TCNS - S-133 BASIN TECHNICAL SHEET			
Subwatershed:	Taylor Creek/Nubbin Slough		
Basin:	**S-133**	**Flow Issues[1]:** **MAYBE**	**Water Quality Issues[2]:** **MAYBE**

Monitored Structure(s): S133

Inflow loads: None

Acreage: 25,626

Percentage of Subwatershed Acreage: 13%

Percentage of Lake Okeechobee Watershed: 0.7%

[1]Flow Issues:

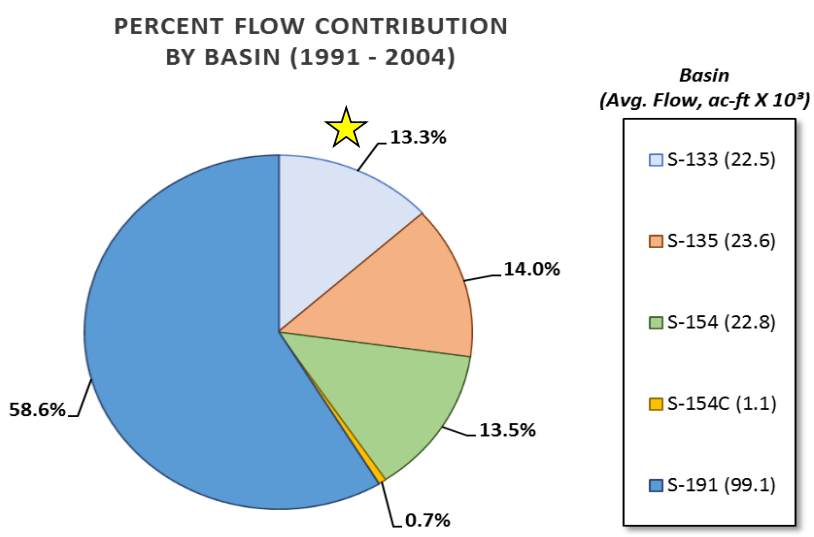
- There were no statistically significant trends in flows and they did not appear to change from the pre to post-protection plan period.

- Need to determine if the pump operation is representative of the runoff. In other words, is the water sometimes moved for water management activities. Also, it is uncertain how much water exchange occurs at the locks.

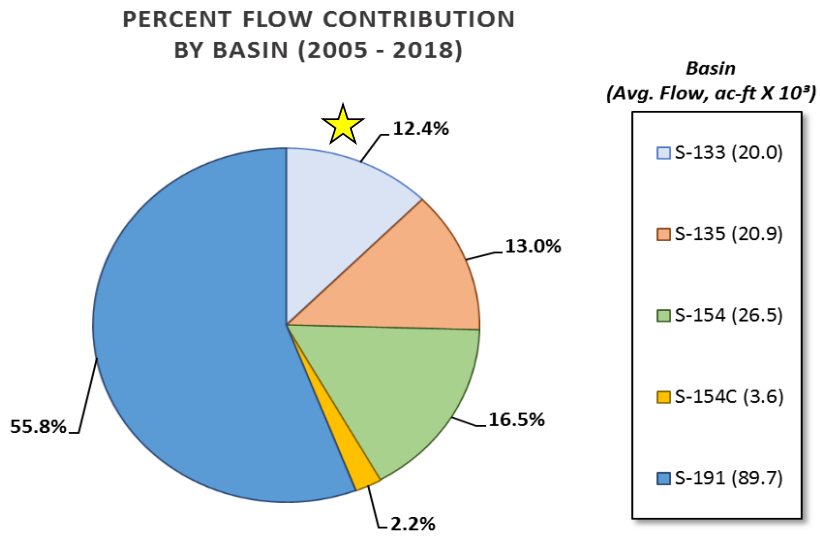
[2]Water Quality Issues:

- The total phosphorus (TP) flow-weighted mean concentrations (FWMC) for the post-protection plan period were 302 µg/L.

