

INDIAN PRAIRIE - L-60W BASIN TECHNICAL SHEET			
Subwatershed:	Indian Prairie		
Basin:	L-60W	Flow Issues <sup>1</sup> :	Maybe
		Water Quality Issues <sup>2</sup> :	Maybe

Monitored Structure(s): G76

Inflow loads:

Acreage: 3,453

Percentage of Subwatershed Acreage: 1%

Percentage of Lake Okeechobee Watershed: 0.1%

<sup>1</sup>Flow Issues:

- Prior to WY1995 flows were estimated and no flow measurements were collected between WY1995 and WY2001; therefore, comparisons cannot be made between the pre and post-protection plan periods.

- This basin contributed 1% of the flows to the subwatershed in the post-protection plan period.

- There was a statistically significant increasing trend in flow during the post-protection plan period. Continued monitoring is recommended.

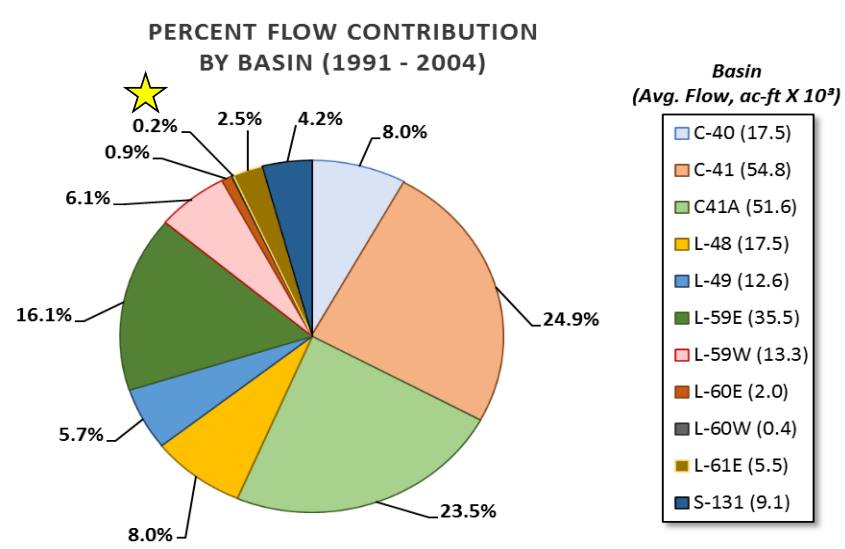
- Flow and load estimates were based on samples and measurements taken at major structures within the regional system.

<sup>2</sup>Water Quality Issues:

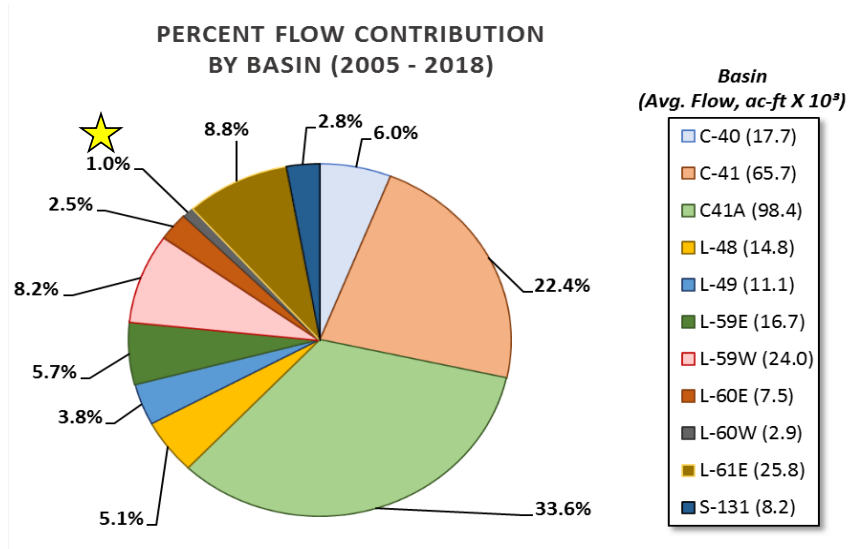
- There appeared to be increases in total phosphorus (TP) flow-weighted mean concentrations (FWMC) and loads between pre and post-protection plans periods but unable to determine if this increase is due to the missing or estimated flow measurements in the pre-protection period or another factor.

