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Protecting and Restoring America's Iconic Waters San Francisco Bay

Testimony before the Subcommittee on Water Resources and Environment

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Introduction

As a San Mateo County Supervisor, chair of the San Francisco Bay Restoration Authority, and a member of the San Francisco Bay Conservation and Development Commission, I have worked extensively on the intersecting issues of flood control, sea level rise and tidal land restoration in San Francisco Bay. It is a privilege to testify before this committee today. In my remarks I will review the importance of San Francisco Bay, how the Bay has evolved over time, the extensive Bay restoration efforts now underway, the urgency of Bay restoration given impending sea level rise, and the critical need for more federal funding to support this important work.

Why is the San Francisco Bay an Iconic Body of Water?

San Francisco Bay is one of our nation's greatest natural treasures and the defining feature of the Bay Area. It is the West Coast's largest estuary and its waters drain over 40 percent of the state of California. San Francisco Bay has over 275 miles of shoreline, which is half as long as the entire coast of California.

Despite being surrounded by dense urban development including some of the largest and best known companies in the world, San Francisco Bay is one of the nation's most important ecological habitats. Species such as steelhead and salmon are present in Bay waters along with California's Dungeness crab and halibut. The Bay's salt marshes, provide key ecosystem services such as filtering pollutants from creeks and stormwater runoff. The Bay is home to more than 100 endangered species.

The Bay is also a key link in the Pacific Flyway. Millions of waterfowl annually use the shallow waters of the Bay as a refuge and exposed bay muds provide important feeding areas for shorebirds

Commercially, the Bay is critically important to trade for the Western United States. The Bay contains six major ports for the shipping industry. The Port of Oakland is the eighth busiest container port in the United States. In addition, the Bay is a critical driver of the Bay Area's tourism industry and offers an inviting backdrop for our booming technology and biotech sector.

The Bay also provides an abundance of recreational activities including sailing, kayaking, world class kite surfing, fishing, and walking, running and biking on the San Francisco Bay Trail. The Bay trail, which just celebrated its 30th anniversary, is a planned 500-mile path around the entire San Francisco Bay which will connect all nine Bay Area counties and 47 cities. To date, 335 miles of the Bay Trail have been completed.

In short, the San Francisco Bay is an ecological, commercial and recreational marvel.

Three Chapters in the history of the SF Bay

Since the Gold Rush and the rapid growth of the Bay Area's population, there have been three chapters in the Bay's evolution: degradation, preservation and now restoration.

Until the early 1960s, the Bay was drastically altered by urbanization, salt production and agricultural uses that reduced the Bay's size by one-third. During this period, 80% of the Bay's tidal wetlands, which once totaled 200,000 acres, were lost and the Bay was reduced in size by one third. At one point, the Bay was being filled in at a rate of two square miles per year, and raw sewage and chemicals flowed into it unchecked. There were dozens of trash dumps lining the Bay, and the public had access to less than six miles of shoreline.

In 1961, the second chapter of the Bay's evolution began with the creation of Save The Bay and the movement to stop additional fill along the Bay shoreline and continued pollution of the Bay's waters. One significant outgrowth of this movement was the creation of the Bay Conservation and Development Commission (BCDC) in 1965. The mission of BCDC is to protect and enhance San Francisco Bay, minimize Bay fill, and increase public access within the Bay's 100-foot shoreline band. These efforts were remarkably successful in bringing the Bay back from the brink.

We have now embarked on a new chapter for the Bay where we are enhancing and restoring this remarkable natural asset for the benefit of both people and wildlife. In 1999, scientists published the Baylands Ecosystem Habitat Goals report calling for 100,000 acres of healthy tidal wetlands to protect the ecosystem and provide natural flood protection. That work is now underway in earnest with approximately 44,000 acres of healthy tidal wetlands in place and another 35,000 acres in public ownership and available for restoration

Restoration Milestones to Date

The Bay Area has taken substantial steps to restore the Bay and is well prepared to undertake the vast amount of restoration that is still needed. Some notable milestones include the following:

- In 2003, under the leadership of U.S. Senator Dianne Feinstein, 15,000 acres of South Bay salt ponds were purchased from Cargill Inc. The purchase was funded with approximately \$57 million in state funds, \$35 million from four private foundations, and approximately \$8 million in federal funds. The restoration of these former salt ponds, which are equal in size to Manhattan Island, is the largest restoration project in the country west of the Mississippi.
- In 2008, the California Legislature created the San Francisco Bay Restoration Authority. The Restoration Authority is a regional body with the power to raise and allocate much needed local funding for the restoration, enhancement, and protection of wetlands and wildlife habitat in the San Francisco Bay and along its shoreline.
- In 2016, the Restoration Authority placed Measure AA on the ballot in all nine Bay Area counties—the nation’s first-ever regional effort to secure climate adaptation and restoration funding. The measure proposed a 20-year, \$12 parcel tax to raise approximately \$25 million annually, or \$500 million over twenty years, to fund Bay restoration projects. The measure was backed by a broad coalition of environmental, business and labor leaders and passed with 70% approval across the region.
- The time consuming and expensive permitting process is a significant hurdles to accelerating the pace and scale of wetlands restoration in San Francisco Bay. To address this barrier, in 2018 the Restoration Authority, the State Coastal Conservancy and others funded the innovative Bay Restoration Regulatory Integration Team (BRRIT) to expedite permitting for wetland restoration projects. BRRIT is a group of dedicated, funded staff from six state and federal regulatory agencies that review Bay restoration projects and permit applications as a team to improve efficiency and timeliness. The BRRIT will enable investment in San Francisco Bay wetland restoration to go further and proceed faster.
- Another important local initiative that is supporting the restoration process is the Long Term Management Strategy for the Placement of Dredged Materials. This program is a collaborative partnership where the regulatory agencies, resource agencies and stakeholders work together to maximize beneficial reuse of dredged material in restoration projects and minimize their disposal in the Bay and the Pacific Ocean. The selection of San Francisco Bay by the US Army Corps in December of 2018 as one of ten pilot projects for the beneficial reuse of dredged materials has the potential to expand this effort.

