



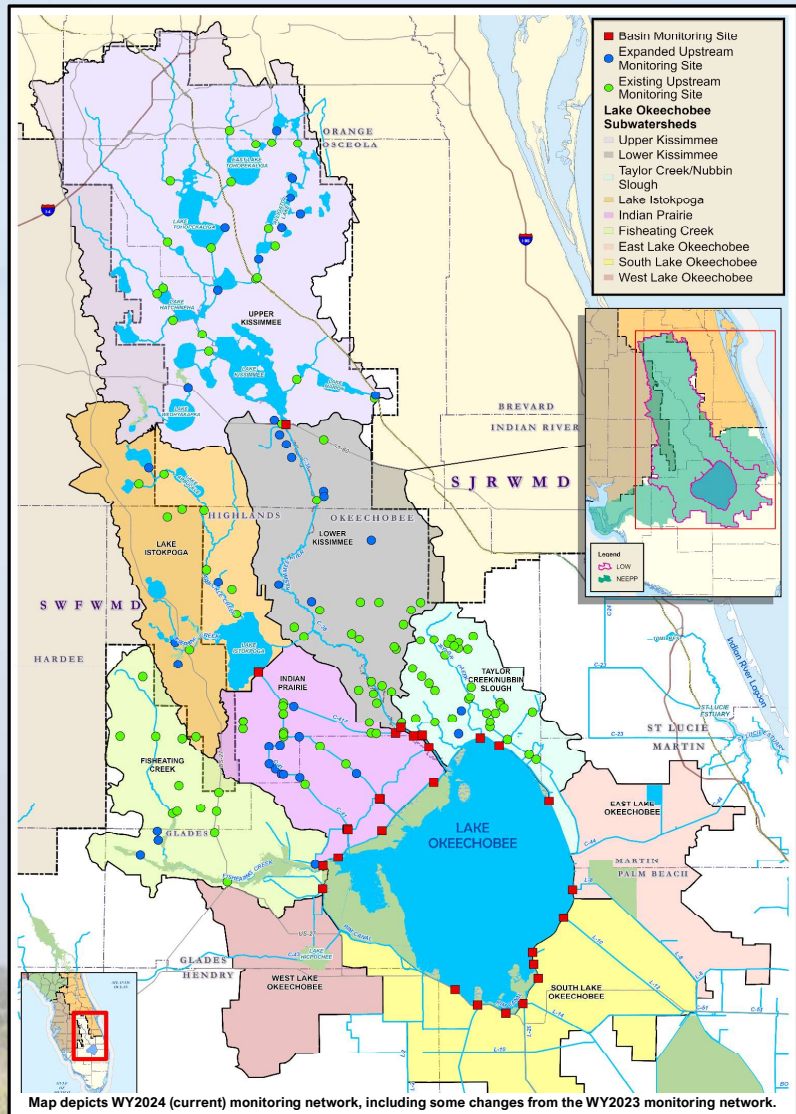
# Appendix 8B-1: Water Year 2023 Lake Okeechobee Watershed Upstream Monitoring

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**Purpose of Upstream Monitoring:** ➤ Highlight Areas of Concern ➤ Prioritize Resources ➤ Track Progress

## Water Quality Monitoring Network



Acknowledgements: Thank you to the staff from the Okeechobee Water Quality Office and Analytical Services Section. Without their efforts these data would not exist. Additionally, the maps were produced by Allison Lamb, Madelyn Rinka, and Edwin Rios of the Geospatial Services Section.

## WY2023 Upstream Monitoring Network Results

### Focus on S-191 Basin

- WY2023 average TP at every site was > 120 µg/L (Florida Department of Environmental Protection numeric nutrient criteria).
- Six sites with 5-year annual average TP concentrations > 1,000 µg/L.
- Three sites with 5-year annual average TN concentrations > 10 mg/L.
- Had slightly above average rainfall for basin.

### TCNS 207

#### Rapid Assessment

- There were four rapid assessment triggers when TN > 10 mg/L.
- Coordinating Agencies notified.
- SFWMD currently brainstorming projects.

Interagency Coordination Effort

Rapid Assessment Process

Inform Projects

## Nutrient Concentrations Water Years 2019–2023

TCNS S191		WY2019-WY2023									
		TP (µg/L)		OPO <sub>4</sub> -P (µg/L)		TN (mg/L)		NH <sub>3</sub> -N (mg/L)		NO <sub>x</sub> -N (mg/L)	
Map ID	Site	No.	Avg.	No.	Avg.	No.	Avg.	No.	Avg.	No.	Avg.
1	02275197	50	694	41	477	50	3.39	36	0.49	41	0.46
2	LB29353513	31	1163	8	916	24	2.65	8	0.27	8	0.04
3	MS05373613	15	3417	4	2307	14	11.90	4	1.78	4	0.52
4	MS08373611	20	1539	5	2039	16	7.60	5	0.26	5	1.12
5	MS08373624	12	3655	11	2264	11	6.12	11	2.85	11	0.10
6	OT29353514	7	187	4	160	6	1.71	5	0.10	5	0.04
7	OT32353511	27	795	13	862	23	6.82	13	2.13	12	0.56
8	OT34353513	32	352	20	353	27	2.34	21	0.52	20	0.11
9	TC03373511	24	528	16	426	16	2.82	16	1.11	15	0.12
10	TC27353413	18	362	9	246	12	2.98	9	0.26	8	0.08
11	TCNS 201	42	246	31	187	42	1.66	32	0.11	31	0.15
12	TCNS 204	31	756	22	673	31	3.35	23	0.30	21	1.08
13	TCNS 207	34	2350	5	436	34	16.80	5	1.74	5	0.16
14	TCNS 209	32	2118	22	1643	32	14.22	22	7.15	20	1.40
15	TCNS 213	73	594	55	533	73	3.50	56	2.03	52	0.55
16	TCNS 214	74	575	60	479	74	1.79	60	0.34	59	0.15
17	TCNS 217	56	268	43	175	56	1.53	41	0.09	42	0.10
18	TCNS 220	45	864	35	605	45	3.78	35	0.89	33	0.19
19	TCNS 222	81	499	62	364	81	3.02	58	0.87	60	0.54
20	TCNS 228	11	658	9	590	11	2.38	9	0.17	8	0.17
21	TCNS 230	9	545	8	438	9	1.95	7	0.13	7	0.07
22	TCNS 233	28	505	24	442	28	1.86	22	0.14	23	0.09
23	TCNS 249	23	201	3	369	22	1.51	2	0.18	3	0.01

