

Addendum to Responses to Comments – TMDL Technical Report

Response to Comment #6: Figures 6-1 through 6-6.

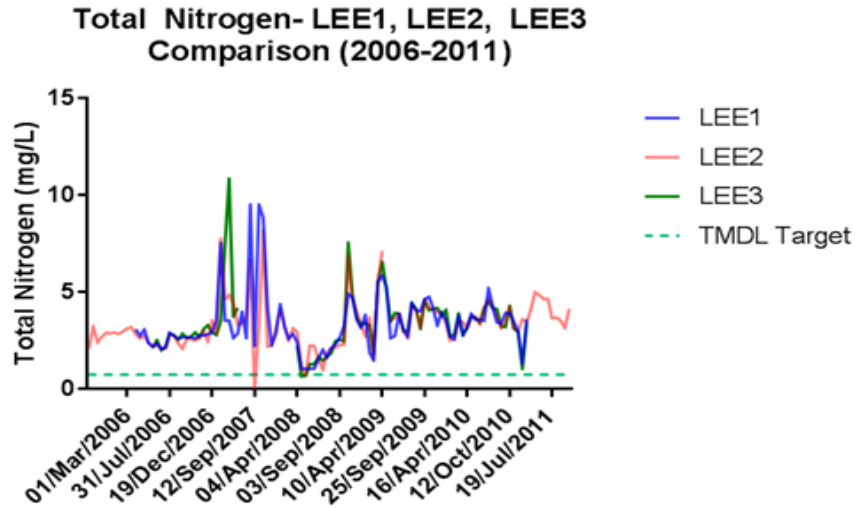


Figure 6-1. Total Nitrogen at all Lake Elsinore TMDL Water Quality Monitoring Lake Sites (LE01, LE02, and LE03; 2006-2011).

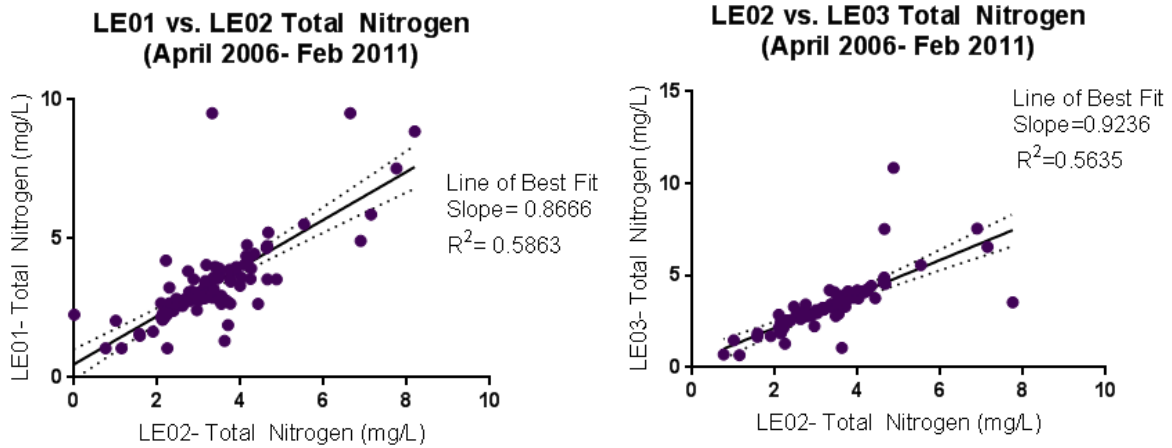
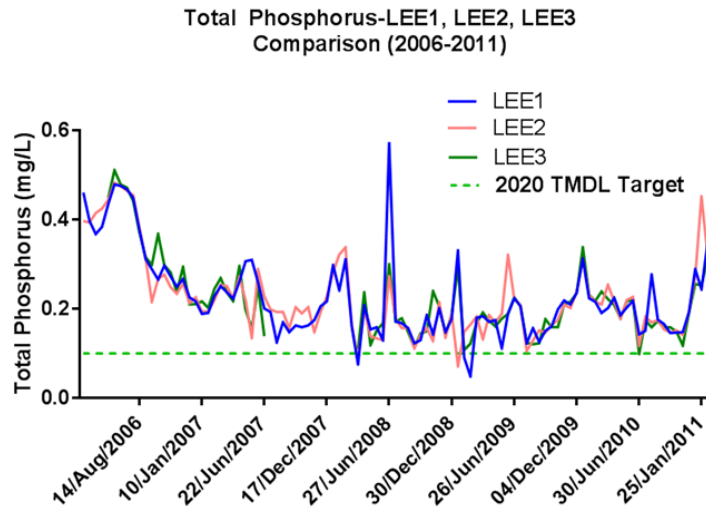


Figure 6-2. Regressions Between Lake Elsinore Monitoring Site LE01 and Sites LE02 and LE03 for Total N (2006-2011)



No data available for LE03 from July 2007-March 2008
 TMDL target of 0.75 mg/L is annual average to be attained by 2020

Figure 6-3. Total Nitrogen at all Lake Elsinore TMDL Water Quality Monitoring Lake Sites (LE01, LE02, and LE03; 2006-2011).

