

INDIAN PRAIRIE - L-48 BASIN TECHNICAL SHEET

Subwatershed: Indian Prairie		
Basin: L-48	Flow Issues¹: No	Water Quality Issues²: No

Monitored Structure(s): S-127

Inflow loads:

Acreage: 20,798

Percentage of Subwatershed Acreage: 8%

Percentage of Lake Okeechobee Watershed: 0.6%

¹Flow Issues:

-No statistically significant changes were observed for flows and the contribution of flows were relatively small (5.1% of the subwatershed during the post-protection plan period).

-The Comprehensive Everglades Restoration Project - Lake Okeechobee Watershed Restoration Project Wetland Attenuation Feature is tentatively planned for this basin.

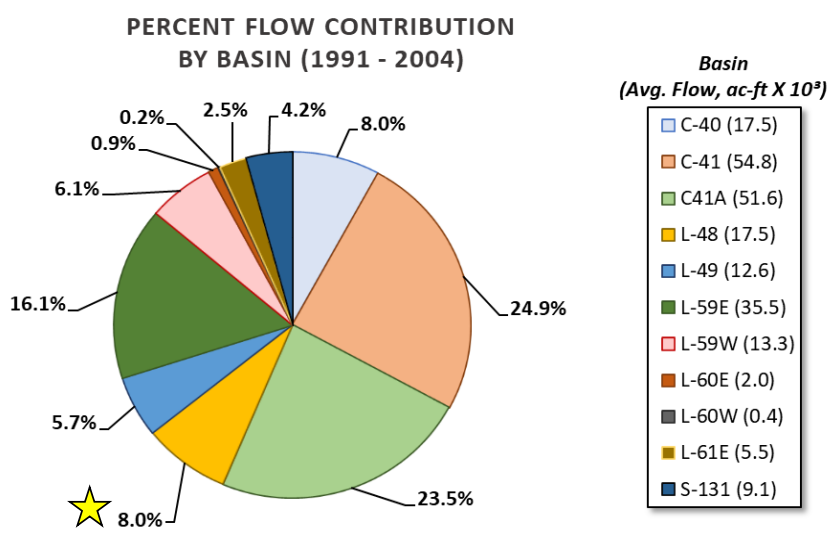
-Flow and load estimates were based on samples and measurements taken at major structures within the regional system.

²Water Quality Issues:

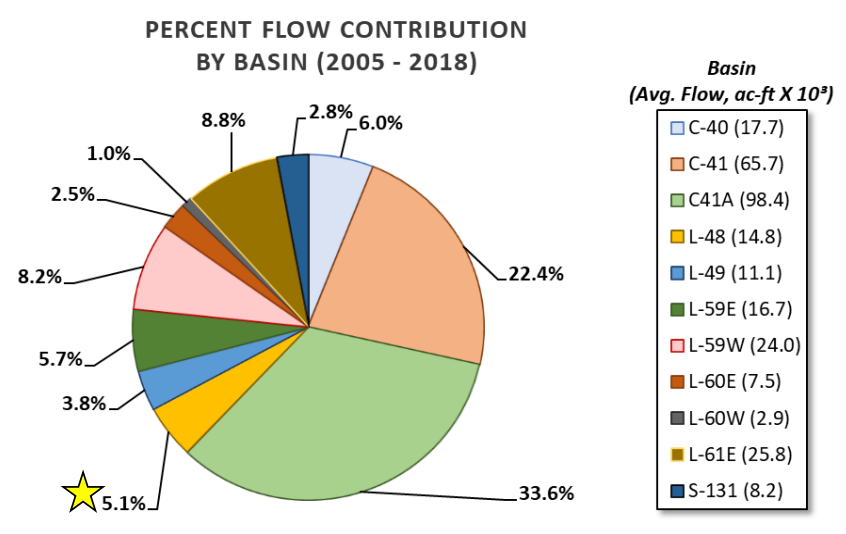
-There is a decreasing trend for total phosphorus (TP) flow-weighted mean concentrations (FWMC) in both pre and post-protection plan periods; however, it was only statistically significant in the pre-protection plan period.

