

Regional Solutions: Collaborative Adaptation Panel

Darbi Berry, Executive Director of San Diego Regional Climate Collaborative

Margaret Bruce, Exec. Dir. San Francisquito Joint Powers Authority

Tegan Hoffmann, PhD. Executive Director Coastal Quest

Moderator: Lynette Cervantes, AICP



Source: <https://socialecology.uci.edu/>

Lynette C. Cervantes, AICP Panel Moderator



Regional Solutions: Collaborative Adaptation



Darbi Berry



SAN FRANCISQUITO CREEK
JOINT POWERS AUTHORITY

Margaret Bruce



Tegan Hoffman,
PhD.

North Coast Region Report



Humboldt Bay Sea Level Rise

- Humboldt Bay is predicted to have the highest relative rate of sea level rise in California due to land subsidence in the area.
- Thus, global sea level rise will impact the Humboldt bay faster than other parts of the U.S. West Coast.

Coordinating Agencies:



Source: *California's Fourth Climate Change Assessment, 2018*
www.ClimateAssessment.ca.gov

Humboldt Regional Virtual Summit

November 3, 2022

Joe Prian

- President, Smart Coast California, opening and closing statements

Mike Wilson

- Third District County Supervisor, California Coastal Commissioner

Aldaron Laird - Senior Environmental Planner

Michael Richardson

- Humboldt County Supervising Planner: Regional Feasibility Study

David Loya

- Arcata Director of Community Development: Coastal Plans on the Local Level

Don Schmitz

- Schmitz and Associates: Statewide SLR Planning Activity

Joe Prian

- Closing Statements and Introduction of Special Guests and Q&A

Source; <https://www.smartcoastca.org/humboldt-11322.html>





Historic Conditions Humboldt Bay (1870)

