INDIAN PRAIRIE - L-49 BASIN TECHNICAL SHEET

Subwatershed: Indian Prairie			
Basin: **L-49**	**Flow Issues[1]:** **No**	**Water Quality Issues[2]:** **No**	

Monitored Structure(s): S-129

Inflow loads:

Acreage: 11,966

Percentage of Subwatershed Acreage: 4%

Percentage of Lake Okeechobee Watershed: 0.3%

[1]Flow Issues:

- A decrease in flow between pre and post-protection plan periods was noted, although it was not statistically significant.

- The contribution in flows were relatively small (3.8% of the subwatershed flows during the post-protection plan period).

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

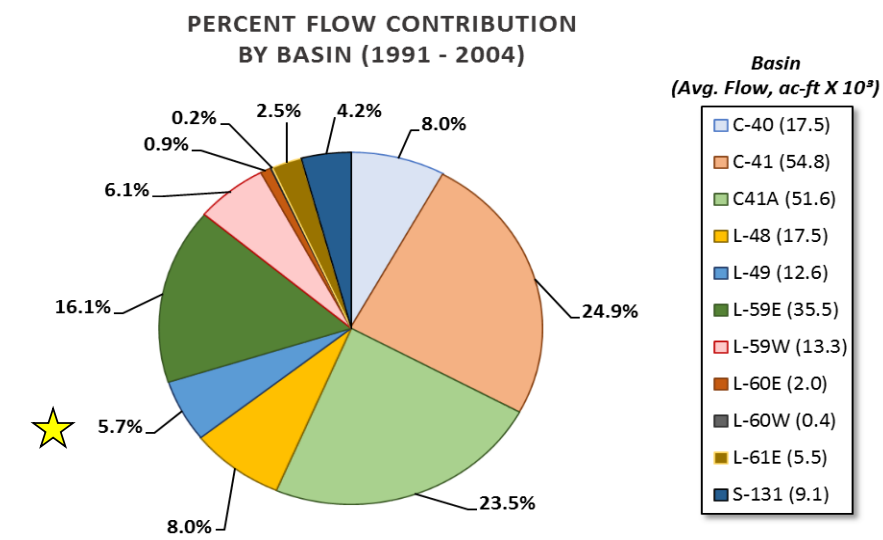
[2]Water Quality Issues:

- The total phosphorus (TP) flow-weighted mean concentrations (FWMC) decreased between pre and post-protection plan periods, although it was not statistically significant.

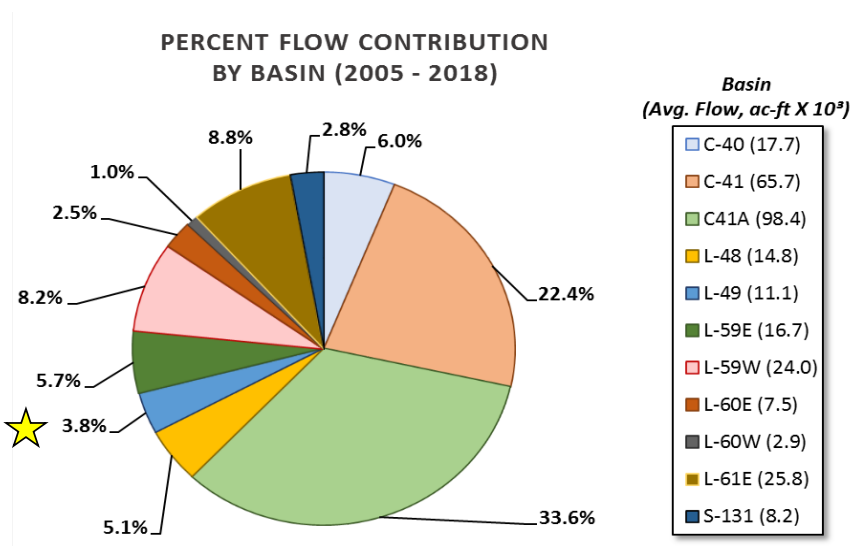
- A statistically significant decreasing trend was noted in FWMC in the post-protection plan period.

- A decrease in load between the pre and post-protection plan periods was noted, although it was not statistically significant.