- This basin had relatively low TP FWMC (169 µg/L during the post-protection plan period).

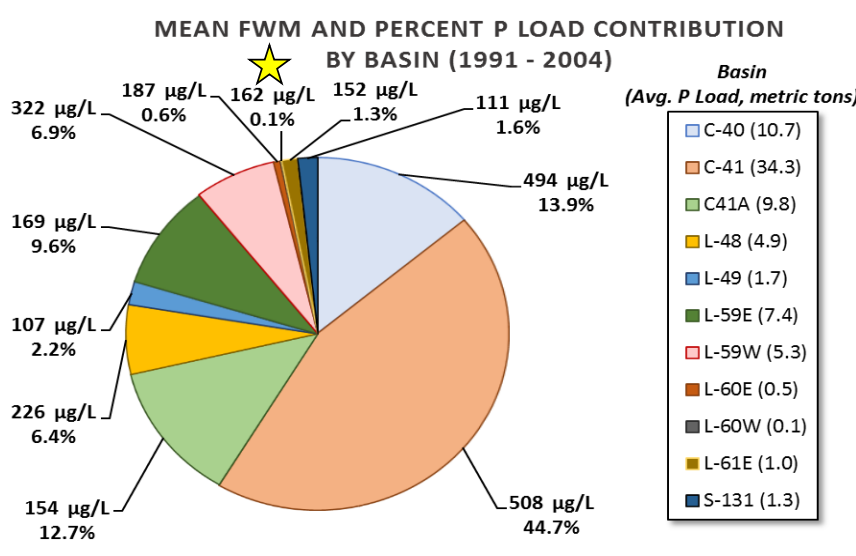
