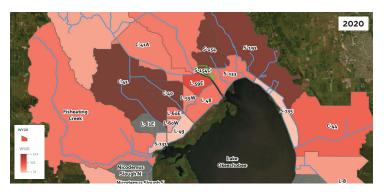
LOWER KISSIMMEE BASIN STORMWATER TREATMENT AREA

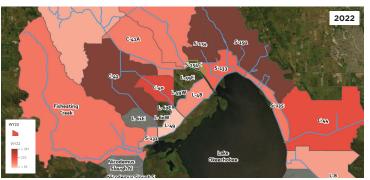


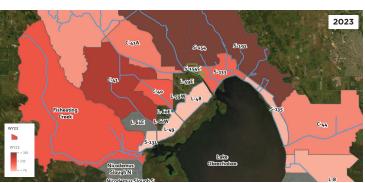
Over the last two decades, the Florida Department of Environmental Protection (FDEP) has documented high levels of phosphorus in Lake Okeechobee — an important source of water for drinking, agricultural irrigation, recreational activities and wildlife. From 2017 to 2023, the annual average Total Phosphorus (TP) load discharged into Lake Okeechobee ranged from 285 to 1,081 metric tons and averaged 511 mt/yr, which exceeds the Total Maximum Daily Load (TMDL), as established by FDEP, by 371 mt/yr.

High phosphorus levels create toxic algae blooms, which are dangerous to the surrounding ecosystem. Additionally, these high phosphorus levels limit the use of lake water for irrigation and economic development activities.



Fithering Creek	dept legel l	28	2021 335 eqs
VV21 - 290 - <51	Nicodemus Slough N Nicodemus Slough S	lako Okaadiabao	L-8





LAKE OKEECHOBEE TMDL COMPARISON BY WATER YEAR							
	WY 2023* (mt)	WY 2022 (mt)	WY 2021 (mt)	WY 2020 (mt)	WY 2019 (mt)	WY 2018 (mt)	WY 2017 (mt)
Lake Okeechobee Watershed Phosphorus TMDL	140	140	140	140	140	140	140
TP Loads to Lake Okeechobee by Water Year	438	285	520	324	445	1081	484
Average	511						
TP Loads above TMDL	298	145	380	184	305	941	344
Average	371						

C-38 (KISSIMMEE RIVER) TOTAL PHOSPHORUS LOADS BY WATER YEAR							
	WY 2023* (mt)	WY 2022 (mt)	WY 2021 (mt)	WY 2020 (mt)	WY 2019 (mt)	WY 2018 (mt)	WY 2017 (mt)
Upper Kissimmee Subwatershed (S-65)	99.3	70.2	67.7	74.8	86.7	117.9	72.7
Lower Kissimmee Subwatershed [(S-65E) - (S-65)]	113.7	17.7	120.3	54.0	94.5	304.9	101.4
Lake Istokpoga Subwatershed (S-68)	41.6	30.0	46.3	24.3	30.2	63.4	41.0
C-41A Basin [(S-84) - (S-68)]	15.6	14.7	31.7	11.0	16.0	51.9	24.4
Total	270	133	266	164	227	538	239
Average	263						

L-62 CANAL TOTAL PHOSPHORUS LOADS BY WATER YEAR							
	WY 2023* (mt)	WY 2022 (mt)	WY 2021 (mt)	WY 2020 (mt)	WY 2019 (mt)	WY 2018 (mt)	WY 2017 (mt)
S-154 Basin	2.8	12.4	14.2	7.7	13.2	30.9	16.3
S-154C Basin	0.1	1.0	0.6	0.4	1.8	5.2	2.1
Total	2.9	13.4	14.8	8.1	15.0	36.1	18.4
Average				16			

LOWER KISSIMMEE BASIN STORMWATER TREATMENT **AREA (LKBSTA)**

In response, FDEP adopted Lake Okeechobee's first Basin Management Action Plan (BMAP) in 2014 to identify projects and programs that would restore water quality in the lake. The Lower Kissimmee Basin Stormwater Treatment Area (LKBSTA) is one of several projects included in the BMAP to reduce phosphorus levels and reach the desired TMDL of phosphorus in the lake.

The proposed project will extract 9 to 13 mt/yr of phosphorus from runoff north of Lake Okeechobee, with the potential for future expansion to further extract phosphorus amounts.

PROJECT OPERATIONS

The project will use pumps to intercept phosphorus-heavy water from two canals that run into Lake Okeechobee (L-62 and C-38), treat it through man-made wetlands to absorb a portion of phosphorus and then direct treated water back into a rerouted canal that runs into Lake Okeechobee.

PROJECT DETAILS

- Located on roughly a 2,000-acre property north of Lake Okeechobee along the Kissimmee River
- · Controlled wetland with public accessibility for recreational activities such as bicycling, hiking and nature-watching
- · Four treatment cells
- Includes rerouting a portion of the L-62 canal
- Proposed expansion includes two to four additional treatment cells to remove more phosphorus amounts

WHY THIS LOCATION?

Data and analyses show that it is critical to reduce phosphorus in watersheds north of Lake Okeechobee in order to effectively reduce phosphorus levels within the lake. About half of the annual TP loads into the lake enter from the Kissimmee River (C-38 canal).

	PROPOSED PROJECT	POTENTIAL FUTURE EXPANSION				
Project Components	1,600 acre STA (4 cells) 375 cfs inflow pump station	2,700 acre STA (6 cells) 500 cfs inflow pump station	3,800 acre STA (8 cells) 625 cfs inflow pump station	Innovative Treatment Area		
Projected Annual Inflow TP Load	S-154 = 11-14 metric tons C-38 Canal = 10-18 metric tons (includes 1-3 mt from Lake O) Total = 21-32 metric tons	S-154 = 13-14 metric tons C-38 Canal = 18-26 metric tons (includes 2-6 mt from Lake O) Total = 31-40 metric tons	S-154 = 14-15 metric tons C-38 Canal = 19-36 metric tons (includes 2-10 mt from Lake O) Total = 33-51 metric tons	TBD		
Projected Annual TP Load Reduction with Project	9-13 metric tons (~41-43%)	14-17 metric tons (~43-45%)	20-22 metric tons (~43-61%)	3-6 metric tons		
Anticipated Total Expansion Project TP Reductions		23-28 metric tons				