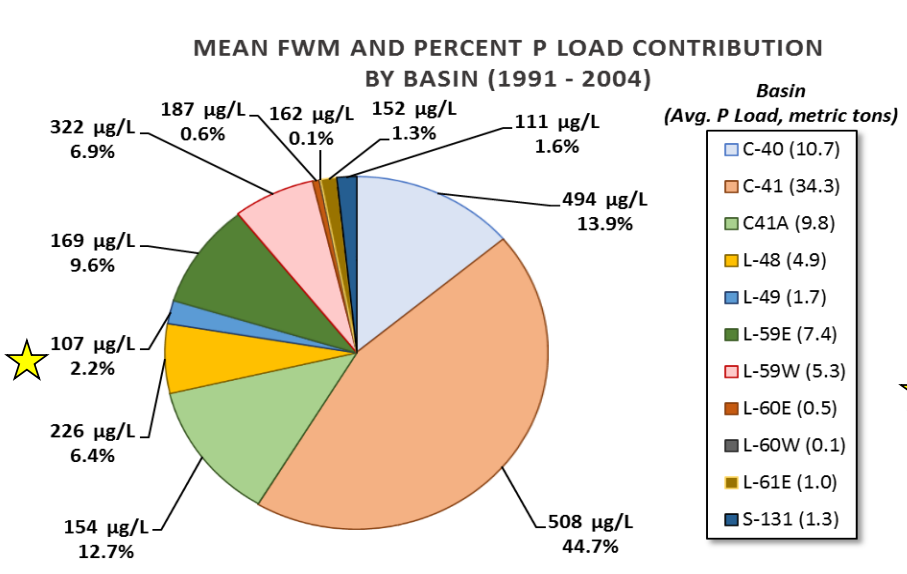
Pre-Protection Plan Flows



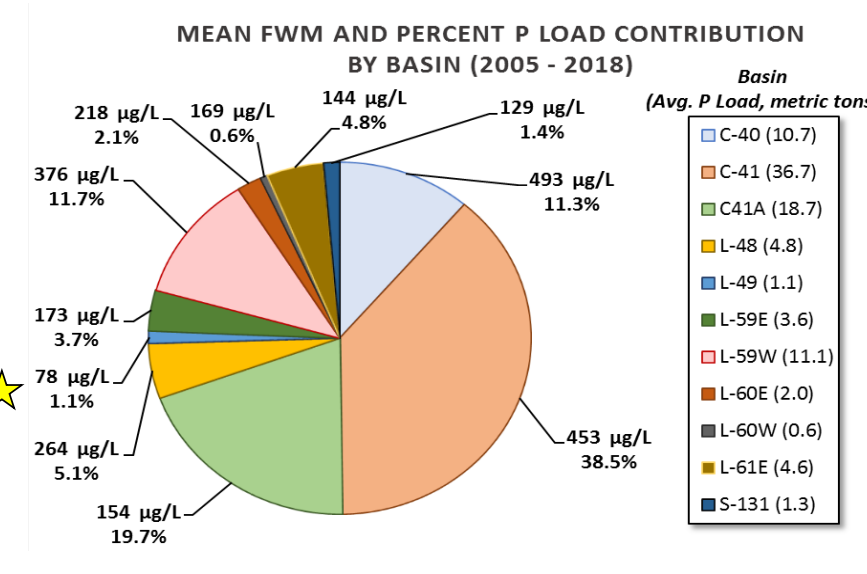
Post-Protection Plan Flows



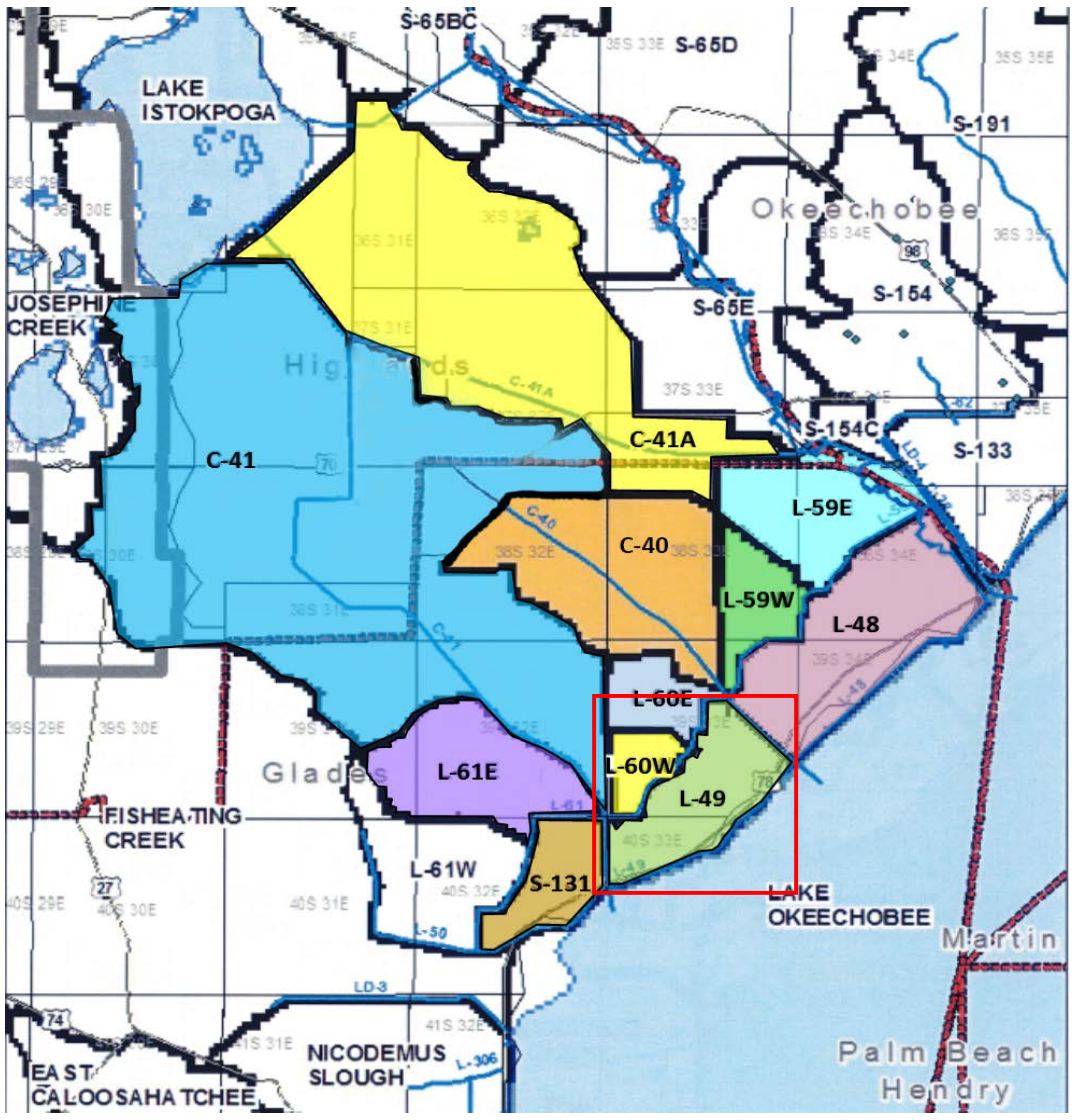
Pre-Protection Plan Loads

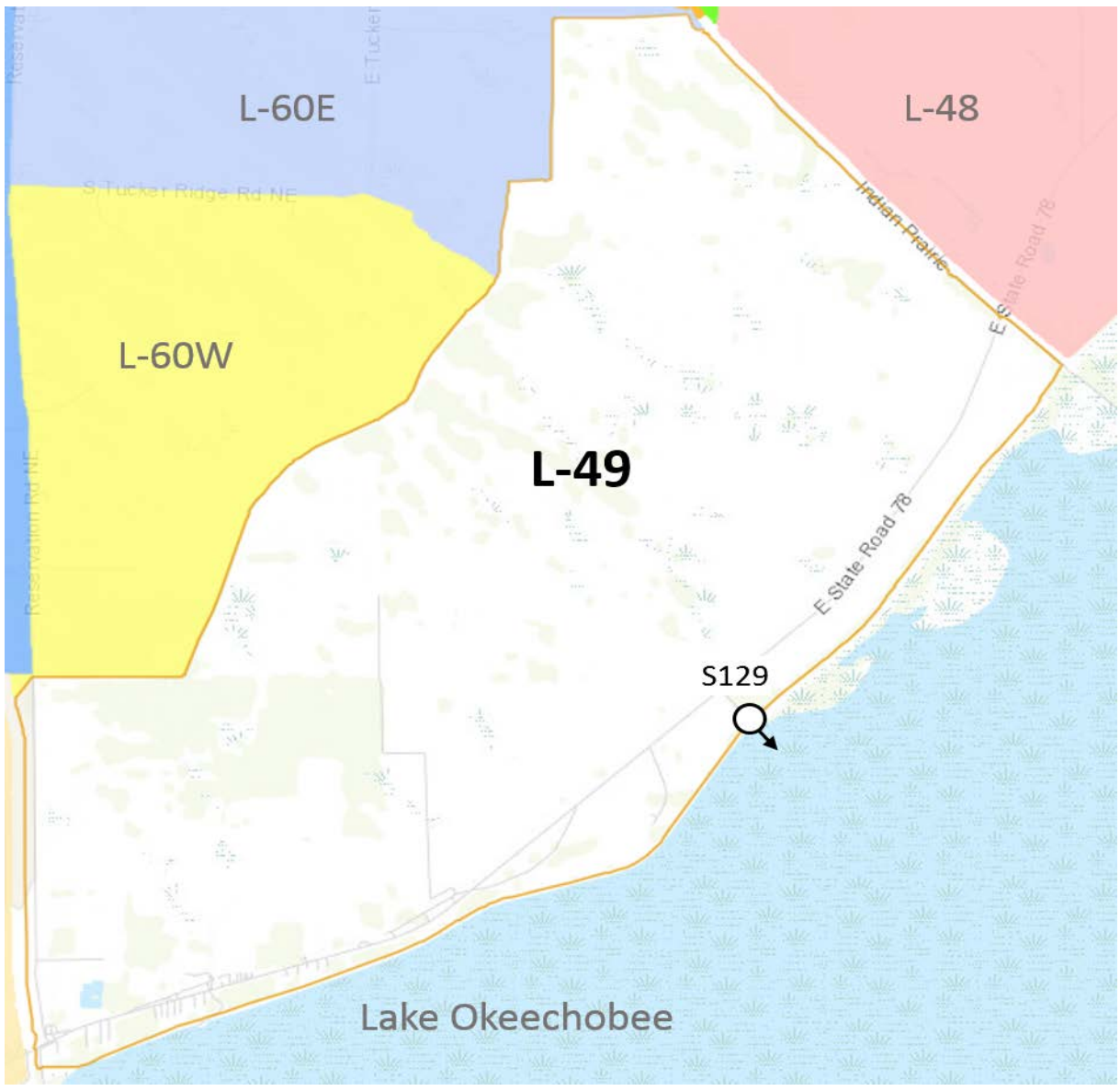


Post-Protection Plan Loads



L-49 BASIN - MAP





L-49 BASIN - STATISTICS

Summary Statistics				
	Period of Record	Pre-Protection Plan	Post-Protection Plan	
	WY1991-WY2018	WY1991-WY2004	WY2005-WY2018	
Averages				
Avg. Flow (acft/yr)	11,811	12,562	11,060	
Avg. Load (mt/yr)	1.37	1.67	1.07	