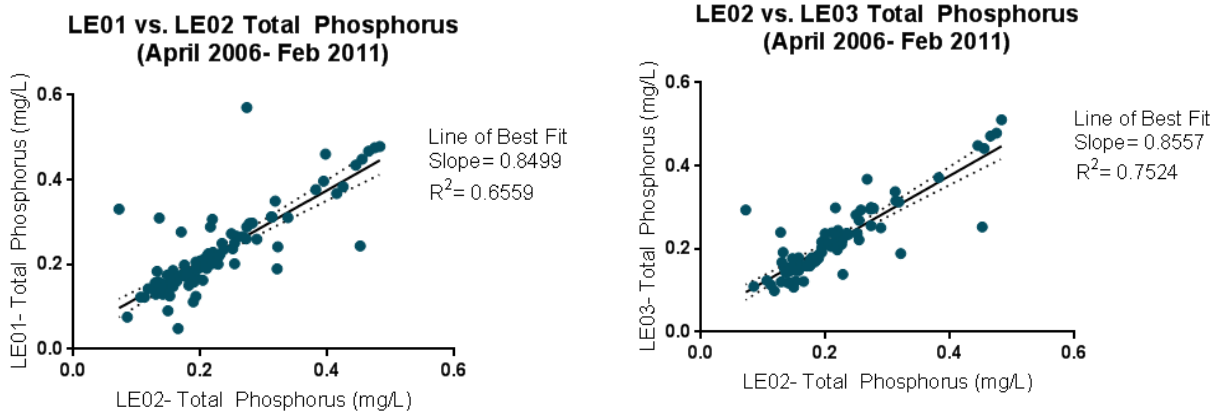


Figure 6-4. Regressions Between Lake Elsinore Monitoring Site LE01 and Sites LE02 and LE03 for Total P (2006-2011)

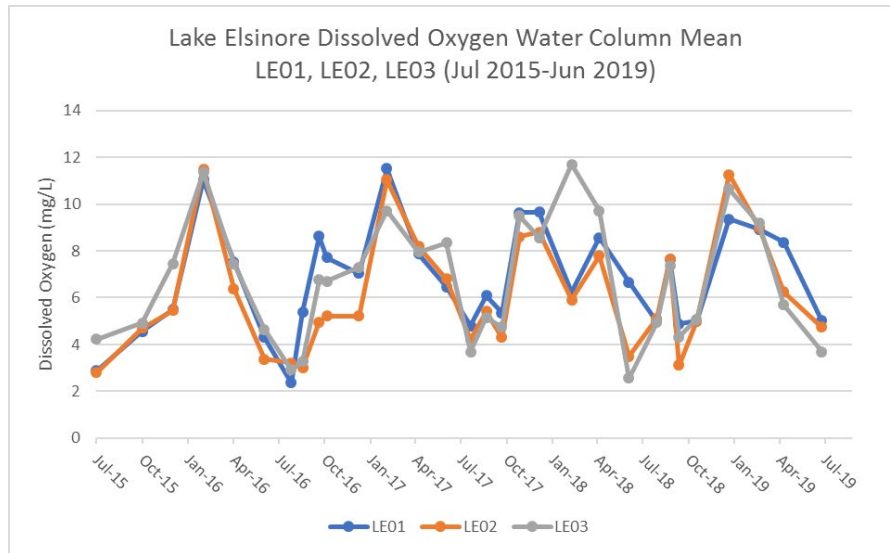


Figure 6-5. Lake Elsinore Dissolved Oxygen (presented as water column averages) at all TMDL Water Quality Monitoring Sites (LE01, LE02, LE03).

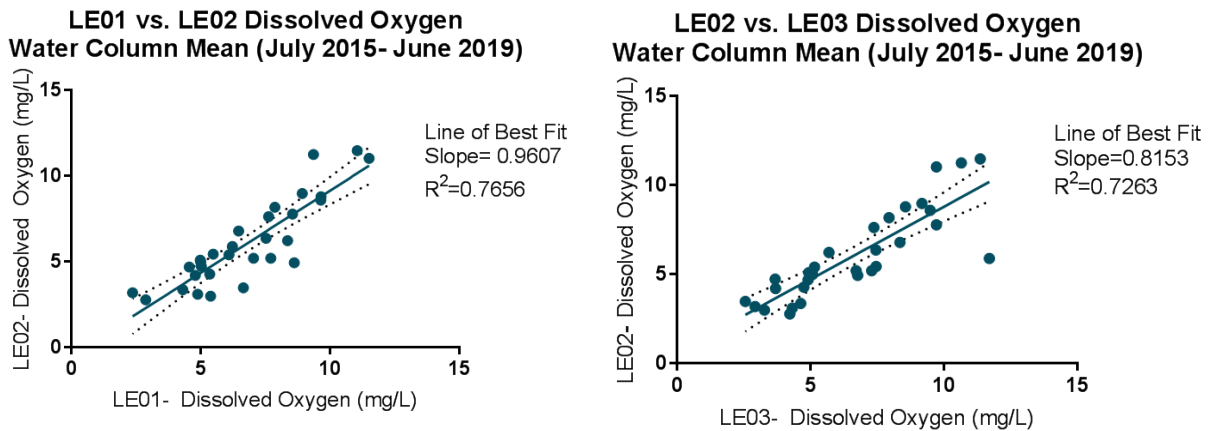


Figure 6-6. Regressions Between Lake Elsinore Monitoring Site LE01 and Sites LE02 and LE03 for Dissolved Oxygen (2015-2019)

