

**Napa River Sediment Total Maximum Daily Load (TMDL)**

Resolution:	R2-2009-0064
Effective Date:	September 15, 2009
Impaired Water Body:	Napa River
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 Napa River.
Required Actions:	Dischargers in compliance with stormwater Industrial General Permit 2014-0057-DWQ meet the requirements of the Napa River Sediment TMDL R2-2009-0064. 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: <a href="http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/napariversedimenttmdl.shtml">http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/napariversedimenttmdl.shtml</a>	

**Summary Statement**

Sediment deposition, associated with human activity, has a negative impact on the beneficial uses of the Napa River described in the Water Quality Plan for the San Francisco Bay Region (Basin Plan). ([http://www.waterboards.ca.gov/sanfranciscobay/basin\\_planning.shtml](http://www.waterboards.ca.gov/sanfranciscobay/basin_planning.shtml)) As shown in Table 9b (excerpted from the Basin Plan) below, industrial activities are not a major source of sediment to the Napa River. 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 Napa River 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 the Napa River and impairs the beneficial uses described below.

#### Problem Statement:

In 1990, based on evidence of widespread erosion and concern regarding adverse impacts to fish habitat, the Water Board listed the Napa River as impaired by sedimentation. The primary impetus for listing was a concern regarding substantial decline since the 1940s in abundance and distribution of steelhead and salmon in the Napa River and its tributaries. As a result of the sediment impairment listing, the Water Board prepared a total maximum daily load (TMDL). (Staff Report, Napa River Watershed Sediment TMDL and Habitat Enhancement Plan, September 2009). For more detailed information, please refer to the TMDL and related documents at:

[http://www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/TMDLs/napariversedimenttmdl.shtml](http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/napariversedimenttmdl.shtml).

#### Sources

Field inventories conducted throughout the watershed provide credible estimates of the rates and sizes of sediment delivered to Napa River watershed channels between 1994 and 2004. Based on this work, and application of channel and reservoir mapping, the San Francisco Bay Regional Water Quality Control Board concludes that:

1. More than half of fine sediment delivered to Napa River during the 1994–2004 period is associated with land use activities, including roads, human-caused channel incision, vineyards, intensive historical livestock grazing, and urban stormwater runoff.
2. In addition to its prominence in the sediment budget, channel incision is the primary agent for isolation of the channel from its flood plain and a reduction in the quantity and frequency of spawning and rearing habitat for salmon and steelhead in Napa River and the lower reaches of its tributaries.

3. Channel sediment loads vary greatly depending upon nature of underlying bedrock or sediment deposits, land use activities, and the location of dams.
4. Thirty percent of the watershed drains into reservoirs constructed in tributary channels. These reservoirs capture all of the gravel and sand, and most of the finer sediment input to upstream channels. Nonetheless, anthropogenic activities, downstream of dams, are contributing enough sediment such that the fine sediment load is substantially elevated in the Napa River downstream of the reservoirs.

Table 9b, (from the Basin Plan, Section 7, which includes the Sediment TMDL for the Napa River) below, provides sediment load quantities and allocations.

**Table 9b Wasteload Allocations**

Point Source Category	Current Loads		Reductions needed (%)	Wasteload Allocation	
	Metric tons/year	Percentage of Natural Background		Metric tons/year	Percent of Natural Background
Construction Stormwater-Order No. 99-08-DWQ	500	0.3	0	500	0.3
Municipal Stormwater NPDES Permit No. CAS000004	800	0.5	0	800	0.5
Industrial Stormwater NPDES Permit No. CAS000001	500	0.3	0	500	0.3
Caltrans Stormwater-Order No. 99-06-DWQ	600	0.4	0	600	0.4
Wastewater Treatment Plant Discharges <sup>a</sup>					
City of St. Helena NPDES Permit No. CA0038016	30	<0.1	0	30	<0.1
Town of Yountville/CA Veteran's Home NPDES Permit No. CA0038121	30	<0.1	0	30	<0.1
City of Calistoga NPDES Permit No. CA0037966	40	<0.1	0	40	<0.1

Industrial General Permit  
TMDL Implementation Discussion  
Napa River Sediment  
Revised Attachment XX

TOTAL	2500	2		2500	2
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a. For wastewater treatment plant discharges, compliance with existing permit effluent limit of 30 mg/L of TSS is consistent with these wasteload allocations

Note: Above estimates for loads, percent reductions, and allocations are rounded to two significant figures

Implementation through the Industrial General Permit

Based on the information in the TMDL Staff Report, industrial discharges are minor contributors of sediment to the Napa River. 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 Napa River 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.