

# 2009 Working Se TMDL Documents

## Implementation Plan

Regional Water Quality Control Board  
Santa Ana Region



January 15, 2014  
Workshop

# Purpose

- Identify/briefly describe key features and assumptions of 2009 draft TMDLs and implementation plan

# 2009 Draft TMDLs/Implementation Plan – Key Features

- TMDLs are concentration-based (CTR, SSOs)
- TMDLs apply during dry weather conditions
- Implementation in two phases, 15-year maximum compliance schedule
- Encourages comprehensive, watershed-wide approach to TMDL attainment:
  - Needed to manage rising groundwater (largest Se source)

# 2009 Draft TMDLs/Implementation Plan – Key Features

- Recognizes NSMP/TMDL BMP Strategic Plan
- Implementation Plan identifies specific tasks by discharger category:
  - NSMP/Cooperative Watershed Program dischargers
  - Individual Action Plan dischargers

## BMP Strategic Plan

Newport Bay Watershed

DRAFT



July 10, 2009

Prepared for the  
Nitrogen and Selenium Management Program (NSMP) Working Group

by RBF Consulting

# 2009 Draft TMDLs

Based on numeric targets:

- CTR chronic freshwater column concentration: 5  $\mu\text{g}$  Se/L
- Se concentrations in fish and bird eggs (proposed SSOs)
  - Fish: 5  $\mu\text{g}$  Se/g dry wt.
  - Bird eggs: 8  $\mu\text{g}$  Se/g dry wt.

# 2009 Draft TMDLs

- CTR-based TMDLs:
  - 5  $\mu\text{g}$  Se/L - semi-annual arithmetic mean (April 1 – September 30; October 1- March 31)
  - 10  $\mu\text{g}$  Se/L - daily maximum



Federal Register

Thursday,  
May 28, 2009

Part III

Environmental  
Protection Agency

40 CFR Part 133  
Water Quality Standards; Establishment of  
Numerical Criteria for Priority Toxic  
Pollutants for the State of California State

# 2009 Draft TMDLs

## Tissue (SSO)-based TMDLs:

- Water column guidelines (WCGs)
  - Range of concentrations calculated with NB watershed biodynamic model to meet numeric targets/SSOs [most waters]
  - WCGs intended to facilitate permitting and discharger/watershed compliance assessment

**Table 11-2. Total Maximum Daily Loads for Selenium in the Newport Bay Watershed<sup>0,1</sup>**

Water Body		SSO-Based TMDLs <sup>2</sup>		CTR-Based TMDLs <sup>2</sup>	
		TMDLs as Semi-annual Arithmetic or Annual Geometric Mean <sup>3</sup>	TMDLs as Daily Maximum <sup>4</sup>	TMDLs as Semi-annual Arithmetic <sup>3</sup> Mean ( $\mu\text{g Se/L}$ )	TMDLs as Daily Maximum ( $\mu\text{g Se/L}$ ) <sup>4</sup>
Salt Water	Upper Newport Bay <sup>5</sup>	5-8 $\mu\text{g Se/g dw}$ (tissue)	5-8 $\mu\text{g Se/g dw}$ (tissue) <sup>6</sup>	NA	NA
Freshwater Streams	San Diego Creek	5-13 $\mu\text{g Se/L}$	10-27 $\mu\text{g Se/L}$	5	10
	Santa Ana Delhi	5-13 $\mu\text{g/L}$	10-27 $\mu\text{g Se/L}$	5	10
	Santa Isabel <sup>5</sup>	5-8 $\mu\text{g Se/g dw}$ (tissue)	5-8 $\mu\text{g Se/g dw}$ (tissue) <sup>6</sup>	5	10
	Big Canyon Wash	0.9-1.4 $\mu\text{g Se/L}$	1.9-2.9 $\mu\text{g Se/L}$	5	10
Freshwater Marshes and Wetlands	UCI Wetlands (San Joaquin FW Marsh Reserve)	2-3 $\mu\text{g Se/L}$	4-6 $\mu\text{g Se/L}$	5	10
	IRWD Wetlands (incl. treatment ponds and Carlson Marsh)	6-9 $\mu\text{g Se/L}$	12-19 $\mu\text{g Se/L}$	5	10

# 2009 Draft TMDLs

TMDLs apply to dry weather flows year-round:

- Flows less than/equal to 23cfs
  - Measured at San Diego Creek at Campus Drive
  - If flows  $\leq 23$  cfs at Campus Drive, the entire Newport Bay watershed assumed to be experiencing dry weather flow



# 2009 Draft TMDLs

If SSOs approved:

- CTR/CTR-based TMDLs no longer applicable
- Final TMDLs set at water column concentration at which tissue-based targets/SSOs are being consistently met



# 2009 Implementation Tasks/Schedules

- Phased approach, relying on:
  - Step-wise iterative actions to achieve Se reductions
  - Adaptive management
- Assumes/encourages ongoing NSMP actions and implementation of TMDL BMP Strategic Plan by NSMP
- Allows for Individual Action Plans

# 2009 Implementation Tasks/Schedules

- Tasks identified for NSMP/CWP dischargers, Individual Action Plan dischargers, other responsible parties:
  - NSMP: Implement watershed BMP Strategic Plan, Regional Monitoring Program, special studies
  - Individual Action Plan: Implement approved, individual plans; must include Se offset
  - Others: Selenium Management Programs (Big Canyon, San Joaquin Freshwater Marsh, IRWD Carlson Marsh/treatment wetlands)

# Proposed Implementation Tasks/Schedules

Three permit compliance options identified:

Option 1: NSMP funded through the CWP  
Funding Agreement

Option 2: Individual Action Plan

Option 3: No discharge

❖ Detailed discussion later (Compliance  
Determination)

# Needed Implementation Contingency Strategy

- 2009 Draft implementation plan assumes comprehensive strategy to address both point and non-point sources of Se
- Contingency plan needed to address NPS sources if comprehensive strategy fails
  - Required by NPS Implementation and Enforcement Policy