Revealing the Hidden Bay: Scientific Coalition Releases San Francisco Bay Subtidal Habitat Goals Report

San Francisco- Today state and federal agencies released a groundbreaking new report that outlines a bold vision for the hidden part of the Bay Area. Working in concert, these agencies have uncovered significant findings based on pioneering new exploration and mapping of heretofore ‘hidden’ aspects of this majestic estuary. It is the first time that comprehensive information about submerged areas in the bay has been compiled.

Subtidal habitat (all of the submerged area beneath the bay’s surface) is a critical piece of the San Francisco Bay ecosystem, and no one before has gone to the depth of research and planning needed to guide long-term protection of these areas. This ambitious interagency report sets a bold course of action with 50-year goals for researching, protecting, and restoring the Bay’s underwater environment. These hidden habitats have never been characterized before, and this milestone report presents key findings, including the need to restore more than 16,000 acres of native oyster and eelgrass beds, innovative new measures to protect shoreline areas in the face of sea level rise and climate change, and the first set of maps that characterize the hidden bay.

The ground-breaking online maps give the user the ability to interact with the information and to take advantage of the capabilities of Google Maps to view where the habitats are located and what stressors are impacting them. Most road maps show the bay as blank, and this report fills that area in, with information about existing habitat status and new goals for habitat restoration for multiple species, many of which are endangered.

“The Subtidal Habitat Goals Report complements the Baylands and Uplands Habitat Goals Projects, resulting in a trio of regional planning documents that put forth innovative recommendations to protect habitat from the bottom of the bay to the tops of our watersheds,” says Sam Schuchat, executive officer of the State Coastal Conservancy.

San Francisco Bay is one of the largest estuaries on the West Coast and one of the most important both for the habitat it provides for fish and wildlife and for the many benefits and opportunities it offers people. Its natural beauty gives the Bay Area the iconic identity
for which it is known throughout the world, while its waters ensure an enviable climate and quality of life for more than 7.5 million residents. Residents commute across the bay on ferries, or enjoy it while boating, fishing, swimming, windsurfing, and birding in and around its waters. The bay is a busy center of commerce: cargo ships and tankers from around the Pacific Rim depend on its ports and infrastructure, and approximately two million tons of sand is mined from beneath its surface each year for use in construction.

Although this hidden underbelly of the bay is often thought of as a featureless mud bottom, its unique habitats provide diverse three-dimensional structures, and many shellfish, fish, marine mammals, diving ducks, and other wildlife feed, rest, hide, and reproduce in subtidal areas.

Submerged areas make up the dominant habitat in the bay- more than 250,000 acres- and include endless mudflats and shoals, rocky islands, beds of bright green eelgrass, undulating 10 foot tall sand waves, native oyster beds, seaweed beds, all below the lowest tide line. These areas are important for threatened species such as green sturgeon and Chinook salmon, commercial species like Dungeness crab and Pacific herring, and a host of other fish, shrimp, crabs, migratory waterfowl, and marine mammals.

“Recognizing that San Francisco Bay area residents desire vibrant coastal communities, healthy and resilient marine ecosystems, sustainable fisheries, clean and safe shorelines, and enjoyable and inspirational recreational opportunities, the Subtidal Habitat Goals Report will play a vital role in promoting, protecting and restoring the key habitats that support this valuable resource,” says Steve Edmondson, Southwest Regional Habitat Manager with the NOAA Fisheries Habitat Conservation Division.

“This project is a great example of the value of collaborative interagency partnerships. One entity alone could not have completed this ambitious plan, it took both state and federal lead partners and more than 75 contributing scientists, agency staff, and stakeholders to make these bold goals a reality,” says Judy Kelly, Director of the San Francisco Estuary Partnership.

Restoration goals include restoring 8,000 acres each of oyster and eelgrass beds through a phased, adaptive approach to develop best methods while addressing key research questions and data gaps. Habitat integration goals focus on ideas for better improving design connectivity between high priority tidal wetland sites and offshore subtidal areas, in order to protect and enhance the large investment that local, state, and federal agencies have put into tidal wetland restoration in the bay.

“This report is a significant step and opportunity to tier off the 40,000 acres of tidal wetland conservation and restoration that started with the Baylands Goals Project. We now have specific recommendations to protect and enhance subtidal habitat throughout San Francisco Bay. The Goals Report is a vision linking diverse bay habitats and provides an approach for managing the projected 5’ sea level rise in SF Bay over the next 50 years,” says Patrick Rutten, Supervisor of the NOAA Restoration Center Southwest Region.

“The San Francisco Bay regulatory, agency, and environmental communities have an impressive record of taking bold and innovative actions to protect estuarine habitats and encourage public involvement. We hope you will join us in embracing the principles and
recommendations included in this plan and look forward to working with a diverse group of stakeholders on implementing the goals,” says Will Travis, Executive Director of the Bay Conservation and Development Commission.

The Report is the first time that comprehensive information about submerged areas in the bay has been compiled. The Report includes:

- Broad regional goals for Science, Protection, and Restoration of underwater habitats in the bay, with detailed and specific objectives and actions for implementation over the 50-year planning horizon.

- Six subtidal habitat types were considered: soft substrate (mud, sand, and other mobile substrates), rocky areas, artificial substrates (pier pilings, docks, etc.), shellfish beds, eelgrass beds, and seaweed beds. The report also includes recommendations for intertidal mudflats, sand beaches, rocky shorelines, and oyster and eelgrass beds.

- GIS Maps were compiled from existing data sets, and show habitat distributions, stressors of concern, and targeted restoration areas.

- Cross-habitat goals focus on recommendations to better deal with climate change impacts, invasive species, marine debris, oil spill response, and public awareness and involvement with subtidal areas.

- Habitat integration goals focus on ideas for better improving design connectivity between high priority tidal wetland sites and offshore subtidal areas, to reduce habitat fragmentation for species like Chinook salmon that migrate between freshwater, wetlands and the open bay.

The San Francisco Bay Subtidal Habitat Goals Project is led by the Coastal Conservancy/Ocean Protection Council, Bay Conservation and Development Commission, NOAA Fisheries and Restoration Center, and the San Francisco Estuary Partnership. The Subtidal Habitat Goals Report and interactive maps are accessible and available online. Visit [www.sfbaysubtidal.org](http://www.sfbaysubtidal.org) for more information.

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