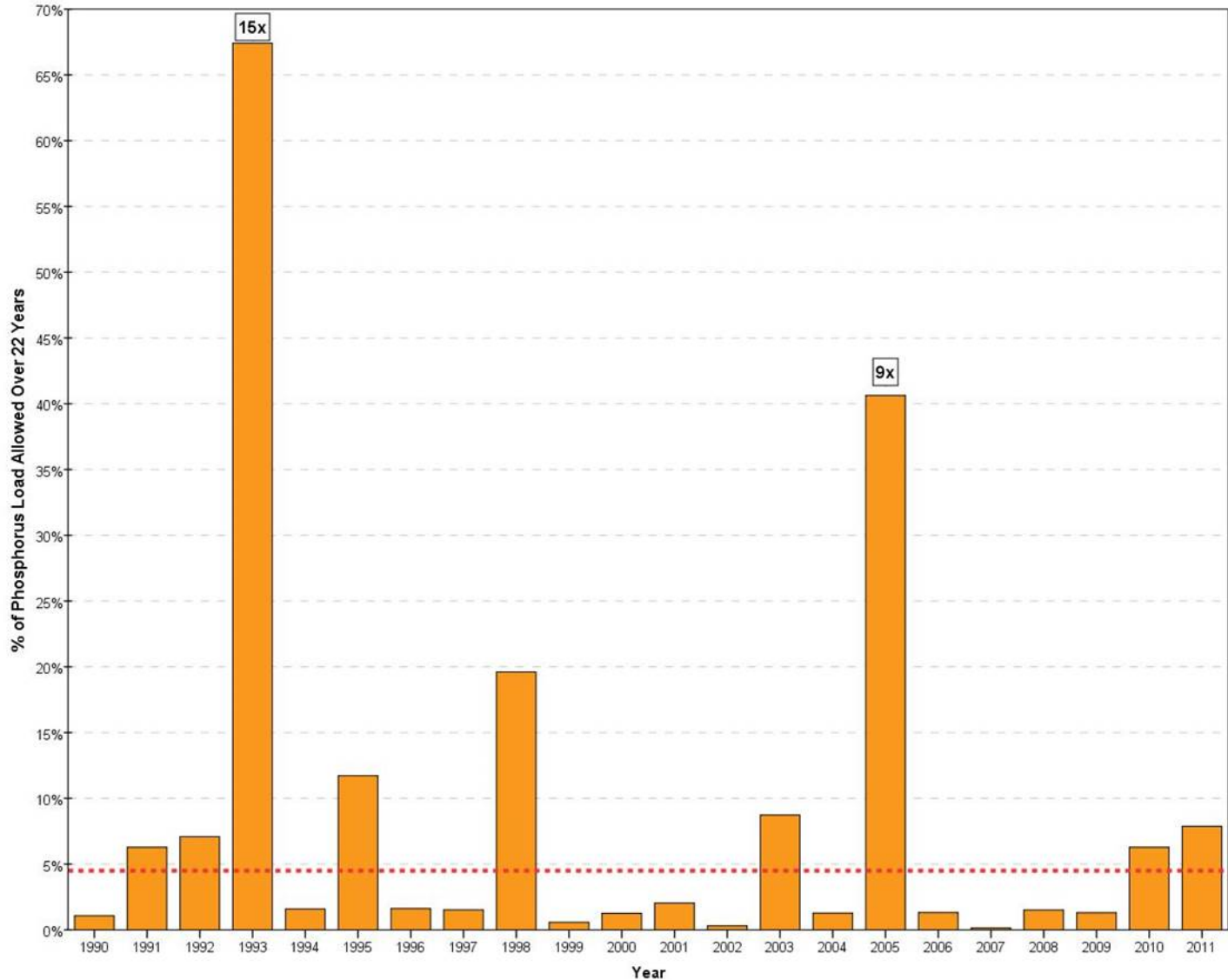
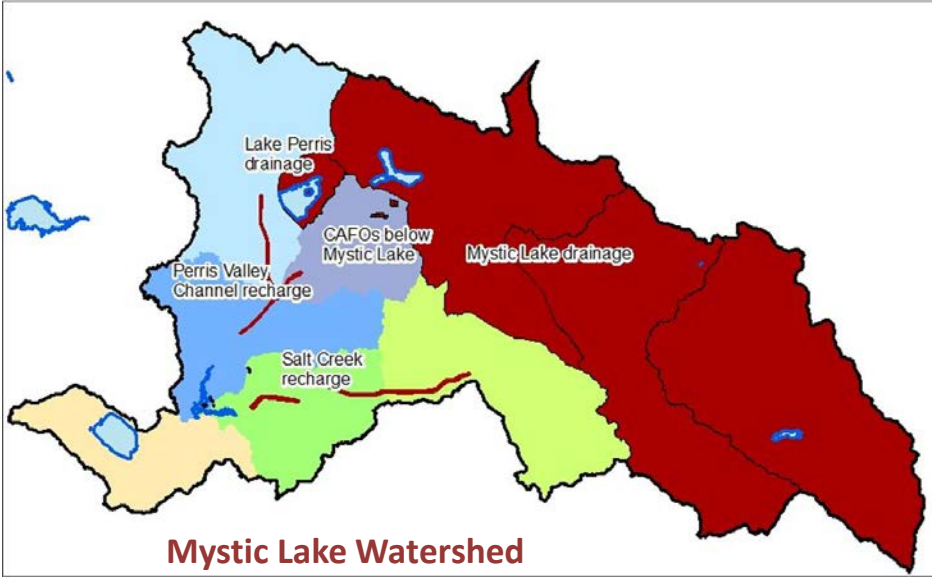