Response to Comment #12: Figure 12-1

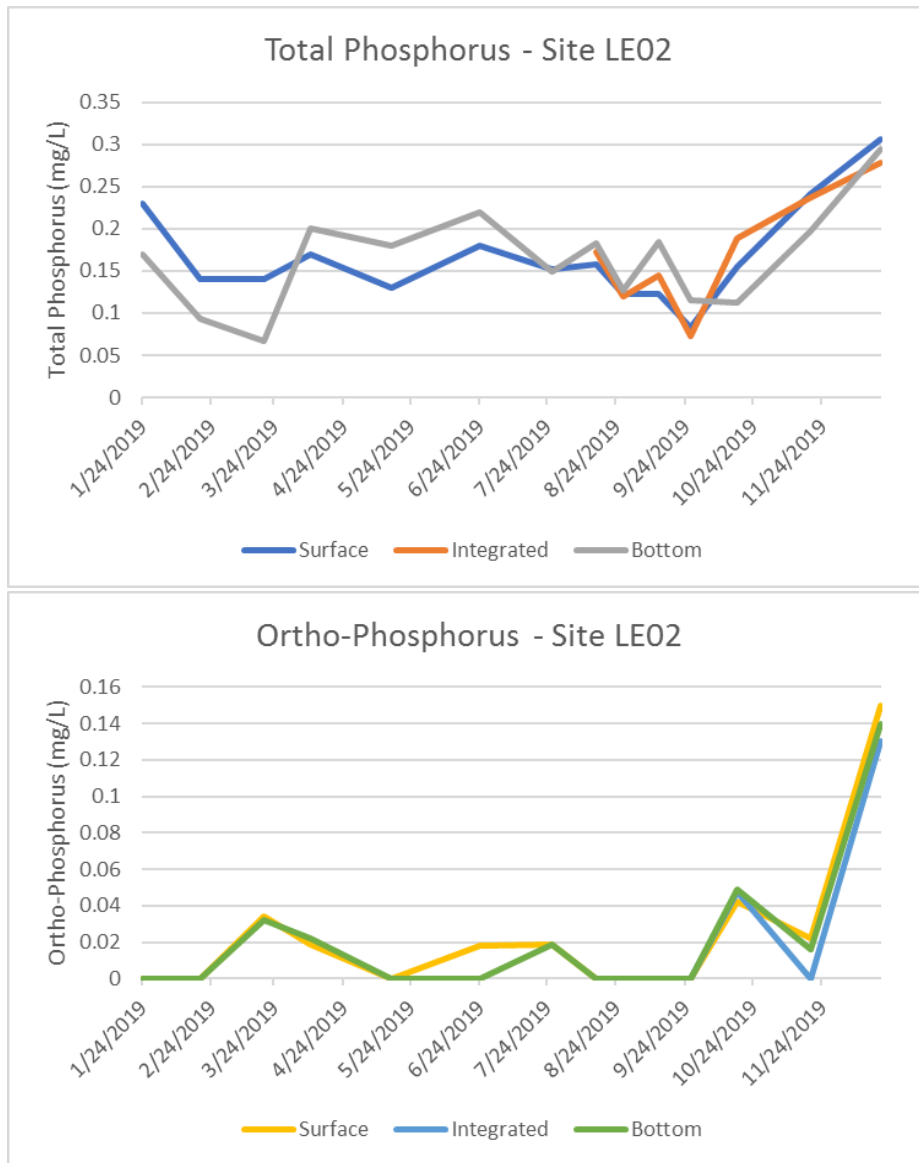


Figure 12-1. Lake Elsinore Total Phosphorus vs. Ortho-Phosphate Concentrations (2019).

Response to Comment #13: Figures 13-1 and 13-2; Table 13-1.

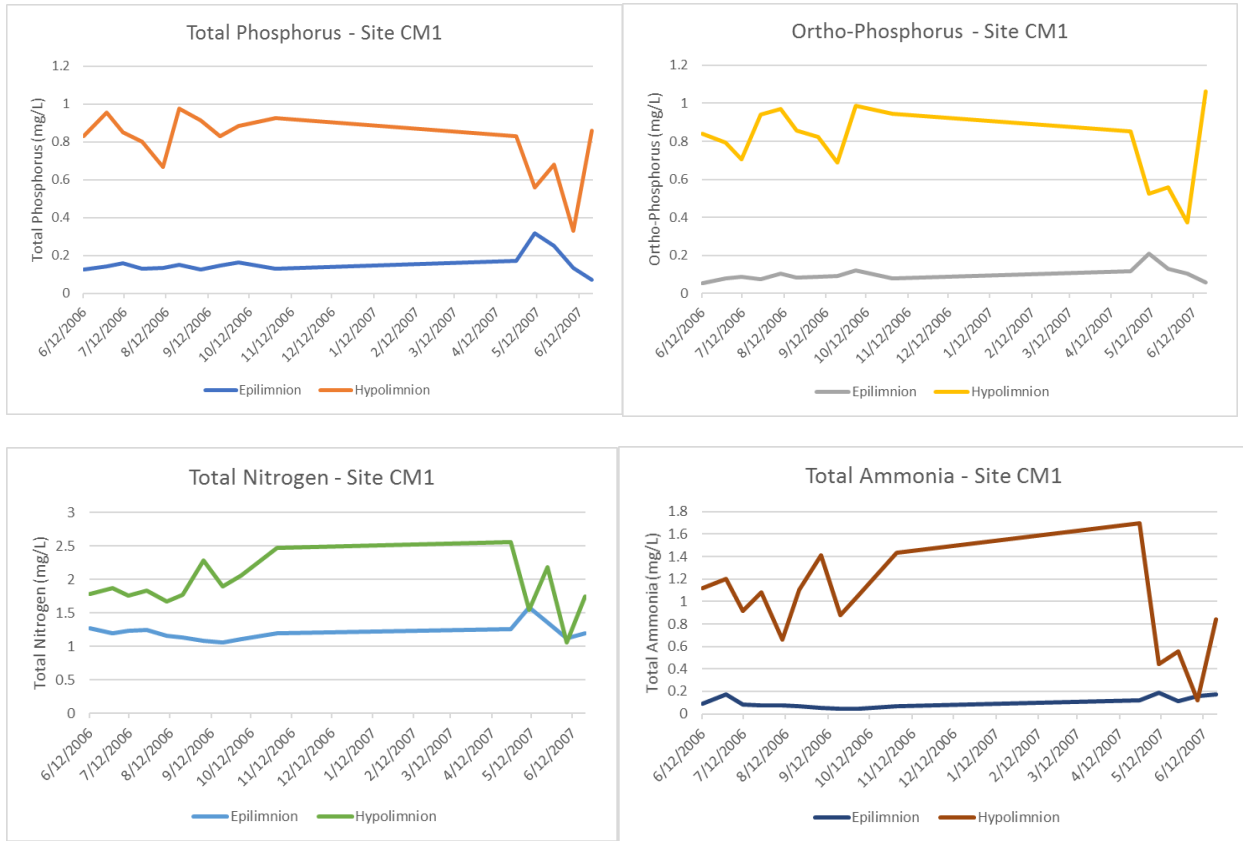


Figure 13-1. Analytical Results for Discrete Samples Collected Above and Below the Thermocline in Canyon Lake at Site CM-1 (2006-2007)

