

# TMDLs for Toxic Pollutants in Sediment for the Mouths of Paleta, Chollas, and Switzer Creeks

SD Bay Sediment TMDLs Work Group Meeting  
September 15, 2008

# Today's Agenda

- Review of Past Activities
- What's Next for the TMDLs
- Present the Models and Model Results
- Present an Overview of Technical TMDLs Report
- Work Group Input on Implementation Strategies

# Past Activities – SD Bay Sediment TMDLs Work Group

- September 27, 2005 – Introduce Monitoring and Modeling Project
- October 11, 2005 – COCs, Sources, and delivery and deposition of load to the Creek Mouths
- October 26, 2005 – Monitoring and Modeling Plan & Special Studies

# Past Activities – SD Bay Sediment TMDLs Work Group, Cont.

- January 30, 2007 – Present Monitoring Study Results
- April 26, 2007 – Numeric Targets & Input on Draft Monitoring & Modeling Report
- September 18, 2007 – Navy's Estuary Modeling Analysis & Sediment Quality Objective

# TMDL Schedule to Board Hearing

- October 14, 2008 – Public Workshop & CEQA Scoping Meeting
- January 2009 – Complete Draft TMDL Staff Report for Peer Review
- April - May 2009 – Address Peer Review Comments, Complete CEQA Documentation, and Prepare TMDL Staff Report and BPA for Public Review
- August 2009 – Regional Board Hearing

Overview of Technical Report  
for the TMDLs for  
Toxic Pollutants in Sediment for  
the Mouths of Paleta, Chollas,  
and Switzer Creeks in San Diego  
Bay

# Toxic Pollutants in Sediment TMDLs

- Impairment Assessment Overview
- Numeric Targets
- Sources
- Linkage Analysis
- TMDLs
- Discussion: Allocations
- Discussion: Margin of Safety

# Impairment Assessment Overview

- 303 (d) Listed based on Bay Protection Toxic Cleanup Program Data – Toxic Hotspots
- Toxicity and Pesticide Narrative Objectives
- Phase I & Phase II Studies
  - Verified the Impairment
  - Spatial Distribution & Temporal Variability
  - Identified Cause of Impairment (TIE)

# Numeric Targets

Total PCBs	110 $\mu\text{g}/\text{kg}$	(So. Cal LRM T20)
Total PAHs	3,286 $\mu\text{g}/\text{kg}$	(So. Cal LRM T20)
Chlordane	2.8 $\mu\text{g}/\text{kg}$	(So. Cal LRM T20)
Lindane	0.32 $\mu\text{g}/\text{kg}$	(TEL)

# Sources

- Identified Sources
  - MS4s (City & Caltrans)
  - General Statewide Storm Water Permits (Industrial Facilities & Construction Sites)
  - Atmospheric Deposition
  - Sediment Flux
  - Sediment Resuspension
  - Leaching from Creosote Pilings
  - Ballast Water
  - Oil Spills
  - Bilge Water

# Linkage Analysis

- Watershed Model

Links Sources to the Receiving Water

- Bay Model

Simulates Assimilative Capacity using the output of the Watershed Model and other sources

# TMDLs and WLAs

PCBs				
Waterbody	TMDL/WLA	Existing Load	Reduction Required	
	g/d	g/d	g/d	%
Paleta Creek	6.35E-02	6.35E-02	0.00E+00	0%
Chollas Creek	2.47E-01	2.47E-01	0.00E+00	0%
Switzer Creek	3.27E-02	3.27E-02	0.00E+00	0%

# TMDLs and WLAs

PAHs				
Waterbody	TMDL/WLA	Existing Load	Reduction Required	
	g/d	g/d	g/d	%
Paleta Creek	0.00E+00	1.08E+02	1.08E+02	100%
Chollas Creek	8.51E+01	4.07E+02	3.22E+02	80%
Switzer Creek	2.80E+01	3.50E+01	7.00E+00	20%
Chlordane				
Waterbody	TMDL/WLA	Existing Load	Reduction Required	
	g/d	g/d	g/d	%
Paleta Creek	2.23E-03	5.14E+00	5.14E+00	100%
Chollas Creek	1.37E-01	1.09E+01	1.08E+01	99%
Switzer Creek	4.50E-02	3.09E+00	3.04E+00	99%
Lindane				
Waterbody	TMDL	Existing Load	Reduction Required	
	g/d	g/d	g/d	%
Switzer Creek	7.64E-03	3.27E-02	2.50E-02	77%

# For Discussion: Allocations

At Issue – 1 WLA for Entire Watershed

Options –

- 1 WLA at bottom of watershed
- Allocate based on percent area in Watershed
- Qualitative assessment to determine contributing LUs, then allocate to those sources based on percent of land area

# For Discussion: Margin of Safety

At Issue: Implicit and/or Explicit MOS

Presently, Implicit MOS is included by the use of conservative assumptions in the model analysis.

Question: Should we include an Explicit MOS?

# Work Group Discussion

## Implementation Strategies & Options

# Implementation Options

- Implementation Plan Options
  - Compliance Time
  - Interim Targets
- Implementation Actions
  - Actions to consider for Load Reductions
  - Actions to consider for addressing Legacy Pollutants

# Implementation Strategy for Load Reductions

- Actions may include:
  - Source control of sediment transport:  
Structural & Non Structural BMPs
  - Creek restoration to prevent sediment erosion
  - Creosote piling replacement

# Implementation Strategies for Bay Sediment – Legacy Pollutants

- Actions may include:
  - No Action
  - Capping
  - Dredging
  - Some Combination of Dredging and Capping
  - Other Ideas?