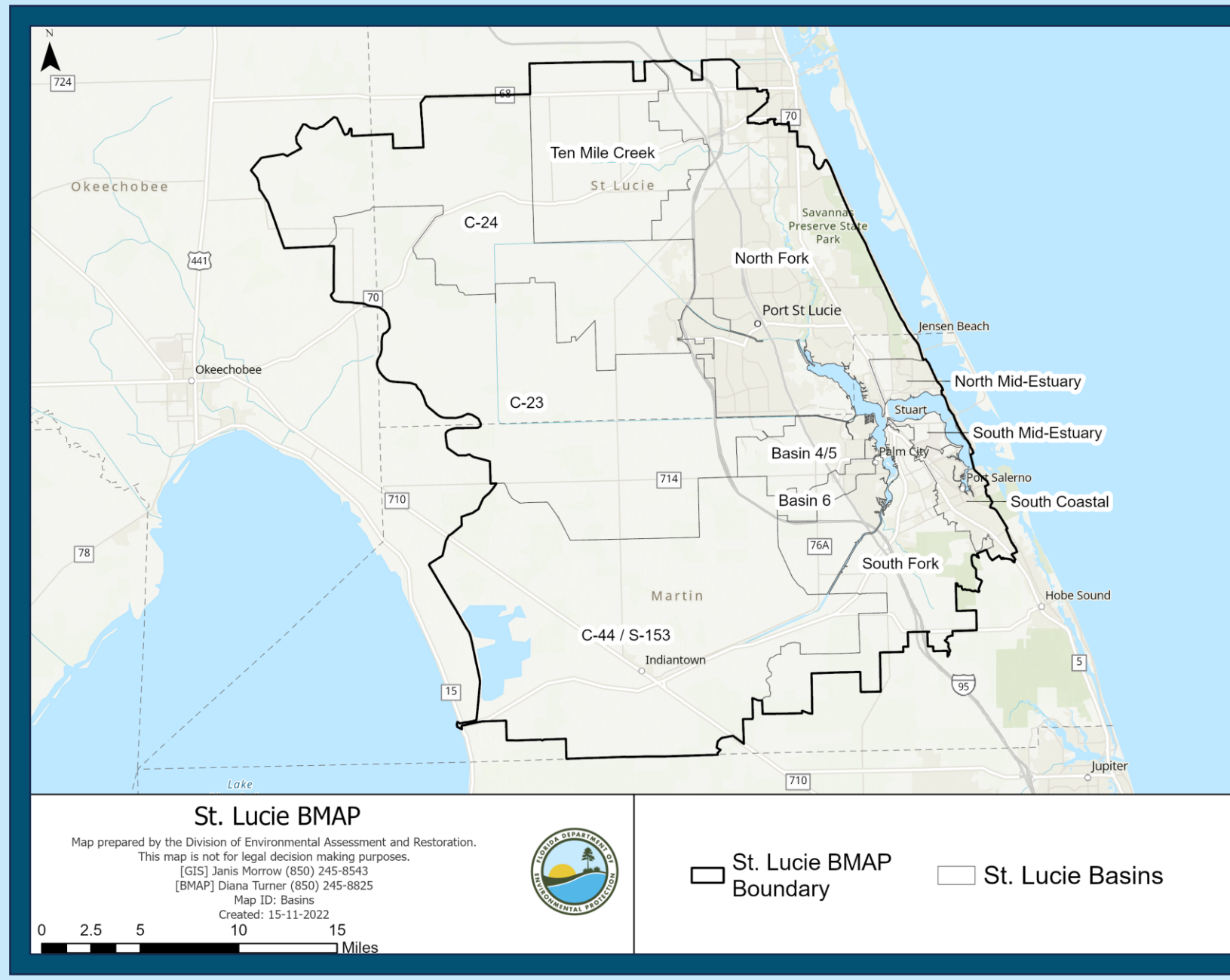


ST. LUCIE RIVER AND ESTUARY BASIN MANAGEMENT ACTION PLAN (BMAP) WATER QUALITY ANALYSES

BMAP Background

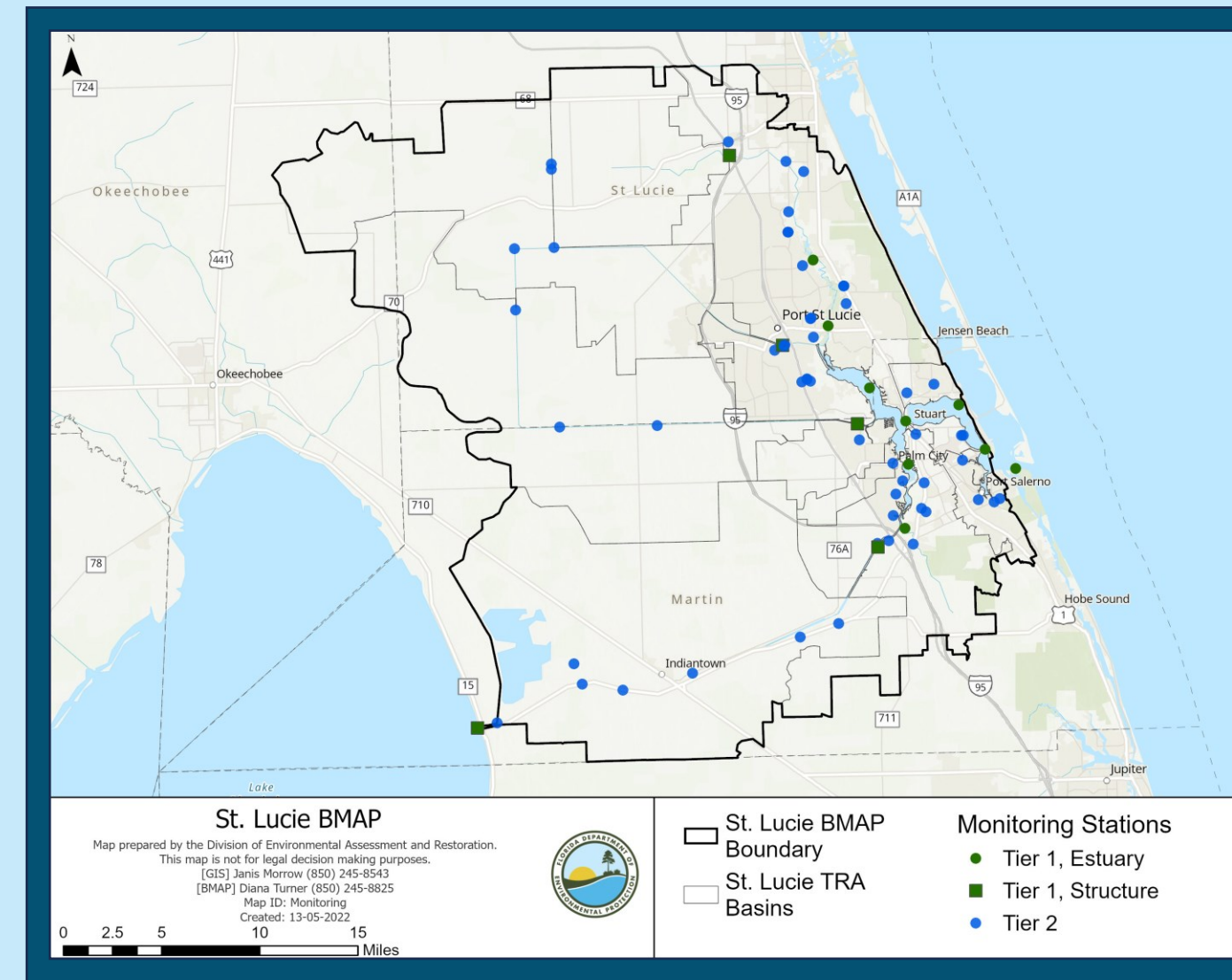


St. Lucie Total Nitrogen (TN) and Total Phosphorus (TP) Total Maximum Daily Loads (TMDLs) were established in 2009:

TP: 0.081 mg/L.
TN: 0.72 mg/L.
mg/L = milligrams per liter.

BMAP established in 2013, and the boundary was updated in 2020.