Source: Aldaron Laird



Present Conditions Humboldt Bay

Source: Aldaron Laird



Emerging Groundwater

Source: Aldaron Laird

41 miles Diked Shoreline 7,000 acres Former Tidelands

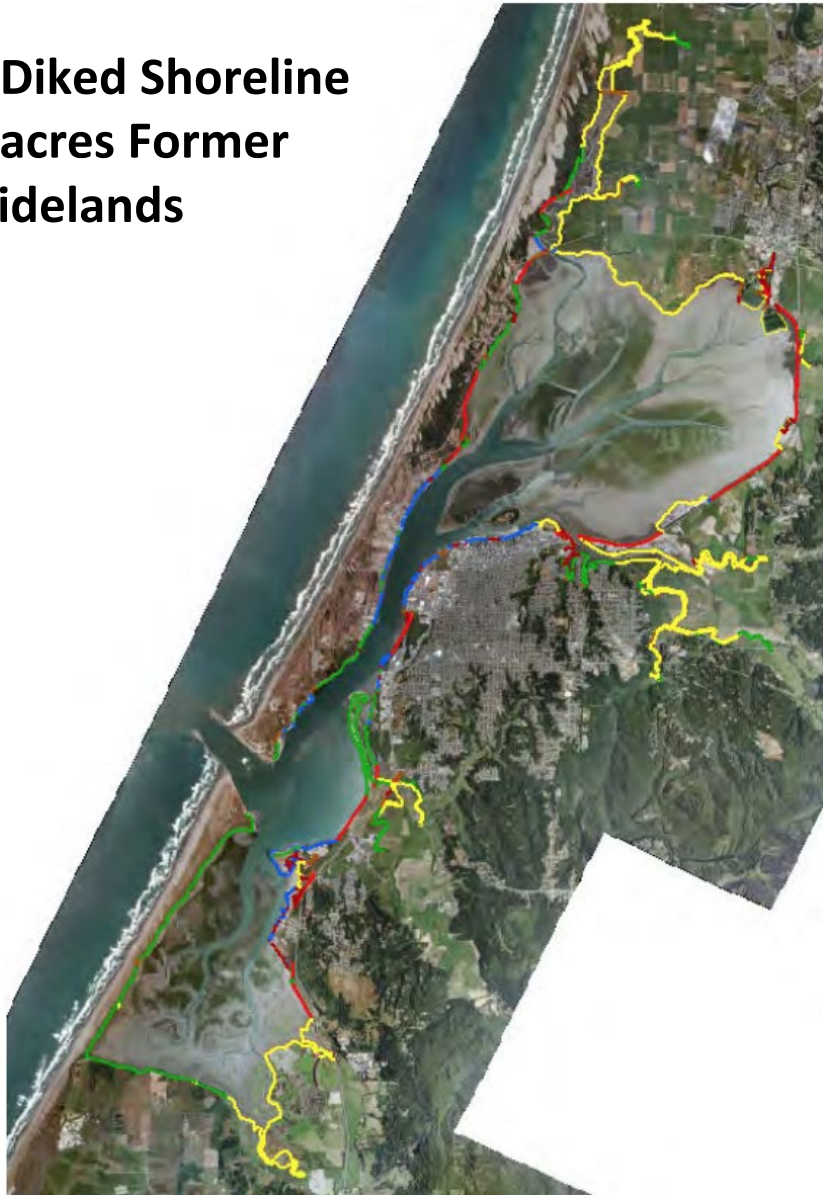


Figure 36. Distribution of shoreline structure types on Humboldt Bay: dike (yellow), natural (green), railroad (red), fill (maroon), fortified (blue), and roadway (brown).

