

Rainbow Creek Nutrients¹ Total Maximum Daily Load (TMDL)

Resolution:	R9-2005-0036
Effective Date:	February 1, 2006
Impaired Water Body:	Rainbow Creek
Pollutant:	Total Nitrogen and Total Phosphorous (Nutrients)
Responsible Dischargers:	Dischargers within the Rainbow Creek Nutrients TMDL watershed area boundaries defined by the watershed drainage area of Rainbow Creek (HSAs 902.22 and 902.23) in the Santa Margarita HA (902.20). ²
Required Actions:	Dischargers in compliance with Industrial General Permit Order No. 2014-0057-DWQ (General Permit) meet the requirements of the Rainbow Creek Nutrients TMDL. The Regional Water Board may require Dischargers to implement additional actions to reduce Nutrient discharges based on a site-specific analysis.
TMDL documents are available at: http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/rainbowcreek.shtml	

Fact Sheet for Rainbow Creek Nutrients TMDL

Background

The Rainbow Creek Nutrients TMDL addresses the Clean Water Act section 303(d) impairment for excessive concentrations of Nutrients in Rainbow Creek.³ Rainbow Creek watershed is characterized as primarily rural with urban, agricultural, and commercial nursery land uses.⁴ All rural and urban land uses in the Rainbow Creek Nutrients TMDL watershed use subsurface sewage disposal systems. Septic tank disposal systems⁵ can result in excessive amounts of nitrogen reaching freshwater systems. A source analysis for Nutrients indicates that urban runoff is a potential source of Nutrients to Rainbow Creek. The source analysis also identified septic tank disposal systems as a source of nitrogen in the Rainbow Creek watershed but not a major contributor. Elevated levels of Nutrients cause an imbalance in the natural cycling processes of receiving waters that are detrimental to aquatic life such as decreased

¹Total Nitrogen and Total Phosphorous

²Resolution No. R9-2005-0036, Attachment A, p. 1

³Resolution No. R9-2005-0036, Finding 3

⁴Resolution No. R9-2005-0036, Technical Report, p.73

⁵For Total Nitrogen only, Resolution No.R9-2005-0036, Technical Report, p. 8

water clarity, loss of aquatic habitat, decreased dissolved oxygen, and adverse effects to downstream drinking water supplies.⁶

The Rainbow Creek Nutrients TMDL identifies the following parties responsible for point source and non-point source discharges of Nutrients to Rainbow Creek: Municipal Separate Storm Sewer System (MS4s), Caltrans, California Department of Forestry and Fire Protection, and industrial Dischargers.⁷ Background sources of Nutrients are insignificant.⁸

TMDL Waste Load Allocation

Dischargers are potentially included as a source in the total waste load allocations (WLAs) for unidentified and future point sources of Nutrients as urban areas develop in the watershed. Dischargers are potentially included in the non-point source categories for urban area runoff and septic tank disposal systems which are not included in the TMDL WLA. The TMDL states that in the event that a NPS becomes a permitted discharge, the portion of the LA that is associated with the source can become a WLA.⁹ Dischargers in commercial and industrial land use categories are included in the urban areas of the watershed and the future WLA category. Because the San Diego Water Board determined point source discharges of Nutrients were largely discharged from MS4s (Municipal and Caltrans), the primary mechanism for meeting this TMDL is through the Municipal MS4 and Caltrans NDPES permits and municipal land use ordinances. No separate WLAs have been assigned to industrial dischargers. The WLA applies year-round for all flow conditions and seasons and is applied equally to all Nutrients discharge sources in the Rainbow Creek watershed.¹⁰

TMDL Requirements

Although Dischargers have not been assigned a separate WLA, Dischargers remain responsible for demonstrating that their discharges do not cause or contribute to exceedances of Nutrients in the Rainbow Creek Nutrients TMDL watershed. Enrollment in this General Permit satisfies this requirement because industrial dischargers enrolled in the General Permit are not expected to cause or contribute to an exceedance of Nutrients in Nutrient impaired waters.

