ACTION 25 Address emerging contaminants

Advance the existing regional management strategy for contaminants of emerging concern (CECs), action plans for specific CECs, and the associated Regional Monitoring Program (RMP) CECs monitoring strategy. Support and expand existing education and public outreach efforts to reduce CECs.

TASK 25-1 Review and update San Francisco Bay CECs management strategy, action plans, and monitoring strategy every two years.

2016, 2018, 2020 Complete reviews and updates.

TASK 25-2 Support the continuation and evaluate the effectiveness of the regional education program aimed at reducing or eliminating the use of triclosan and triclocarban. Evaluate tools, such as non-purchase agreements, ordinances, or inclusion as a priority product by the California Department of Toxic Substances Control, to reduce personal care products containing triclosan or triclocarban.

BY 2018 Complete evaluations.

TASK 25-3 Support pharmaceutical CECs reduction efforts, like the Alameda County Safe Drug Disposal program and similar ordinances. Expand to other counties around the Bay and Delta. Work with counties to develop unified regional messaging to promote these ordinances.

BY 2020 Pass three additional ordinances in Bay and Delta counties.

BACKGROUND

Over 100,000 chemicals have been registered or approved for commercial use in the United States, and chemical production is growing globally. Lack of complete information about these chemicals limits the ability of scientists to assess their potential risk; as a result, many chemicals that have not been adequately tested for their potential impacts to humans and wildlife are continuously released into the environment, ultimately washing into aquatic ecosystems such as the San Francisco Estuary.

Some of these chemicals have been classified by the scientific community and regulators as contaminants of emerging concern. Characteristics used to identify CECs include high volume use, potential for toxicity in aquatic species, and occurrence in the environment. Determining which of the thousands of chemicals in commerce are CECs and whether or not they may be a problem is a formidable challenge. There are not enough data about the occurrence, persistence, and toxicity of the vast majority of chemicals in use today. Those data are needed to protect the beneficial uses of aquatic ecosystems.

Despite the information gaps about many CECs, San Francisco Bay is one of the most thoroughly monitored aquatic ecosystems in the world with respect to these chemicals, largely as a result of the collaborative Regional Monitoring Program (RMP) established through the 1993 CCMP. RMP studies are providing evidence that actions taken to reduce the uses of CECs and their input to the Estuary can be effective in lowering concentrations in wildlife, as seen with flame retardants (PBDEs).

Monitoring CECs is also essential for protecting the beneficial uses of the waters of the Delta. Partnerships are evolving as the Delta Regional Monitoring Program takes advantage of the lessons learned in the Bay. As stated in the 2011 *Pulse of the Delta*, collaboration on prioritization approaches and projects of mutual interest can reduce costs, maximize program effectiveness, and increase the collective understanding of CEC occurrence and fate in the upper and lower Estuary.

A recent pilot study of microplastic pollution in San Francisco Bay has demonstrated higher levels of microplastics in the Bay than in either the Great Lakes or Chesapeake Bay. Microplastics come from personal care products with microbeads, synthetic clothing, plastic bags, polystyrene foam packaging, and other disposable plastic items. These tiny particles can pass through wastewater treatment plants and be carried by stormwater into the Estuary. Toxins in the plastics can contaminate water and enter aquatic food chains. Fish and wildlife can mistake microplastics and other trash particles for food.

This CCMP action supports continued efforts to address CECs through both research and monitoring and, in related actions, through trash capture and abatement.

OWNERS

Bay Area Pollution Prevention Group-BAPPG (Tasks 25-2, 25-3)
California Product Stewardship Council (Tasks 25-2, 25-3)
SF Bay Regional Water Quality Control Board (Task 25-1)
SF Estuary Institute (Task 25-1)
SF Estuary Partnership (Tasks 25-2, 25-3)

COLLABORATORING PARTNERS

Municipalities

NEXUS

Actions 1, 12, 27, 30
Goals 1, 3, 4
Objectives a, c, i, j