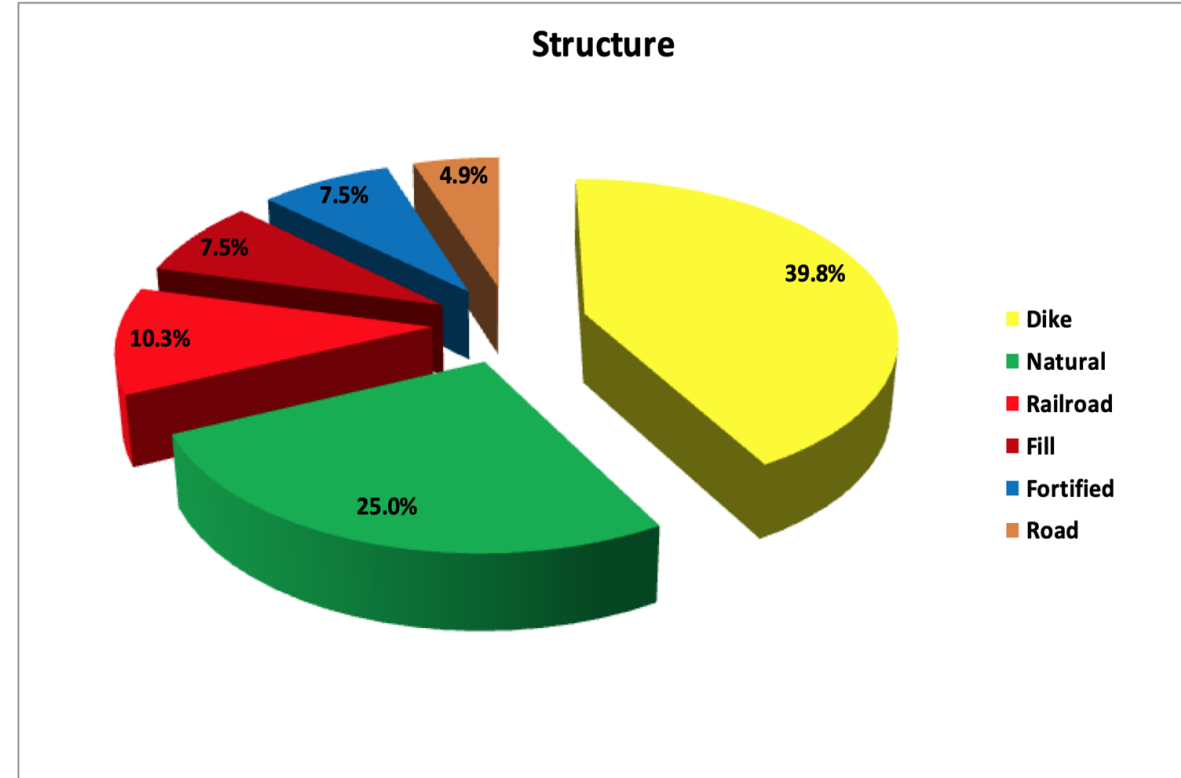
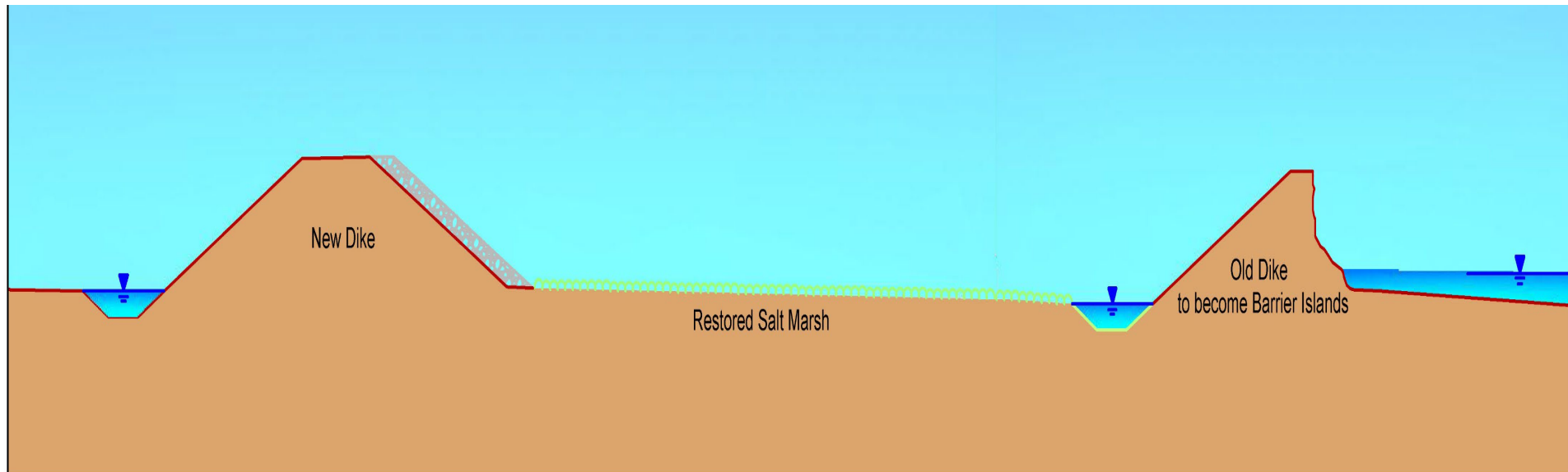