Water Quality Monitoring Network

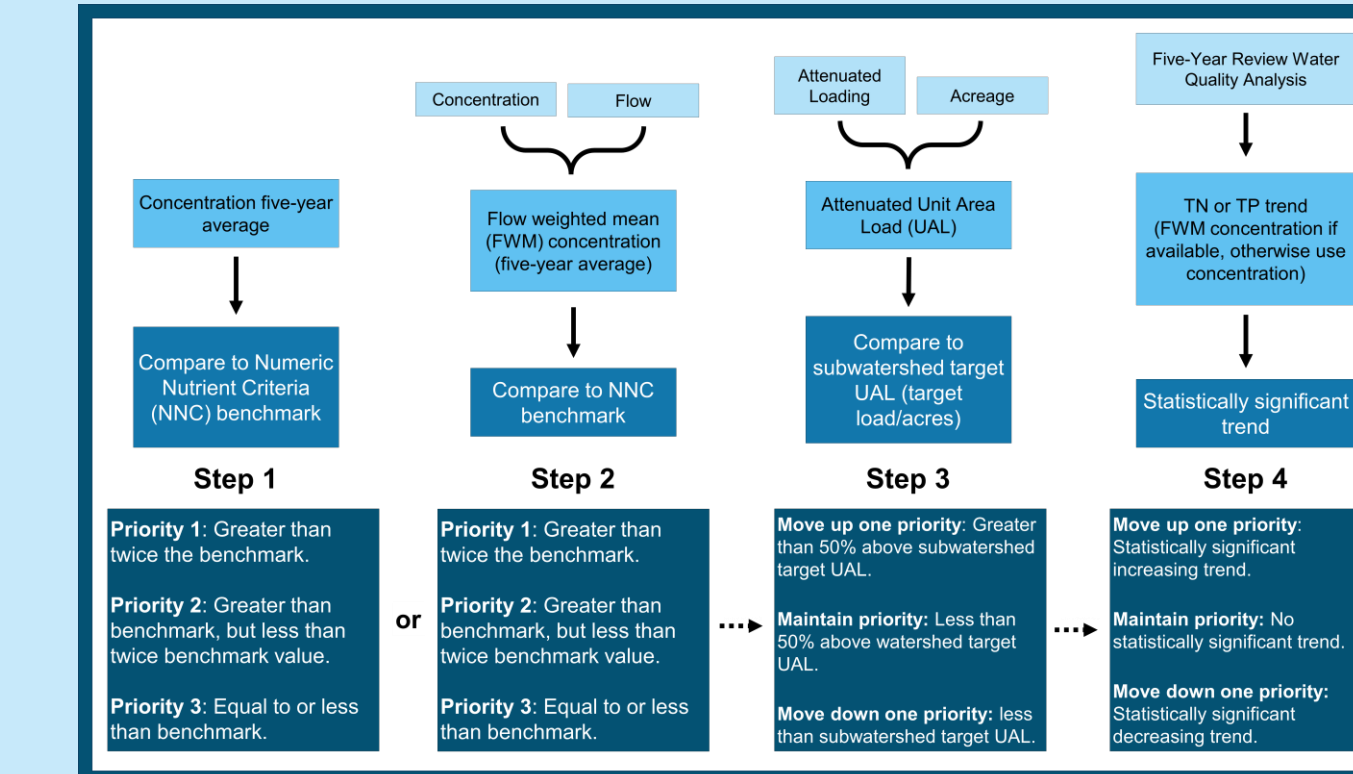


Water Quality Parameters Monitored

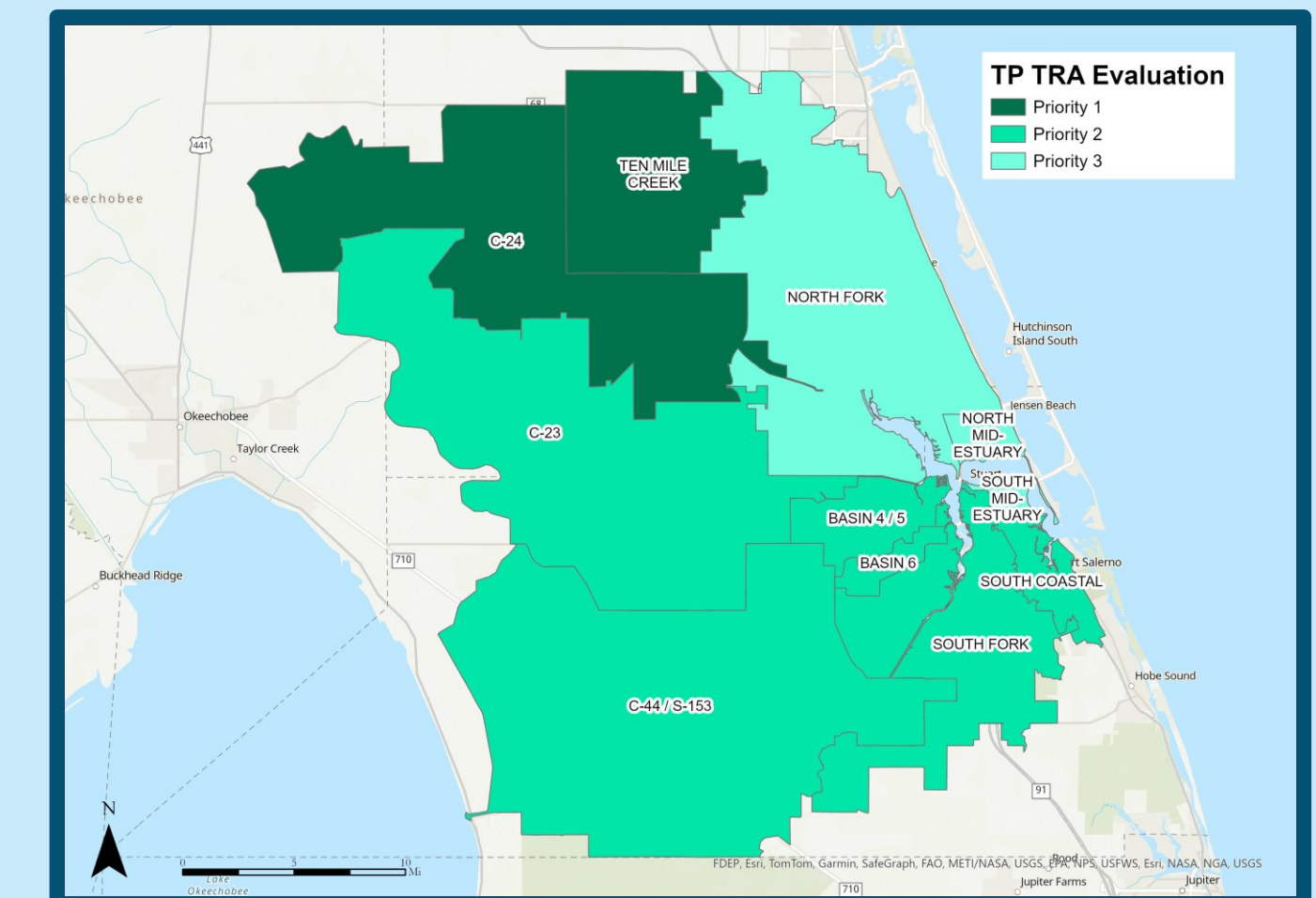
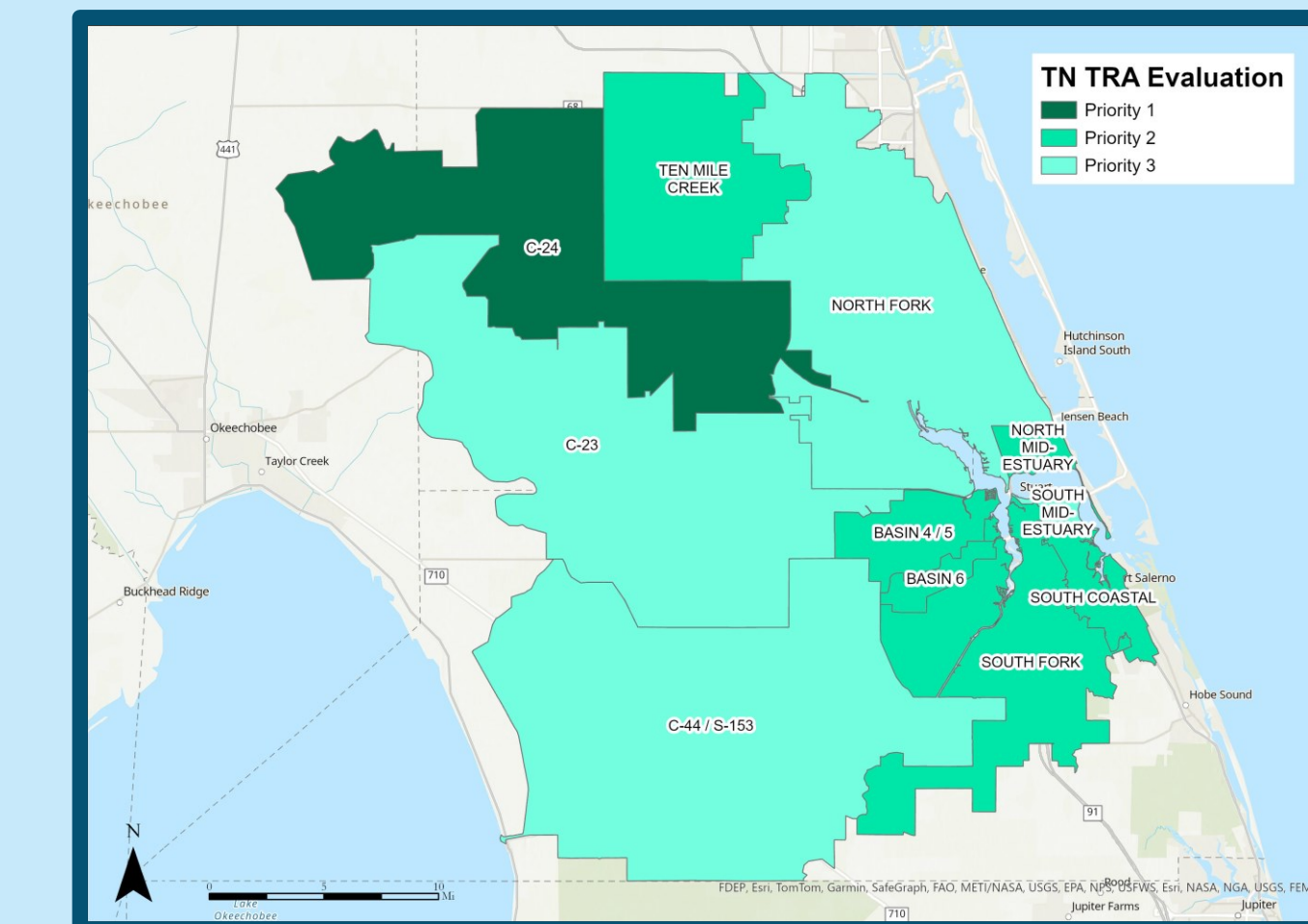
Alkalinity	Nitrate-Nitrite (N)
Ammonia (N)	Total Kjeldahl Nitrogen (TKN)
Biological Oxygen Demand (BOD)	Total Nitrogen (TN)
Organic Carbon	Orthophosphate (P)
Total Carbon	pH
Chlorophyll-a	Total Phosphorus (TP)
Color	Specific Conductance/Salinity
Dissolved Oxygen	Temperature
Dissolved Oxygen (Saturation)	Total Suspended Solids
Flow	Turbidity

