

# Load Reductions for Existing and Revised LECL Nutrient TMDL

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6/23/2021



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# Existing External Loads (Runoff + Reclaimed Water)

- Loads from zones 2-6 in revised TMDL for nutrients retained in Canyon Lake (overflows to Elsinore passed downstream)
- Loads from local Lake Elsinore (zone 1) and above Mystic Lake (zones 7-9) are entirely assigned to Lake Elsinore

Version	Canyon Lake (2011-2020 Average) <sup>1</sup>		Lake Elsinore (2011-2020 Average) <sup>1</sup>	
	TP (kg/yr)	TN (kg/yr)	TP (kg/yr)	TN (kg/yr)
Existing TMDL (2004)	5,871	15,743	5,250	33,060
December 2018 Draft Tech Report (Median of Cranston Guard Station) <sup>2</sup>	4,096	6,660	5,250	33,060
June 2021 Alternative Reference (25 <sup>th</sup> %ile of Cranston Guard Station) <sup>2</sup>	4,096	6,660	5,250	33,060

1) Zero overflow loads from above Mystic Lake in 2011-2020

2) Subtracts overflow load from Canyon Lake to Lake Elsinore

# External Allocations

- Allocations from zones 2-6 in revised TMDL are for nutrients retained in Canyon Lake
- Allocations in zones 1, 7-9 are entirely assigned to Lake Elsinore

Version	Canyon Lake (2011-2020 Average)		Lake Elsinore (2011-2020 Average)	
	TP (kg/yr)	TN (kg/yr)	TP (kg/yr)	TN (kg/yr)
Existing TMDL (2004)	3,845	22,268	6,922	29,953
December 2018 Draft Tech Report (Median of Cranston Guard Station) <sup>1</sup>	1,711	4,921	4,153	11,939
June 2021 Alternative Reference (25 <sup>th</sup> %ile of Cranston Guard Station) <sup>1</sup>	856	3,637	2,076	8,825

1) Allocations based on long term average rainfall and associated estimate of runoff volume in watershed model used for source assessment in TMDL revision

# Load Reduction Needed (2011-2020) w/o Current Offsets

- MS4 and Ag watershed controls accounted for by using measured mass emissions in 2011-2020
- Includes reclaimed water additions to Lake Elsinore
- Negative values in pink show a net credit (i.e. meeting WLA)

Version	Canyon Lake (2011-2020 Average)		Lake Elsinore (2011-2020 Average)	
	TP (kg/yr)	TN (kg/yr)	TP (kg/yr)	TN (kg/yr)
Existing TMDL (2004)	2,026	- 6,525	-1,672	3,107
December 2018 Draft Tech Report (Median of Cranston Guard Station) <sup>1</sup>	2,385	1,739	1,097	21,121
June 2021 Alternative Reference (25 <sup>th</sup> %ile of Cranston Guard Station) <sup>1</sup>	3,240	3,023	3,174	24,235

1) Allocations based on long term average rainfall and associated estimate of runoff volume in watershed model used for source assessment in TMDL revision

# Load Reduction Needed (2011-2020) with Current Offsets

- 2004 TMDL row is basis for 2020 compliance demonstration with existing TMDL
- Other rows show the impact of reduced allocations proposed in both versions of TMDL revision

Version	Canyon Lake (2011-2020 Average)		Lake Elsinore (2011-2020 Average)	
	TP (kg/yr)	TN (kg/yr)	TP (kg/yr)	TN (kg/yr)
Existing TMDL (2004) <sup>1</sup>	-53	-6,525	-8,702	-40,893
December 2018 Draft Tech Report (Median of Cranston Guard Station) <sup>1</sup>	306	1,739	-5,933	-22,879
June 2021 Alternative Reference (25 <sup>th</sup> %ile of Cranston Guard Station) <sup>1</sup>	1,163	3,023	-3,856	-19,765

1) Assumed average annual offset from alum addition in Canyon Lake is 2,079 kg/yr TP and from LEAMS in Lake Elsinore is 7,030 kg/yr TP and 44,000 kg/yr TN