Bioaccumulation Monitoring Program - Coastal Study

What is it?

The Bioaccumulation Monitoring Program is part of a long-term effort to comprehensively monitor contaminants in sport fish in California waterbodies. With funding from SWAMP and oversight from the Bioaccumulation Oversight Group (BOG), the efforts to date have been focused on a two year screening survey of contaminants in sport fish from California lakes and reservoirs. Due to their vast number, high fishing pressure, and a relative lack of information on bioaccumulation, lakes and reservoirs were identified early on by the BOG as the first priority for SWAMP monitoring. Coastal waters were selected as the next priority, due to their importance for sport fishing and a relative lack of past monitoring. The coastal monitoring will be followed by monitoring in streams and rivers.

The current bioaccumulation monitoring of coastal waters is a two-year study that is being conducted in phases to facilitate coordination with other partners and to be more cost effective. In Year One, sampling will focus on the Southern California Bight and the San Francisco Bay plus adjacent coastal areas. Sampling in Year Two will cover those coastal areas not covered in Year One. The sampling will be focused on nearshore areas, including bays and estuaries, in waters not exceeding 200 meters in depth and mostly less than 60 meters deep. These are the coastal waters where most fishing occurs.

The three management questions guiding the 2009-2010 survey of the status of the bioaccumulation of pollutants in sport fish are:

1. For popular fish species, what percentage of popular fishing areas have low enough concentrations of contaminants that fish can be safely consumed?
2. What is the distribution of contaminant concentrations in fish within regions?
3. Should additional sampling of bioaccumulation in sport fish (e.g., more species or larger sample size in an area) be conducted for the purpose of developing comprehensive consumption guideline?

Why is it important to the State?

Bioaccumulation monitoring is a very effective and essential tool for evaluating status and trends of our waters. Monitoring status and trends via bioaccumulation will provide some information on the sources of pollutants and the pathways by which aquatic organisms are exposed to these chemicals. It also provides information on the effectiveness of management actions on a broader geographic scale. This is all very useful as the State is required to report on the status of its waters and to identify and report on impaired waterbodies. This project will collect data that contribute to our overall knowledge and provide a greater foundation for water quality assessments and decision making on coastal water resource issues.

Why is it important to me?

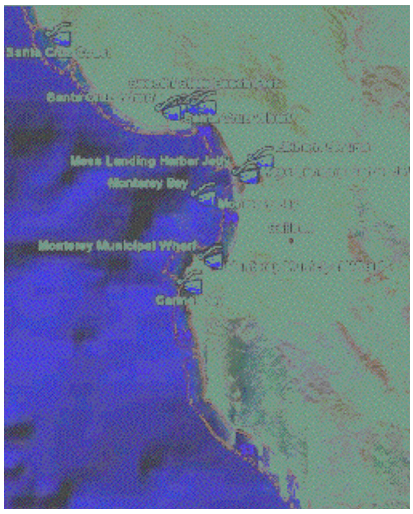
The design of this study allows for strong partnering in areas where existing monitoring is occurring. The result is that in Year One comprehensive data sets will be collected in Southern California and the San Francisco Bay area. These data will allow residents to understand more about where their waters are safe and healthy and where more help is needed to keep them clean.

How will this information be used?

This comprehensive data set will be used to support water quality decisions made by the local Regional Water Boards and the State Water Board. For example, in the past these types of data have provided the basis for hundreds of "listings" of impairment under Section 303(d) of the Clean Water Act. Additionally, water quality data are used to support NPDES permit revisions for municipal wastewater and stormwater discharges. Furthermore, water quality data support watershed planning and outreach efforts, and guide staff in making decisions about how to allocate grant funds. These data will be used by the Office of Environmental Health Hazard Assessment in the development of fish consumption advisories and safe eating guidelines. These advisories and guidelines may serve as the foundation for future Regional Board studies.

SWAMP Partners: Bight '08, San Francisco Estuary Regional Monitoring Program, California Department of Fish and Game, Office of Environmental Health Hazard Assessment, San Francisco Estuary Institute, Moss Landing Marine Laboratories

To learn more about the Bioaccumulation Monitoring Program, click here.



Subset of fishing zones for this survey.