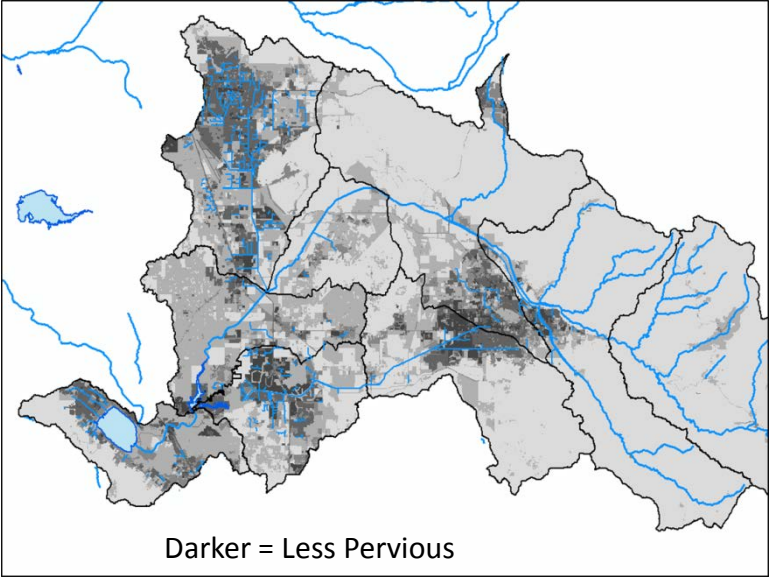
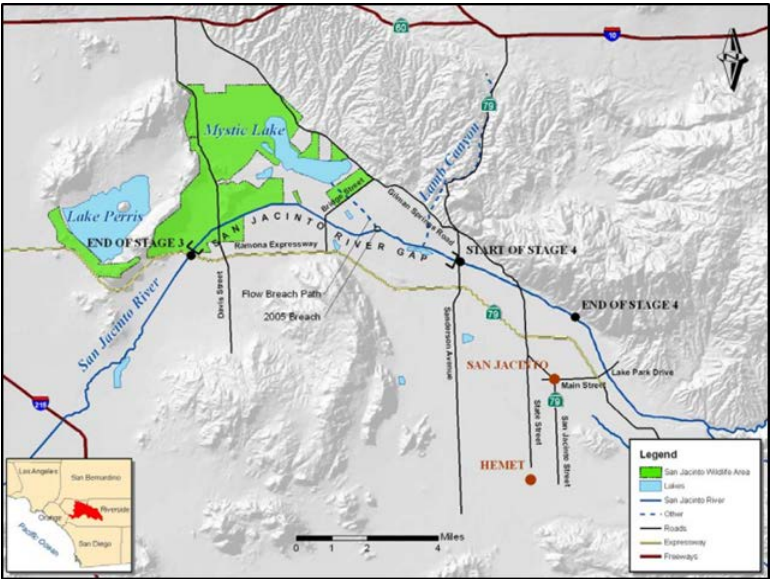