Water quality is monitored at 69 stations throughout the watershed.

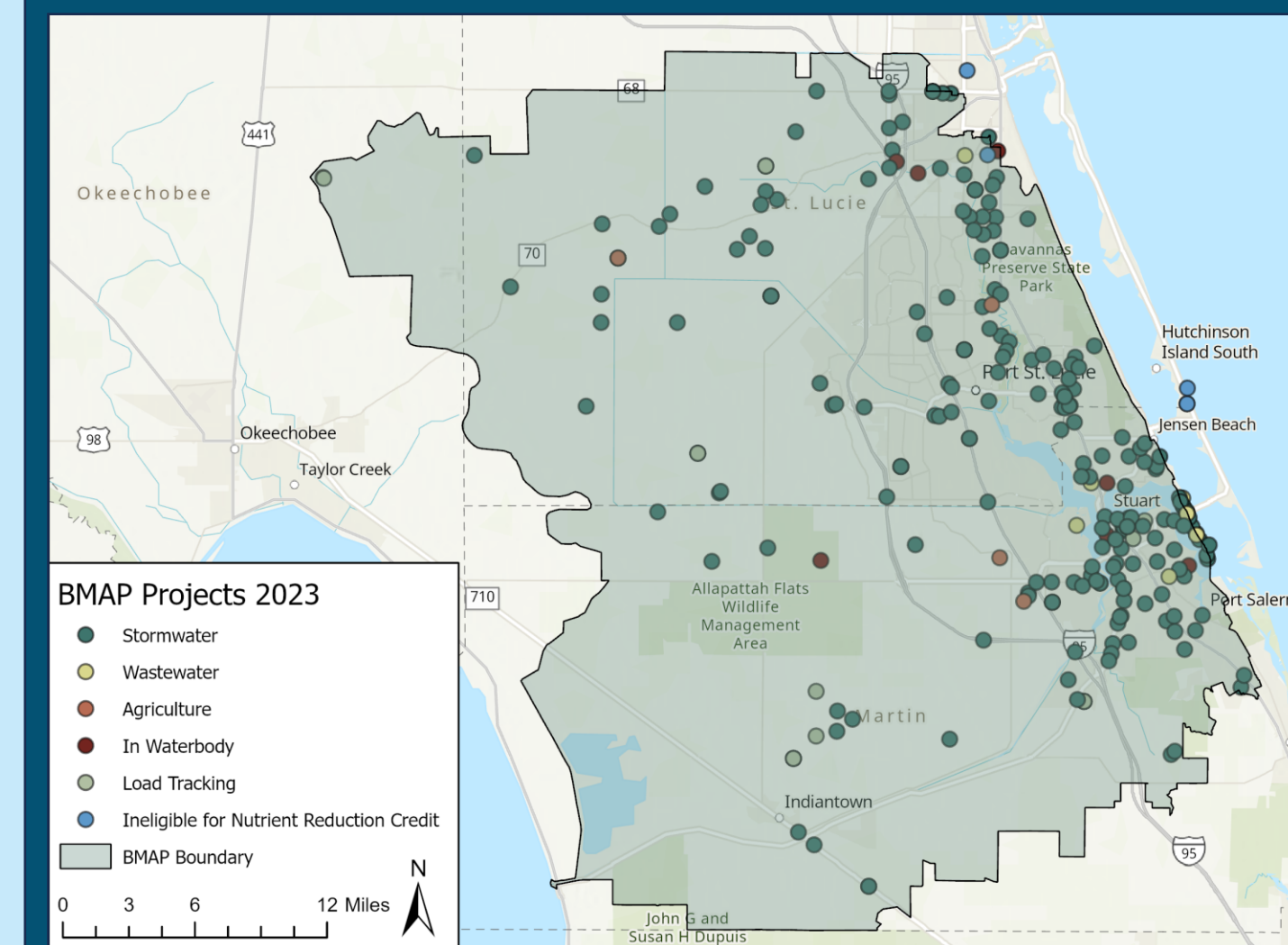
Targeted Restoration Area Evaluation



Targeted Restoration Areas (TRA) sequentially compare four parameters to determine priority basins for restoration projects.



