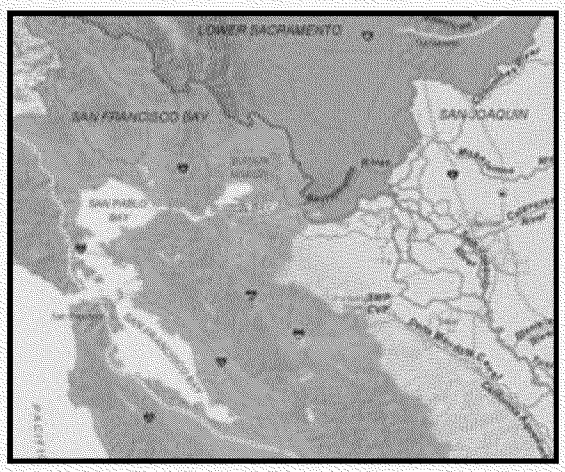
Advance Notice of Proposed Rulemaking—February 10, 2011
Water Quality Challenges in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary
U.S. Environmental Protection Agency



The U.S. Environmental Protection Agency Region 9 (EPA) issued an Advance Notice of Proposed Rulemaking (ANPR) on February 10, 2011. This ANPR initiates an EPA assessment of the effectiveness of current programs designed to protect water quality and aquatic species habitat in the San Francisco Bay/ Sacramento-San Joaquin Delta in California (Bay Delta Estuary). Through the ANPR, EPA is soliciting public input on how water quality and aquatic resource protection goals can be achieved in the Bay Delta Estuary.

The ANPR discusses water quality contaminants including ammonia, selenium, and pesticides, as well as physical characteristics such as temperature, salinity and wetland habitat that are important to aquatic species. It also summarizes the regulatory framework for each of these stressors. EPA is soliciting comment on how to best use Clean Water Act programs to improve Bay Delta Estuary water quality. No new rules are proposed and the ANPR has no regulatory effect. The ANPR and associated materials are available at www.epa.gov/region9/water/watershed/sfbay-delta.

The Bay Delta Estuary is the hub of California's water distribution system, supplying drinking water to 25 million people and irrigation water to 4 million acres of farmland. The Bay Delta Estuary supports 750 species of plants, fish and wildlife, making it one of the most ecologically diverse aquatic habitats on the West Coast. The Bay Delta Estuary and many of its tributaries are impaired for one or more parameters under the Clean Water Act. Estuarine habitat is shrinking and fish populations have plummeted to all-time lows. Several aquatic species are endangered or threatened under the Endangered Species Act. The system is no longer a reliable source of high-quality water, especially in the quantities demanded in recent years.

The Problem

Photo Credit: Chris Austin

Present water quality in the Bay Delta Estuary reflects the cumulative and interactive effects of multiple physical, chemical and biological stressors, including sewage flows, storm water discharges, agricultural return flows, urban and agricultural pesticide application, water diversions, habitat degradation and non-native species. Impacts associated with water pollution include toxicity to fish, invertebrates and their food sources. Deformities and reproductive problems have also been found in some aquatic species. The Bay Delta Estuary has become more hospitable to introduced and invasive species which compete with native species for limited food and alter the types and amounts of available habitat.

Photo credit: Chris Austin

Water diversions for agriculture and public water supply at times reduce the amount of estuarine habitat for aquatic species and interfere with chemical cues used by salmon to navigate to and from inland tributaries between the Estuary and the Pacific Ocean. Over time, the Estuary has lost more than 95% of its tidal wetlands, floodplains, and sloughs, destroying the majority of pollution filtration, flood storage services and important spawning habitat. Climatic trends also present challenges for managing estuarine resources, as salt water moves inland with sea-level rise and warmer water temperatures shorten spawning opportunities.

The Clean Water Act

The goal of the federal Clean Water Act is to protect the biological, physical, and chemical integrity of the Nation's aquatic resources. Water quality standards are established under the Clean Water Act to protect a variety of uses, including drinking and agricultural water supply and aquatic species habitat.

The State of California, through the State Water Resources Control Board and the Regional Water Quality Control Boards, has the lead role in water quality and aquatic resource protection under the federal Clean Water Act and the State's water quality statutes. California protects water quality through efforts such as establishing water quality standards, developing and implementing watershed improvement plans, issuing waste discharge permits, and providing financial and technical assistance. The State and Regional Water Boards' Strategic Workplan for Activities in the Bay Delta Estuary is available at: http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/.

EPA and five federal partners describe a variety of actions and investments to support a healthy and sustainable estuary in the Interim Federal Action Plan (Action Plan) for the California Bay-Delta. These collaborative efforts are focused on securing a high-quality, reliable water supply and restoring environmental integrity and sustainability to the estuarine ecosystem. As poor water quality contributes to the water supply and ecological crisis in the Delta, EPA committed in the Action Plan to assess the effectiveness of Clean Water Act programs in protecting water quality. The ANPR initiates this assessment by seeking public input on the effects of water quality stressors and approaches to better protect water quality in the Bay Delta Estuary.

Photo credits: 1 & 2 Chris Austin; 3 Scott Campbell; 4 JD Richey

The Bay Delta Estuary ANPR and associated materials are available at

www.epa.gov/region9/water/watershed/sfbay-delta

Comments and Response

EPA encourages interested parties to read the ANPR and provide additional information and suggestions for actions to improve Bay Delta Estuary water quality and aquatic resource protection. Comments can be submitted electronically at the *Federal Rulemaking Portal* (www.regulations.gov) identified by docket EPA-R09- OW-2010-0976 or in hardcopy addressed to Erin Foresman, US Environmental Protection Agency, 75 Hawthorne Street, San Francisco, CA 94105.

EPA will use ANPR comments and existing information to assess the effectiveness of Clean Water Act programs in protecting water quality and the aquatic ecosystem in the Bay Delta Estuary. The evaluation will include recommendations for future actions that complement other activities in the Estuary. EPA will continue to coordinate our aquatic resource protection work under the Clean Water Act with our federal and state partners and their ongoing efforts such as the Bay Delta Conservation Plan, the activities of the State and Regional Water Boards and the Delta Stewardship Council's Delta Plan.