Sonoma Creek Sediment Total Maximum Daily Load (TMDL)

Resolution:	R2-2008-0103
Effective Date:	December 12, 2008
Impaired Water Body:	Sonoma Creek
Pollutant:	Sediment
Responsible Dischargers:	Industrial General Storm Water Permit (IGP) Dischargers discharging directly into, or through a storm water conveyance that directly discharges into, the Sonoma Creek.
Required Actions:	Dischargers in compliance with Industrial General Permit 2014-0057-DWQ meet the requirements of the Sonoma Creek Sediment TMDL R2-2008-0103. The Regional Water Board may require Dischargers to implement additional actions to reduce sediment discharges based on a site-specific analysis.
TMDL documents are available at: http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/sonomacrksedimenttmdl.shtml	

Summary Statement

Sediment deposition, associated with human activity, has a negative impact on the beneficial uses of Sonoma Creek described in the Water Quality Plan for The San Francisco Bay Region (Basin Plan). (http://www.waterboards.ca.gov/sanfranciscobay/basin_planning.shtml) As shown in Table 3 below, industrial activities are not a major source of sediment to Sonoma Creek. The existing requirements in the National Pollution Discharge Elimination System (NPDES) stormwater Industrial General Permit (IGP) Section X.H.1.e., provided below, are sufficient and adequate to address the potential for sediment discharge to the Napa River from industrial activities. Additional IGP language is not necessary.

> IGP Section X.H.1.e. Erosion and Sediment Controls
> For each erodible surface facility location identified in the SWPPP (Section X.G.1.f), the Discharger shall:
> i. Implement effective wind erosion controls;
>
> ii. Provide effective stabilization for inactive areas, finished slopes, and other erodible areas prior to a forecasted storm event;
>
> iii. Maintain effective perimeter controls and stabilize all site entrances and exits to sufficiently control discharges of erodible materials from discharging or being tracked off the site;
>
> iv. Divert run-on and storm water generated from within the facility away from all erodible materials; and,
>
> v. If sediment basins are implemented, ensure compliance with the design storm standards in Section X.H.6.

Fact Sheet for Sonoma Creek Sediment TMDL

Sediment is particulate organic and inorganic matter that is mobilized by erosion due to wind, precipitation or anthropogenic causes and carried by water. Sediment is a natural occurrence found in runoff from all locations in the watershed in varying concentrations. Human activities result in concentrated flow, with intensified velocities or volumes, which has the capability to magnify erosion rates resulting in rill erosion, gully erosion, and channel incision. The magnified erosion rate correlates to an increased sediment supply into Sonoma Creek.

Problem Statement and Sources

Steelhead populations in the Sonoma Creek watershed have declined substantially since the late 1940s. Results of recent analyses of fisheries and sediment sources indicate that:

1. Excessive amounts of fine sediment have been deposited in the streambed at potential steelhead spawning and rearing sites.

2. Changes in physical habitat structure that appear to be caused by erosion of bed and banks (incision) in Sonoma Creek are resulting in significant adverse changes to steelhead habitat.

3. Stressful water temperatures, low summer flows, and migration barriers also impact the health of Sonoma Creek's cold water fishery**.**

Table 3. Sonoma Creek Sediment Load and Wasteload Allocations (tons/year)[a]

	Source Category	Current (2005) Load[b]	Estimated Reductions Needed (Percentage)	Allocation tons/year	Allocation Percent of Natural Background
Wasteload Allocations – Urban Stormwater: [c]	Municipal Stormwater -NPDES Permit No. CAS000004	600	**0**	600	1
	Construction Stormwater - NPDES Permit No. CAS000002	300	**0**	300	0.6
	Industrial Stormwater –NPDES Permit No. CAS000001	100	**0**	100	0.2
	Caltrans Stormwater – NPDES Permit No. CAS000003	100	**0**	100	0.2
	TOTAL	1,100		1,100	2
TOTAL ALLOCATIONS = TMDL = 125 % of Natural Background (includes natural processes, urban stormwater and non-urban human actions):				65,400	125

a. Sediment loads and allocations are rounded to the nearest hundred. Some totals may not add up due to rounding.
b. Total current (2005) estimated sediment load = 117,400 tons/year.
c. Source categories included in the wasteload allocations (e.g., municipal stormwater) are described as "urban stormwater" in Table 5. The term "urban stormwater" in Table 5 incorporates municipal, construction, industrial, and Caltrans stormwater.

Source: Basin Plan Amendment, Resolution R2-2008-0103

Implementation through the Industrial General Permit

Based on the information in the TMDL Staff Report and Table 3 above, industrial discharges are minor contributors of sediment to Sonoma Creek. The implementation actions set forth in the TMDL applicable to industrial dischargers are to comply with applicable NPDES permits. Typically, no additional Industrial General Permit requirements are required to comply with the Sonoma Creek Sediment Total Maximum Daily Load. The Regional Water Boards retain the authority to require industrial dischargers to revise their Stormwater Pollution Prevention Plans (SWPPPs), Best Management Practices (BMPs), Exceedance Response Action (ERA) Reports, or monitoring programs. The Regional Water Boards also retain the authority to direct a discharger to obtain an individual NPDES permit if additional controls are necessary.