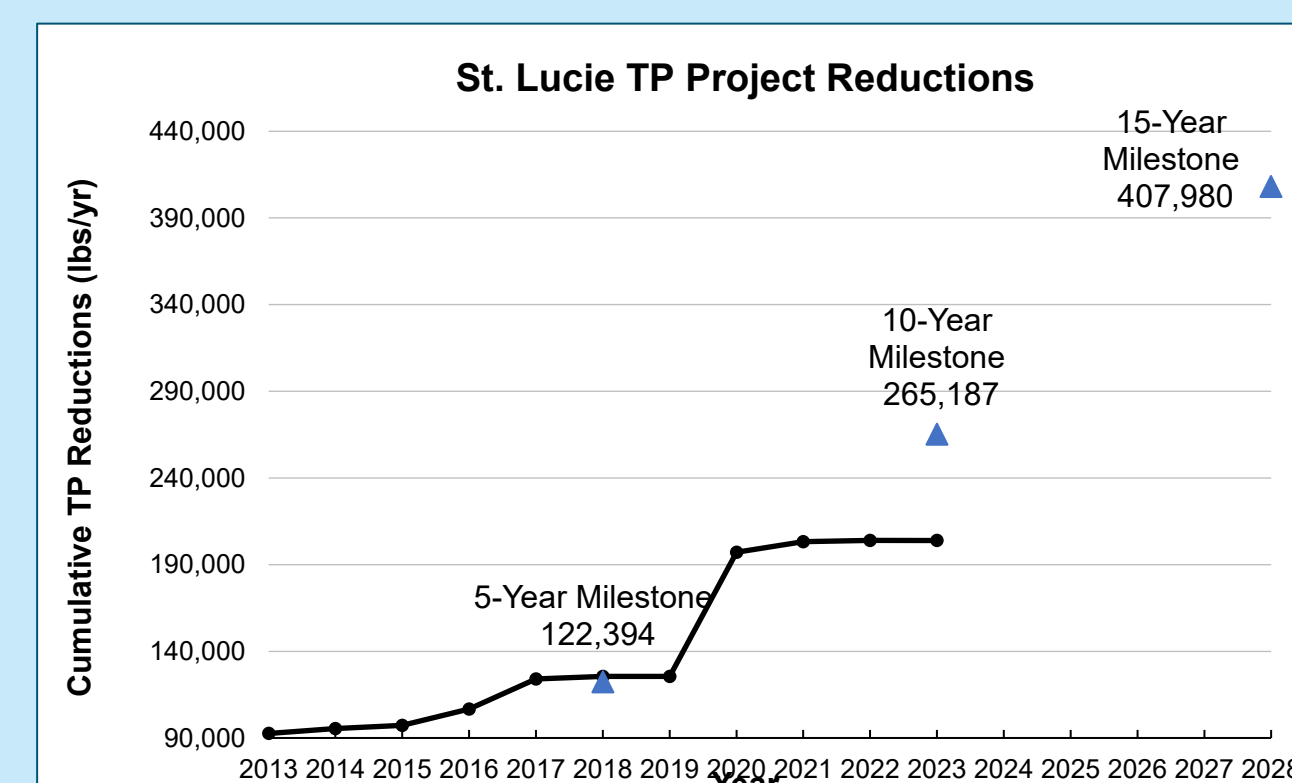
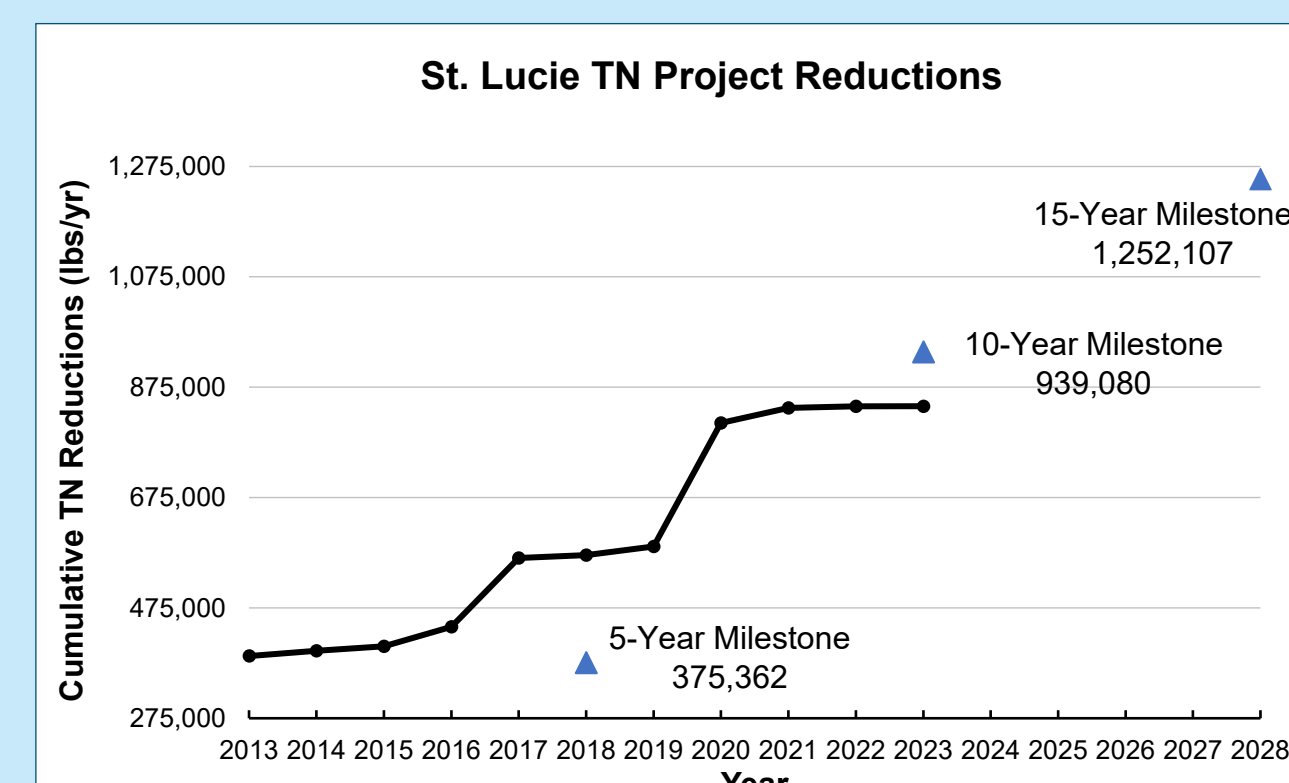
Statewide Annual Report (STAR) 2023



Entity	Completed	Ongoing	Planned	Underway	Total
City of Fort Pierce	9	4	0	0	13
City of Port St. Lucie	26	4	0	4	34
City of Stuart	21	3	0	1	25
FDACS/Agriculture	12	8	0	0	20
FDOT District 4	60	2	0	0	62
Fort Pierce Utilities Authority	1	0	1	5	6
Hobe St. Lucie Conservancy District	1	0	1	0	2
Indian River County	40	3	1	3	47
North St. Lucie River WCD	11	0	0	0	11
SFWMD - Coordinating Agency	8	0	1	1	10
St. Lucie County	9	9	4	4	26
St. Lucie West Services District	2	3	0	0	5
Town of Sewall's Point	30	2	2	3	37
Troup-Indian River WCD	2	0	0	2	4
Tumple Enterprise	3	2	0	0	5
Tradition CDD	0	0	1	2	3
Total	234	40	11	25	310

310 projects in the BMAP address both stormwater and wastewater sources of pollution.