FWMC (ug/L)	94	107	78	
Avg. UAL (lbs/acre/yr)	0.25	0.33	0.20	
Medians				**Mann-Whitney Results p-values[3]**
Median Flow (acft/yr)	11,275	12,070	11,152	0.4907
Median Load (mt/yr)	1.09	2.01	0.83	0.1681
Median FWMC (ug/L)	84.59	90	78	0.1323
Median UAL (lbs/acre/yr)	0.21	0.39	0.16	0.0723

Highlighted cells indicate statistical significance

[3]The 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-49 Basin (S129 total)	0.0%	-0.028	0.00	446	0.743	0.0%	0.136	18.93	423	0.313	0.0%	0.059	0.00	386	0.629

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-49 Basin (S129 total)	0.0%	-0.079	-0.17	38	0.368	0.0%	0.147	1.92	32	0.269	0.0%	-0.007	0.00	24	0.957

Sub-watershed Indian Prairie - Seasonal Kendall τ Results for Monthly FWM TP (µg/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-49 Basin (S129 total)	***20.8%***	***-0.232***	***-1***	***89***	***0.029***	17.9%	-0.005	0	75	0.978	***23.8%***	***-0.391***	***-4***	***90***	***0.015***

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-49 BASIN - MONTHLY DATA AND SKT TRENDS