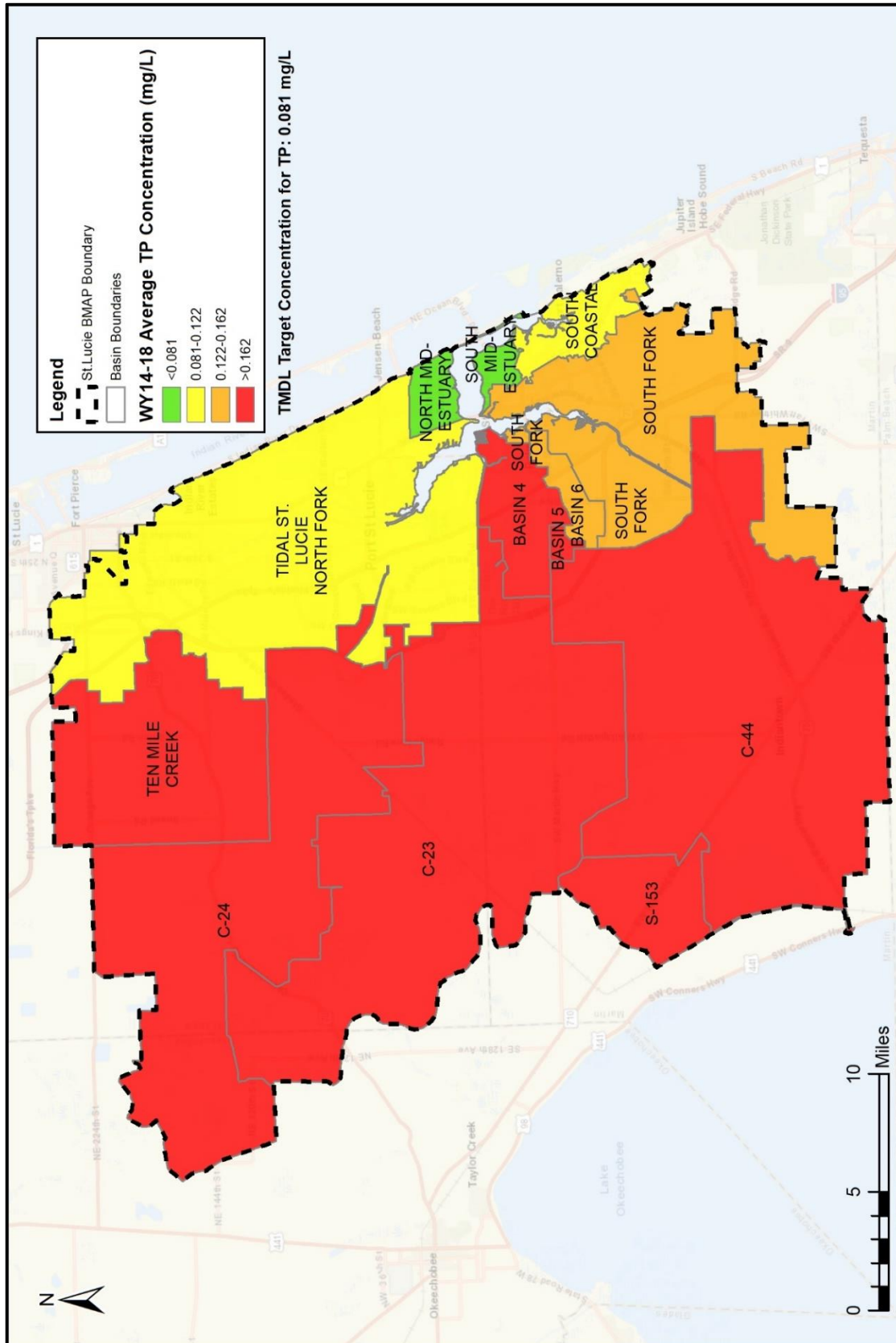
DEP's Approach to Updating the Northern Everglades BMAPs



4. Review measured data
 - a. Calculate most recent 5-year average TN and TP concentrations (WY14-WY18)
 - i. *Completed for all basins within the St. Lucie BMAP*
 - b. Compare concentrations to established benchmarks
 - i. *Averaged concentrations have been compared to benchmarks using both NNC and TMDL target concentrations.*
 - c. Consult flow-weighted mean concentrations and unit area loads, where appropriate to better understand conditions.
 - i. *Long-term flows and loads available only at structure stations. FWM concentrations and unit area loads have been identified within these basins and will be reviewed as part of the prioritization process.*

