

COASTAL CONSERVANCY

Staff Recommendation

February 15, 2024

NOYO CENTER MARINE ECOSYSTEM RESILIENCY PROJECT

Project No. 23-097-01

Project Manager: Fanny Yang

RECOMMENDED ACTION: Authorization to disburse up to \$400,000 to the Noyo Center for Marine Science for their Marine Ecosystem Resiliency Project, consisting of 1) conducting studies and preparing conceptual designs for sea level rise adaptation of their Marine Field Station building, dock, and associated infrastructure, 2) preparing 60% designs for retrofitting the Field Station building and replacing its dock, 3) preparing environmental review documents and permit applications for the dock replacement, and 4) implementing aquaculture programs to restore the nearshore kelp forest ecosystem at their Marine Field Station located at Noyo Harbor in Fort Bragg, Mendocino County

LOCATION: Noyo Harbor, Fort Bragg, Mendocino County

EXHIBITS

Exhibit 1: [Project Location Map](#)

Exhibit 2: [Project Photos](#)

Exhibit 3: [Project Letters](#)

RESOLUTION AND FINDINGS

Staff recommends that the State Coastal Conservancy adopt the following resolution and findings.

Resolution:

The State Coastal Conservancy hereby authorizes a grant of an amount not to exceed four hundred thousand dollars (\$400,000) to the Noyo Center for Marine Science (“the grantee”) to 1) conduct studies and preparing conceptual designs for sea level rise adaptation of their Marine Field Station building, dock, and associated infrastructure, 2) prepare 60% designs for retrofitting the Field Station building and replacing its dock, 3) prepare environmental review documents and permit applications for the dock replacement, and 3) implement aquaculture programs to restore the nearshore kelp forest ecosystem at their Marine Field Station located at Noyo Harbor in Fort Bragg, Mendocino County

Prior to commencement of the project, the grantee shall submit for the review and written approval of the Executive Officer of the Conservancy (Executive Officer) the following:

1. A detailed work program, schedule, and budget.
2. Names and qualifications of any contractors to be retained in carrying out the project.
3. A plan for acknowledgement of Conservancy funding.

Findings:

Based on the accompanying staff recommendation and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with Section 31113 of Division 21 of the Public Resources Code, regarding the Climate Ready Program.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria.
3. The Noyo Center for Marine Science is a nonprofit organization organized under section 501(c)(3) of the U.S. Internal Revenue Code.

STAFF RECOMMENDATION

PROJECT SUMMARY:

Staff recommends the Conservancy authorize a \$400,000 grant to the Noyo Center for Marine Science (Noyo Center) for their Marine Ecosystem Resiliency Project, consisting of 1) conducting studies and preparing conceptual designs for sea level rise adaptation of the Noyo Center's Marine Field Station building and infrastructure; 2) preparing 60% designs for retrofitting the Marine Field Station building and replacing the main dock; 3) preparing environmental review documents and permit applications for the dock replacement; and 4) implementing two aquaculture pilot programs at the Marine Field Station, one to grow abalone to increase their population and the other to develop purple sea urchin as a seafood product, both of which are intended to restore the nearshore kelp forest ecosystem. The Marine Field Station is located at Noyo Harbor in Fort Bragg, Mendocino County (Exhibit 1).

The Noyo Center has been at the forefront of efforts to address the ecological collapse of the Mendocino Coast nearshore ecosystem, where in the span of just five years, the region's iconic kelp forests have decreased by over 93%. At the same time, coastal communities, especially the economic and culturally-vibrant Noyo Harbor, are facing existential threats from rising sea levels and increasing extreme weather events. The Noyo Center plays a key role in raising awareness of these issues while developing solutions through multilateral partnerships and conservation and restoration initiatives. The Noyo Center serves a significant role in stimulating regional economic development, and the Marine Ecosystem Recovery Project will be a critical instrument in efforts to revitalize Noyo Harbor, promote sustainable economic development, and improve our coastal habitats through the gradual reorientation of the community's economic relationship with the ocean from over-extraction to sustainable balance.

The Marine Field Station is critically vulnerable to sea level rise and inundation, particularly during extreme weather events, ocean swells, and king tides. The facility's main dock is in dire need of replacement to provide safe access to the water, to ensure its durability to king tides and flooding, and to minimize damage from environmentally detrimental legacy materials, most significantly rotting dock foam. The absence of a fully-functional dock places severe limits on Noyo Center's ability to host research vessels, to conduct ocean conservation work, and to bring students and community members onto the water to improve public understanding and stewardship of coastal resources.