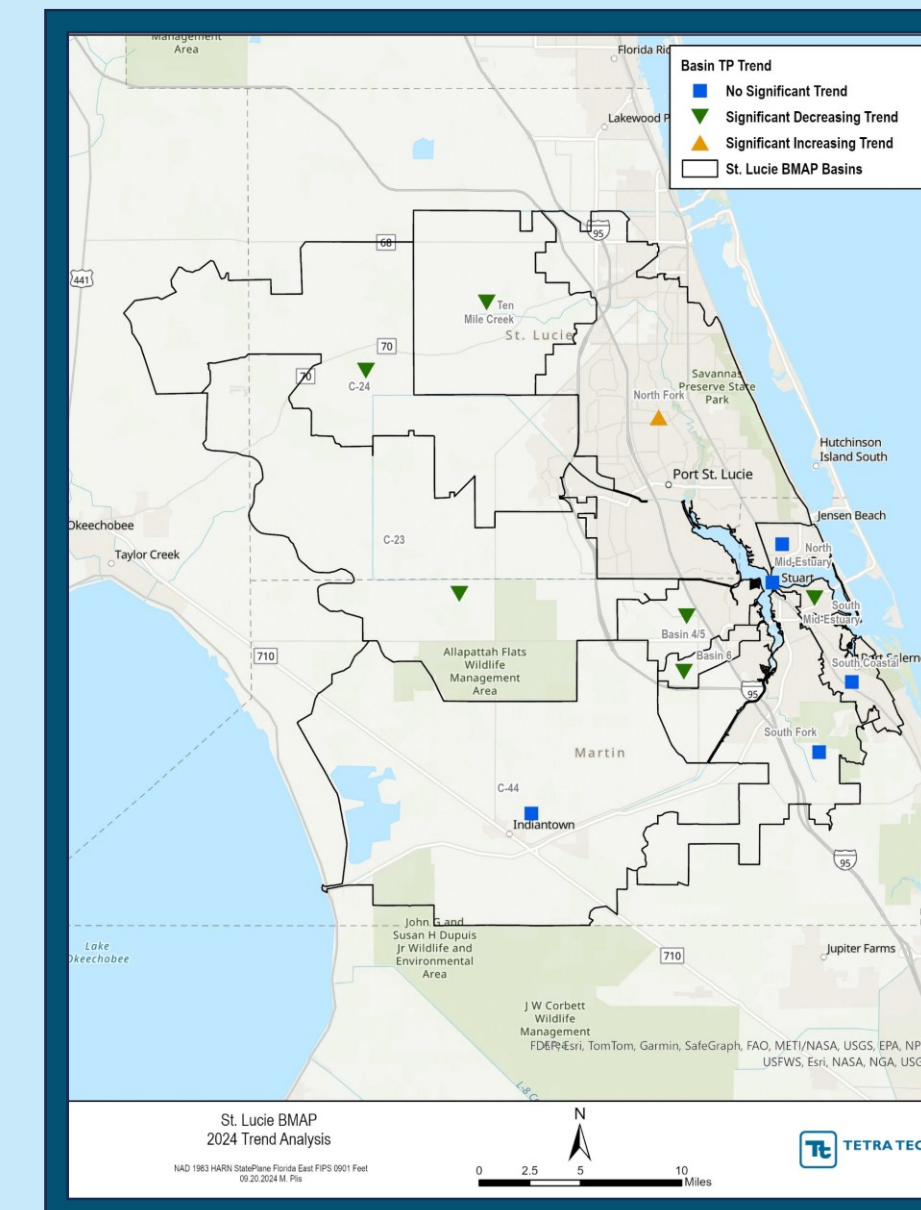
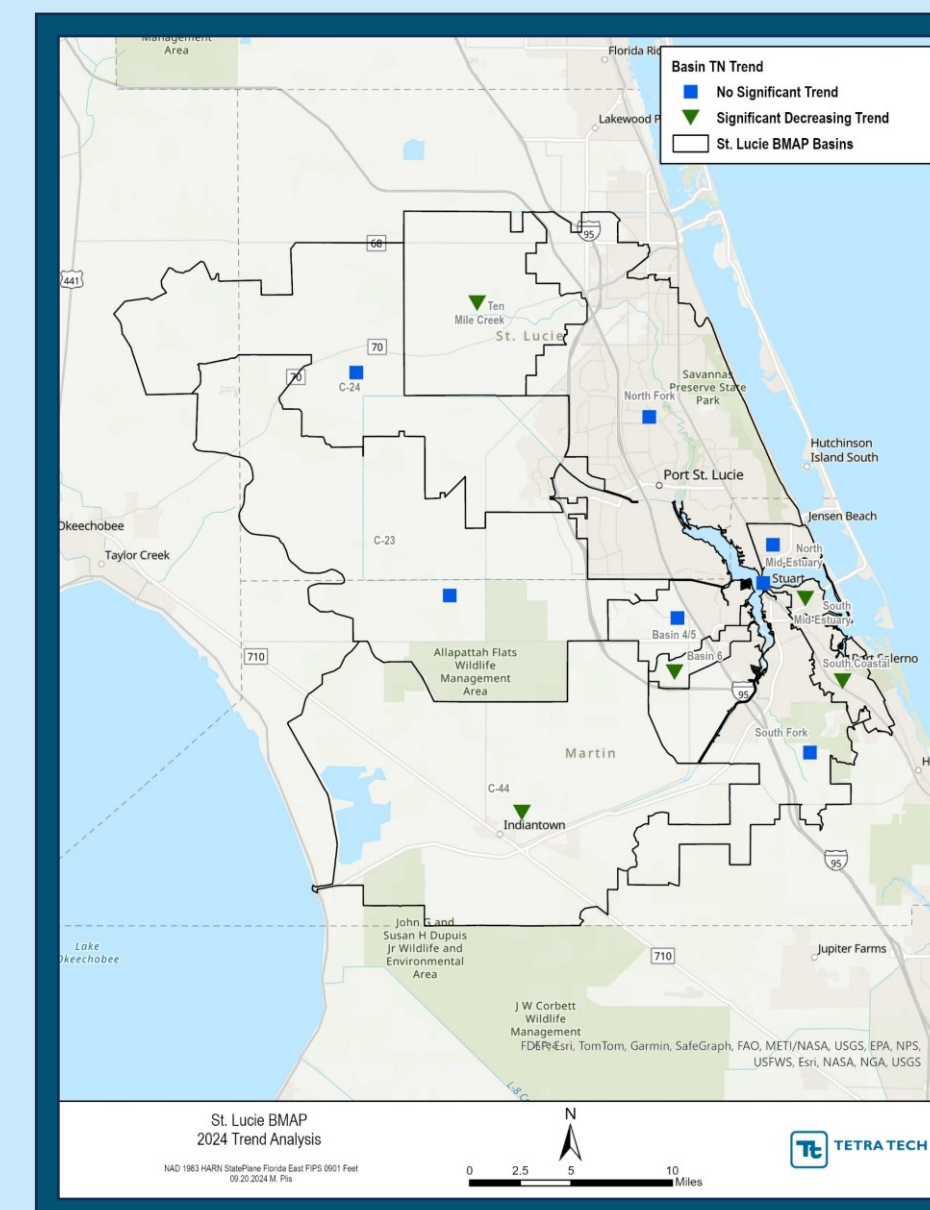
Completed and ongoing projects have achieved 67% of the TN and 50 percent of the TP required reductions.



