



STATE OF OUR ESTUARY: 2025 Executive Summary

ABOUT THE *STATE OF OUR ESTUARY* WEBSITE

For many years, the *State of the Estuary Report* has provided the most comprehensive assessment of the health of the San Francisco Estuary. Now re-envisioned as a [website](#), the Our Estuary site continues to track problems and progress to inform solutions.

How Healthy is the San Francisco Estuary?

A healthy Estuary supports thriving habitats, wildlife, and communities. It sustains natural processes like floods and sediment transport, ensures clean water, and provides recreational opportunities.

The San Francisco Estuary is where the fresh waters of the Sacramento and San Joaquin Rivers meet the salt water of the Pacific Ocean. Since the 1800s, the Estuary has suffered severe degradation: natural processes like floods and sediment movement disrupted, water polluted, wetland habitats lost, and wildlife in decline. With natural resources diminished, the Estuary furnished fewer benefits to people. But the 1960s marked a turning point, beginning with regulations to limit filling the Bay, followed by landmark laws such as the Clean Water Act and Endangered Species Act.

Where the approaches to restore ecosystem health are well-understood and managers have taken action, results are visible. Restoration has expanded tidal marshes and likely boosted the population of marsh-dependent birds, and clean water regulations mean it's now usually safe to swim in the Bay.

However, some problems are physically difficult to address, or their solutions come with social and economic trade-offs. Clean water regulations have reduced new pollution, but long-lived contaminants persist. The Estuary's health is intertwined with freshwater input, which has declined for decades due to human demands for water. On top of these pressures, alterations in precipitation, temperature, and sea level make it all the more urgent to restore processes that make the Estuary resilient to change.

A high-level look at the Status & Trend Scorecard shows most Bay indicators are in Fair condition and stable, while most Delta indicators are in Poor condition and declining. But closer examination reveals bright spots of progress, showing that a healthier, more resilient ecosystem is possible.

Above: The waters of the San Francisco Estuary, courtesy of SFEI.



Top left: People swimming in the Delta, courtesy of Mark Jones, MTC. Top right: A Marbled Godwit stands on a bed of eelgrass at low tide. Bottom left: View of Hamilton Wetlands, courtesy of Shira Bezalel, SFEI. Center right: A river otter with a starry flounder. Bottom right: People tour the shoreline, courtesy of Ben Botkin, SFEP.

KEY FINDINGS

Wetland restoration projects are increasing the amount of tidal marsh in the Estuary, providing support for native wildlife and benefits for people. The Bay now has 57,800 acres—more than half the regional goal of 100,000—while the Delta grew from 8,000 to 13,000 acres over five years, mainly due to the 3,000-acre Lookout Slough project completed in 2024.

Bird densities are increasing for two species associated with tidal marshes, suggesting that restoration efforts are boosting their populations.

Populations of Black Rails and yellowthroats are rising, while Song Sparrows are stable.



A lack of seasonal flooding has reduced important habitat types for native fish and birds in the Bay and Delta. In most years, not enough fresh water is released from the upper watershed to spread across historic floodplains upstream of the Delta, or for low-salinity water to fill the wetlands in Suisun and the North Bay. Native fish and birds suffer without access to these seasonal habitats.



Native fish continue to do well in the Bay and poorly in the Delta. Poor conditions in the Delta are tied to reduced inflows, invasive species, and pollution, though wet years still bring rebounds near restored floodplains.

Contaminants such as mercury and selenium continue to threaten the health of fish and birds in the Bay, whereas copper has declined to acceptable levels. Mercury and selenium illustrate how challenging it can be to remove contaminants, even after regulatory targets have been set. Meanwhile, scientists are attempting to evaluate the hazards posed by contaminants of emerging concern in the Bay.

Shorebirds are declining across the Bay, while wintering waterfowl populations are improving in some regions of the Bay and declining in others. Dabbling and diving ducks are increasing where ponds have been restored, but shorebird declines are widespread.



Less freshwater flows through the Estuary because an increasing proportion of inflows is diverted, causing problems for open water habitat. Reduced inflows create chronic artificial drought conditions, deprive native fish of nursery habitat, and drive reverse flows that cause fish mortality in the Delta.

Some Estuary fish are not safe for eating due to high levels of harmful contaminants. Mercury and PCBs limit the amount of fish people can safely eat, especially for sensitive groups such as children and women of childbearing age. There are consumption advisories in place that indicate which species are safest to eat.

Large areas of subsided lands exist in the Delta and to a lesser extent in the Bay, limiting land use and increasing flood risk. Subsidence raises flood risk and makes restoration efforts lengthier and more expensive. A new sediment indicator is being developed to understand the capacity of wetlands to respond to sea level rise.

Water quality at most Bay beaches is safe for swimming; however, a few San Mateo County beaches have dangerous levels of bacterial contamination. Three-quarters of monitored beaches have excellent water quality. The glaring exceptions are beaches in artificial lagoons with poor water circulation, where animal waste accumulates.

The South Bay and Suisun are in better condition than the rest of the Estuary regarding shore softness, with open space and duck clubs fronted by intertidal features that help absorb wave energy. In contrast, the North Bay and Delta have more hardened shorelines, and the Central Bay has the hardest shoreline because it is dominated by cities fronted by open water.



The Estuary supports and is supported by people in many ways, and new indicators are being developed to better capture this relationship. For people to feel invested in the Estuary's future, they need to understand the ecosystem, spend time in it, and have a say in its management.

