# NOYO HARBOR

## COMMUNITY SUSTAINABILITY PLAN

JUNE 2019

# TABLE OF CONTENTS

## List of Tables

### Chapter 2



### Chapter 3



### Chapter 4



### Chapter 5



### Chapter 7



## List of Figures

### Chapter 1



### Chapter 3



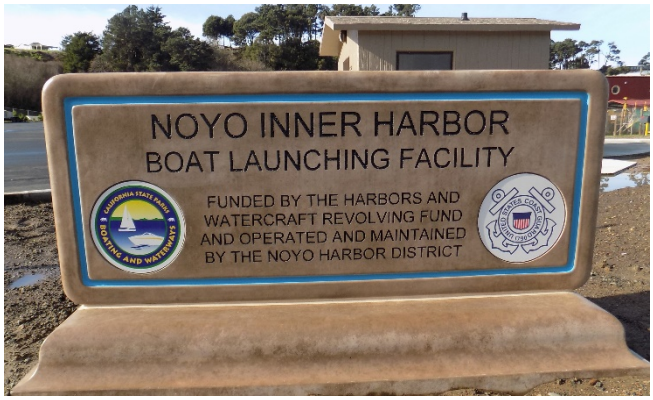
### Chapter 4

## Chapter 7

# NOYO HARBOR
# COMMUNITY SUSTAINABILITY PLAN

## ACKNOWLEDGEMENTS


**Noyo Harbor District Commission**
Joe Caito, Chairman
Bill Forkner, Commissioner
Jim Hurst, Commissioner
Steve Bradley, Commissioner
Michele Norvell, Commissioner
Stacey Bradley, Former Commissioner




**Noyo Harbor District – Staff**
Bill Sanborn, Harbormaster
Carla Slaven, Secretary / Treasurer

**Planning Team**
Dr. Steven Hackett, Senior Economist
Linda Ruffing, North Coast Community Planning
George Williamson AICP, Principal Planner
Vanessa Blodgett, Senior Planner
Jenn McDonald, Planning Technician
Jason Barnes, Geospatial Analyst

**Funding Provided By:**
Noyo Harbor District
Coastal Conservancy


Coastal Conservancy

PLANWEST PARTNERS, INC.

# EXECUTIVE SUMMARY

## KEY TERMS

**NOYO** – The unincorporated harbor community near the mouth of the Noyo River, situated on both banks and surrounded almost entirely by the City of Fort Bragg. The Noyo River was misnamed by early settlers to the area after a former Northern Pomo village located a few miles to the north on Pudding Creek. (In fact, the Pomo name for the Noyo River is *Chemli-bida*.)[1]

**HARBOR** - A natural or constructed coastal location offering safe mooring or anchorage for vessels. A harbor generally has land or man-made barriers on three sides with an opening through which vessels can safely pass. A port is a maritime commercial facility where ships may dock to load and unload. A fishing port is specifically for landing and distributing fish.

**COMMUNITY** - Groups of people typically sharing all or some of the following characteristics: territory; close and informal relationships; mutuality; common values and beliefs; organized interaction; strong group feeling; and/or cultural similarity.

**SUSTAINABILITY** – Upholding the health and integrity of economy, community, and environment over time.

**PLAN** – A detailed proposal that describes a set of actions for achieving an intended outcome. Community planning involves collecting relevant information and engaging diverse community members (often termed "stakeholders") in identifying community needs and formulating a prioritized action plan that includes policies, projects, and funding sources.

[1] A.L. Kroeber, "California Place Names of Indian Origin," University of California Publications in American Archaeology and Ethnology, 1916.

# OVERVIEW

This Community Sustainability Plan (CSP) provides background information on commercial port and waterfront activity, assesses critical infrastructure and services, and engages stakeholders in prioritizing recommendations for policies and investments to sustain the economy, community, and environment of Noyo Harbor.

The CSP draws on input from key Noyo Harbor stakeholder groups, including commercial fishermen, charter boat operators, waterfront businesses, and members of the community at large. Stakeholder input was gathered by way of surveys, interviews, and public meetings. The Noyo Harbor District secured partial funding for this CSP from the State Coastal Conservancy.

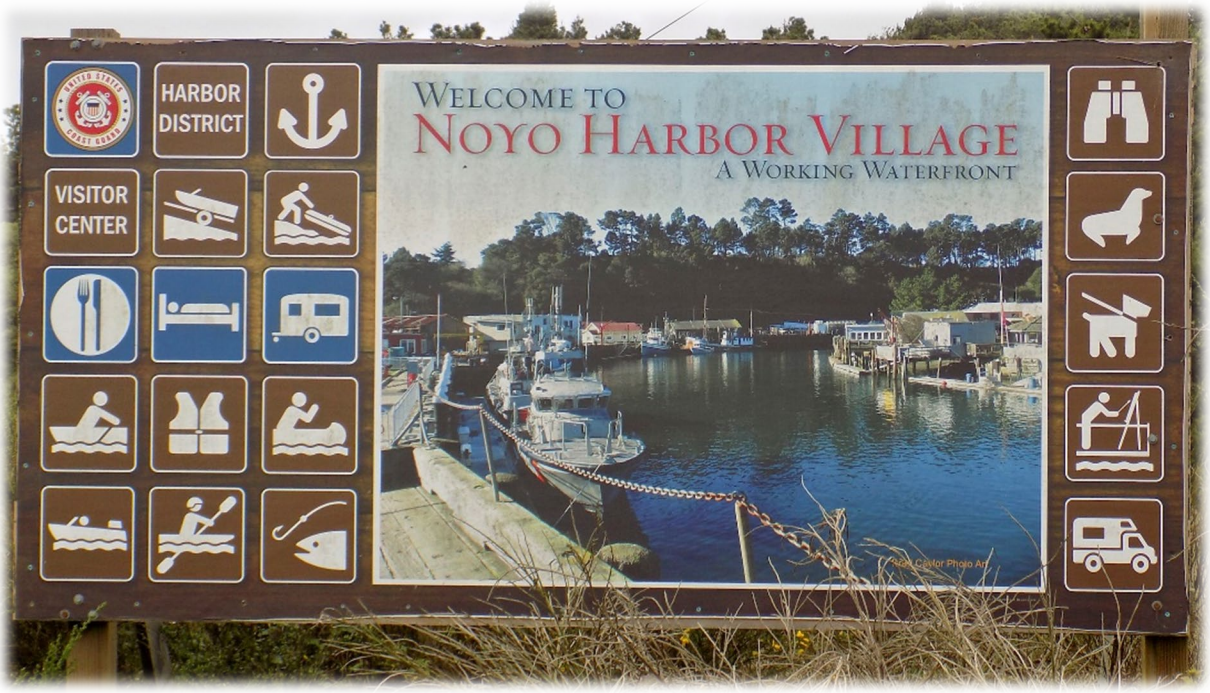
The CSP is organized into in seven sections:

