



Media Release

Regional Water Board adopts permit requiring critical investments to protect San Francisco Bay

Necessary sewage treatment upgrades over next decade will limit threat of 'red tides' that endanger water quality, aquatic species

July 10, 2024

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OAKLAND – To help protect water quality and aquatic life in San Francisco Bay for generations to come, the San Francisco Bay Regional Water Quality Control Board adopted a permit today that will for the first time require nutrient reductions for all wastewater treatment plants discharging into the bay.

The new permit, adopted under the Clean Water Act after years of monitoring and research, will go into effect Oct. 1. It requires that 40 sewage treatment plants must collectively reduce nitrogen discharges by 40% compared to 2022, when [a "red tide" harmful algal bloom \(HAB\)](#) triggered a massive fish kill in the San Francisco Bay. Nutrients are discharged into the bay from sewage treatment plants' wastewater. Excessive nutrients are a major contributor to HABs, which cause a dramatic depletion in dissolved oxygen levels, killing aquatic species.

Toxins from HABs can cause illnesses through direct contact, inhalation, and fish and shellfish poisoning. HABs can be particularly devastating to indigenous communities and subsistence fishers.

"This permit will significantly reduce the likelihood of large harmful algal blooms and resulting fish kills, and it represents a significant investment by Bay Area wastewater agencies to come together to improve the health of San Francisco Bay for all," said Alexis Strauss Hacker, chair of the San Francisco Bay Regional Water Board. "The permit is based on many years of monitoring and research with our partners, namely the Bay Area-wide wastewater agencies and the San Francisco Estuary Institute. By reducing nitrogen loadings to the bay over the coming decade, we will strengthen protection of water quality for all in the region."

Under the permit, sewage treatment plants have 10 years to complete necessary improvements. Some already have completed improvements or are undertaking construction. Many others are planning improvements. And some will require major upgrades that could take years to complete.

Rather than taking a one-size-fits-all approach to solving the problem of nutrients in the bay, the permit offers sewage treatment agencies many options to comply,



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ranging from optimizing existing systems to constructing entirely new treatment processes. Nature-based approaches, such as [treatment wetlands](#), can provide multiple environmental and community benefits in addition to nutrient removal. Wastewater recycling can reduce nutrient discharges while augmenting water supplies. The regional water board encourages multi-benefit projects and the use of innovative technologies.

There is also flexibility for dischargers to find and implement cost-effective options.

Preventing red tides in the years to come will help protect public health, efforts to protect endangered species and the region's economy. Tourism, for instance, generates an estimated \$9 billion a year for the region and can be negatively impacted by red tides in the San Francisco Bay, as is also the case for commercial fishing (a \$23 million-a-year industry), sport fishing (\$100 million annually) and subsistence fishing.

The mission of the San Francisco Bay Water Board is to preserve, enhance and restore the quality of California's water resources for the protection of the environment, public health and all beneficial uses, and to ensure proper water resource allocation and efficient use for the benefit of present and future generations. More information about the regional board can be found on its [website](#).