-The TP load did not change much between the two periods (pre = 4.89 mt/yr; post = 4.84 mt/yr) and the TP load contribution to the subwatershed is relatively small (5.1% during the post-protection plan period).

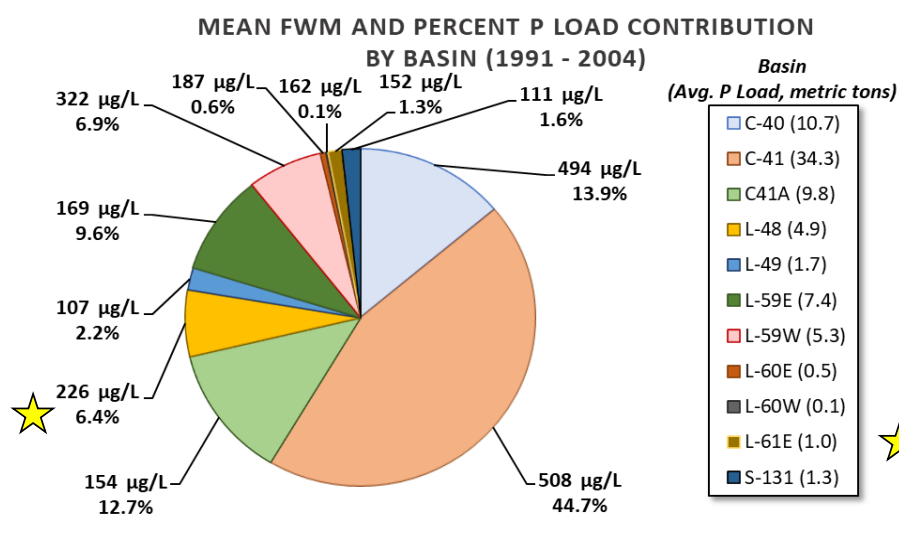
Pre-Protection Plan Flows



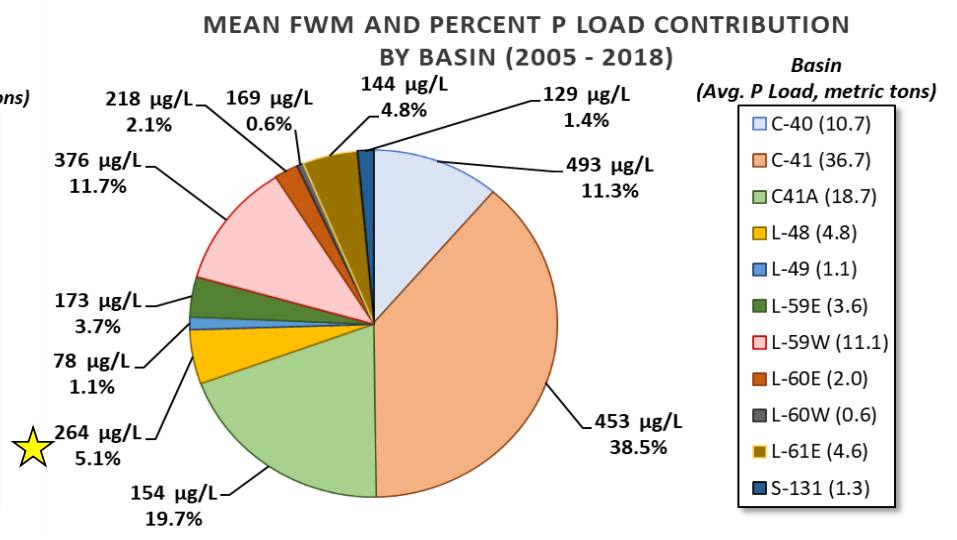
