

Frequently Asked Questions about the U.S. EPA's proposed standards for Malibu Creek

Why is the JPA affected by water quality standards for Malibu Creek?

Wastewater from sewer service customers flows to the Tapia Water Reclamation Facility (Tapia) which is operated by the JPA. Tapia produces fully treated recycled water, used to irrigate parks, golf courses, freeway landscapes, etc. In the winter, some of the recycled water is released to Malibu Creek because there is not enough demand for it. Recycled water is not released from mid-April to mid-November, except in very hot, dry summers to keep the creek from drying out and impacting endangered fish. This release is regulated under a National Pollutant Discharge Elimination System (NPDES) permit issued by the Regional Water Quality Control Board under U.S. EPA oversight. Tapia's recycled water meets all water quality limits to ensure it is safe for human contact and protective of the health of the creek.

What is the U.S. EPA's TMDL for Benthic Macroinvertebrates in Malibu Creek all about?

The Clean Water Act of 1972 regulates the discharge of pollutants into water bodies. It also sets water quality standards for the nation's surface waters. Section 303(d) of the Act requires each state to develop a list of impaired waters and to identify the impairments that prevent beneficial use of the waterbody. A "TMDL" is then prepared to address the impairment. TMDL stands for Total Daily Maximum Load, which is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards for human contact and the health of the creek.

In 1999, Heal the Bay and Santa Monica Baykeeper sued the EPA over delays in preparing over a hundred TMDLs for several waterbodies. All parties entered into a Consent Decree which put EPA on a schedule to complete the TMDLs. In 2010, a revision to the Consent Decree added an extra TMDL for "benthic macroinvertebrate bioassessment" in Malibu Creek. The deadline to establish the TMDL was set for March 24, 2013.

What are "benthic macroinvertebrates"?

Benthic macroinvertebrates are small spineless aquatic insects and other creatures that live among the sediments and stones on the bottom of streams, rivers and lakes. "Benthic" refers to the bottom of a waterbody where the insects live. Examples are insect larvae, leeches, worms, shrimp, clams, mussels and snails.

What do the benthic macroinvertebrates have to do with water quality?

Aquatic insects that live on the bottom tend to remain in the same place for long periods of time, long enough to be affected by local changes in water quality. They respond to environmental stressors like trash, pesticides, oil, etc., in different ways. Unlike a single property test like pH or temperature, these aquatic insects are good indicators of the overall quality of the stream they live in.

In theory, the health of many stream systems can be determined by counting these small animals and comparing the result with an index established for southern California freshwater streams known as the southern California IBI index or Index of Biotic Integrity.

So what is wrong with using this approach for Malibu Creek?

The IBI index used for the TMDL was developed for freshwater streams with permanent flow, not for natural brackish waters such as Malibu Creek, which also dries up in many locations in the summer months. The brackish or salty condition is due to the influence of the Monterey Formation, a petroleum-source rock present in the watershed. Both of these factors – intermittent drying and naturally high salt levels – can lead to low IBI scores. The TMDL ignores this problem, and claims a reduction in algae will improve the creek's IBI scores. It also claims that this algae reduction can only be achieved by reducing the nitrogen and phosphorous levels in the creek.

How will it affect me?

It is estimated that the infrastructure cost to further reduce nitrogen and phosphorus in our recycled water discharges is \$160M (2005 estimate). The treatment includes a reverse osmosis process. There would also be additional costs to purchase land for the treatment site and on-going costs for operation, facility maintenance and disposal of the brine, a treatment by-product. Estimated share for each sewer customer to build the facility is about \$4,200 plus the other costs.

What are the other concerns?

1. The ratepayers who are not a party to the Consent Decree will bear the cost for compliance.
2. In 2003, a similar TMDL cost over \$10M in treatment infrastructure, including stopping of discharges for 7 months of the year, has not demonstrated any water quality improvement in Malibu Creek.
3. The rush to adopt the TMDL can result in inconsistencies with the State's current efforts to establish adequate science for biological objectives, and to establish policies for both biological objectives and nutrient controls in surface waters.
4. Greater scientific rigor is needed to show that the TMDL will achieve the desired outcome, especially in Malibu Creek, which has naturally high levels of salts and other compounds known to impact aquatic insects.

How can I help?

Be informed and talk to your neighbors. Go to www.lvmwd.com to learn more about this topic and how you can help us provide you cost-effective sewer service while serving as a steward of the environment.