Canyon Lake Asymmetric Loading

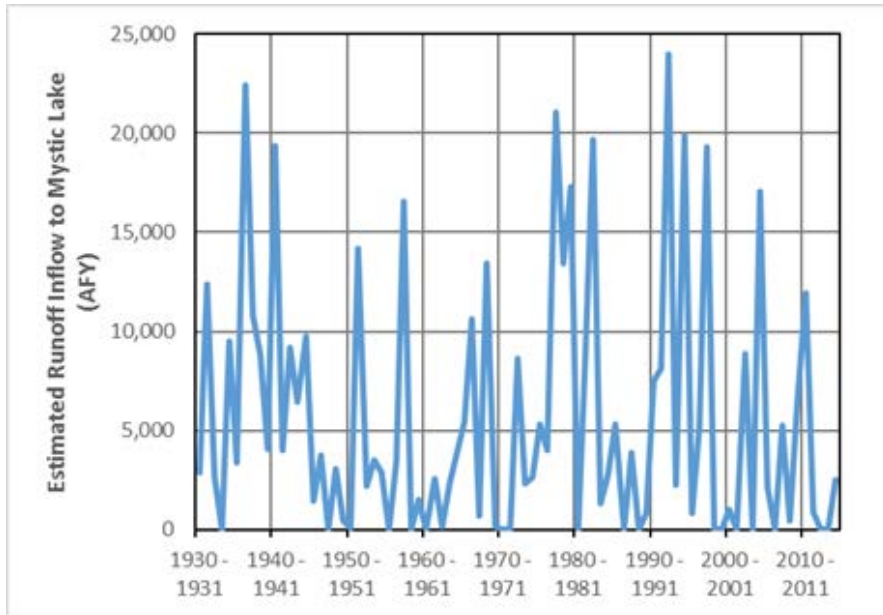


Mystic Lake

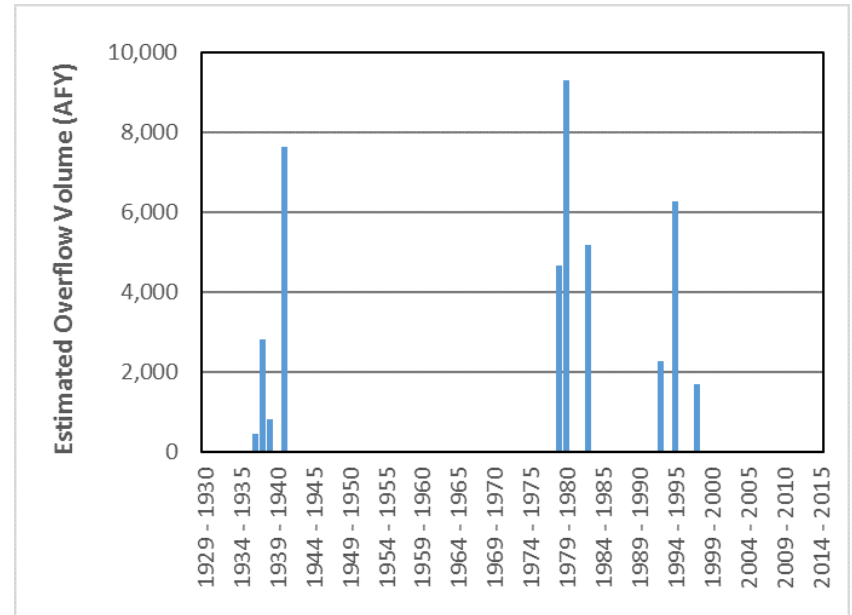


Mystic Lake