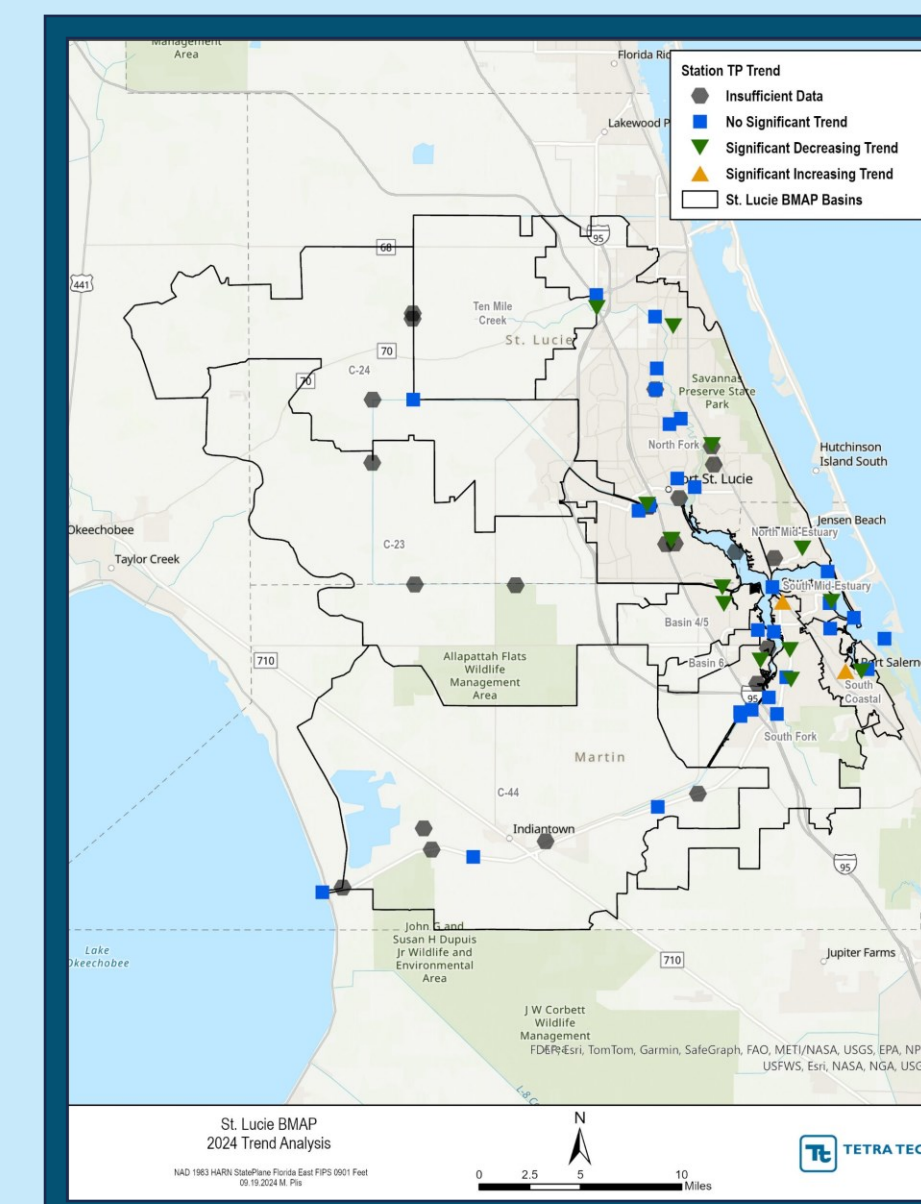
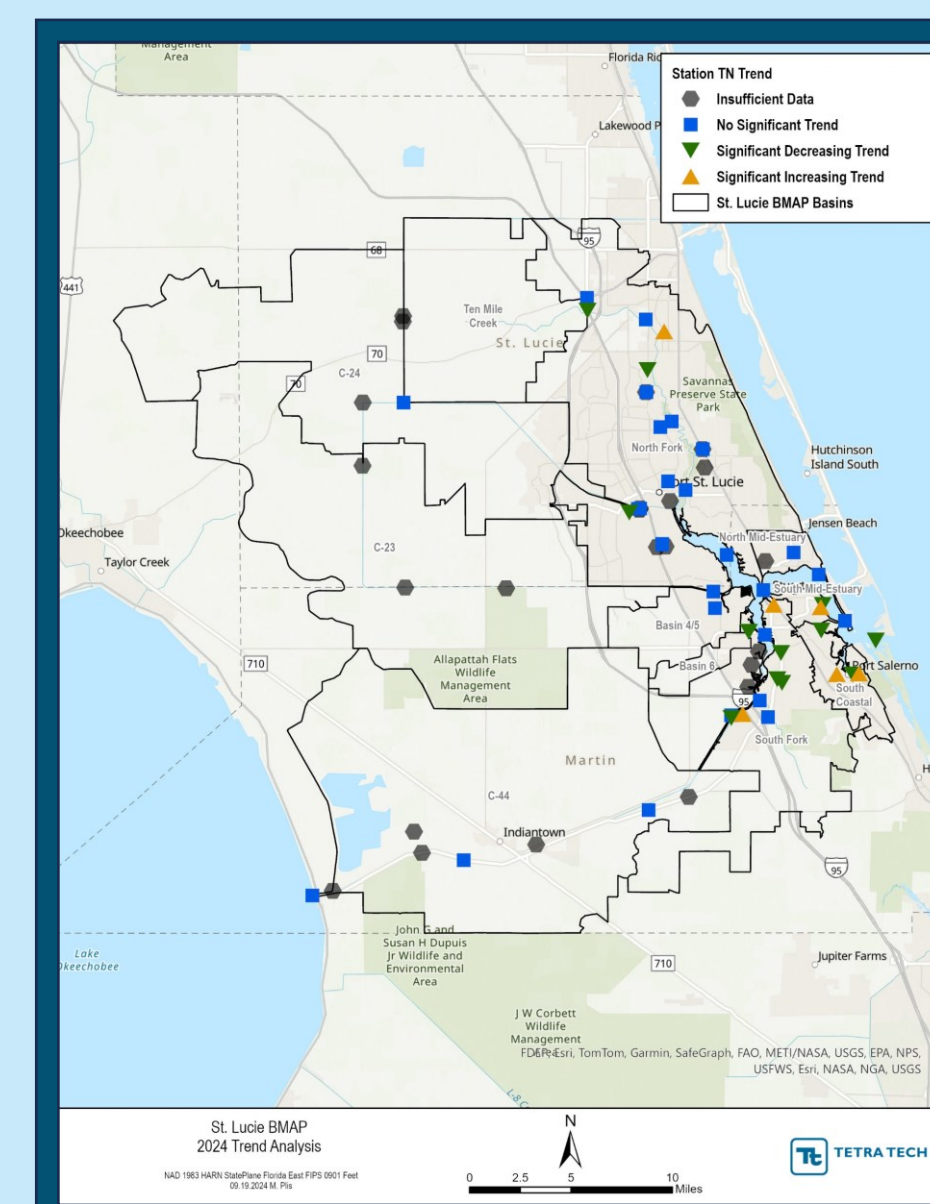
Water Quality Trend Analyses

Seasonal Kendall trend analysis investigates trends in TN and TP concentrations for the basins and for the BMAP monitoring network stations.