## Governing Board Expansion of Upstream Network

➤ Fully implemented in WY2021

➤ Increased:

- Number of sites
- Collection frequency to biweekly
- Number of parameters collected

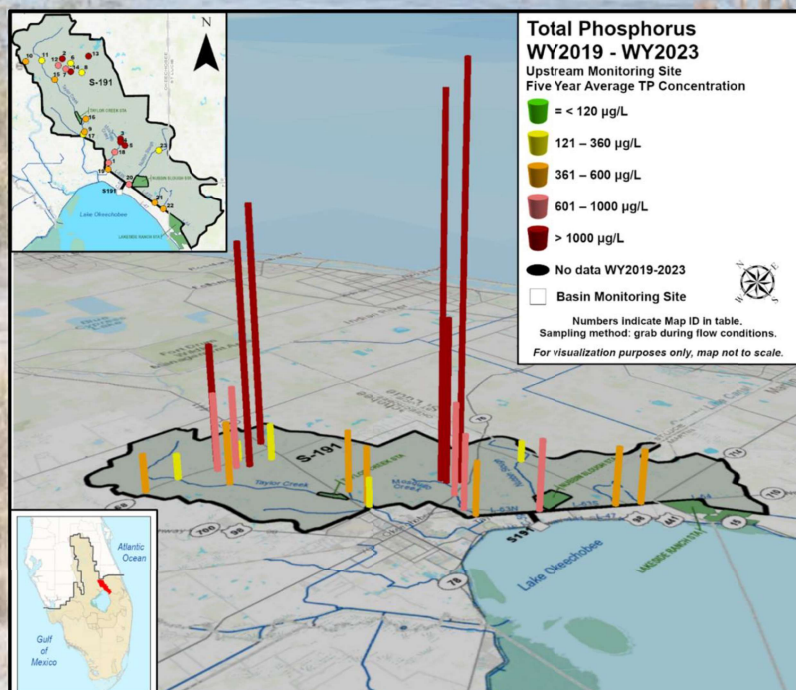
Parameters	Definitions
TP	total phosphorus
OPO <sub>4</sub> -P	orthophosphate
TN	total nitrogen
NH <sub>3</sub> -N	ammonial nitrogen
NO <sub>x</sub> -N	nitrate + nitrite
pH	potential of hydrogen
Temp	temperature
DO	dissolved oxygen
Conductivity	Measures the ability of water to pass an electrical current.

Monitoring Level	Total Sites
Basin	37
Upstream	150

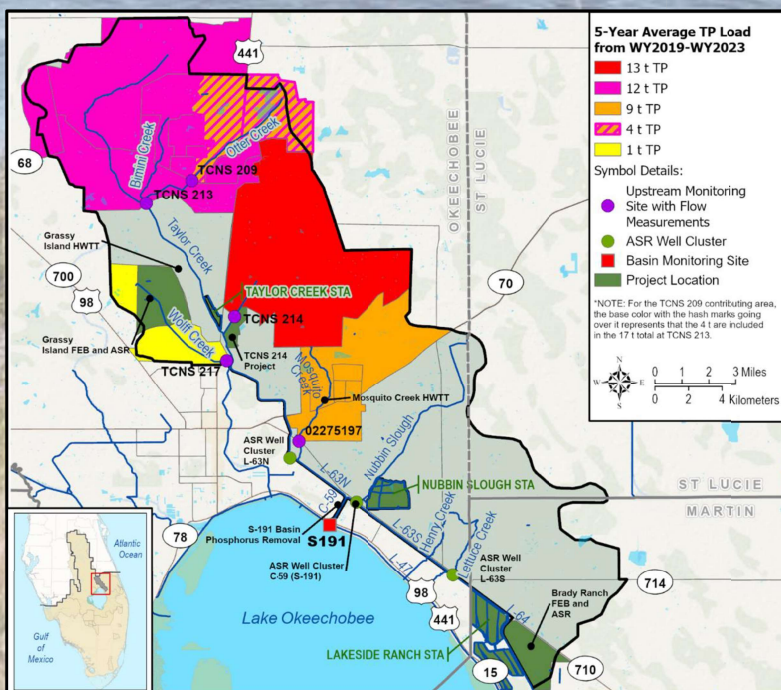
### Upstream Monitoring Plan

Frequency	Biweekly when flowing (some weekly)
Parameters	TP, OPO <sub>4</sub> -P, TN, NH <sub>3</sub> -N, NO <sub>x</sub> -N, pH, Temp, DO, Conductivity

## S-191 Basin Total Phosphorus Concentrations



## S-191 Basin Total Phosphorus Loads



Unit of Measurement	Definitions
µg/L	microgram(s) per liter
mg/L	milligram(s) per liter

For more information:

