

City of South Lake Tahoe



Pollutant Load Reduction Progress Report

October 1, 2013

Submitted by the City Of South Lake Tahoe

Public Works Department

Engineering Division

October 1, 2013

The City of South Lake Tahoe (City) submitted its Pollutant Load Reduction Plan (PLRP) prior to the March 15, 2013 deadline, as required under Board Order R6T-2011-0101A1, NPDES No. CAG616001 (Permit). Included in the PLRP is a Baseline Pollutant Load Calculation, which estimates the amount of Fine Sediment Particles (FSP), Total Phosphorous (TP) and Total Nitrogen (TN) that would reach Lake Tahoe on a yearly basis prior to May 1, 2004. The PLRP was intended to map the City's plan to reduce the yearly FSP load to Lake Tahoe by 10% by the year 2016, as well as Total Nitrogen and Total Phosphorous by 8% and 7%, respectively. In order to meet the Permit load reduction goal by 2016, the PLRP explains the City's strategy to register several erosion control projects into the Lake Clarity Crediting Program (LCCP).

The Permit also requires the City to provide a Pollutant Load Reduction Progress Report by October 1, 2013, to include the following:

- 1. A list of erosion control and storm water treatment projects the Permittee completed between the May 1, 2004 and October 15, 2011.*
- 2. Pollutant load reduction estimates for all erosion control and storm water projects and any other load reduction actions up to October 15, 2011. The report shall compare the pollutant load estimates for work completed with the pollutant load reduction requirements described in Section IV.B above.*

As required, a list of erosion control projects completed by the City between May 1, 2004 and October 15, 2011 is provided in Table 1. Table 2 provides the associated pollutant load reduction estimates for the projects listed in Table 1, which will be registered into the LCCP. The bottom of Table 2 provides a summary of the pollutant load reduction requirements described in Section IV.B of the Permit, as comparison.

Table 3 provides a list of current and future erosion control projects that are expected to be implemented prior to the 2016 Permit load reduction deadline, and the associated pollutant loads estimated to be reduced by the Projects.

Table 4 summarizes the total estimated pollutant loads from previous, current, and future erosion control projects to be registered into the LCCP, relative to the Permit load reduction goals. Based on the data in Table 4, it is anticipated that the City will attain the 2016 Permit load reduction goal of 190 Credits, or 10% FSP reduction, 7% TP Reduction and 8% TN reduction.

Completed Projects: May 2004 - Oct 2011	
Project Name	Year Completed
Al Tahoe Erosion Control Project, Phase 1	2010
Sierra Tract Erosion Control Project, Phase 1	2010
Sierra Tract Erosion Control Project, Phase 2	2005
Rocky Point Erosion Control Project, Phase 3 & 4	2008*
Rocky Point Erosion Control Project, Phase 1 & 2	2004
8th and Glorene Erosion Control Project	2004

* Adaptive Management completed in 2012

Table 1 - List of Completed Erosion Control Projects

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Project	Catchment Name	% Connectivity	Credits	FSP Load Reduction (lbs/yr)	TP Load Reduction (lbs/yr)	TN Load Reduction (lbs/yr)	
Al Tahoe ECP, Phase 1	CSLTG12	100%	9.9	1987.4	13.2	36.1	
Sierra Tract ECP, Phase 1	CSLTF1	20%	1.58	318.2	3.52	14.36	
Sierra Tract ECP, Phase 2	CSLTF1_A	20%	2.06	414.36	1.68	5.7	
Rocky Point ECP, Phase 3/4	CSLTJ14	100%	12.1	2433.8	9.7	50.7	
Rocky Point ECP, Phase 1/2	CSLTM3	100%	38.6	7726.8	28.8	93.5	
8th and Glorene ECP	CSLTB11	20%	28.27	5665.08	19.08	66.5	
1 st Credit Milestone – 190 Credits			Total	92.51	18,545.64 lbs/year	75.98 lbs/year	266.86 lbs/year
				8,412.15 Kg/Year	34.46 Kg/Year	121.05 Kg/Year	
% of Goal				47.68%	62.38%	45.02%	
				Target	lbs/Yr	Kg/year	
				10% FSP Reduction	38,900	17,650	
				7% TP Reduction	121.8	55	
				8% TN Reduction	592.8	269	

Conversion Factor (lbs. to Kg) = 0.453592

Table 2 – Pollutant Load Reduction Estimates for Completed Projects

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Project	Year Completed	% Connectivity	% Shared	Estimated Credits	FSP Load Reduction (lbs/yr)	TP Load Reduction (lbs/yr)	TN Load Reduction (lbs/yr)
Al Tahoe ECP, Phase 2	2012	100.00%	0.00%	18.5	4108.7	22.8	83.5
Bijou ECP	2014	100.00%	50.00%	50.8	10184.25	37.5	136.55
Harrison Ave ECP	2014	100.00%	0.00%	25.3	5066	16	54.9
Sierra Tract ECP, Phase 3/4	2015	100.00%	0.00%	37	7430	24.3	41.9
Totals				131.6	26,788.95 lbs/yr	100.6 lbs/yr	316.85 lbs/yr

Table 3 – Pollutant Load Reduction Estimates for Current and Future Projects

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	Credits	FSP Load Reduction (lbs/yr)	TP Load Reduction (lbs/yr)	TN Load Reduction (lbs/yr)
2016 Permit Load Reduction Goals	190	38,900	121.8	592.8
Current Projects (2004 - 2011)	92.51	18,545.64	75.98	266.86
% of Goal Attained as of 2011	49%	48%	62%	45%
Future Projects (2011 - 2016)	131.6	26,788.95	100.6	316.85
2016 TOTAL (current and future projects)	224.11	45,334.59	176.58	583.71
Goal Attained?	Yes	Yes	Yes	Yes*
Baseline Load Estimate		389,000	1,740	7,410
Estimated Reduction From Baseline by 2016		12%	10%	8%

*Load reduction estimates for future projects are expected to be greater than current models indicate

Table 4 – Pollutant Load Reduction Summary Table