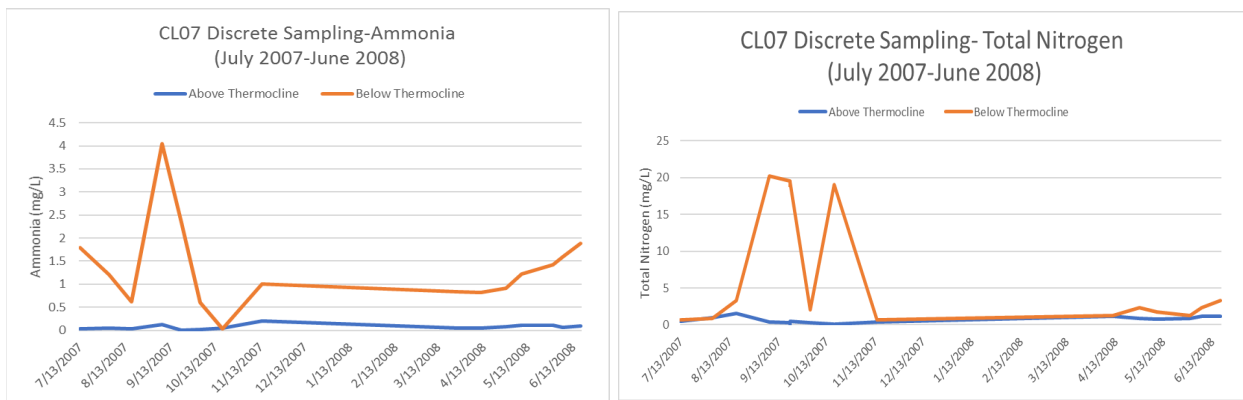


Figure 13-2: Analytical Results for Discrete Samples Collected Above and Below the Thermocline in Canyon Lake at Site CL07 (2007-2008)

Table 13-1. Discrete Analytical Results for Samples Collected Above and Below the Thermocline (Epilimnion and Hypolimnion) in Canyon Lake During Periods of Stratification (4 sites in Main Body, June 2006-July 2007, n=47) (all results in mg/L).

	Total P		Ortho-P		Total N		NH3	
	Epi	Hypo	Epi	Hypo	Epi	Hypo	Epi	Hypo
Mean	0.19	0.76	0.14	0.77	1.20	1.97	0.13	1.07
Median	0.17	0.80	0.11	0.81	1.19	1.84	0.11	1.06
Max	0.40	1.64	0.34	1.68	1.77	4.00	0.60	3.19
Min	0.073	0.26	0.06	0.20	0.78	1.06	0.04	0.12

Response to Comment #20: Figure 20-1.

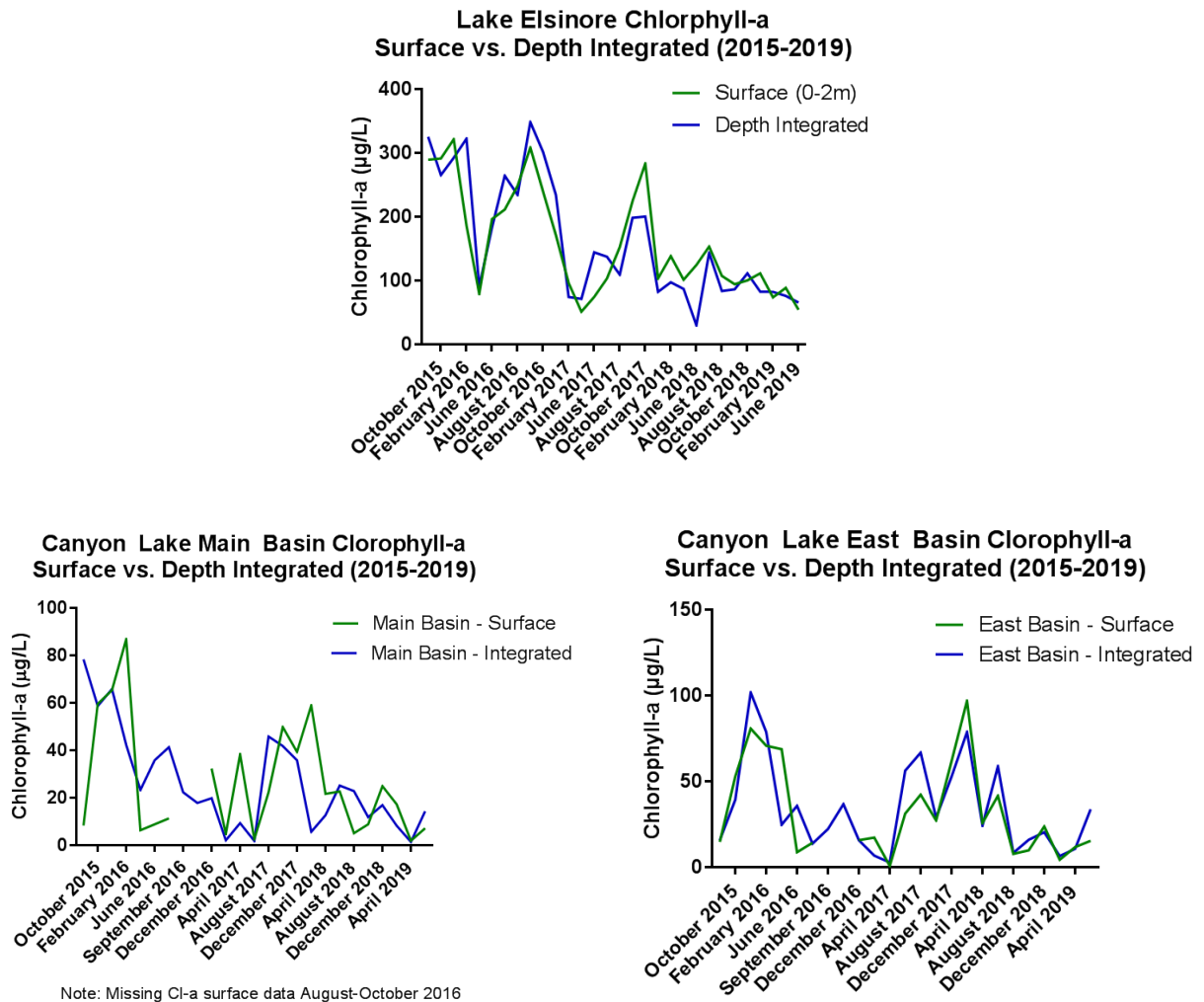
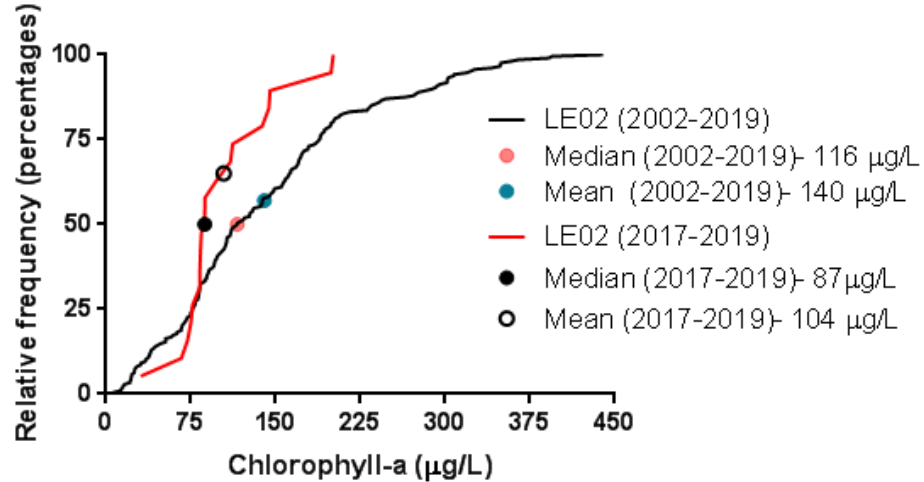