Basin Trends

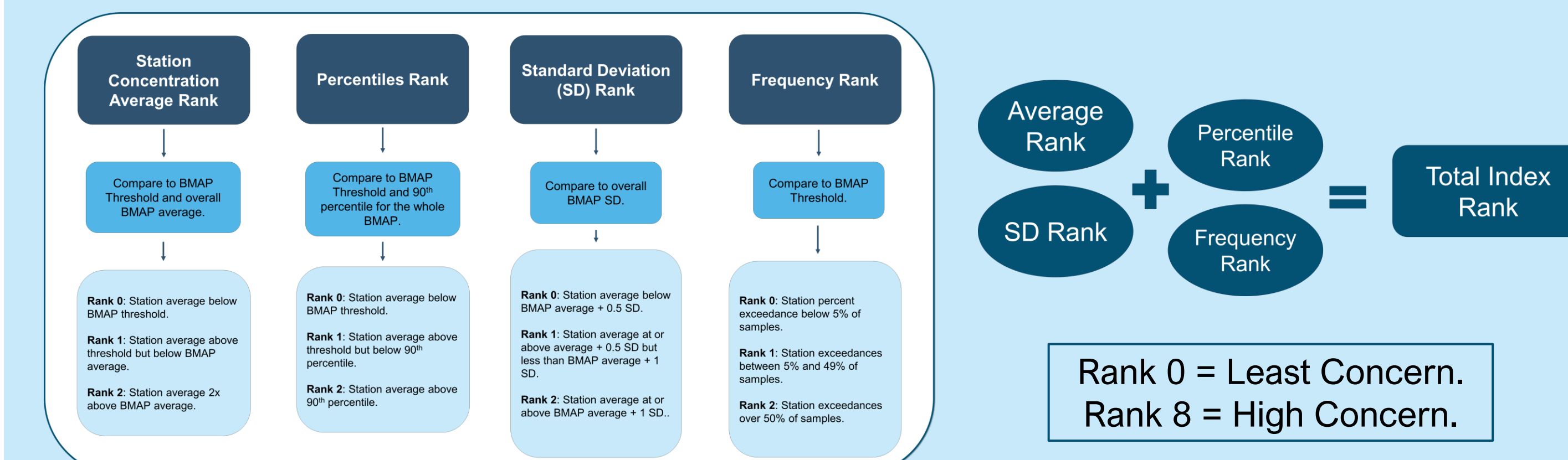


Station Trends

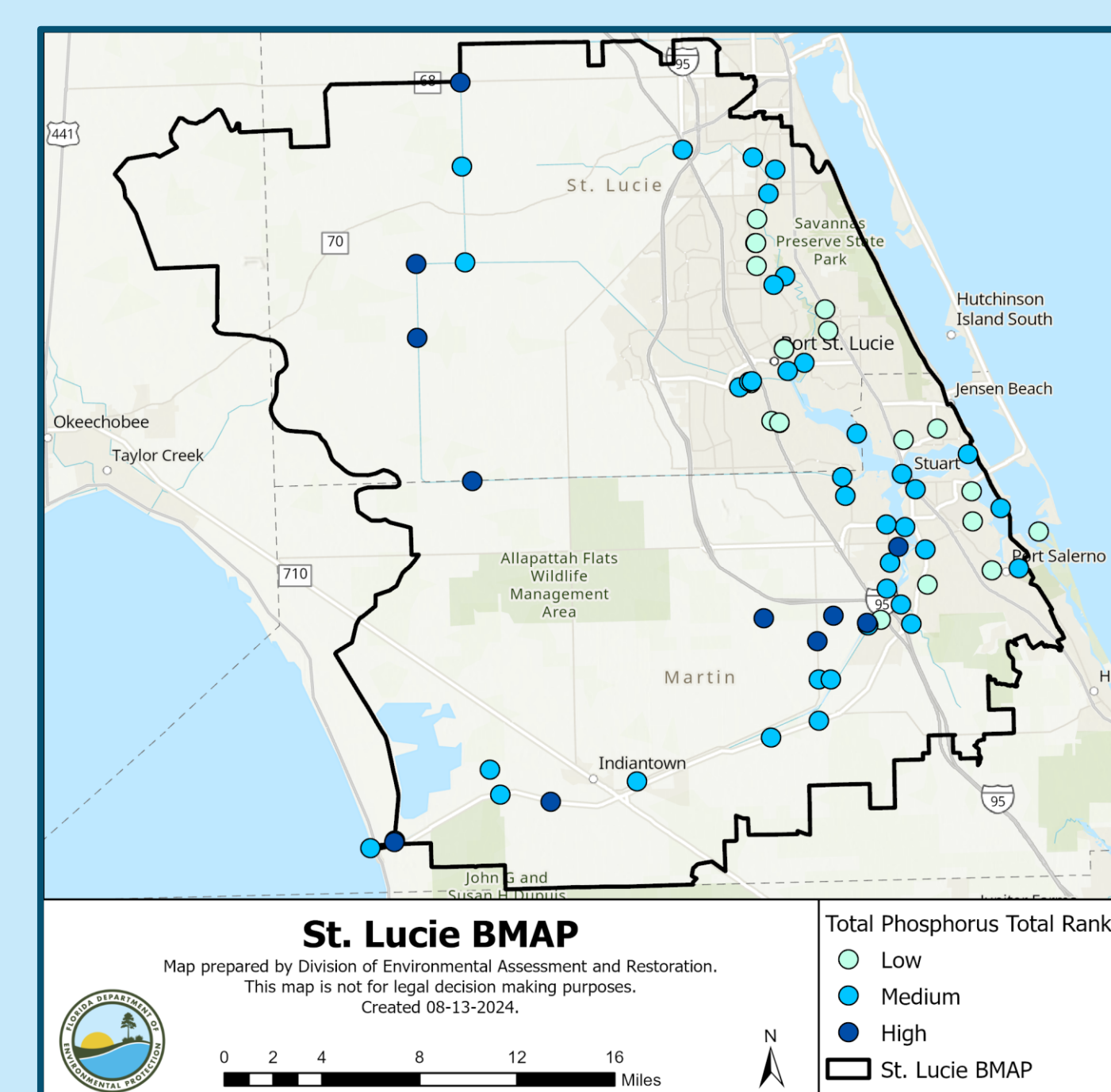
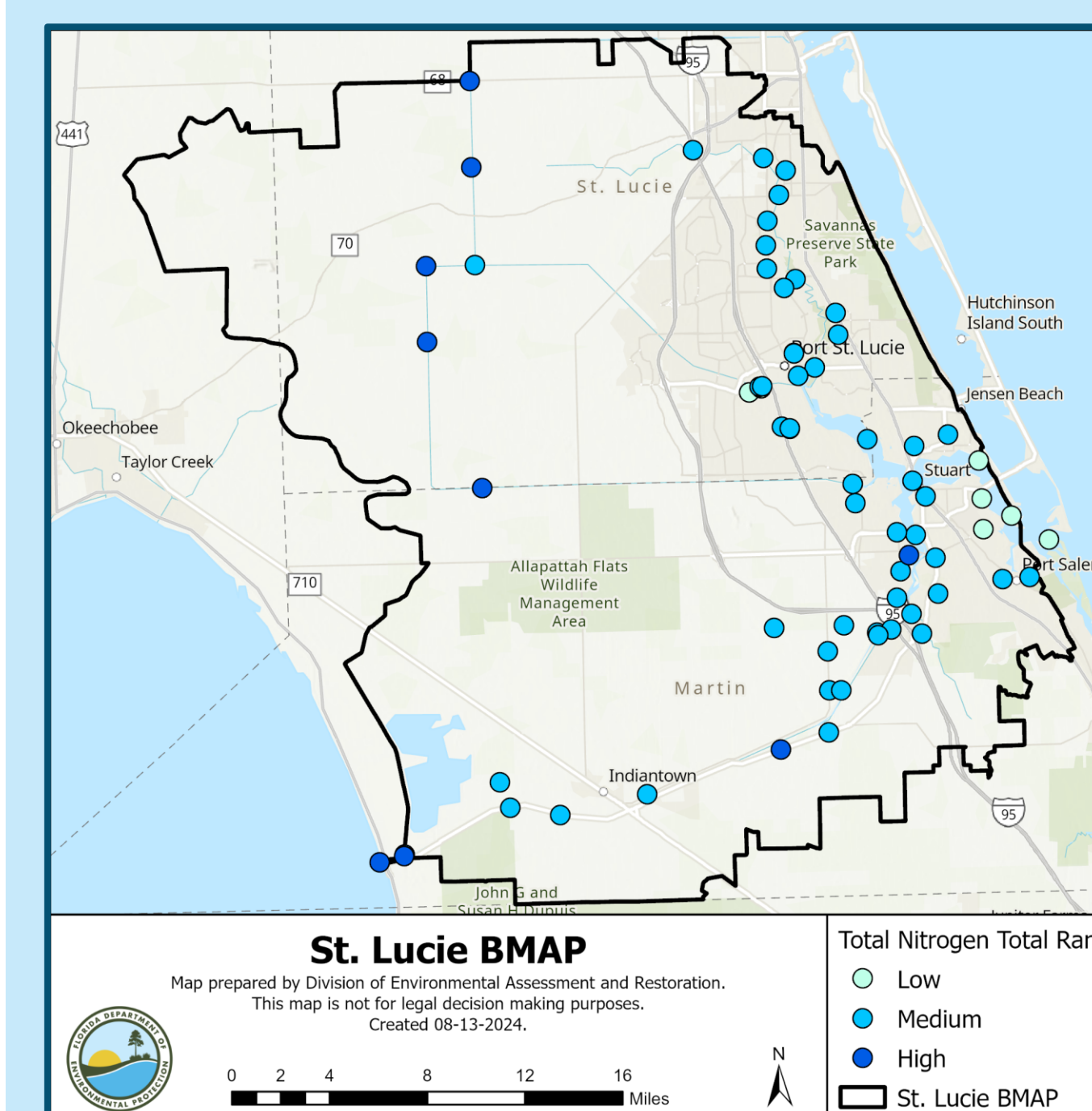


Hot Spot Analysis

Analysis method for prioritization at a more local scale than the TRA analysis.



Rank 0 = Least Concern.
Rank 8 = High Concern.



ST. LUCIE RIVER AND ESTUARY BASIN MANAGEMENT ACTION PLAN (BMAP)

REQUIRED REDUCTIONS AND MILESTONES

Projects

Responsible entities are required to identify, plan, complete and report on projects that reduce the loading of nitrogen from sources.

The basin wide reductions are assessed by source and then allocated to responsible entities.

Project collection and reporting are crucial to the successful implementation and management of BMAPs. Projects are reported to the Florida Department of Environmental Protection (DEP) annually through the BMAP Project Collection Portal. Project lists with associated reductions are published in the Statewide Annual Report (STAR).