Inflow from San Jacinto River

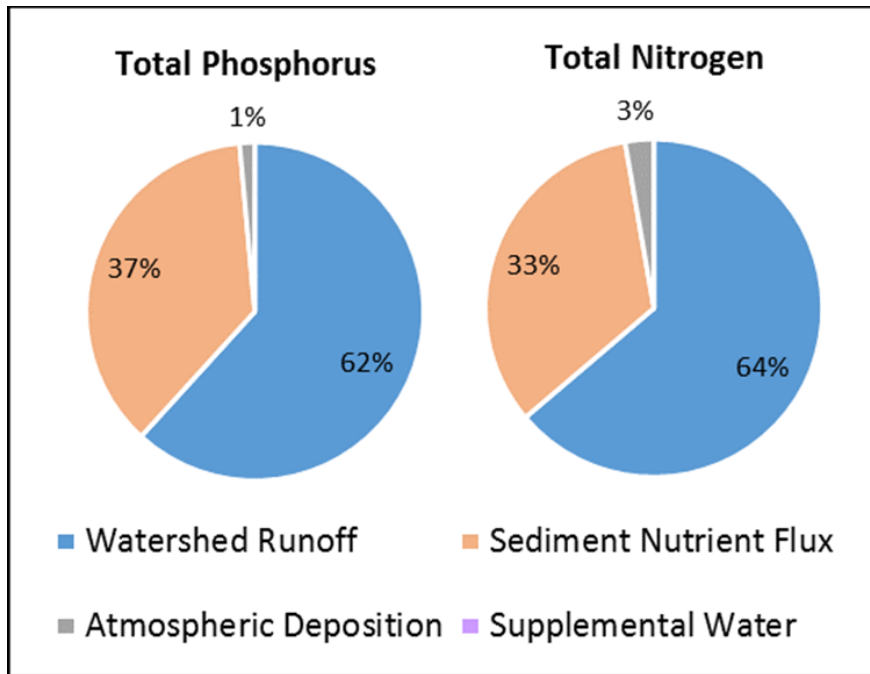


Outflow to Downstream Lakes

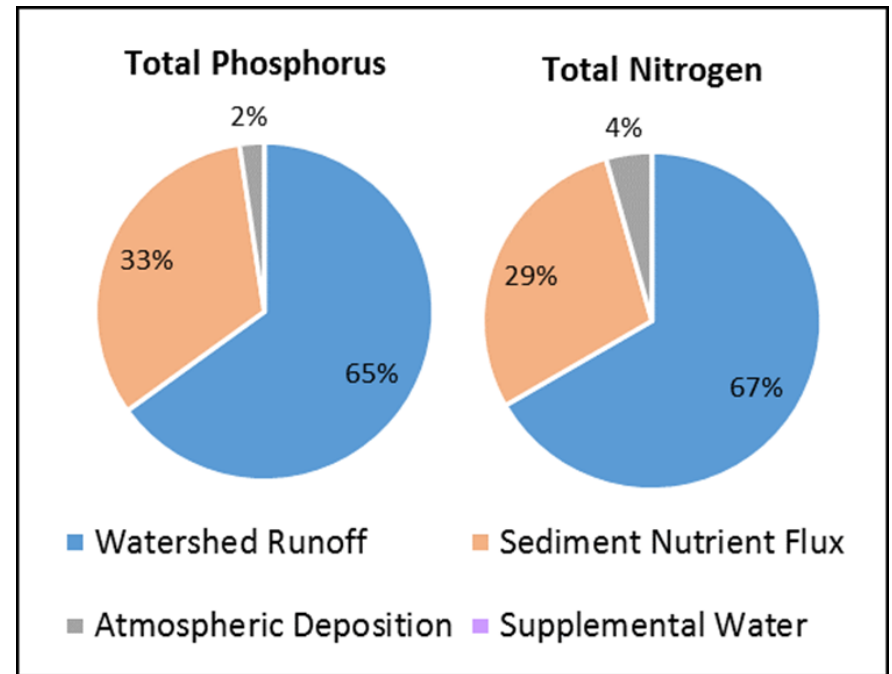


Canyon Lake Nutrient Loading