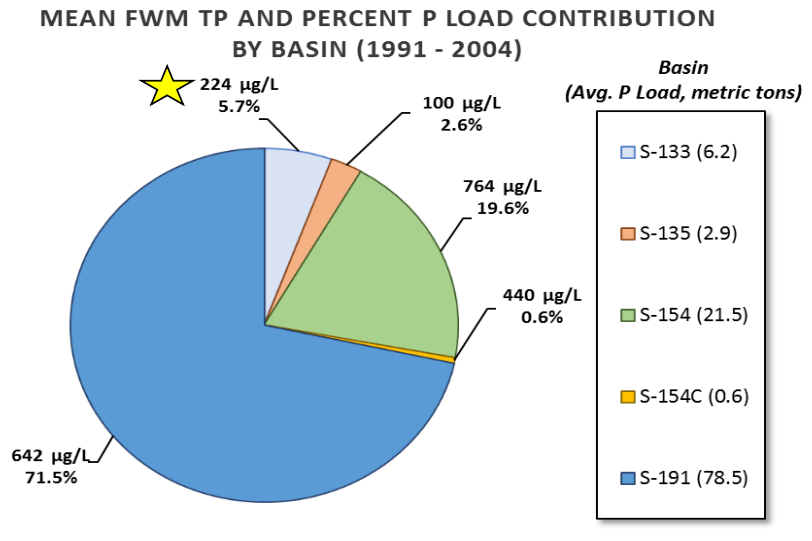
Pre-Protection Plan Flows



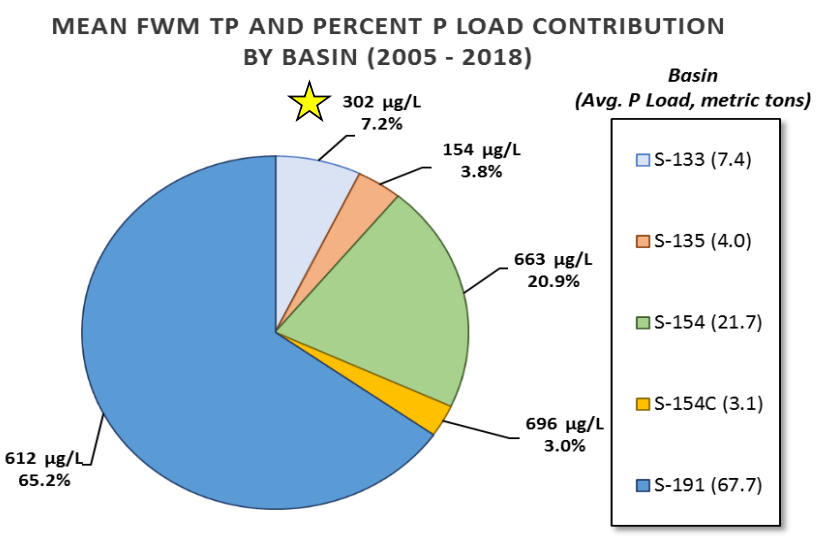
Post-Protection Plan Flows



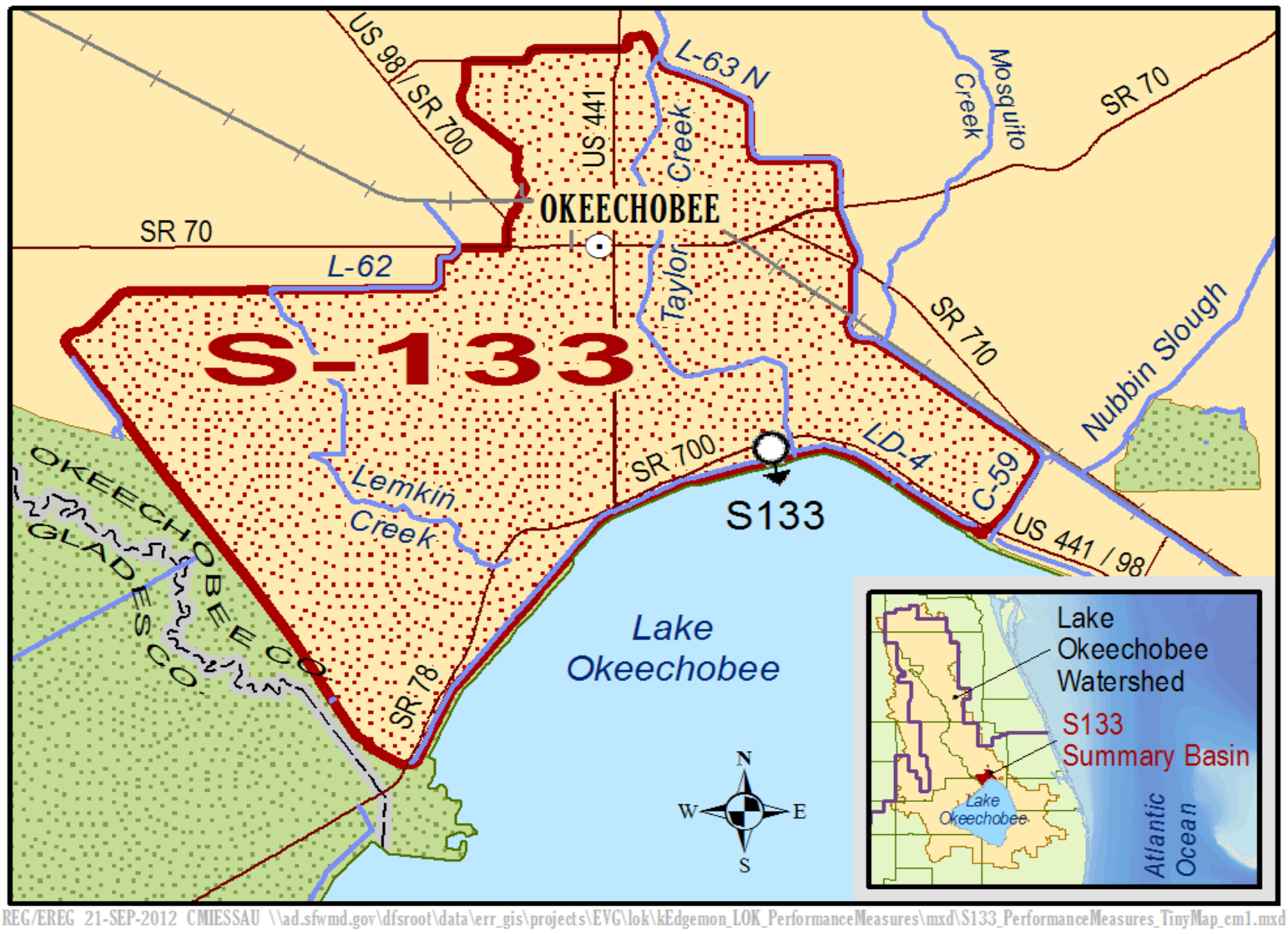
Pre-Protection Plan Loads



Post-Protection Plan Loads



S-133 BASIN - MAP



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S-133 BASIN - STATISTICS

Summary Statistics				
	Period of Record	Pre-Protection Plan	Post-Protection Plan	
	WY1991-WY2018	WY1991-WY2004	WY2005-WY2018	
Averages				
Avg. Flow (acft/yr)	21,223	22,477	19,969	
Avg. Load (mt/yr)	6.83	6.22	7.44	
FWMC (ug/L)	261	224	302	
Avg. UAL (lbs/acre/yr)	0.66	0.58	0.75	
Medians				Mann-Whitney Results p-values[3]
Median Flow (acft/yr)	22,319	17,999	22,941	0.7476
Median Load (mt/yr)	6.44	5.87	7.36	0.6457
Median FWMC (ug/L)	232.98	221	239	0.2313
Median UAL (lbs/acre/yr)	0.56	0.51	0.73	0.3411

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 Taylor Creek/Nubbin Slough - 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
S-133 Basin	0.0%	-0.106	-1.40	623	0.248	0.0%	-0.094	-16.89	1180	0.505	0.0%	0.159	0.00	238	0.218

Sub-watershed Taylor Creek/Nubbin Slough - 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
S-133 Basin	0.0%	-0.091	0.00	141	0.308	0.0%	-0.065	-2.05	223	0.639	***0.0%***	***0.134***	***0.00***	***44***	***0.015***

Sub-watershed Taylor Creek/Nubbin Slough - 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
S-133 Basin	31.3%	0.079	1	192	0.468	20.8%	-0.004	0	195	0.984	41.7%	-0.275	-7	278	0.094

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.

S-133 BASIN - MONTHLY DATA AND SKT TRENDS