Figure 20-1. Surface (0-2m) vs. Depth-Integrated Chlorophyll-a Results in Lake Elsinore and Canyon Lake (2015-2019)

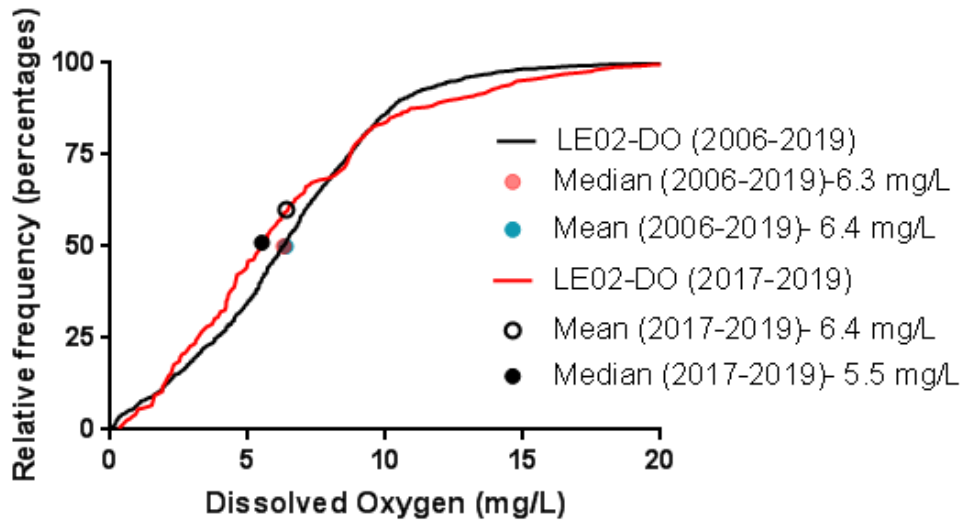
Response to Comment #32: Figure 32-1.

Lake Elsinore (LE02) Depth-Integrated Chlorophyll-a Frequency Distribution (Aug 2002-June 2019)



*- Data presented is from August 2002-June 2012 and July 2015-June 2019

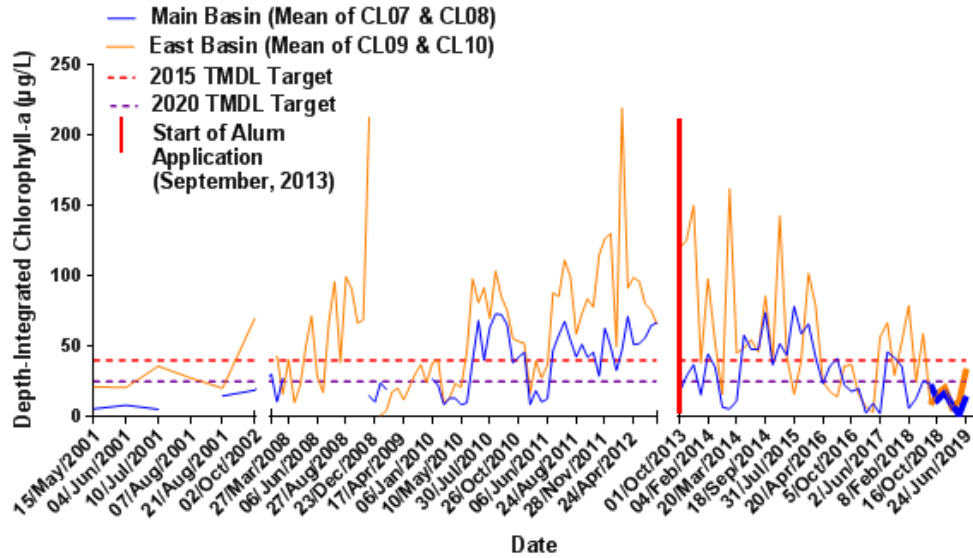
LE02 Dissolved Oxygen CDF (April 2006-Aug 2019)*



*-Data presented is from April 2006 - June 2010 and July 2015-August 2019

Figure 32-1. Chlorophyll-a and Dissolved Oxygen Cumulative Frequency Distributions: Long-term vs. Recent Monitoring Results for Lake Elsinore

Response to Comment #87: Figures 87-1 and 87-2.

