

Important Documents Pertaining to the Ecological Health of Tidal Wetlands and the Bay:

San Francisco Bay Shoreline *Adaptation Atlas*: Working with Nature to Plan for Sea Level Rise Using Operational Landscape Units – A 2019 report produced by the San Francisco Estuary Institute that provides a science-based framework that introduces the concept of Operational Landscape Units (OLU) for the San Francisco Bay Shoreline and identifies potential sea level rise adaptation strategies that should be considered for each of the shoreline OLU. <https://www.sfei.org/projects/san-francisco-bay-shoreline-adaptation-atlas>

Baylands Ecosystem Habitat Goals - a report of recommendations prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project (originally published in 1999 US EPA and SFBRWQCB and updated in 2015 to incorporate recommendations to address climate change) regarding actions necessary to protect the San Francisco Bay ecosystem. The 1999 identified and described important habitats within San Francisco Bay, document recommended the protection and restoration of 100,000 acres of tidal wetlands. 1999 document - <https://www.sfei.org/documents/baylands-goals>
2015 update - [https://www.sfei.org/sites/default/files/biblio_files/Baylands Complete Report.pdf](https://www.sfei.org/sites/default/files/biblio_files/Baylands_Complete_Report.pdf)

Bay Conservation and Development Commission (BCDC) Regional Shoreline Adaptation Plan Guidelines – Senate Bill 272 passed in 2023, requires all local governments along the coast and along the shoreline of San Francisco Bay submit sea level rise adaptation plans by 2034. BCDC was mandated by SB 272 to develop a set of guidelines for all local governments within BCDC's regulatory jurisdiction, to follow in the development of their shoreline adaptation plans. The Guidelines include a list of information that must be considered during the development of local shoreline adaptation plans. <https://www.bcdc.ca.gov/wp-content/uploads/sites/354/2024/11/Appendix-B-Regional-Shoreline-Adaptation-Plan-spread.pdf>

Estuary Blueprint San Francisco Estuary Partnership – Implementation Strategy based on identified habitat goals for the San Francisco Bay estuary and its watersheds. The strategy calls for an increase in the pace and scale of protection, restoration, and enhancement actions for habitats of the Bay. <https://www.sfestuary.org/estuary-blueprint/>

Restoring the Estuary San Francisco Bay Joint Venture – The San Francisco Bay Joint Venture (SFBJV), is a “public-private partnership with a mission to protect, restore, increase, and enhance habitats throughout the San Francisco Bay region for the benefit of birds, other wildlife, and people. *Restoring the Estuary* provides a “well-researched and achievable vision for the restoration of the Estuary and other important habitats throughout the SFBJV region. It embraces and expands upon the 2015 Baylands Ecosystem Habitat Goals Update, while working in concert with other regional plans like the 2022 Estuary Blueprint to provide needed guidance to those in and beyond our partnership who will be carrying on this work in the years ahead.” <https://sfbayjv.org/conservation/planning/>

San Francisco Baylands *Resilience Metrics Mapbook* - A Summary of Sea Level Rise Resilience Challenges and Opportunities: A report prepared by the San Francisco Estuary Institute for the San Francisco Bay Regional Water Quality Control Board and the U.S. Army Corps of Engineers to identify potential natural

and nature-based solutions (NNBS) that could provide resilience for vulnerable shoreline communities, while supporting the resilience of baylands habitats. Mapping provides a closer look at the NNBS suite of strategies possible within each Operational Landscape Unit (Unit) [The shoreline of San Francisco Bay is divided into OLU's]. <https://www.sfei.org/sites/default/files/biblio/2025-04/Resilience%20Metrics%20Mapbook%20-%20Spreads.pdf>

SFEI Baylands Resilience Metrics: Wildlife Support, Flood Attenuation, & Sediment Placement Feasibility

A report prepared by the San Francisco Estuary Institute that provides a “framework” that explores and provides guidance on how we can answer the questions “How can baylands resilience be measured? How can it be increased?” with the goals of “(1) identifying appropriate adaptation strategies to improve resilience, and (2) tracking of changes in resilience over time in response to adaptation actions.”

<https://www.sfei.org/sites/default/files/biblio/2025-04/Baylands%20Resilience%20Metrics%20-%20Wildlife%20Support%2C%20Flood%20Attenuation%2C%20and%20Sediment%20Placement%20Feasibility.pdf>

SFEI Online Interactive Web Map of the Resilience Metrics Mapbook -

<https://experience.arcgis.com/experience/f1af3c0b094d421a8e37a547894fe7aa>

SFEI *Sediment for Survival*: A Strategy for the Resilience of Bay Wetlands in the Lower San Francisco Estuary

A San Francisco Estuary Institute Report (SFEI) that describes the significant challenges we must address to maintain tidal wetlands, including the diminishing sediment supply which may hinder the ability of tidal wetlands to keep pace with rising sea levels through accretion of sediment, and our history of developing up to the edges of the Bay, which reduces the ability of tidal wetlands to migrate inland.