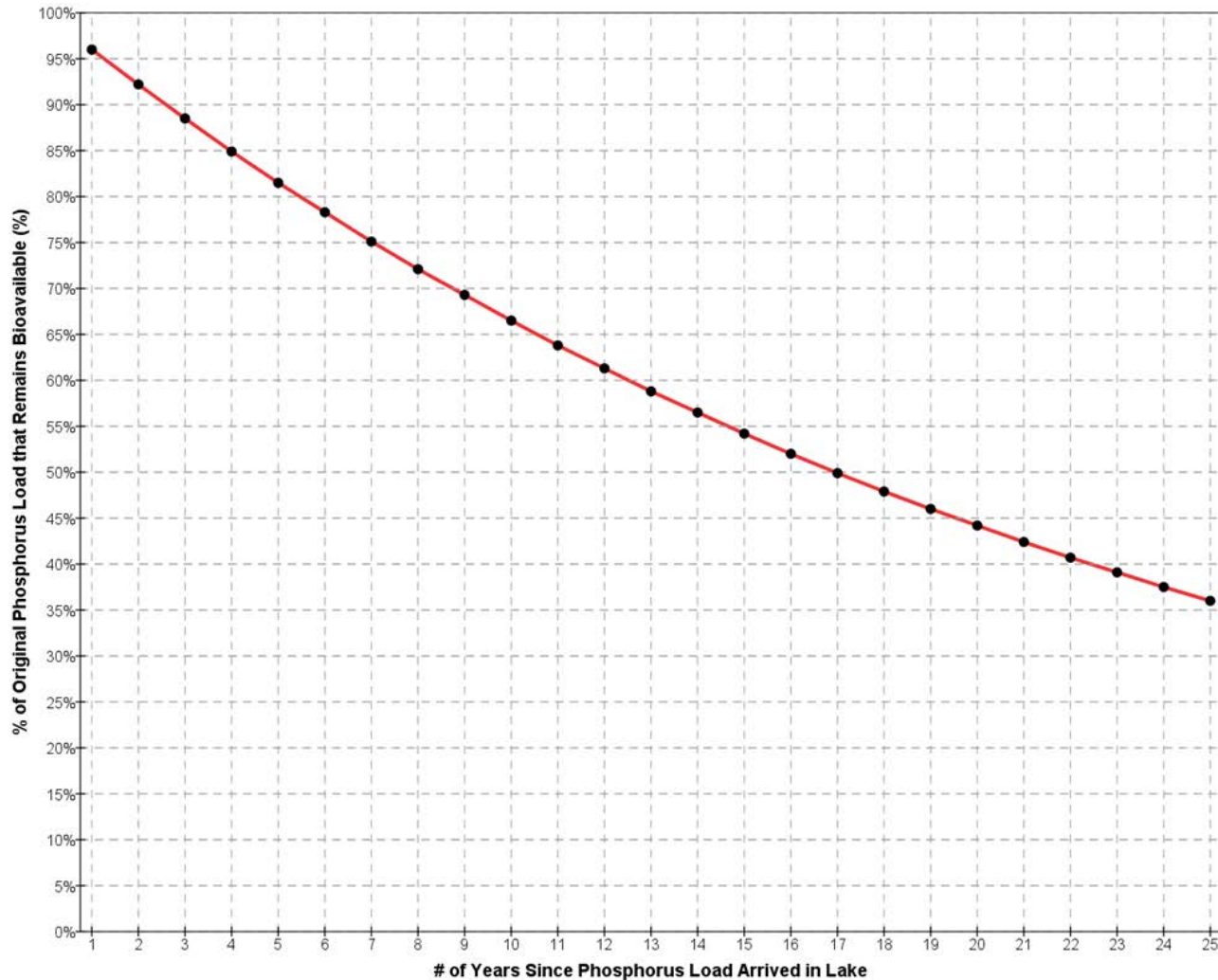
Main Body



East Bay



Phosphorus Decay Rate – 15 yr. Half Life

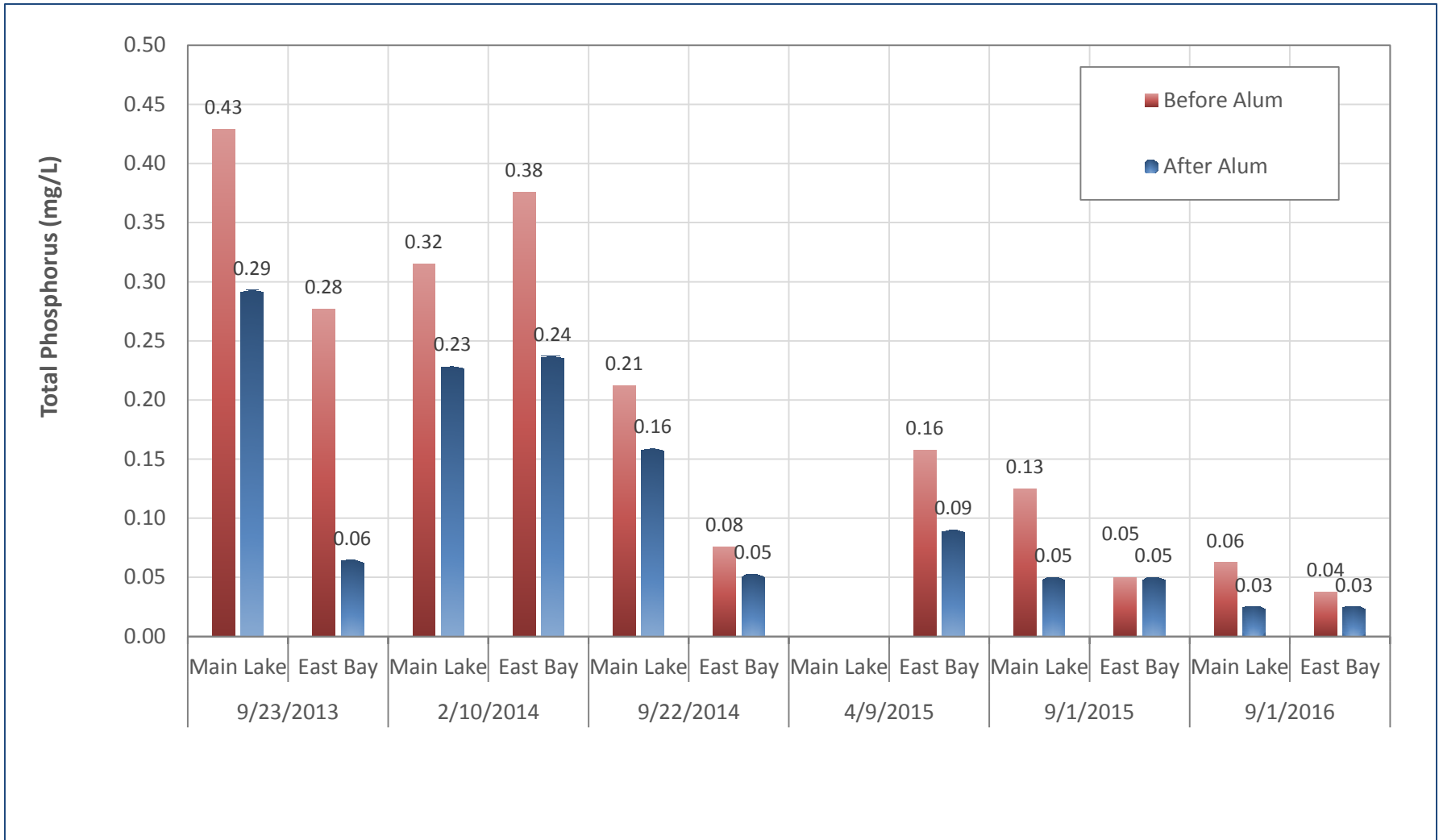