Entity Required Reductions and Allocations

Entity	TN Starting Load (lbs/yr)	TN Required Reductions (lbs/yr)	TN Allocation (lbs/yr)	TP Starting Load (lbs/yr)	TP Required Reductions (lbs/yr)	TP Allocation (lbs/yr)
Agriculture	2,128,687	884,700	1,243,987	472,423	284,285	188,138
City of Fort Pierce	48,617	16,205	32,412	8,071	5,266	2,805
City of Port St. Lucie	397,343	138,187	259,156	67,422	44,277	23,145
City of Stuart	36,893	6,003	30,890	6,142	2,700	3,442
Copper Creek CDD	2,591	1,500	1,091	431	306	125
Creekside CDD	1,695	475	1,220	293	175	118
FDOT District 4	44,404	15,907	28,497	8,047	4,801	3,246
FDOT District 1	1,013	594	419	283	218	65
Martin County	388,638	75,231	313,407	66,501	31,786	34,715
Okeechobee County	13,635	7,950	5,685	2,629	1,966	663
Portofino Isles CDD	2,186	1,271	915	371	285	86
River Place CDD	1,166	389	777	195	127	68
Southern Grove CDD	2,107	1,226	881	424	310	114
St. Lucie County	180,521	67,679	112,842	32,612	21,398	11,214
St. Lucie West Service District	40,406	13,469	26,937	6,967	4,545	2,422
Tesoro CDD	7,756	2,585	5,171	1,271	829	442
Town of Sewall's Point	1,919	417	1,502	319	174	145
Tradition CDD	14,621	8,396	6,225	2,562	1,815	747
Turnpike	13,839	4,163	9,676	2,281	1,402	879
Veranda CDD	3,037	1,012	2,025	407	266	141
Verano CDD	1,778	1,030	748	366	260	106
Villa Vizcaya CDD	357	119	238	60	39	21
Village of Indiantown	16,560	3,600	12,960	2,780	751	2,029
Total	3,349,769	1,252,108	2,097,661	682,857	407,981	274,876

Southern Grove Community Development District (CDD) is a new entity for the 2025 BMAP update.

Veranda CDD includes additional area for the 2025 BMAP update.

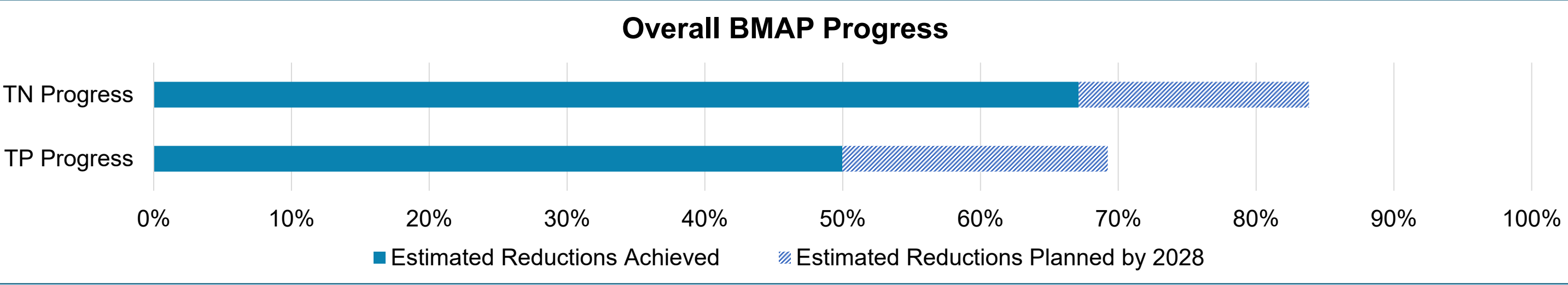
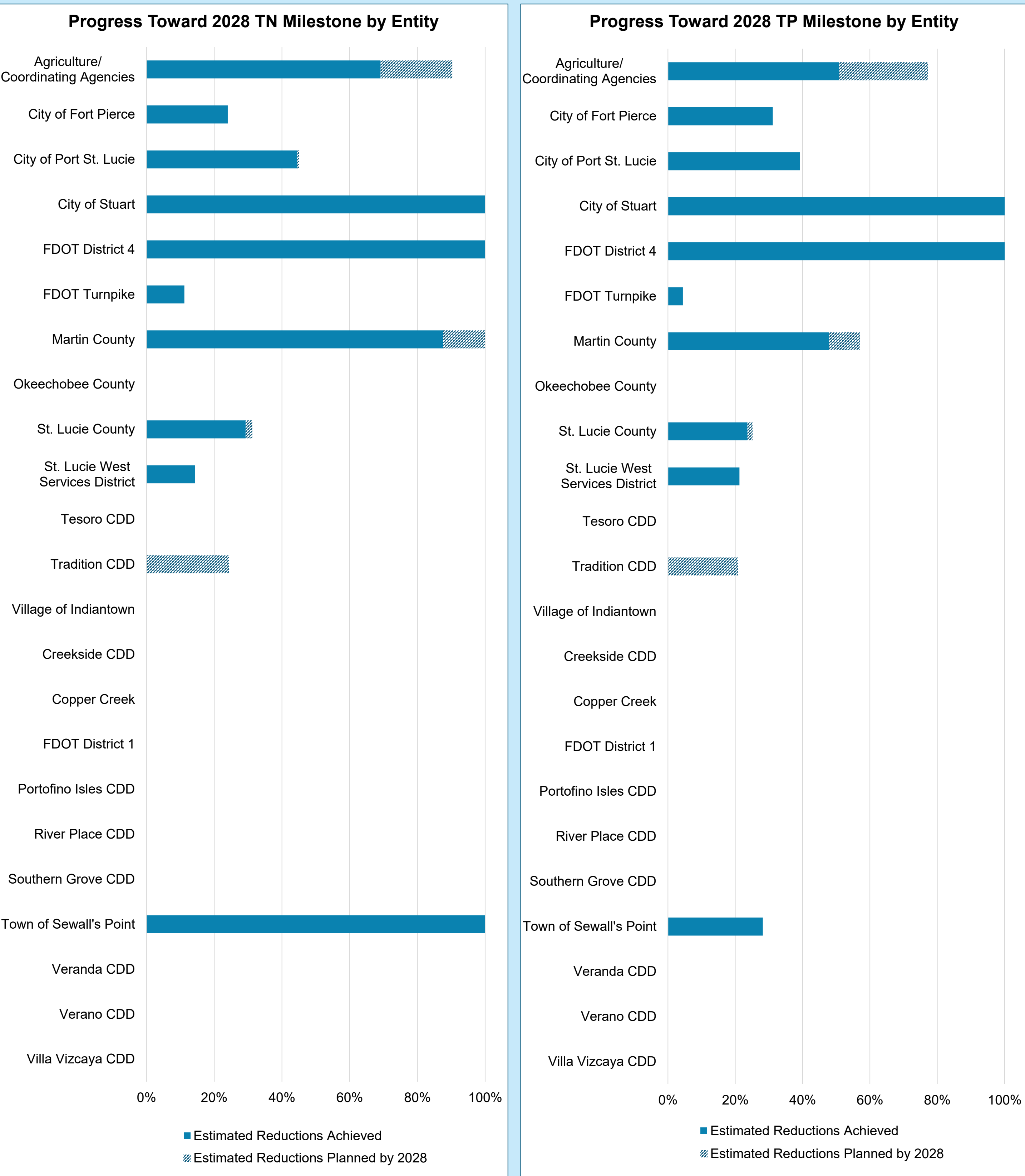
Village of Indiantown is being separated from Martin County for the 2025 BMAP update.

2028 Milestone – 100% Reductions Achieved

Responsible entities are required to provide lists of projects that demonstrate how they plan to achieve their required reductions for the next five-year milestone.

It is important that all projects needed to achieve milestone targets are included in the STAR, even if a funding mechanism is not currently identified. This information provides the state an understanding of the support necessary to achieve BMAP goals and assists with the prioritization of projects.

Estimated reductions in the progress chart below reflect projects entered through December 2023.



BMAP Management Strategies

Nutrient reduction credits can be earned through implementing projects addressing sources of nutrients. Reduction milestones must be met to ensure sufficient progress towards meeting the total maximum daily load (TMDL) target.

Source-Specific Management Strategies:

- Onsite Sewage Treatment and Disposal Systems:** No new installation of conventional septic systems on lots of 1 acre or less.
- Wastewater Treatment Facilities:** Facilities must meet certain effluent limitations.
- Agriculture Best Management Practices (BMP) Enrollment:** This program is mandatory in BMAP areas, assumes certain efficiencies as described in the BMAP.
- Other Agriculture:** Agricultural sources that are not addressed through BMP enrollment and implementation will need to be addressed through activities such as regional projects, cost-share BMPs or innovative technologies.
- Urban Stormwater:** Ordinances, education, street sweeping and structural stormwater improvements.