The proposed project will enable the Noyo Center to support their adaptation initiatives at their Marine Field Station located at Noyo Harbor in two main ways: 1) by completing planning and design to improve the resilience of the Field Station building and associated vulnerable infrastructure as well as conducting environmental review and preparing permit applications for replacement of the main dock, and 2) by implementing conservation aquaculture-based restoration programs, namely two pilot projects: one focused on developing abalone broodstock and restoring abalone habitat and the other to develop purple sea urchin as a restorative seafood product to decrease their impact on kelp populations. Project tasks related to enhancing the coastal resiliency of the Marine Field Station include conducting a sea level rise inundation and adaptation analysis identifying feasible adaptation strategies, drafting 60% design plans for the facility retrofit, and preparing environmental review documents and permit applications for the dock replacement. The retrofit redesign of the facility will focus on rebuilding most of the northern half of the station to support future aquaculture programs. Project tasks related to the conservation/restoration programs include establishment of a fully operational urchin aquaculture program where divers will harvest purple sea urchins from kelp forests to significantly reduce their density and give kelp the chance to recoup, grow to full size and reproduce. The abalone broodstock program involves collecting adult abalone in large tanks within the Noyo Center Field Station and feeding them until they become reproductive to create a broodstock for future release. The aquaculture programs will be supported with consistent data collection and analysis to inform management decisions, developing a sustainable water intake system for the Marine Field Station's aquaculture needs, and conducting tribal engagement around conservation aquaculture.

Site Description: The Noyo Center owns and manages the Marine Field Station after acquiring the property in 2022. It is comprised of two waterfront parcels totaling less than ¼-acre at 32430 and 32420 North Harbor Drive in Noyo Harbor. The Field Station facilities include a 2,300 square foot one-story building with a 750 square foot deck, two floating docks, an approximately 2,600 square foot yard, and seven parking spaces. The property has 100 feet of frontage on the Noyo River and is subject to both a tidewater lease and a parking lease from the Noyo Harbor District. The Marine Field Station building, formerly Carine's Fish Grotto Restaurant, was originally constructed in 1914. The building and its docks are subject to perennial and ever-increasing impacts related to its waterfront location.

Grant Applicant Qualifications: The Noyo Center was founded in 2015 in response to the community's desire to bring more scientific insight, marine science education and research, and economic revitalization to the Mendocino coastline. Currently, 11 staff members administer six active grants from federal, state, and private foundation sources, and are experienced in

collaborating in multi-institutional grants administered with other organizations. There are two staff members dedicated to grant management, and the organization goes through an annual audit of financial statements prepared each year. Their 2024 budget estimates over \$1.7 million of incoming grant funding. The Noyo Center is committed to the long-term care and maintenance of their property and infrastructure, including the Marine Field Station. The organization conducts routine inspections, maintenance, repairs, and performance of any necessary upgrades to maintain the long-term efficacy of the facilities.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA:

The proposed project is consistent with the Conservancy's Project Selection Criteria, last updated on September 23, 2021, in the following respects:

Selection Criteria

1. Extent to which the project helps the Conservancy accomplish the objectives in the Strategic Plan.

See the "Consistency with Conservancy's Strategic Plan" section below.

2. Project is a good investment of state resources.

The budget is reasonable and leverages non state resources including in-kind support and funding from Federal programs to support restoration activities at and adaptation planning for the Marine Science Field Station. The proposed project is feasible within the timeline of two years. The pilot project component of the proposed project includes monitoring of the purple sea urchin harvesting and abalone broodstock programs to ensure consistent data practices that inform management practices that can be shared with the wider science community, blue economy practitioners, and local communities. The proposed project protects and enhances significant coastal resources such as kelp forest ecosystems and near-shore habitats through urchin harvesting and kelp restoration.

3. Project includes a serious effort to engage tribes. Examples of tribal engagement include good faith, documented efforts to work with tribes traditionally and culturally affiliated to the project area.