Post-Protection Plan Flows



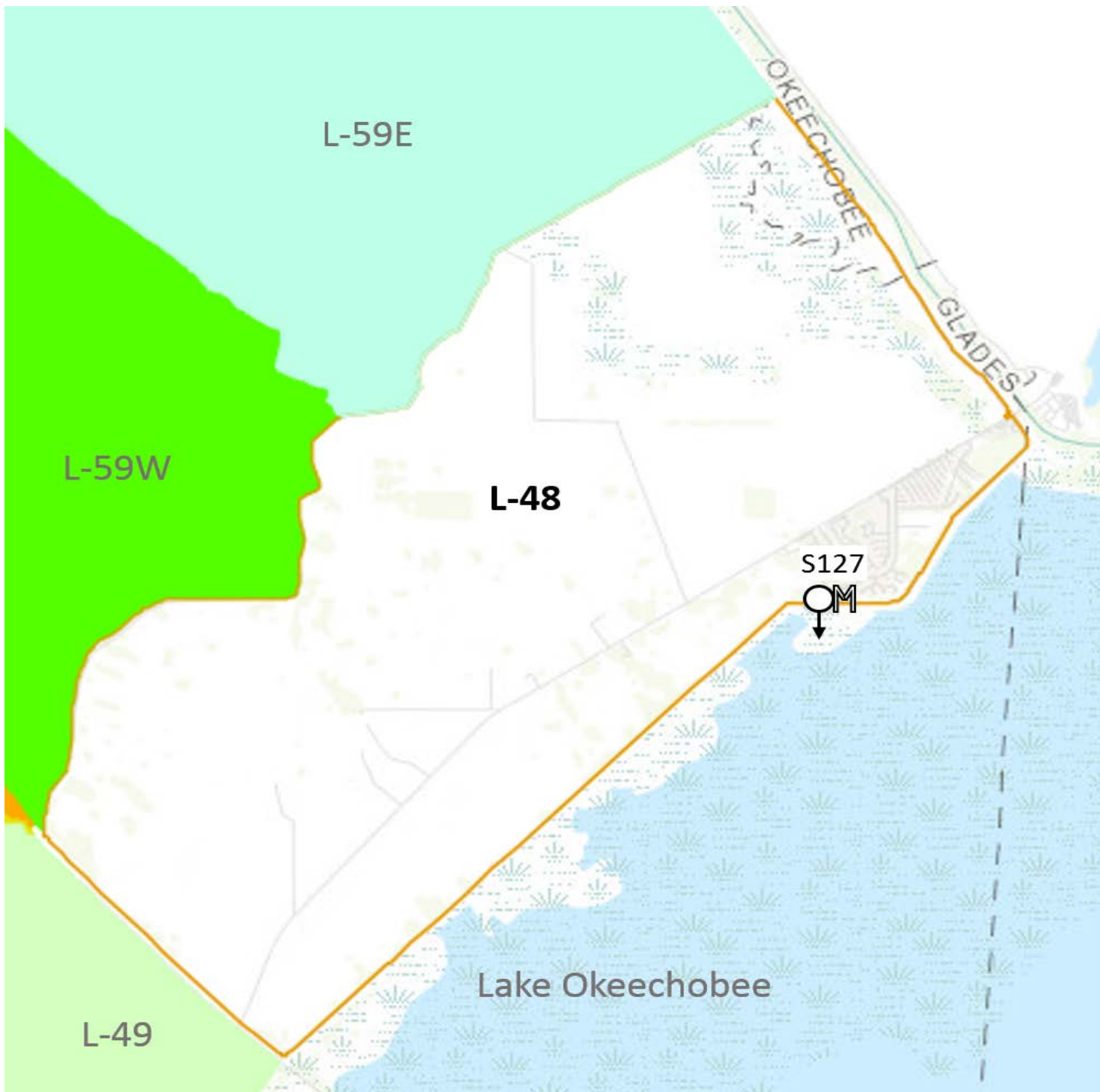
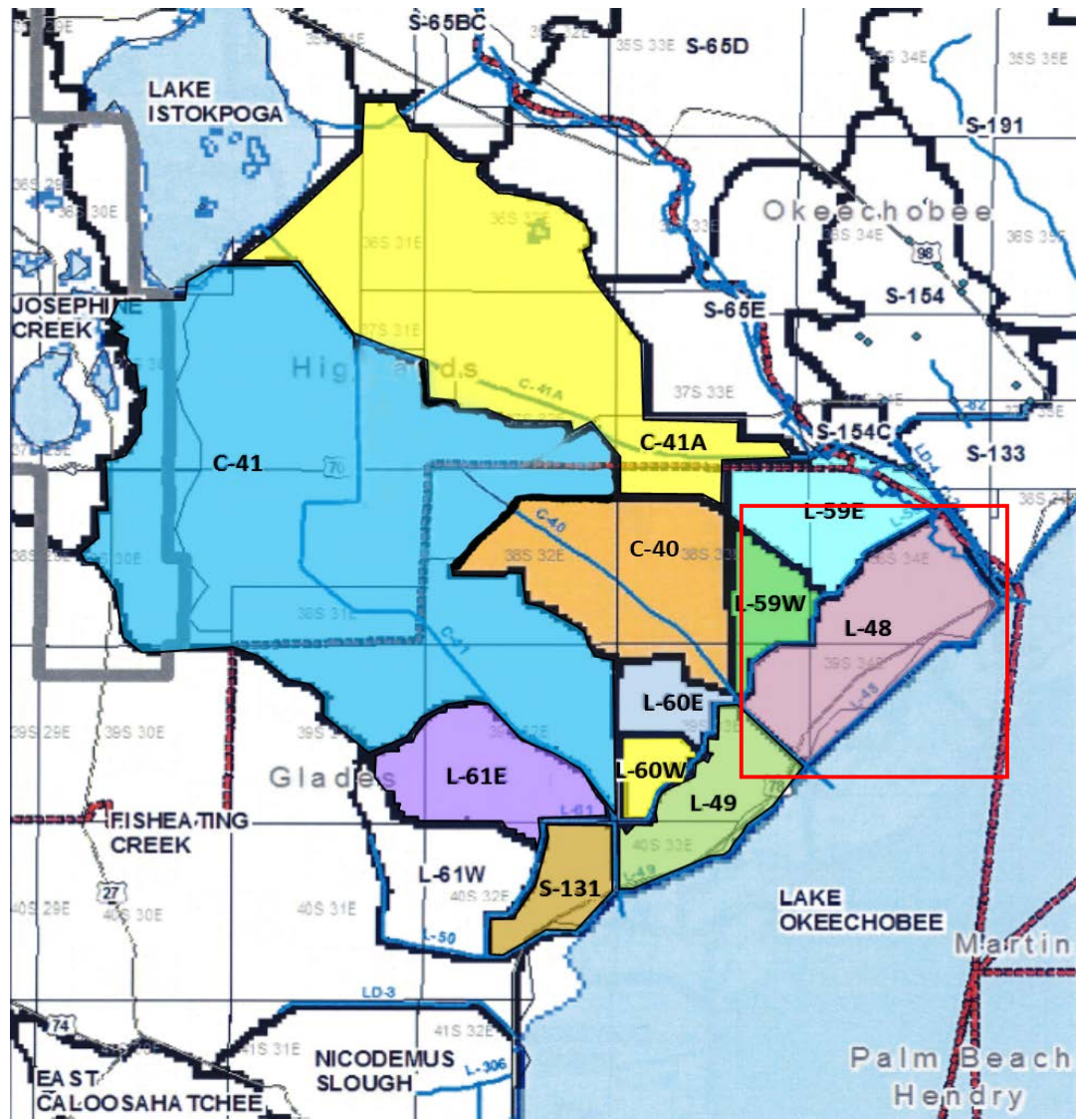
Pre-Protection Plan Loads