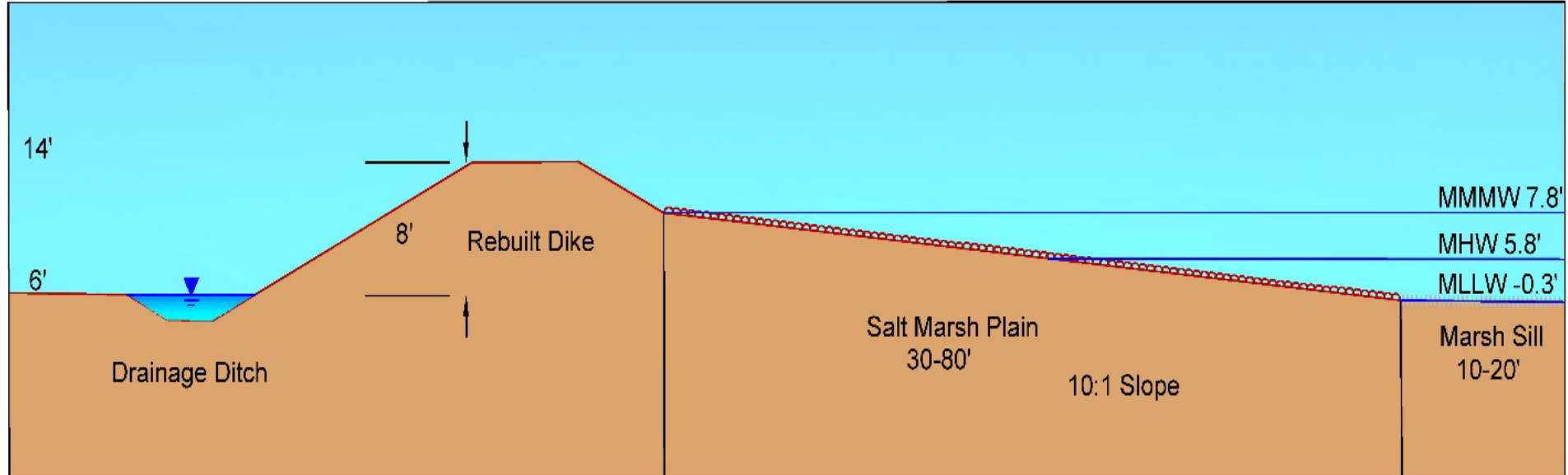