- In 2018 and 2019, the Restoration Authority approved its first two rounds of Measure AA grants totaling \$89 million. The thirteen projects receiving funding will advance a wide variety of restoration projects from landscape scale initiatives such as the South Bay Shoreline Project to smaller projects such as the San Leandro Treatment Wetlands which will test creative new techniques to combine habitat restoration with wastewater treatment.
- At two locations, the San Francisco Bay Living Shorelines Project is demonstrating the potential of establishing native eelgrass and oyster beds to protect the San Francisco Bay shoreline while creating biologically rich and diverse habitat that is resilient to changing environmental conditions.
- In May of this year, the San Francisco Estuary Institute and SPUR, an urban planning research center, released the San Francisco Bay Shoreline Adaptation Atlas. The Atlas outlines how San Francisco Bay communities can combat sea level rise with eco-friendly reefs, beaches and marshlands.

The Urgency of Restoration

In 2015, scientists released an update to the Baylands Ecosystem Habitat Goals report warning that without rapid and significant investment in wetland restoration, rising seas and greater erosion will cause wetlands to shrink. The risk we face is that existing sites that could be restored will be drowned by the rising bay waters. Tidal wetlands could eventually retract to narrow strips or disappear altogether.

Wetlands are the Bay's first line of defense—trapping polluted runoff before it reaches open water, buffering against flooding from rising sea levels and storms, preventing erosion, and capturing greenhouse gases to counter climate change. If our tidal marshes disappear, so will this vital and natural system of protection.

The report makes clear that the San Francisco Bay is in a race against time with billions of dollars of property at risk. It emphasizes that tidal marshes established by 2030 are more likely to flourish and provide ongoing benefits when sea level rise accelerates in the middle of this century. To achieve this goal, the planning, permitting, and construction of restoration projects must be accelerated.

The Critical Role of Federal Funding

While significant progress has been made to restore San Francisco Bay, much more needs to be done and time is running short. The fundamental challenge is that there is a wide gap between the funding that is needed and the funding that is available.

In the first two rounds of grants made by the Restoration Authority, funding requests exceeded the funding available by a factor of 3 to 1. Similarly, the EPA administered San Francisco Bay Water Quality Improvement Fund program, which began in 2008 and provides grants to protect and restore San Francisco Bay, has received \$176 million in grant requests but has only been able to provide \$50 million in funding.

There is also a significant gap between funding from state and local sources and funding provided by the federal government. The San Francisco Bay Joint Venture estimates that of the funds spent on acquisition, restoration and enhancement of bay lands between 1997 and 2018, only 28% were from federal sources. Moreover, in August 2018, the U.S. Government Accountability Office published a report on the SF Bay Delta Watershed and found that the lack of sufficient federal funding is one of the biggest risks to long-term restoration efforts.

To restore the 35,000 acres in public ownership and available for restoration is estimated to cost at least \$1.4 billion. Simply put, without significant federal funding it will not be possible to restore all of this acreage, much of which is owned by the federal government.

Traditionally, federal funding for other major estuaries have dwarfed the amounts that the San Francisco Bay has received. For example, annual EPA funding for Puget Sound is approximately seven times the amount allocated for San Francisco Bay, which typically receives \$5 million annually, despite the fact that the Bay Area's population is nearly twice that of Puget Sound. Similarly, EPA annual funding for San Francisco Bay falls substantially short of the \$12 million in annual EPA funding for the Long Island Sound, a much smaller estuary.

This is why the legislation introduced by Congresswoman Jackie Speier this year, H.R. 1132, the San Francisco Bay Restoration Act, is so timely and important. Her bill would authorize up to \$25 million each year for five years to the EPA to award grants to Bay conservation and restoration projects. It would also establish a San Francisco Bay Program Office within the EPA and authorize the EPA Administrator to appoint a Director of that Program Office to oversee federal funding.

Conclusion

The Bay Area's quality of life and economy depend on a healthy and vibrant San Francisco Bay. To restore the Bay we have put in place comprehensive science based restoration plans, a 20 year local funding source through Measure AA, and local collaborative partnerships to expedite permitting and the beneficial reuse of dredge materials. But with sea level rise accelerating, we have limited time to complete the critical restoration work that is needed. The missing ingredient is the necessary federal funding to complement our local efforts to establish 100,000 acres of healthy tidal wetlands.