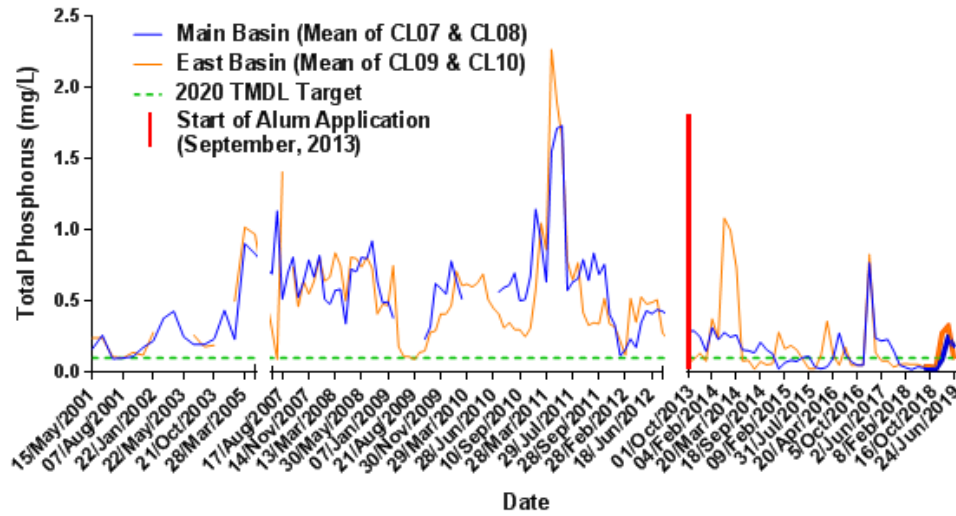


No data available from June 2012- July2015

2015 TMDL target of 40 µg/L is annual average to be attained by 2015

2020 TMDL target of 25 µg/L is annual average to be attained by 2020

Bold represents the most recent monitoring year July 2018- June 2019



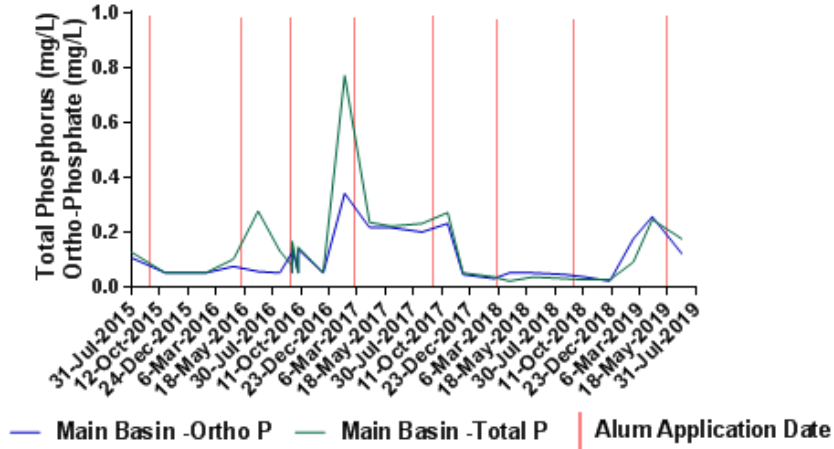
No data available from May 2005- July 2007; June 2012- Sept 2013

TMDL target of 0.75 mg/L is annual average to be attained by 2020

Bold represents the most recent monitoring year July 2018- June 2019

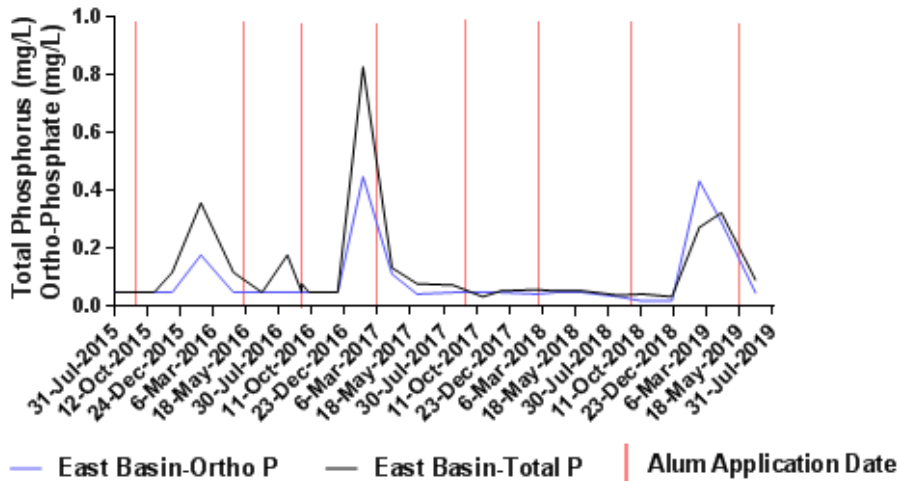
Figure 87-1. Historical Monitoring Results of Chlorophyll-a vs. Total Phosphorus in Canyon Lake

**Canyon Lake Main Basin (2015-2019)
Total Phosphorus vs. Ortho-Phosphate**



CL09 missing data in February- August 2016 and December 2016
 Reporting limits (RLs) were used for non-detect (ND) values (0.05 mg/L) due to
 variability in method detection limits (MDLs).

**Canyon Lake East Basin (2015-2019)
Total Phosphorus vs. Ortho-Phosphate**



CL09 missing data in February- August 2016 and December 2016
 Reporting limits (RLs) were used for non-detect (ND) values (0.05 mg/L) due to
 variability in method detection limits (MDLs).

Figure 87-2. Total Phosphorus vs. Ortho-Phosphate Monitoring Results for Canyon Lake Relative to Alum Application Dates (2015-2019)

Response to Comment #121: Figure 121-1.

