Water Quality Report Card

Regional Water Board: Santa Ana, Region 8
Beneficial Uses Affected: COMM, SHELL, SPWN, RARE, WILD, BIOL, WARM, EST, MAR
Implemented Through: Statewide General Construction Permit, MS4 Permit, Sediment TMDLs, USACE Actions, Non-Regulatory Actions
Effective Date: July 2013
Attainment Date: December 2020

Organochlorine Compounds in Newport Bay Watershed

STATUS
☐ Conditions Improving
☐ Data Inconclusive
☐ Improvement Needed
☐ Targets Achieved/Water Body Delisted

Pollutant Type: ☐ Point Source ☐ Nonpoint Source ☑ Legacy

Water Quality Improvement Strategy

In July 2011 the Santa Ana Regional Water Board approved a revised Basin Plan Amendment to adopt TMDLs for legacy organochlorine compound (OC) pesticides and polychlorinated biphenyls (PCBs) for Lower and Upper Newport Bay, and San Diego Creek. The OC pesticides addressed by these TMDLs include PCBs, dichloro-diphenyl-trichloroethane (DDT), chlordane, and toxaphene. The Regional Water Board’s revised OC TMDLs were approved by the USEPA in November 2013. These TMDLs replace the OC portion of the USEPA’s technical TMDLs for toxic constituents that were promulgated in 2002 for the Newport Bay Watershed. The TMDLs implementation plan employs a phased adaptive management approach that focuses on actions to accelerate the decline in OC concentrations in the Newport Bay Watershed. This will be accomplished by augmenting the natural attenuation of the OC pesticides through the implementation of Best Management Practices (BMPs) that either reduce erosion and thereby, reduce the transport of fine sediment that OC pesticides tend to adhere to into surface waters, or by reducing in situ sediment loads in surface waters through dredging or capping of contaminated sediments.

Total DDT & PCBs in Bivalve Tissue: Newport Bay at Police Docks

![Graph showing total DDT & PCBs in bivalve tissue from Newport Bay at Police Docks]

Total DDT & PCBs in Bivalve Tissue: San Diego Creek Basin 2

![Graph showing total DDT & PCBs in bivalve tissue from San Diego Creek Basin 2]

Water Quality Outcomes

- Several dredging projects in Upper and Lower Newport Bay, including the Rhine Channel, a high priority toxic hotspot, have been completed. Dredging has resulted in the removal of more than 3.1 million cubic yards (CY) of sediment, including approximately 112,200 CY of highly contaminated sediment.
- The closure and redevelopment of two military bases in Tustin and Irvine have resulted in reductions in sediment erosion from these two potential sources of OC pesticide contamination.
- Since 2006, the Regional Water Board has managed a program to track trends in bioaccumulative contaminant concentrations, including OCs, in multiple media in both fresh and salt waters in the watershed.
- TMDL stakeholder monitoring is being coordinated with the trend monitoring program, to assess OC pesticides in the watershed.
- A preliminary statistical trend analysis of these programs’ data indicates that legacy OC pesticide contaminant concentrations in fresh and saltwater bivalve tissue are declining at most stations.

December 2015