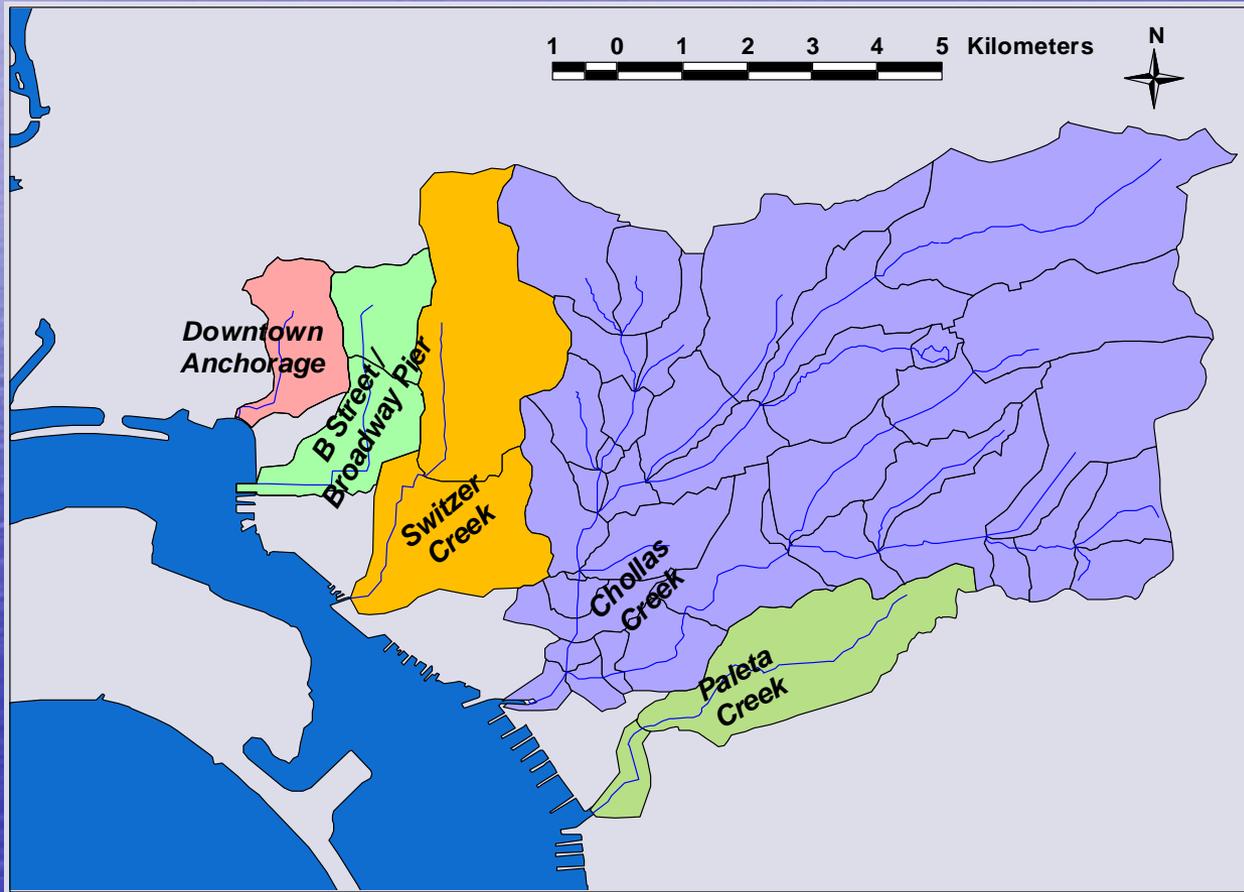


**Overview of the
TMDL Development
Approach for
San Diego Bay Toxic
Pollutants in Sediment
TMDLs**

November 19, 2012

San Diego Bay Toxic Sediment Sites Watersheds



Background Information

- Identified as Toxic Sediment Sites based on Bay Protection Toxic Cleanup Program Data – 303 (d) Listed

CWA 303(d) List

- **Paleta Creek Mouth (7th Street Channel)**
- **Chollas Creek Mouth**
- **Downtown Anchorage Shoreline Area**
- **B St./Broadway Piers Shoreline Area:**
 - Sediment Toxicity
 - Benthic Community Effects
- **Switzer Creek Mouth:**
 - Chlordane
 - PAHs
 - Other unknown pollutants causing sediment toxicity and degraded benthic conditions

Background Information

- Identified as Toxic Sediment Sites based on Bay Protection Toxic Cleanup Program Data – 303 (d) Listed
- Sediment Quality Objectives – Benthic Community Protection & Human Health
- Phase I & Phase II Studies (2004-2005)
 - Verified the Impairments
 - Identified Cause of Impairments (TIE

Approach for Restoring Beneficial Uses

- Control Discharges to Impaired Waterbody
 - Establish TMDLs
 - WLAs for Controllable Watershed Discharges
 - LAs for Atmospheric Deposition
 - Sediment Concentration Targets
 - Water Column Concentration Targets
 - Fish Tissue Concentration Target
 - Incorporate Requirements into Permits
- Sediment Remediation of Legacy Pollutants in San Diego Bay Impaired Areas

Technical TMDL Development

$$\text{TMDL} = \sum \text{WLA} + \sum \text{LA} + \text{Bkg} + \text{MOS}$$



Calculation of Technical TMDLs for Watershed Discharges

- Watershed Model (LSPC)
Links Sources to the Receiving Water
- Bay Model (EFDC)
Simulates Assimilative Capacity using the output
of the Watershed Model and other sources

Approach for Restoring Beneficial Uses

- Control Discharges to Impaired Waterbody
 - Establish TMDLs
 - WLAs for Controllable Watershed Discharges
 - LAs for Atmospheric Deposition
 - Sediment Concentration Targets
 - Water Column Concentration Targets
 - Fish Tissue Concentration Target
 - Incorporate Requirements into Permits
- Sediment Remediation of Legacy Pollutants in San Diego Bay Impaired Areas

Implementation Plan for the Paleta/Chollas/Switzer Creek Mouths Project

- Phased Implementation of Watershed Load Reductions
- Load Reductions through BMP Implementation
- Sediment Remediation in Creek Mouth Areas
- Monitoring Requirements
- Includes a Re-Opener Clause