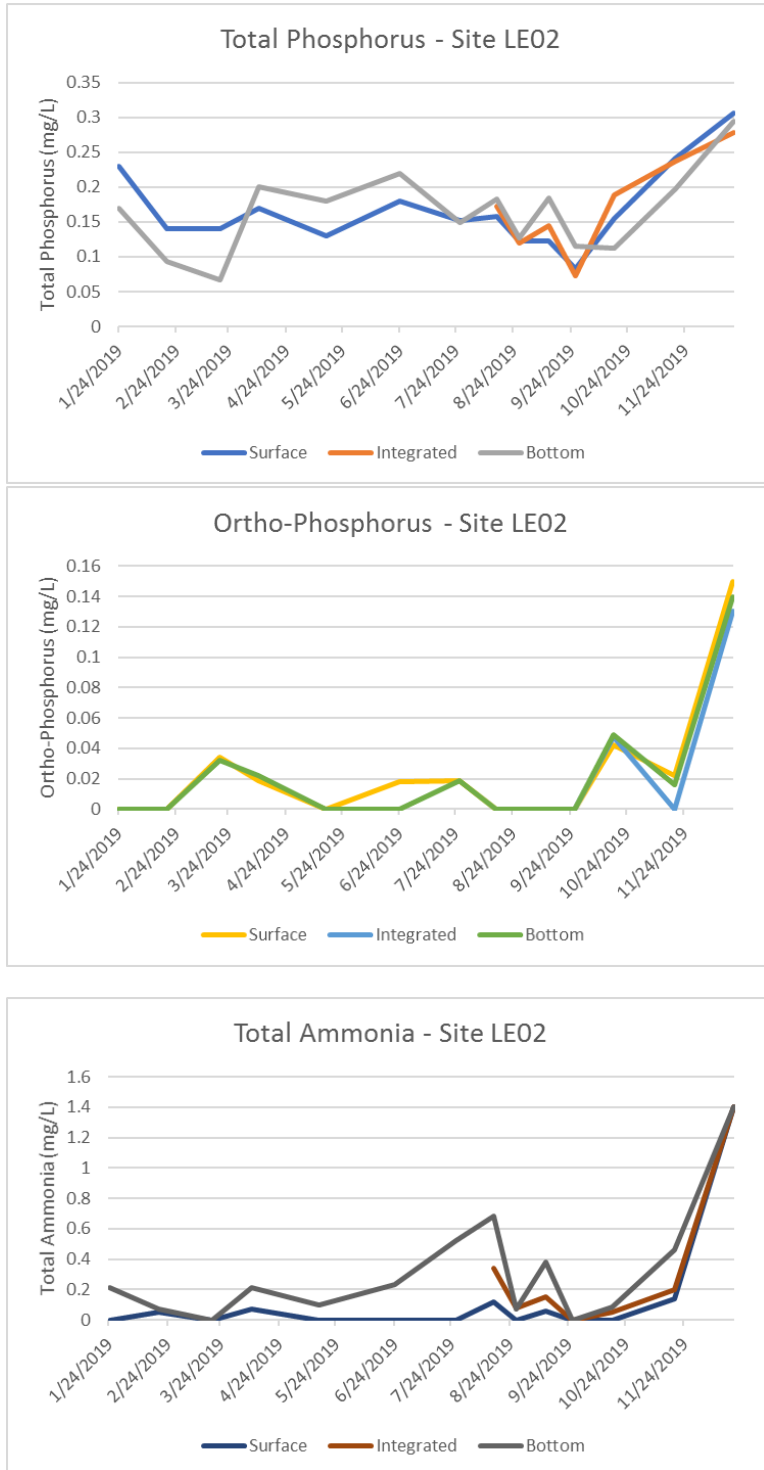
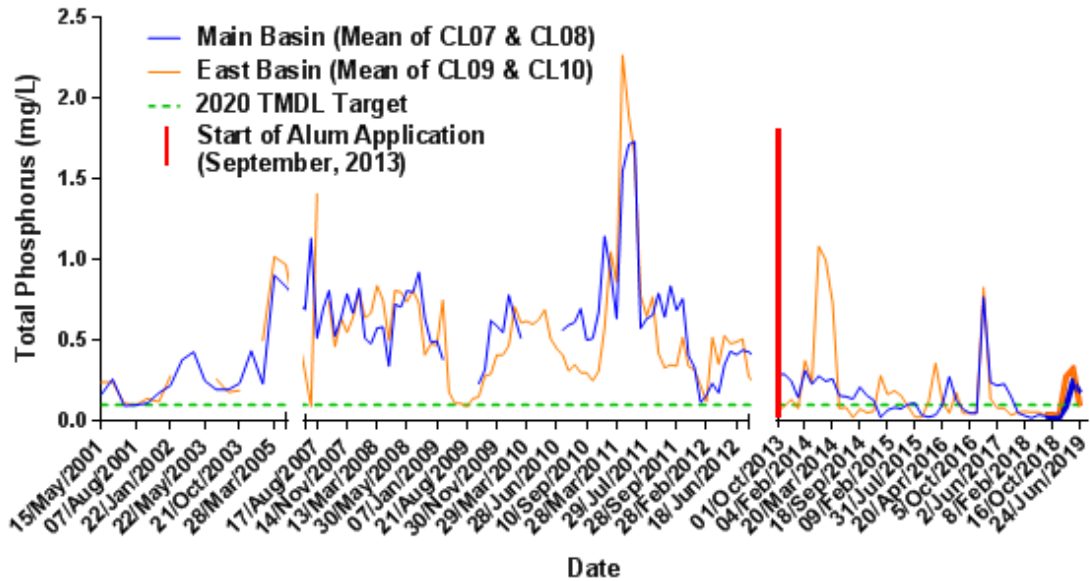


Figure 121-1. Surface, Depth-Integrated and Bottom Sample Collection Results for Lake Elsinore (2019).