Chart 1. Percentage of Humboldt Bay shoreline occupied by the six most prevalent structures.

Source: Humboldt Bay Area Plan, Diked Shoreline Sea Level Rise Adaptation Feasibility Study - Aldaron Laird

Rebuilding In-Place – Relocate Living Shoreline – Barrier Islands



Humboldt Bay Sea Level Rise Regional Planning Feasibility Study



Photo by Aldaron Laird

Source: Humboldt County : <https://humboldt.gov>

^ Round 8 Grants Awarded

On November 16, 2022 the Coastal Commission [awarded](#) an eighth round of grants to support LCP updates with a focus on coastal resiliency. Three local governments were awarded grants for a total of approximately \$4.5 million.



District	Jurisdiction	Grant Amount Awarded
North Coast	Humboldt County	\$2,177,399
	Mendocino County	\$1,400,000
	City of Fort Bragg	\$898,990
Total Amount Awarded		\$4,476,389

Source: coastal.ca.gov

Humboldt Bay Sea Level Rise
Regional Planning Feasibility Study

Stakeholder Catalogue

March 2022



Photo by Aldaron Laird

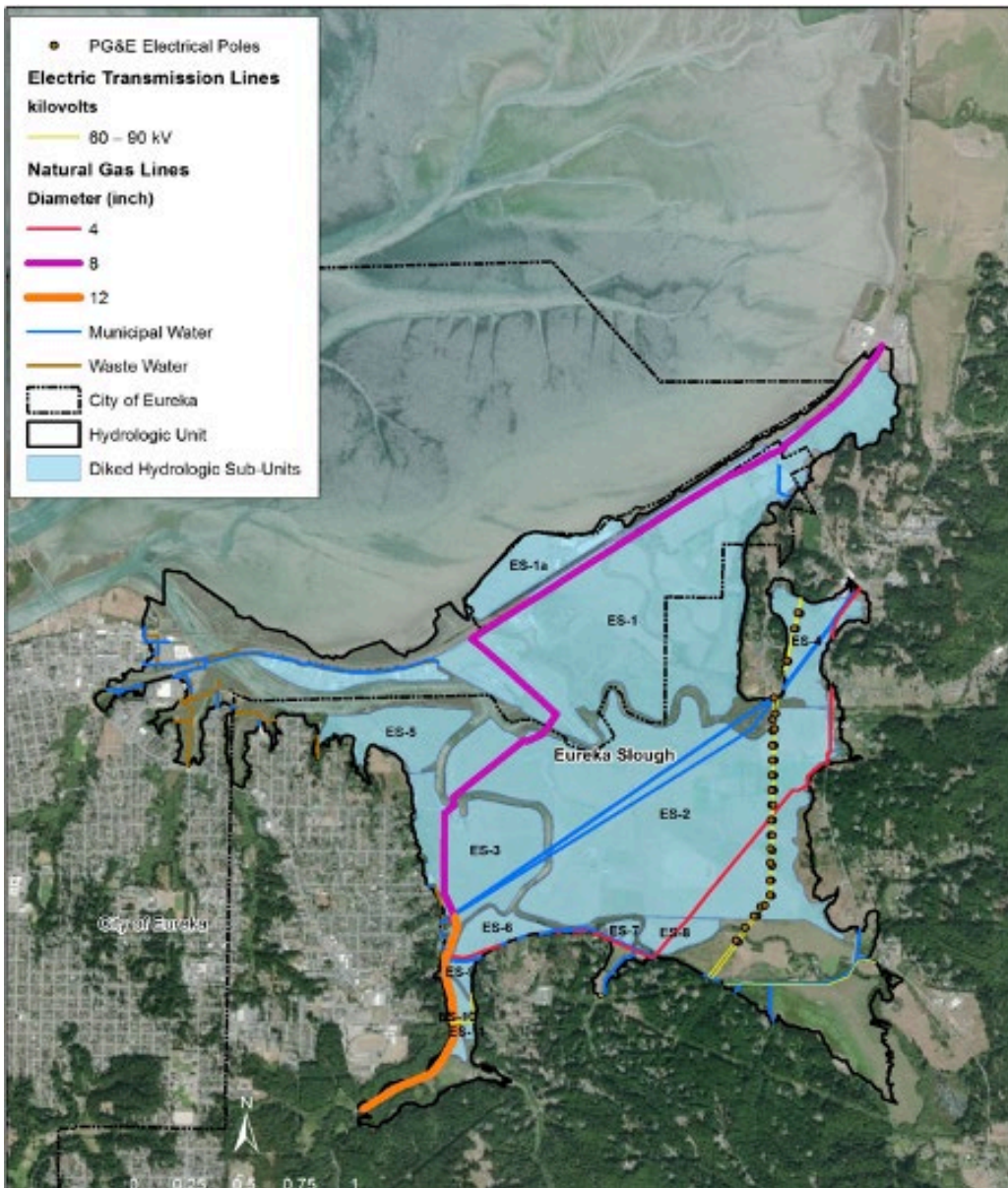


Humboldt Bay Sea Level Rise Regional Planning Feasibility Study
March 2022 Stakeholder Catalogue

Stakeholders:

- At-Risk Communities
- Tribal Governments
- Land Use Authorities
- Resource Management/Protection/Regulators
- Shoreline Structure Owners
- Vulnerable Property Owners
- Utility Infrastructure Owner/Service Providers
- Transportation Infrastructure Owners
- Academic/Public Interest Organizations

