

Statistical Analysis of Lake Samm. Historic Water Levels

	Period	Date Range
1	New FCP, No Veg	11/1/1965 - 4/30/1992
2	TZ Veg & Defer Maint	1/1/1998 - 12/31/2010
3	Renewd Maint. 2013 On	1/1/2013 - 6/1/2018

Period	Average Lake Level *	StdDev	n	Change from Period 1 **	Statistically Significant? ***	% Over 27 ft.	% Over 28 ft.
1 New FCP, No Veg	26.71	0.81	4894			31%	3%
2 TZ Veg & Defer Maint	27.35	0.70	2258	7.7	Yes	66%	15%
3 Renewd Maint. 2013 On	27.22	0.46	1023	6.1	Yes	65%	7%

* - ft. NGVD

** - inches

*** - z Test of means

where "n" equals the number of days observed

MONTHLY BREAKDOWN OF TZ CONDITIONS						
					OVER 50% of Days	OVER 10% of Days
1 - New Flood Control Project, No Veg						
Mo ***	AvgLevel	StDev	n	% Ovr27	% Ovr28	
Jan	26.87	0.99	837	50%	6%	
Feb	26.84	0.69	763	37%	2%	
Mar	26.71	0.74	837	30%	2%	
Apr	26.51	0.63	810	9%	0%	
Nov	26.41	0.67	810	13%	2%	
Dec	26.89	0.91	837	47%	6%	
Overall	26.71		4894			
2 - Veg in TZ - Deferred Maintenance						
Mo	AvgLevel	StDev	n	% Ovr27	% Ovr28	
Jan	27.72	0.76	398	84%	25%	
Feb	27.35	0.56	334	71%	12%	
Mar	27.13	0.43	372	60%	3%	
Apr	27.07	0.44	376	53%	1%	
Nov	27.12	0.81	390	46%	16%	
Dec	27.67	0.76	388	79%	33%	
Overall	27.35		2258			
3 - Renewd Maint. 2013 to 2018						
Mo	AvgLevel	StDev	n	% Ovr27	% Ovr28	
Jan	27.25	0.36	186	72%	4%	
Feb	27.39	0.45	166	76%	13%	
Mar	27.26	0.44	186	69%	10%	
Apr	27.04	0.37	180	54%	2%	
Nov	27.09	0.48	150	48%	5%	
Dec	27.27	0.57	155	68%	12%	
Overall	27.22		1023			

(Source: M.Nizlek, PhD Using Gage 12122000 Data)