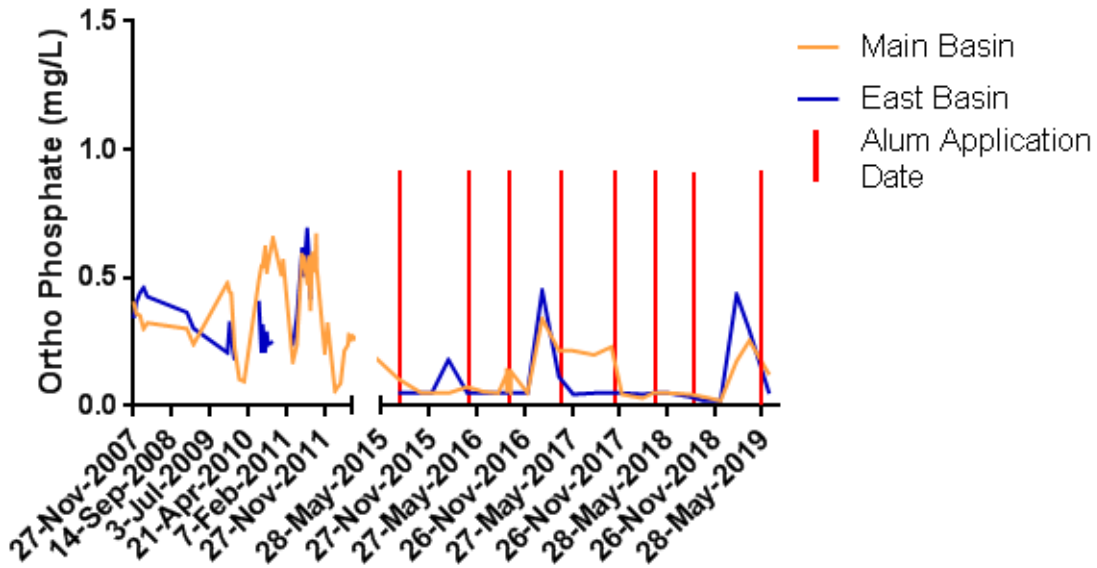
Response to Comment #133: Figures 133-1, 133-2 and 133-3.



No data available from May 2005- July 2007; June 2012- Sept 2013
 TMDL target of 0.75 mg/L is annual average to be attained by 2020
 Bold represents the most recent monitoring year July 2018- June 2019

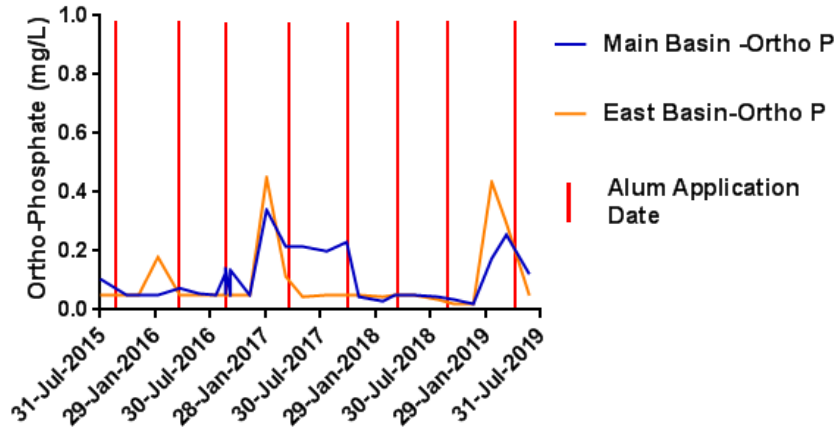
Figure 133-1. Historical Monitoring Results of Total Phosphorus in Canyon Lake

Historical Ortho-Phosphate Concentrations Canyon Lake Main vs. East (2007-2019)



Axis not to scale (right x-axis extended for increased resolution)

Ortho-Phosphate, Alum Applications Canyon Lake Main vs. East (2015-2019)



CL09 missing data in February- August 2016 and December 2016
Reporting limits (RLs) were used for non-detect (ND) values (0.05 mg/L) due to variability in method detection limits (MDLs).

Figure 133-2. Historical Monitoring Results of Ortho-Phosphate in Canyon Lake in Relation to Alum Application Events

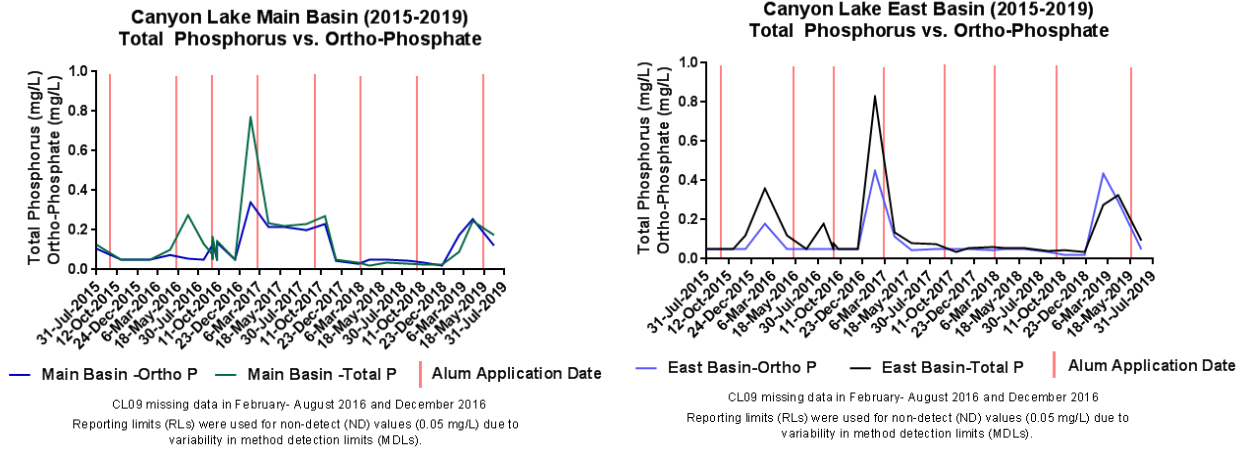


Figure 133-3. Historical Monitoring Results of Total Phosphorus vs. Ortho-Phosphate in Canyon Lake Relative to Alum Application Dates (2015-2019)