The proposed project was defined within the context of years of deep and meaningful engagement between the Noyo Center and local tribes. The restoration and conservation programs acknowledge and support the profound cultural significance of abalone, integrating traditional ecological knowledge with modern conservation practices. The proposed project is committed to deepening engagement with tribal communities, ensuring that tribal voices are not only heard but are influential in shaping our conservation aquaculture and broader marine restoration efforts. Tribal representatives will be invited to join a science advisory board providing oversight and expertise for aquaculture activities.

4. Project benefits will be sustainable or resilient over the project lifespan.

The proposed project will continue to deliver benefits over time for the Marine Field Station by enhancing coastal resiliency to sea level rise impacts and future extreme storm events. By

retrofitting the facility, critical infrastructure will be protected in the long-term and enable adaptation to expected flooding events caused by climate change. The proposed project will not make future climate adaptation more difficult as planning and design of the infrastructure improvements and dock replacement will consider future sea level rise scenarios, helping ensure the long-term viability and prosperity of the harbor community.

5. Project delivers multiple benefits and significant positive impact.

The proposed project provides multiple benefits associated with the restoration and conservation component, such as improving near-shore habitat and rejuvenation of kelp forests through implementing aquaculture programs such as abalone habitat and population restoration and harvesting purple sea urchin to restore the nearshore kelp forest ecosystem, development of a local market for locally-based sustainable aquaculture products by having a well-stocked sea urchin aquaculture system based on the harvesting activities, and increased ocean literacy for community members. Management of purple sea urchins under a sustainable aquaculture model will help with kelp forest regrowth while expanding the local economy and benefitting the coastal communities in the region. Kelp regrowth will also increase carbon sequestration. By increasing the resiliency of the Marine Field Station and replacing the dock to enable access, the proposed project will increase community preparedness to sea level rise at Noyo Harbor.

6. Project planned with meaningful community engagement and broad community support.

The proposed project was defined within the context of years of deep and meaningful engagement between the Noyo Center, local tribes, and the community. Both the City of Fort Bragg and the County of Mendocino are currently engaged in community-led efforts to plan and prepare for sea level rise, coastal inundation, and increasingly severe ocean weather; the Marine Field Station component of the proposed project involves Noyo Center’s close engagement with these community-driven efforts. For the restoration and conservation programs in the proposed project, community engagement includes input from University of California Davis’s Bodega Marine Lab; at the local level, the restoration activities were designed with input from the Noyo Ocean Collective and from commercial divers. The Noyo Harbor District is an important stakeholder and will work with the Noyo Center on water quality analysis in the river to support the aquaculture projects.

PROJECT FINANCING

Coastal Conservancy	\$400,000
USDA Community Facilities Direct Loan and Grant Program	\$24,500
NOAA Transformational Habitat Restoration and Coastal Resilience Grant	\$280,900
NOAA Community Project Funding Program	\$293,900
Project Total	\$999,300

Conservancy funding for the proposed project is anticipated to come from a Fiscal Year 2022/23 appropriation from the General Fund to the Conservancy for “urgent sea level rise adaptation and coastal resilience (Budget Act 2022, SB 154 as amended by the Budget Act of 2023, SB 101). These coastal resilience funds are available as described in Section 52 of Chapter 258 of the Statutes of 2021, which sets forth a detailed description of the purposes of the coastal resilience funds, including for coastal resilience projects that build resilience for coastal communities, public access, and critical infrastructure. The proposed project is consistent with the funding purposes as it will plan coastal resilience adaptation measures to sea-level rise and coastal flooding for the Marine Field Station and implement activities that will promote kelp regrowth, which will increase carbon sequestration. In addition, the proposed project will help build resilience for the coastal community of Fort Bragg, both economically and environmentally, as the development of sustainable aquaculture that will be viable with climate change will build economic resiliency while restoring near-shore ecosystems and habitats.

The proposed project will also leverage significant federal funds: \$24,500 from the US Department of Agriculture is secured for a variety of equipment needs to help with the Marine Field Station retrofit and aquaculture programs; \$280,900 from NOAA’s Transformational Habitat Restoration and Coastal Resilience Grant Program to fund staff capacity, implementation of purple sea urchin harvesting, and purchase of supplies and materials; and \$293,900 from NOAA’s Community Project Funding Program to address bull kelp forest restoration, focusing on purple urchin aquaculture and red abalone broodstock programs.