Post-Protection Plan Loads



L-48 BASIN - MAP



L-48 BASIN - STATISTICS

Summary Statistics				
	Period of Record	Pre-Protection Plan	Post-Protection Plan	
	WY1991-WY2018	WY1991-WY2004	WY2005-WY2018	
Averages				
Avg. Flow (acft/yr)	16,172	17,516	14,828	
Avg. Load (mt/yr)	4.86	4.89	4.84	
FWMC (ug/L)	244	226	264	
Avg. UAL (lbs/acre/yr)	0.58	0.60	0.55	
Medians				Mann-Whitney Results p-values³
Median Flow (acft/yr)	15,637	11,965	16,678	0.7476
Median Load (mt/yr)	3.79	3.04	4.22	0.6457
Median FWMC (ug/L)	192.22	193	192	0.9349
Median UAL (lbs/acre/yr)	0.49	0.51	0.49	0.8918

Highlighted cells indicate statistical significance

³The Mann-Whitney test is a non-parametric test alternative to the two sample t-test. It is used to test the equality around the central tendency of two data sets (pre-protection plan period and post-protection plan period). A p-value of less than 0.05 indicates that a significant difference between pre-protection plan period and post-protection plan period exists. A comparison of the median values identifies which period is higher. A median is a value at the mid-point of a distribution of observed data.

Sub-watershed Indian Prairie - Seasonal Kendall τ Results for Total Monthly Flow (ac-ft) by Basin over Three Water Year Ranges

Sub-watershed/Basin	1991-2018					1991-2004					2005-2018				
	% Missing Months	Kendall's τ	Sen Slope	Intercept	p-value	% Missing Months	Kendall's τ	Sen Slope	Intercept	p-value	% Missing Months	Kendall's τ	Sen Slope	Intercept	p-value
L-48 Basin (S127 total)	0.0%	-0.027	0.00	209	0.762	0.0%	-0.124	-0.07	301	0.379	0.0%	0.112	0.00	182	0.363

Sub-watershed Indian Prairie - Seasonal Kendall τ Results for Total Monthly P Load (kg) by Basin over Three Water Year Ranges

Sub-watershed/Basin	1991-2018					1991-2004					2005-2018				
	% Missing Months	Kendall's τ	Sen Slope	Intercept	p-value	% Missing Months	Kendall's τ	Sen Slope	Intercept	p-value	% Missing Months	Kendall's τ	Sen Slope	Intercept	p-value
L-48 Basin (S127 total)	0.0%	-0.041	0.00	43	0.639	0.0%	-0.149	-0.14	61	0.290	0.0%	0.086	0.00	37	0.126

Sub-watershed Indian Prairie - Seasonal Kendall τ Results for Monthly FWM TP ($\mu\text{g/L}$) by Basin over Three Water Year Ranges

Sub-watershed/Basin	1991-2018					1991-2004					2005-2018				
	% Missing Months	Kendall's τ	Sen Slope	Intercept	p-value	% Missing Months	Kendall's τ	Sen Slope	Intercept	p-value	% Missing Months	Kendall's τ	Sen Slope	Intercept	p-value
L-48 Basin (S127 total)	36.0%	-0.116	-2	188	0.174	36.3%	-0.249	-9	241	0.044	35.7%	-0.152	-5	193	0.276

Italic red font cells indicate statistical significance

Note: The Seasonal Kendall Tau analyzes data for monotonic trends (consistent upward or downward trend) and accounts for seasonality. Typically monthly data are used to identify seasons. Probability values (p-values) are derived from the tau-statistic which identifies the direction of the trend. A p-value less than 0.05 detects statistically significant trends for a period of interest. The Sen Slope provides an indication of the magnitude of the observed trend.

L-48 BASIN - MONTHLY DATA AND SKT TRENDS