Source: Humboldt County :
<https://humboldt.gov>

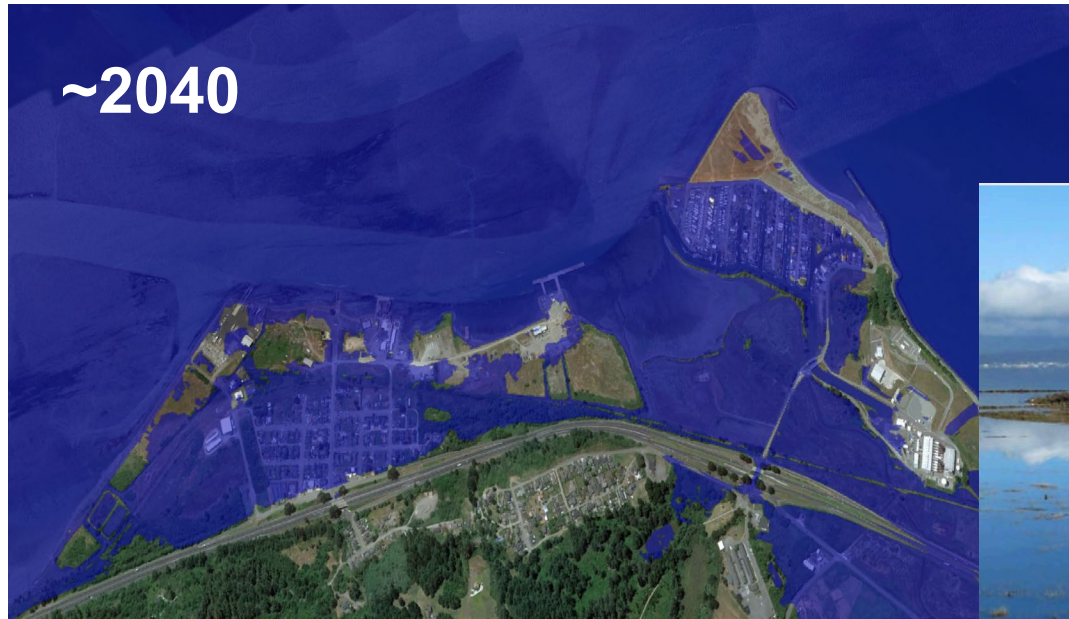


Source: Aldaron Laird, ESRI

Critical Infrastructure:

- PG&E's Humboldt Bay Generating Station, interim nuclear fuel site and transmission lines
- Arcata Wastewater Treatment Plant
- Highways, local roads, Railroad and Bay Trail
- Municipal water transmission lines
- Sewer pump stations and sewer lines

King Salmon & Fields Landing 1.6 feet Sea Level Rise – King Tide



Multiple Wiyot sacred sites at risk



Source: Aldaron Laird

Tuluwat 8.94', 2010

Humboldt Bay

HUMBOLDT BAYKEEPER



Source: <https://www.humboldtbykeeper.org/>



Cal Poly Sea Level Rise Institute - Vision



We view sea level rise planning as a “**transformative moment**” to reimagine the future of the California North Coast. We envision a diverse network of collaborators working together across disciplines, sectors, and ways of knowing to develop sea level rise research and planning that informs equitable, sustainable, and community-centered local climate action.

Source: <https://humboldtslri.org/>



HUMBOLDT BAY HARBOR, RECREATION, & CONSERVATION DISTRICT

A Special District of the State of California

About ▼

Meetings & Notices ▼

Recreation ▼

Conservation ▼

Harbor/Port ▼

Conditions

- Humboldt Bay Harbor, Recreation and Conservation District was created in 1973 to address the tidelands, bays, and estuaries of Humboldt County
- **Permit jurisdiction:** all tide, submerged and other lands granted to the District, including all of Humboldt Bay.

Source: <https://humboldtbay.org/>

Darbi has been involved with the San Diego Regional Climate Collaborative since 2019 and has served as Director since early 2021. Through the Climate Collaborative, Darbi supports regional work on projects implementing climate adaptation, coastal resilience, energy efficiency, and climate-smart water resource management. Darbi encourages the next generation in her role with the National Ocean Science Bowl. She received her BS in Environmental Science and Policy from the University of South Florida and her MS in Environmental and Ocean Sciences from the University of San Diego.



For the past three years, Margaret Bruce has served as Executive Director of the five-member agency – the San Francisquito Creek Joint Powers Authority. Prior to her tenure there, Margaret work has included roles in environmental policy and program management in federal, state, and local government, as well as corporate and non-profit organizations, and in elected and appointed service. She is a co-founder of Silicon Valley Leadership Group and served on the San Francisco Regional Water Quality Control Board. Margaret earned her degree in Environmental Studies from San Jose State University.



Margaret Bruce, Executive Director. San Francisquito Joint Powers Authority



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With 25 years of experience in building resilient solutions, Dr. Hoffmann joined Coastal Quest as Executive Director in 2020. Coastal Quest exists to support and lift-up existing leaders and solutions, as well as identify new opportunities for increased collaboration and impact for building resilient coasts. Currently she oversees a team that manages a portfolio of programs that have protected or enhanced over 155,000 miles of coast and put \$23 million to work for coastal solutions. Prior to joining Coastal Quest, Tegan founded Blue Earth Consultants. Tegan graduated from the University of California, Berkeley, and holds Ph.D. and master's degrees in Geography and a B.S. degree in Conservation Resource Studies.



Tegan Hoffman, PhD. Executive Director Coastal Quest



Thank you