Unless specifically identified as “Required Match,” the other sources of funding and in-kind contributions described above are estimates. The Conservancy does not typically require matching funds or in-kind services, nor does it require documentation of expenditures from other funders or of in-kind services. Typical grant conditions require grantees to provide any funds needed to complete a project.

CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:

The project is consistent with Section 31113 of Chapter 3 of Division 21 of the Public Resources Code, which establishes the Climate Ready Program and authorizes the Conservancy to address the impacts and potential impacts of climate change on resources within the Conservancy’s jurisdiction (Section 31113(a)). Section 31113(b) authorizes the Conservancy to award grants to nonprofit organizations and public agencies to undertake projects that reduce greenhouse gas emissions, address extreme weather events, sea level rise, flooding, and other coastal hazards that threaten coastal communities, infrastructure, and natural resources. Sections 31113(c) and 31113(d) require the Conservancy to prioritize projects that maximize public benefits, accomplish one of several purposes, reduce flood risk, and enhance fish and wildlife habit, and provide multiple public benefits including protection of communities, natural resources, and recreational opportunities. Consistent with these requirements, the proposed project will complete planning and conceptual designs for sea level rise adaptation of vulnerable infrastructure, complete environmental review and permitting for a dock replacement, and

implement aquaculture programs such as abalone habitat and population restoration and harvesting purple sea urchin to restore the nearshore kelp forest ecosystem. The proposed project will take place at the Noyo Center Marine Field Station located at Noyo Harbor in Fort Bragg, which is located within the coastal zone and therefore within the Conservancy's jurisdiction.

CONSISTENCY WITH CONSERVANCY'S [2023-2027 STRATEGIC PLAN](#):

Consistent with **Goal 1.1 Commit Funding to Benefit Systemically Excluded Communities**, the proposed project will benefit the communities of Fort Bragg and Mendocino County in building coastal resilience, revitalizing Noyo Harbor, promoting sustainable economic development, and improving coastal habitats.

Consistent with **Goal 1.3 Support Meaningful Engagement by Systemically Excluded Communities**, the proposed project will engage with local community and tribal members to implement the conservation aquaculture programs, increase ocean literacy, especially on issues related to the importance of kelp forest ecosystems and conservation.

Consistent with **Goal 2.6 Piers and Waterfront**, the proposed project will improve the coastal resilience of the Marine Field Station located on Noyo Harbor to sea-level rise and improve public access to the facility by retrofitting the dock.

Consistent with **Goal 3.2 Restore or Enhance Habitats**, the proposed project will enhance near-shore habitats through purple sea urchin harvesting to promote kelp restoration, abalone habitat restoration, and establishing an abalone broodstock program for future release into restored areas.

Consistent with **Goal 4.1 Sea Level Rise Adaptation Projects**, the proposed project will complete a sea level rise inundation and adaptation analysis for the Marine Field Station to identify feasible adaptation strategies for vulnerable infrastructure.

Consistent with **Goal 4.3 Multi-Benefit Nature-Based Climate Adaptation**, the proposed project will support nature-based climate adaptation projects that increase resiliency and sequester carbon, and promote regenerative agriculture and biodiversity through the abalone broodstock program, sea urchin harvesting, and kelp forest rejuvenation.

CEQA COMPLIANCE:

The planning component of the proposed project consists of performing a sea-level rise inundation and adaptation analysis, preparing designs, conducting environmental review, and preparing permit applications. This project component is exempt from review under CEQA pursuant to Title 14 of the California Code of Regulations Sections 15262 and 15306, which exempt planning and feasibility studies for possible future actions that have not yet been approved, adopted, or funded and data collection and resource evaluation activities that will not result in a serious or major disturbance to an environmental resource. Consistent with Section 15262, the project will consider environmental factors.

The purple sea urchin pilot program component of the proposed project is exempt from CEQA under Title 14 of the California Code Regulations Section 15333, which exempts small restoration projects not exceeding five acres in size for the maintenance, restoration, enhancement, or protection of habitat for fish, plants, or wildlife. The harvesting of purple sea urchins will be done by divers to promote kelp forest restoration and will not exceed five acres. The abalone broodstock pilot program is exempt from CEQA under Section 15301, which exempts operation or minor alteration of existing public or private structures, facilities, mechanical equipment, involving negligible or no expansion of existing or former use. The program involves installation of abalone holding tanks in the existing Field Station.

Upon approval of the project, Conservancy staff will file a Notice of Exemption.