Watershed BMPs (2010 – 2015)

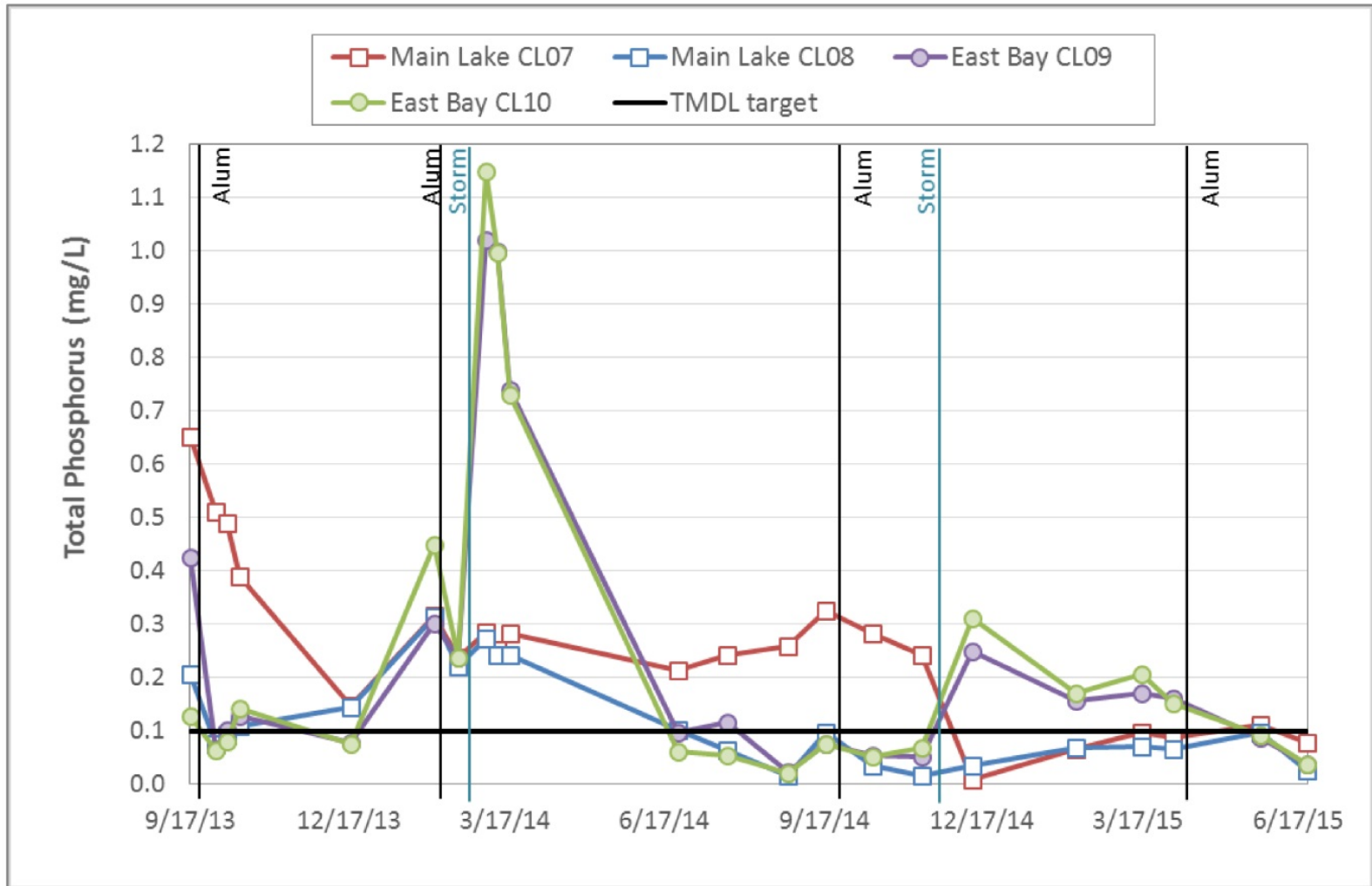
Nutrient	Mass Reduction	% of Existing Load
Phosphorus	559 kg/yr	34%
Nitrogen	3,827 kg/yr	30%