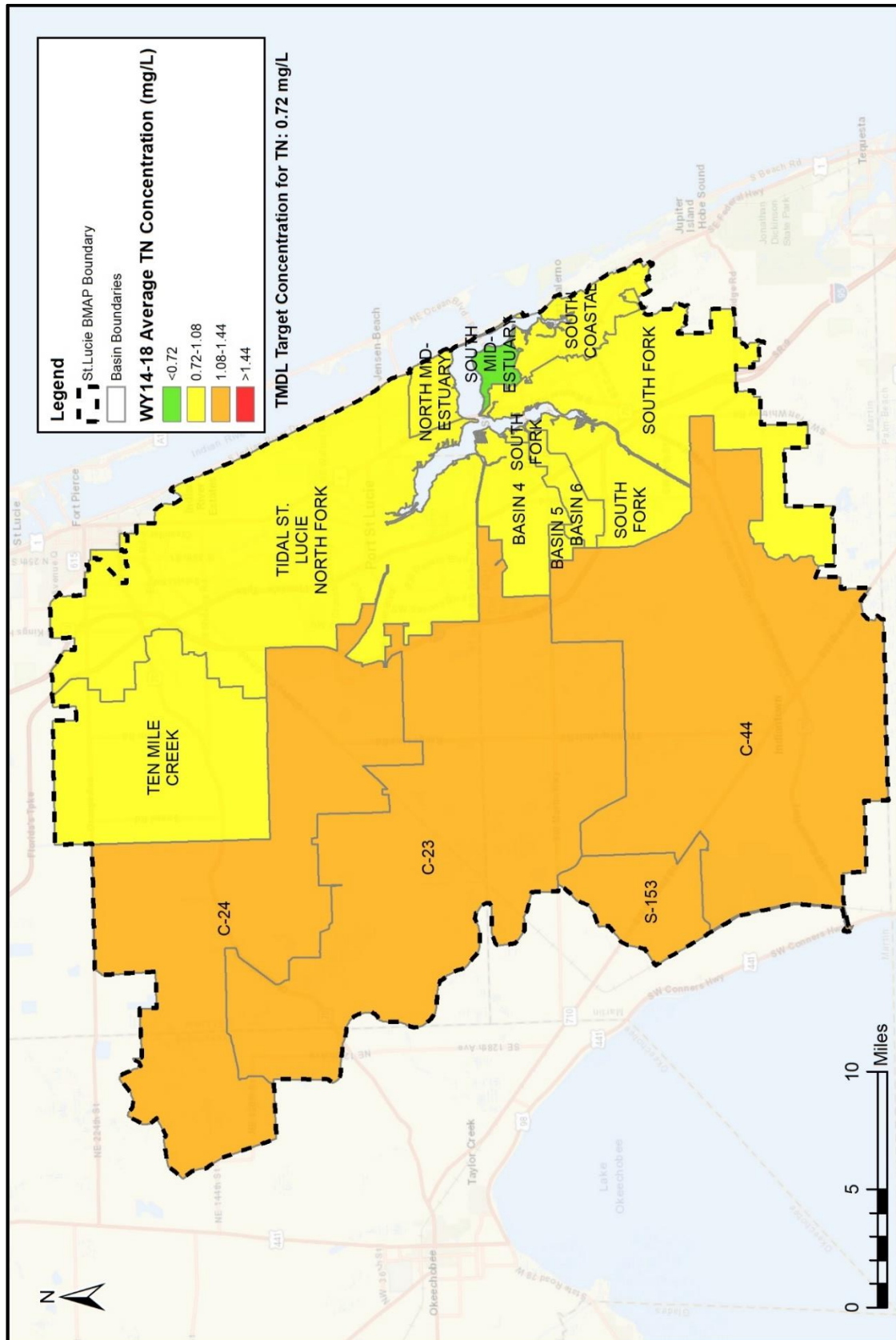
Prioritized and Data-Driven

DEP's Approach to Updating the Northern Everglades BMAPs



Prioritized and Data-Driven

DEP's Approach to Updating the Northern Everglades BMAPs

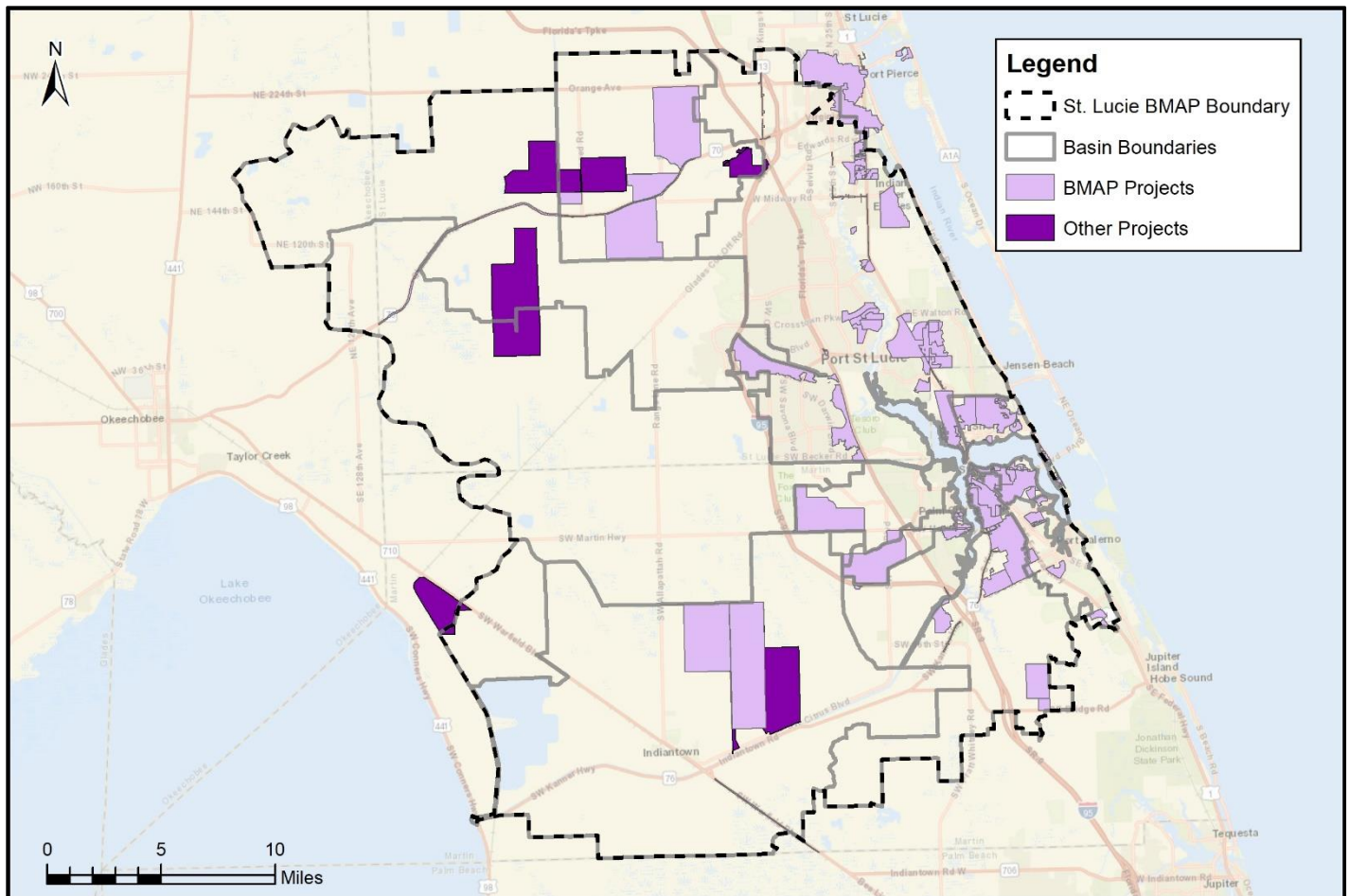


Prioritized and Data-Driven



DEP's Approach to Updating the Northern Everglades BMAPs

5. Identify criteria for implementation and funding, and describe restoration types (e.g., water quality, flow) recommended for each targeted restoration area
 - a. Calculate expected reductions from existing and recommended projects using measured data wherever possible
 - b. Identify where additional projects are necessary to achieve benchmarks



6. Prioritize areas where new projects would be most impactful to overall restoration
 - a. Use water quality (TN and TP) and flow data
 - b. Compare to benchmarks for each basin

Prioritized and Data-Driven

DEP's Approach to Updating the Northern Everglades BMAPs