This General Permit requires Dischargers to take actions to control their risk of Nutrients discharges. Dischargers shall identify all potential Nutrients contributions from their site (section X.G), implement BMPs to reduce Nutrients discharges (section X.H), sample discharges for Nutrients (section XI.B.6), and conduct visual observations (section XI.A) as described in this General Permit. For Dischargers with coverage under the prior

⁶Resolution No.R9-2005-0036 Basin Plan Amendment Technical Report, p. 31

⁷Resolution No.R9-2005-0036 Basin Plan Amendment, Attachment A, p. 8

⁸Resolution No.R9-2005-0036 Basin Plan Amendment, Attachment A, p. 3

⁹Resolution No.R9-2005-0036 Basin Plan Amendment, Attachment A, p. 4

¹⁰Resolution No.R9-2005-0036 Basin Plan Amendment, finding 9

General Permit, the current General Permit requires that Dischargers implement an updated SWPPP in accordance with section X, by July 1, 2015. For Dischargers filing after July 1, 2015, the General Permit requires development of a SWPPP in accordance with section X. The update or development of a SWPPP for this General Permit satisfies the TMDL requirements because the General Permit requires enrolled Dischargers to take actions to control their discharges of Nutrients, monitor the effects of efforts to control pollutants, and report the outcomes. Additionally, non-storm water discharges are not authorized unless they meet the requirements as set forth in section IV.B of the General Permit.

Monitoring and Reporting

The TMDL states that municipal MS4s have the primary monitoring responsibility under the TMDL. To the extent Dischargers may be contributing Nutrients loads into Nutrient impaired waters, the General Permit's existing monitoring requirements are sufficient to identify significant sources. Dischargers that monitor the point(s) of discharge from their industrial facility in accordance with this General Permit are in compliance with the necessary TMDL monitoring.

Visual observation monitoring conducted in compliance with section XI of this General Permit satisfies monitoring requirements of the TMDL. During dry weather days, monthly visual observations shall be conducted in accordance with section XI.A of the General Permit. Monthly visual observations by Dischargers would identify unauthorized non-storm water discharges (NSWDS), potential sources of industrial pollutants, BMPs maintenance conditions, and authorized NSWDS. During wet weather sampling events, visual observations conducted in compliance with section XI.A must include identifying the presence of activities or materials that can contribute to Nutrients concentrations from all discharge points from the Discharger's site, such as applications of fertilizers prior to a rain event. Once identified via visual observations, it is expected that the Discharger either minimizes or eliminates the presence of activities or materials that can contribute to Nutrients concentrations in discharges from their industrial site.

Dischargers shall report results of all required monitoring annually as part of their Annual Report. Pursuant to section XVI of this General Permit, Annual Reports are due on or before July 15.

TMDL Compliance

In light of the General Permit's existing requirements, Dischargers in the Rainbow Creek watershed are assumed to be in compliance with the Rainbow Creek Nutrients TMDL and their contribution to the total WLA if all of the following are completed:

1. Enrollment in this General Permit; and
2. Inclusion of BMPs to reduce or control Nutrients in the Discharger's SWPPP; and
3. Compliance with this General Permit

The Regional Water Boards retain the authority to require Dischargers to revise their SWPPPs, ERA Reports, or monitoring programs as well as to direct a Discharger to obtain an individual NPDES permit if additional Nutrients controls are necessary.

Watershed Coordination

Phase I MS4s in the Rainbow Creek Nutrients TMDL are implementing an adaptive management approach to improve water quality in the Santa Margarita River Watershed Management Area in a watershed specific Water Quality Improvement Plan. Coordinated efforts by Responsible Parties will accelerate the waste load reductions required in the Rainbow Creek Nutrients TMDL and achieve the ultimate goal of improving water quality as soon as possible. Industrial dischargers are encouraged to coordinate with Phase I MS4s and other Responsible Parties to meet the Rainbow Creek TMDL WLA requirements using an adaptive management approach. Dischargers located within County of San Diego are encouraged to contact the Storm Water Program Manager to collaborate.