Pre-Protection Plan Flows



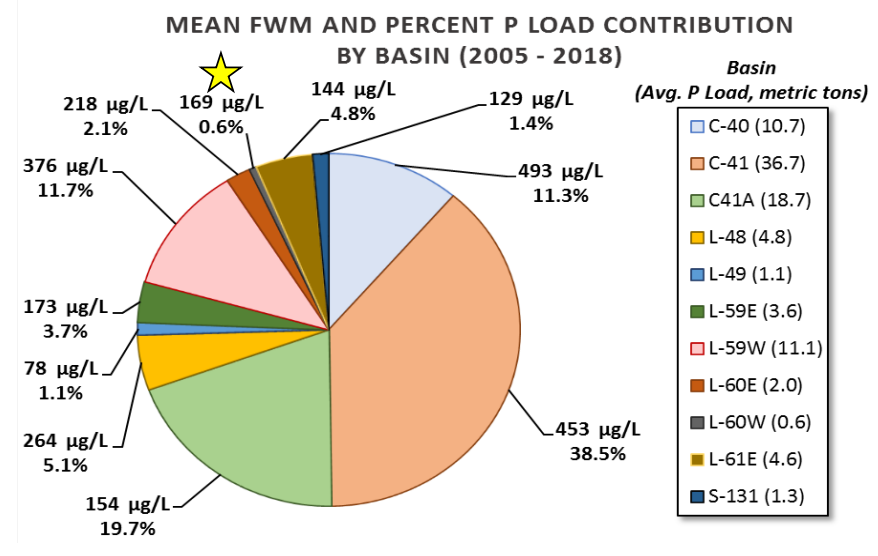
Post-Protection Plan Flows



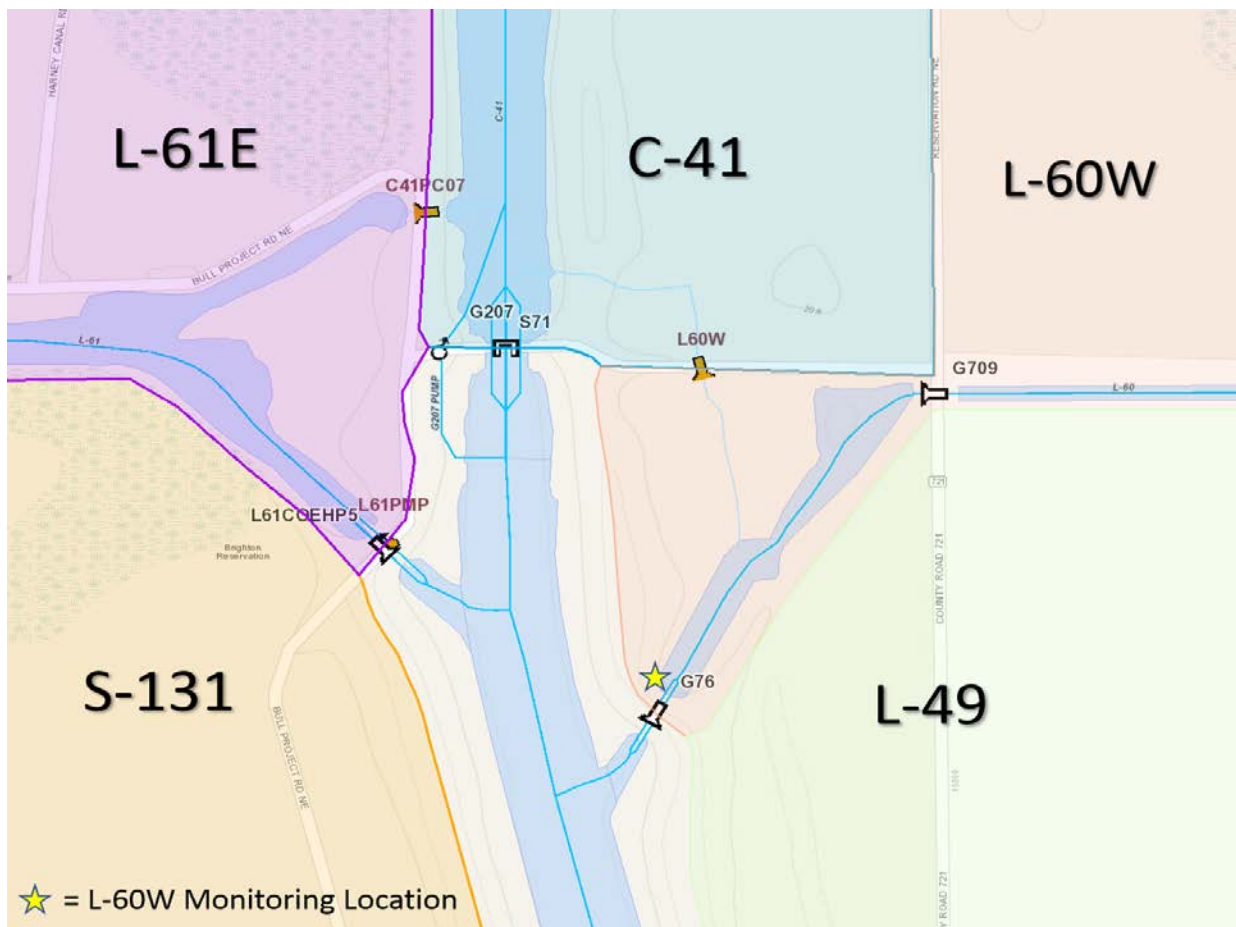