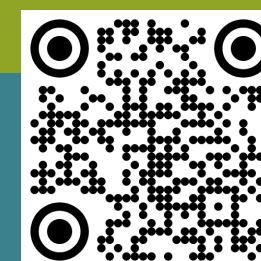
Planning for a Healthy Estuary

Sustaining and reviving the Estuary will require the commitment of the region's communities working in tandem with scientists and local, state, and federal government. The Estuary Blueprint is a companion to the State of Our Estuary and serves as a roadmap to restore the Estuary's environmental health. The Blueprint and other regional efforts that set priorities, identify management actions, and track progress are key to rallying support and coordinating efforts to achieve a healthier Estuary.

2025 Status & Trend Scorecard

The following page presents the scorecard from October 2025. Because metrics are updated on a regular basis, for the most up-to-date scores, view our online scorecard at ourestuary.org/indicators/.

Top left: Song Sparrow. Top right: Aerial view of the Delta, courtesy of DWR. Bottom left: An egret in a marsh, courtesy of Shira Bezalel, SFEI. Bottom right: View of Grizzly Slough in Suisun Marsh.



This site is managed by the San Francisco Estuary Partnership and was built and is hosted by the San Francisco Estuary Institute.



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SFEI San Francisco Estuary Institute

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STATE OF
OUR ESTUARY

STATUS



Good



Fair



Poor

TREND



Improving



No Change



Declining



Mixed



Not Available

Indicator	Definition	Status & Trend		Indicator	Highlight	Last Update
Clean Water						
Freshwater Flow	Amounts, timing, and variability of fresh water flowing into the Estuary compared to the flows that would have occurred without dams and water diversions	ESTUARY		1/2	Freshwater flow to the Estuary has been reduced by nearly half.	2025
Safe for Aquatic Life	Concentrations of toxic pollutants in water and fish from the Bay	BAY			Over a hundred pollutants are routinely monitored and some are found to exceed regulatory thresholds in fish, endangering the health of the food chain.	2025
Flourishing Wildlife						
Native Fish	Abundance, species diversity, species composition, and distribution of native fishes in the San Francisco Estuary	BAY DELTA			Declines in native fish abundance and diversity are influenced by drought, reduced outflow, and poor recruitment for key species.	2025
Harbor Seals	Adult harbor seal abundance in the San Francisco Bay during the breeding season (under development)	BAY			As of the 2015 update, harbor seal population numbers had not improved significantly since the 1970s.	2015
Ridgway’s Rail	Ridgway’s Rail population density in tidal marsh habitats of the San Francisco Bay (under development)	BAY			As of the 2015 update, the endangered California Ridgeway’s Rail population had declined to fewer than 1200, one fifth of the long-term goal for 5500 birds	2015
Shorebirds	Winter densities of migratory shorebirds in the San Francisco Bay	BAY			Shorebirds are declining in the Bay and across the broader Pacific Flyway, but more monitoring is needed to disentangle the local versus regional causes.	2025
Tidal Marsh Birds	Breeding population density for three tidal marsh bird species in the San Francisco Bay	BAY		no change	The index of tidal marsh birds is increasing at a rate of 1% per year since 1996. Of the three bird species tracked, two showed an increase in population density.	2025
Waterfowl	Winter abundance for dabbling and diving ducks in the San Francisco Bay	BAY		North Bay Central Bay South Bay	Dabbling and diving ducks are thriving in some sub-regions of the Bay, but declining in others. One likely factor is different approaches to conserving pond habitat.	2025
Quality Habitat						
Eelgrass	Area of the most common type of native underwater plant in the San Francisco Bay (under development)	BAY		1/3	In 2014, there were 2,790 acres of Eelgrass in the Bay, covering just 35% of potential habitat area.	2015
Open Water Habitat	Net downstream flows through the Delta and the presence of low-salinity habitat in Suisun and San Pablo Bays	BAY DELTA		3 out of 10	Good-quality, low-salinity habitat in Suisun and San Pablo Bays has occurred in fewer than 3 of every ten years.	2025
Tidal Marsh	Extent of tidal marsh, including tidal marsh restoration projects, in the Estuary	BAY DELTA		Target: 100,000 acres Progress: 58%	As of 2024 there are nearly 57,800 acres of tidal marsh in the Bay, almost 58% of the regional 100,000 acre goal.	2025
Resilient Processes						
Beneficial Floods	Extent to which freshwater flows create seasonal floodplain habitat upstream of the Delta and low-salinity habitat in the Bay	BAY DELTA			High-quality floodplain habitat conditions have occurred in just 6 out of 74 years.	2025
Migration Space	Amount of protected and undeveloped uplands where tidal habitats can shift inland as sea levels rise (under development)	ESTUARY			The 2015 report indicated that only a quarter of marsh migration space is undeveloped and protected.	2015
Soft Shores	Type and distribution of land cover along the shoreline, with undeveloped land ranked as softest	BAY DELTA		40%	On a scale of 0-100%, the Bay scores a 38% and Delta-Suisun scores 43% (averaging to roughly 40% across the Estuary) on the softness of their shores, which helps the Estuary's shoreline be resilient to flood waters and rising seas.	2025
Subsided Lands	Land area in the Estuary that has sunk below historical elevation levels and land management practices that reverse or halt the subsidence process	BAY DELTA		380,000 acres	380,000 acres of land (about 43%) have subsided below tidal elevation in the Delta alone.	2025
Thriving Communities						
Safe for Eating	Concentrations of toxic contaminants (mercury and polychlorinated biphenyls, or PCBs) in fish from the Estuary	BAY DELTA		PCBs Hg Mercury	Mercury and PCBs are of high concern in the Bay and have not declined in 30 years of monitoring.	2025
Safe for Swimming	Level of pathogens (microscopic organisms that can cause illness) in Estuary water	BAY			22 of 30 (73%) of Bay beaches rated excellent (A+ or A grades) for summer water quality in 2023.	2025

FOR MORE INFORMATION: ourestuary.org