

MARIN CITY

URBAN WETLAND REVITALIZATION PROJECT TO ADVANCE COMMUNITY HEALTH AND RESILIENCE

CHALLENGE

Marin City faces increased flooding, water pollution, and rising sea levels.

SOLUTION

Restore 1.6 acres of wetland habitat and create an adjacent park around what is currently a stormwater basin.

BENEFITS

The Marin City community will receive nearly \$140,000 in ecosystem benefits each year, with a return of \$4.40 for every \$1 invested.

A COMMUNITY VISION FOR **COASTAL RESILIENCE**

Marin City, California will soon embark on an upgrade to the capacity and function of a stormwater basin that was historically a tidal wetland located adjacent to San Francisco Bay between Highway 101 and the Gateway Shopping Center. Marin City is an unincorporated, lower-income community in the otherwise affluent Marin County. This community is increasingly affected by flooding, water pollution, and rising sea levels, which are damaging homes and businesses, limiting access to emergency services, and preventing residents from getting to school and work. This project is being led by residents of Marin City, who have historically not been included in city decision-making related to urban planning and infrastructure improvements, resulting in a lack of trust that their voices are being heard and acted upon.

Shore Up Marin City is partnering with Audubon California to advance the Marin City Revitalization Project, a wetland design and restoration project that will offer the community much more than flood management. Shore Up Marin City is a multiracial environmental coalition advocating for inclusion of residents in city decision-making and equitable solutions for enhancing community preparedness. Shore Up Marin City has helped to educate and mobilize residents and other stakeholders in this low-lying, underserved community on the challenges presented by rising sea levels, and it has helped to facilitate the co-creation of solutions to address increasing flood risks in the community.

The Project seeks to revitalize and restore wetland habitat, create public access, and provide amenities such as a walking path, viewing piers, and exercise stations that could make this site a key natural and recreational asset for Marin City. By implementing the community's vision for additional nature-based solutions in the area, the Project will also complement the county's investments to reduce flood risks by increasing the size of outfall structures and installing tide gates.



Great Egret
Photo: Audubon California

Willet
Photo: Ty Keizer / Audubon Photography Awards

BROAD ECOLOGICAL AND COMMUNITY BENEFITS FROM WETLAND REVITALIZATION

The revitalized wetland will provide real economic value and support long-term ecological and community well-being. From an ecological perspective, the new wetland will provide habitat for waterbirds and other wildlife. The plants will also capture rainwater, filter pollutants from runoff, and capture and store carbon from the atmosphere. At the same time, the new green space will offer a much-needed place for recreation, social connection, and volunteer or job opportunities for community members building and maintaining the new features. Once restored, this wetland and adjacent pocket park will be an invaluable green space for Marin City residents to recreate and relax in. Projects like this are also key to addressing the long-term equity gap in access and quality of parks and open space for lower-income communities.



THE MANY BENEFITS OF MARIN CITY URBAN WETLANDS



RESILIENCE

Captures and retains rainwater, which can help reduce flooding.



ENVIRONMENT

Provides habitat that is vital for local wildlife and migrating birds.

Cleans the water by filtering nutrients and pollutants from runoff.

Captures and stores carbon from the atmosphere to help mitigate climate change.



COMMUNITY

Offers an opportunity for education value via school trips.

Provides exercise opportunities for improved health and productivity of residents.

Provides recreation opportunities like walking, wildlife viewing, running, and picnicking.

Provides aesthetic beauty in the community that improves the quality of life.

Provides opportunity for volunteer engagement, local jobs, and business revenue associated with recreation and restoration.

THE ECONOMIC BENEFITS ARE REAL

Based on implementation scenarios for the Project evaluated by consultants,¹ an economic model was created to estimate the annual and long-term dollar value of benefits from the proposed design and restoration. *We assume that 1.6 acres around the fringe of the stormwater basin will be restored to quality San Francisco Bay wetland habitat.* We also assume that the area will be opened for public access with a walking path and an additional area of grass for picnicking and relaxing. We've made educated guesses on how the community might interact with the new space each year in terms of visits (25,550), volunteer hours (200), school children visiting (500), and local residents who regularly use the park to achieve national fitness standards (43). While the actual usage will depend on final design and residents' engagement, these estimates provide insight into the Project's potential.

Using these assumptions, *the Project will return almost \$140,000 per year in benefits to the community.* In addition to the annual benefits, there is a one-time, aesthetic value that is part of the overall park value. The aesthetic value gained from the revitalization is expected to be nearly \$1 million.

PUTTING ECONOMIC BENEFITS TO WORK

By calculating the annual benefits expected from the Project over a period of time, decision-makers can assess the level of investment that would maximize the park's value while still achieving a positive benefit-cost ratio.

The total project benefit would be approximately \$4.4 million in today's dollars over a 35-year period.²

This implies that investing \$1 million in improvements and maintenance would return \$4.40 for each dollar invested, a significant return. Ideally, decision-makers will consider the broadest range of benefits when designing and budgeting the Project, because the payoff for the community and wildlife could be substantial.

Table 1. Project Benefits (\$/Year)*

SERVICE	ANNUAL VALUE
RESILIENCE	
FLOOD REDUCTION	\$2,551
ENVIRONMENT	
CARBON CAPTURE	\$169
WATER QUALITY IMPROVEMENT	\$4,163
WILDLIFE HABITAT	\$3,126
COMMUNITY	
EDUCATION	\$5,533
EXERCISE, HEALTH, AND PRODUCTIVITY	\$23,986
RECREATION	\$92,335
VOLUNTEER ENGAGEMENT	\$5,974
ANNUAL VALUE	\$137,837
STOCK	
ONE TIME VALUE	ONE TIME VALUE
AESTHETIC VALUE	\$990,774
ONE TIME VALUE	\$990,774

* **Model Assumptions**

- Assumes 5-year establishment period for new wetland.
- Assumes project life of 35 years.
- Assumes 1 percent population growth annually.



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ENDNOTES

¹ Gillenwater Consulting's *Opportunities and Constraints Report*.

² Net Present Value calculated with a 3% discount rate.



Snowy Egret

Photo: Douglas Snyder/Audubon Photography Awards