Best Management Practice	Effectiveness
Septic Systems Managed	2,140 systems
Stormwater Infiltration	949 acres treated
Extended Detention	4,163 acres treated
Hydrodynamic Separator	1,058 acres treated
Vegetated Swale	288 acres treated
Media Filters	458 acres treated
Street Sweeping	16,168 metric tons collected
Debris in MS4 Facilities	758 metric tons removed

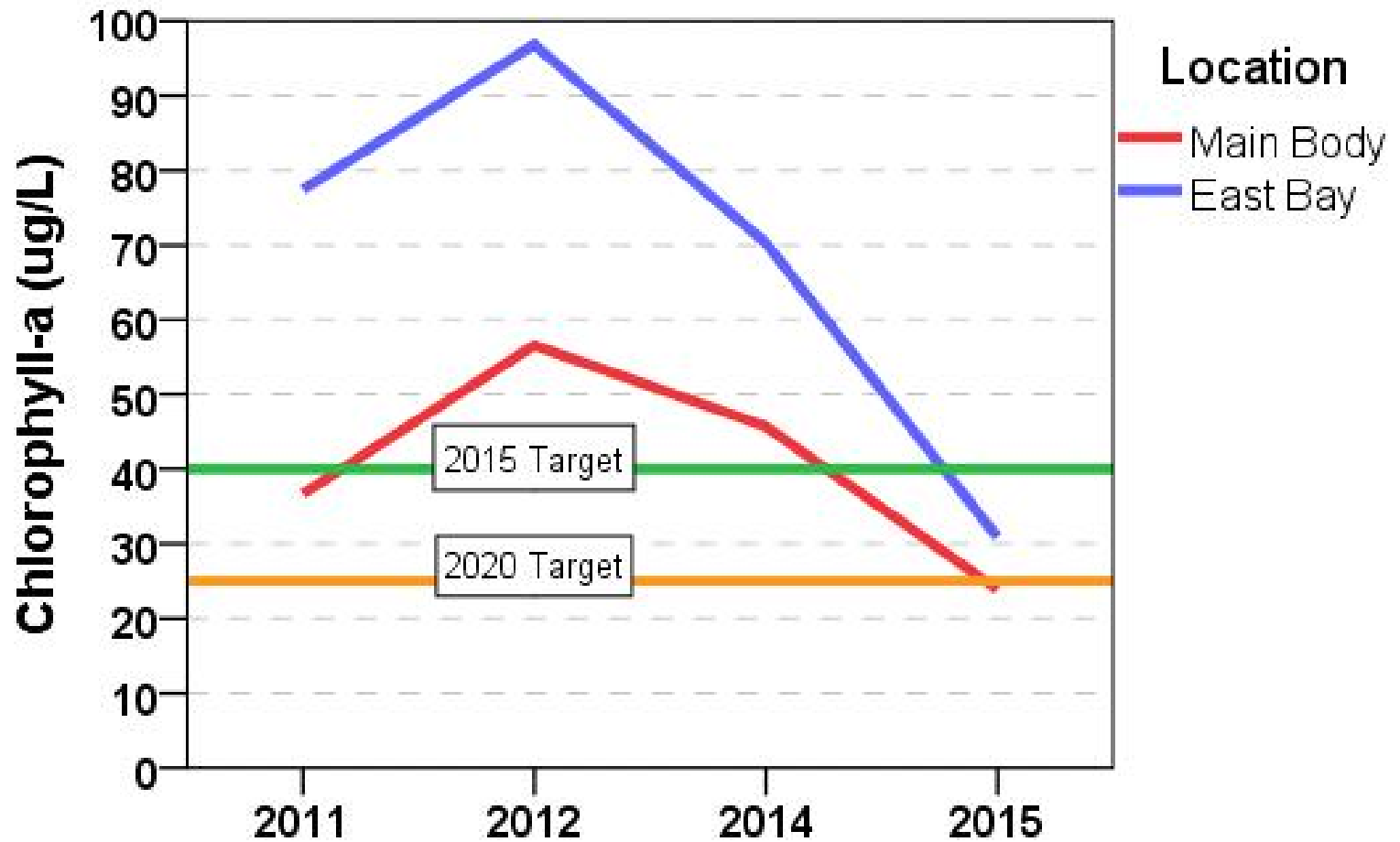
Canyon Lake Alum Applications



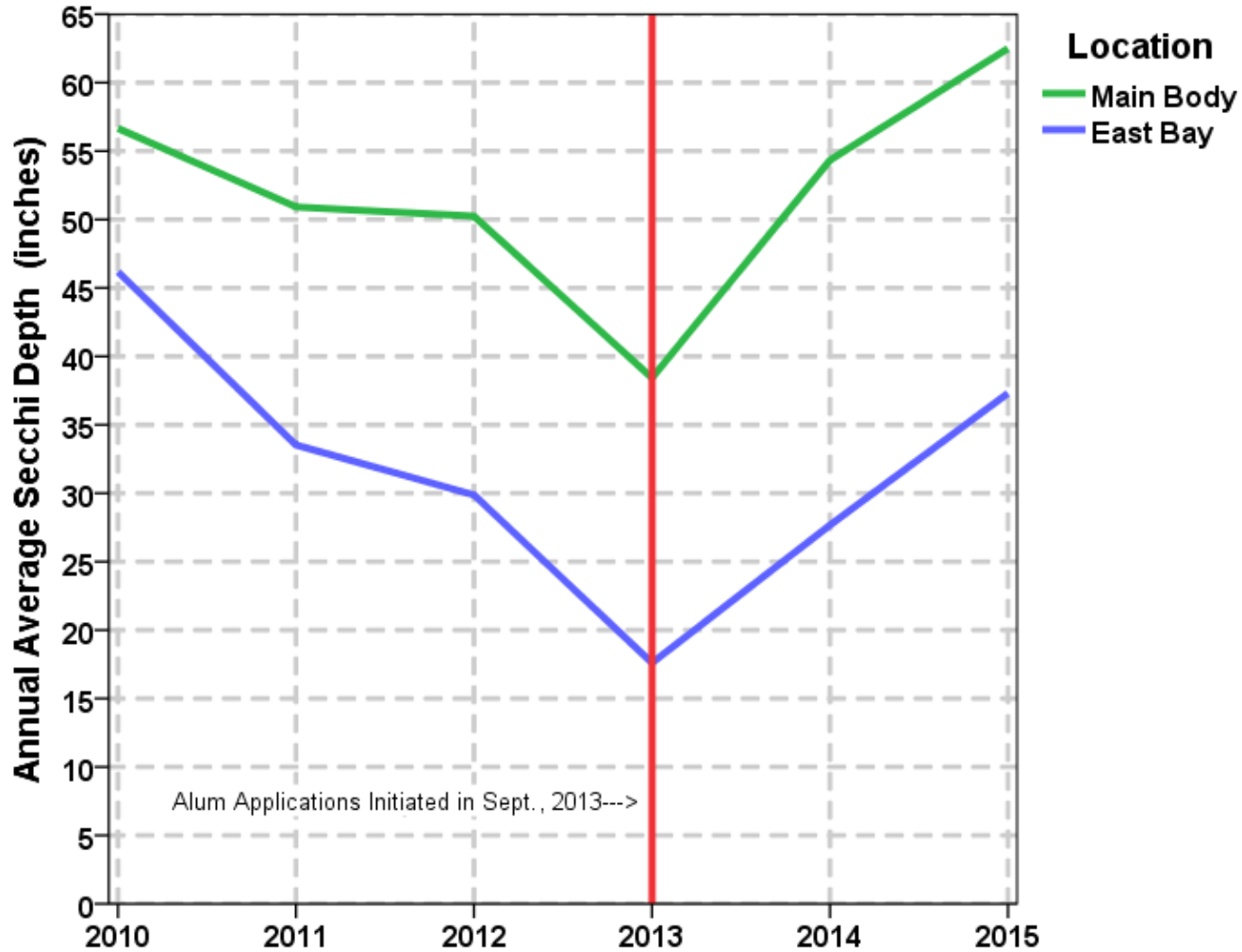
Canyon Lake Phosphorus Trend



Canyon Lake Algae Trend



Canyon Lake Clarity Trend



Canyon Lake

- 457,000 acre watershed draining to a 436 acre lake
- Extremely asymmetric runoff hydrology
- 33% of nutrient loads from lake bottom sediments
- Watershed BMPs have reduced external loads by 32%
- Alum applications have reduced internal loads by 35%
- Avg. phosphorus concentrations meet TMDL target for 2020
- Avg. chlorophyll-a concentrations meet TMDL target for 2020
- Water clarity improved by about 20" (50-100% increase)
- Local residents: *"best water quality in 40 years"*