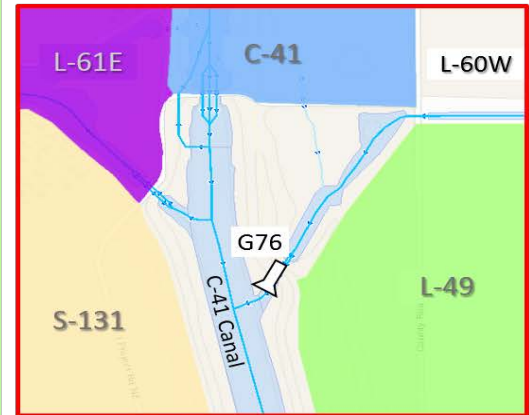
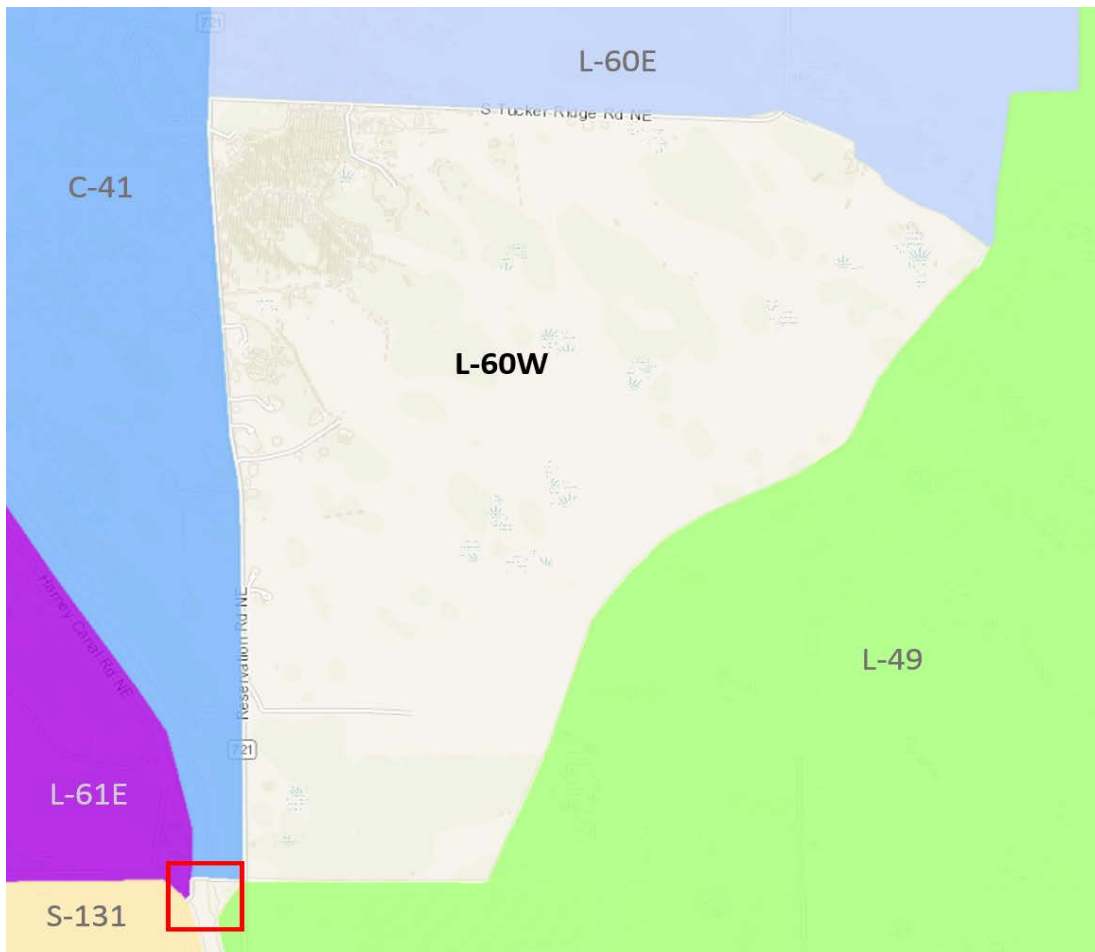
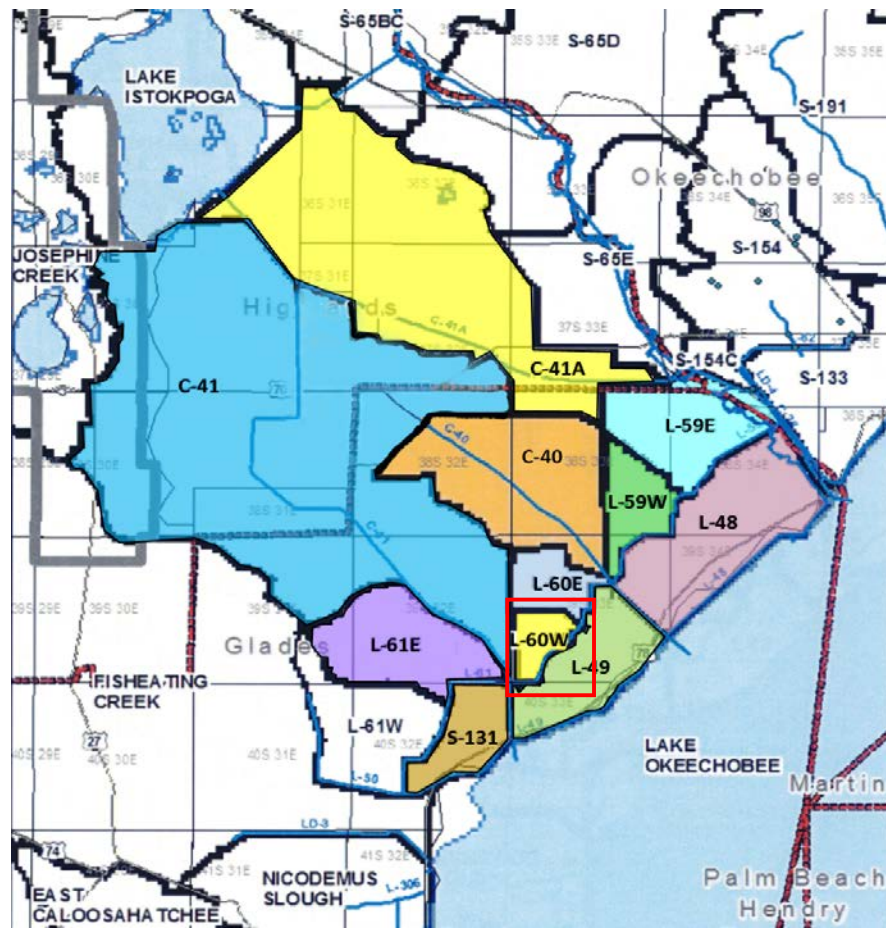
Pre-Protection Plan Loads



