

# Background on Numeric Targets for the Newport Bay Watershed



Regional Water Quality Control Board  
Santa Ana Region

Workshop 2  
January 30, 2014

# Purpose

- Provide context for the numeric targets in the 2009 Draft Staff Report

# Evaluating Need for Site-Specific Objectives (SSOs)

- Order R8-2004-0021
  - Required NSMP to assess whether development of SSOs for Se for the watershed were appropriate and/or necessary
- Independent third-party advisory panel reviewed work products and provided guidance to NSMP
  - Panel selected and managed by National Water Research Institute
  - The charge to the Panel was to assist the NSMP in determining whether to pursue the development of site-specific objectives (SSO) for Se

# Independent Advisory Panel

- Chair: Brock B. Bernstein, Ph.D., Independent Consultant
- Gerald Combs, Ph.D., Agricultural Research Service, U.S. Department of Agriculture
- Roger L. Hothem, U.S. Geological Survey
- Mohsen Mehran, Ph.D., Rubicon Engineering, Inc.
- Roy A. Schroeder, Ph.D., U.S. Geological Survey
- JoAnn Silverstein, Ph.D., P.E., University of Colorado, Boulder

# Panel Conclusion

- ❖ The Panel supports the NSMP's provisional decision to proceed with developing an SSO for Selenium for the Newport Bay watershed
  - Se is bioaccumulated primarily via diet, not water (may be under- or over-protective)
  - Tissue-based criteria would provide direct connection to protection of beneficial uses

# Panel Recommendations

The NSMP should ensure that the following three conditions are met as it proceeds with developing the SSOs:

- Any SSO must meet all applicable regulatory requirements, particularly those related to preventing any degradation or deterioration of existing water quality and related beneficial uses.
- The NSMP should work closely with the current interagency effort, the State Technical Review Committee (STRC), to develop Se standards for the State of California.
- The Panel recommends that the NSMP periodically revisit the findings and assumptions underlying the decision about how to proceed with an SSO.

# SSO Development Process

- December 2006 – NSMP submitted rationale to proceed with SSO development
- March 2007 – Regional Board approved decision to proceed with SSO development
- 2007-2009 – meetings with State and Federal resource and regulatory agencies
  - USEPA
  - USGS
  - USFWS
  - SWRCB
  - SARWQCB
  - NSMP
  - NSMP consultant team (LWA, RBF, CH2M Hill)

# Recommended SSOs

- USGS and USFWS staff recommended a SSO for Se in whole body fish
  - 5.0  $\mu\text{g Se/g dw}$
- USFWS also recommended a SSO for Se in individual bird eggs
  - 8.0  $\mu\text{g Se/g, dw}$
- Both recommendations were endorsed by USEPA staff



# TMDL Numeric Targets

- Original decision to develop joint Basin Plan Amendment for TMDL and SSOs
  - SSOs would be basis for numeric targets
- Since that time, regulatory approach has been revised:
  - First, Basin Plan Amendment to establish TMDL
  - Second, Basin Plan Amendment for SSOs