<https://www.sfei.org/projects/sediment-survival>

South Bay Salt Pond Restoration Project Scientific Reports Library:

A huge library of scientific papers regarding the restoration of 15,100 acres of former solar salt ponds in South San Francisco Bay. The research contains information on everything from methyl mercury, sediment transport, tidal marsh restoration, to species monitoring. <https://www.southbayrestoration.org/docs/scientific-reports>

State of California Sea Level Rise Guidance: 2024 Science & Policy Update

– California Ocean Protection Council (OPC): Most recent update to statewide sea level rise guidance for “for state and local decision-makers to incorporate best available science on sea level rise into planning, design, permitting, investments, and other decisions.”: <https://opc.ca.gov/wp-content/uploads/2024/05/California-Sea-Level-Rise-Guidance-2024-508.pdf>

Subtidal Habitat Goals Project – Description of subtidal habitats, threats to the long-term sustainability of subtidal habitats, protection goals, impacts of climate change, etc.

https://www.sfbayrestore.org/sites/default/files/2019-08/subtidal_goals-exec_summary_20pp.pdf

Tracking Tidal Wetland Extent in San Francisco Bay: A 2020 mapping update:

Excellent prepared by the San Francisco Estuary Institute (SFEI) for the San Francisco Wetlands Regional Monitoring Program (WRMP). The report, released in April 2025, provides a 2020 update to the mapping of tidal wetlands within the San Francisco Bay estuary, depicting existing and restored tidal wetlands. The

report discusses tidal wetland change over time, and the need for continued mapping and monitoring of tidal wetlands.

https://www.wrmp.org/wp-content/uploads/2025/04/WRMP-Tidal-Extent-Report_Final_Apr10_2025.pdf

It also helps to determine how tidal wetlands are responding to climate change and other stressors, as well as the efficacy of restoration efforts. The Wetlands Regional Monitoring Program (WRMP) provides an informative introduction to the report at tinyurl.com/WRMPintro.

USFWS Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California: Identified actions that need to be undertaken to protect tidal marsh ecosystems which crucial to the recovery of six endangered species – including two animal species - Ridgway's Rail and salt marsh harvest mouse, and four plant species - California sea-blite, salt marsh bird's-beak, soft bird's-beak, and Suisun thistle:

<https://www.fws.gov/project/california-tidal-marsh-ecosystem-recovery>

Useful Websites:

Adapting to Rising Tides: Information and mapping compiled by the San Francisco Bay Conservation and Development Commission (BCDC), that documents the threats posed by sea level rise to shoreline communities, as well as guidance on what local governments should consider for adaptation planning.

<https://www.adaptingtorisingtides.org/>

ART Bay Area Shoreline Flood Explorer (online sea level rise risk mapping) – an interactive mapping tool that allows the viewer to select sea level rise projections with or without the addition of storm frequency to understand potential flood risk and the total water levels that might be experienced under the selected scenarios. <https://explorer.adaptingtorisingtides.org/home>

Our Coast Our Future: A partnership between the U.S. Geological Survey (USGS) and Point Blue Conservation Science that provides tools to identify and understand sea level rise vulnerabilities to inform adaptation planning. <https://ourcoastourfuture.org/>

Our Coast Our Future Hazard Map – provides an interactive tool that can be used to visualize the impacts of sea level rise, storm surge, groundwater rise, etc. along the San Francisco Bay shoreline and California Coast. <https://ourcoastourfuture.org/hazard-map/>

NEW RESOURCES ADDED DECEMBER 2025:

BCDC Regional Shoreline Adaptation Plan Atlas - The SF Bay Conservation and Development Commission (BCDC) has released a beta version of its useful Regional Shoreline Adaptation Plan (RSAP) atlas. Pursuant to Senate Bill 272, all local governments along the shoreline of San Francisco Bay must submit a Subregional or Regional Shoreline Adaptation Plan (sea level rise adaptation plans) to BCDC for their approval. This online tool is meant to help local governments and interested members of the public access information essential to the development of these plans. The data and maps can be sorted by jurisdiction, by RSAP elements, and by RSAP topics. The user can create maps, tables, summaries, etc. that can be incorporated into a Regional or Subregional Plan. Whether you are a planner or member of the public interested in participating in your community's sea level rise adaptation plan, we encourage you to check out this website: <https://rsap-atlas.bcdc.ca.gov/>

State of Our Estuary 2025 Report - This report is now online! It provides the latest information available on the health of the San Francisco Bay Estuary. It presents information on “Indicators” including fresh water flows and harmful algal blooms, selected wildlife species, habitats, habitat migration space and issues of concern to the human population using the Bay and its resources. Additional data is still being collected and analyzed for some of the “Indicators,” but that information will be updated as soon as it becomes available. We encourage everyone who is interested in the Bay to check out this useful resource. <https://www.ourestuary.org>

Bay Adapt Currents Dashboard - The San Francisco Bay Conservation and Development Commission was tasked with the development of guidance for the preparation of the RSAP/SSAP plans, and is responsible for reviewing and approving these plans. BCDC has developed a series of tools to aid local governments in the preparation of these RSAP/SSAPs, such as the Bay Adapt Currents Dashboard. This particular tool is meant to provide up-to-date information on everything from the latest research on sea level rise in San Francisco Bay to local government responses to sea level rise adaptation planning and implementation, and metrics and monitoring of sea level rise adaptation projects. <https://www.bayadapt.org/bay-currents>

San Francisco Bay State of the Birds - The update to the San Francisco Bay State of the Birds has just recently been released online. The report provides data on the status of suites of bird species by habitat type. Within each habitat type, the status and trends of indicator species of birds is reported. For each habitat, a list of actions needed to improve habitat health and resilience are also provided, and success stories of habitat restoration are shared. <https://sfbaystateofthebirds.org>