Post-Protection Plan Loads



# L-60W BASIN - MAP



## L-60W BASIN - STATISTICS

Summary Statistics				
	Period of Record	Pre-Protection Plan	Post-Protection Plan	
	WY1991-WY2018	WY1991-WY2004	WY2005-WY2018	
<b>Averages</b>				
Avg. Flow (acft/yr)	2,075	377	2,924	
Avg. Load (mt/yr)	0.43	0.08	0.61	
FWMC (ug/L)	168	162	169	
Avg. UAL (lbs/acre/yr)	0.28	0.05	0.39	
<b>Medians</b>				<b>Mann-Whitney Results p-values<sup>3</sup></b>
Median Flow (acft/yr)	2,374	428	2,987	0.0010
Median Load (mt/yr)	0.47	0.07	0.56	0.0010
Median FWMC (ug/L)	155	163	148	0.8230
Median UAL (lbs/acre/yr)	0.30	0.04	0.36	0.0008

Highlighted cells indicate statistical significance

<sup>3</sup>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  $\tau$  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 $\tau$	Sen Slope	Intercept	p-value	% Missing Months	Kendall's $\tau$	Sen Slope	Intercept	p-value	% Missing Months	Kendall's $\tau$	Sen Slope	Intercept	p-value
L-60W Basin	31.5%	0.258	4.00	-11	<0.001	63.1%	-0.137	-0.47	35	0.247	0.0%	0.257	5.79	68	<0.001

**Sub-watershed Indian Prairie - Seasonal Kendall  $\tau$  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 $\tau$	Sen Slope	Intercept	p-value	% Missing Months	Kendall's $\tau$	Sen Slope	Intercept	p-value	% Missing Months	Kendall's $\tau$	Sen Slope	Intercept	p-value
L-60W Basin	31.5%	0.253	0.64	-1	0.003	63.1%	-0.069	-0.14	6	0.596	0.0%	0.265	0.92	9	<0.001

**Sub-watershed Indian Prairie - Seasonal Kendall  $\tau$  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 $\tau$	Sen Slope	Intercept	p-value	% Missing Months	Kendall's $\tau$	Sen Slope	Intercept	p-value	% Missing Months	Kendall's $\tau$	Sen Slope	Intercept	p-value
L-60W Basin	40.5%	-0.040	0	145	0.622	64.3%	0.309	4	128	0.107	16.7%	-0.041	-1	142	0.654

*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.