1) Introduction
2) Noyo Harbor Plans and Land Use Regulations
3) Critical Infrastructure, Facilities, and Services
4) Economic Conditions and Performance
5) Environmental Conditions
6) Social Factors
7) Priorities, Recommendations & Implementation

CSPs are cited in the Magnuson Stevens Act as one potential method to avoid negative impacts to small fishing communities linked to the catch share program such as the one instituted in the Pacific groundfish fishery in 2011. CSPs also provide an opportunity for fishing community stakeholders to identify areas of common interest, prioritize action, and seek external funding to support specific projects. The Noyo Harbor District prepared this CSP to assess current conditions and create a comprehensive strategic plan for Harbor activities and improvements that are intended to generate broad economic, community, and environmental benefits.

### Harbor and Working Waterfront Setting and History

Fishing is central to Noyo Harbor's identity and is tied closely to Fort Bragg's cultural and economic heritage. A community survey conducted for this CSP found that about 80% of area respondents were either "extremely" or "very" proud that Noyo Harbor is a piece of Fort Bragg's historical and cultural identity. Moreover, a commercial fishermen survey conducted for this CSP overwhelmingly indicated support for maintaining a working waterfront in Noyo Harbor.




Noyo Harbor and adjacent headlands served as a seasonal settlement for the Pomo people, who seasonally migrated between inland Mendocino County and the coast. Pomo gathered seaweed and mollusks from the rocks and caught salmon. Settlers established fisheries for salmon, rockfish, lingcod and halibut. As the north coast timber and fishing industries grew through the 1900s, the importance of Noyo Harbor to the local economy grew as well. Noyo Harbor is one of four main fishing ports between San Francisco and the Oregon border, and is the only harbor of refuge between Bodega Bay in Sonoma County and Humboldt Bay in Humboldt County.

Noyo Harbor consistently ranks in the top 10 commercial ports in California in terms of ex-vessel value of commercial fish landings. Between 2013 and 2017, commercial fishermen landed 5 - 8.4 million pounds of fish annually in Noyo Harbor, with an annual inflation-adjusted value of $8.2 - $14.5 million. Dungeness crab and groundfish were the largest components of commercial landings in this time period. Federally managed groundfish species, defined by the California Department of Fish and Wildlife, includes (but is not limited to); thornyheads, flatfish, sharks, skates, morids, ratfish, grenadiers, roundfish (such as lingcod, Pacific cod, & sablefish); and rockfish (such as blackgill, bocaccio, canary, and chilipepper. In 2018, Noyo Harbor District staff estimated approximately 159 deck hands and crew were employed on commercial fishing vessels in Noyo Harbor.

**South Side Work Area**

Noyo Harbor also supports a number of charter, sport fishing, and pleasure boating vessels. Data from charter boat operations indicate an annual average of 5,675 anglers were passengers on charter boats operating out of Noyo Harbor between 2011 and 2017. Many more anglers fish out of Noyo Harbor on privately-owned vessels. These visitors also support restaurants, lodging facilities, and other visitor-serving businesses in the harbor.

The Noyo fishing community has experienced a variety of setbacks in recent years, including red tide events that delay the Dungeness crab season, salmon season closures due to failed Sacramento River runs, and sea star wasting disease that led to declines in red sea urchin stocks and closure of the red abalone recreational fishery.

One important bright spot is the groundfish fishery, where many formerly overfished groundfish stocks have recovered. Lingcod, petrale sole, and the following rockfish have been rebuilt; widow, canary, bocaccio, and darkblotched rockfish. Rebuilding plans remain in place for cowcod, Pacific

ocean perch and yelloweye rockfish. Moreover, salmon stocks have improved somewhat since the 2008-09 emergency closures, and Dungeness crab stocks remain fundamentally sound. These recovered stocks may serve as the foundation for a more robust Noyo fishing community future.

Waterfront businesses operate primarily on the north side of Noyo Harbor and serve commercial and sport fishermen, as well as visitors to the area. Based on interviews of waterfront businesses and estimates for non-respondents, peak waterfront business employment is estimated at 409, with off-peak employment at 295. Visitors are drawn to the Noyo Harbor area by the natural environment, outdoor recreation and sport fishing opportunities, and the region's cultural heritage.

**Critical Services and Infrastructure**

Noyo Harbor is an all-weather port and receives the most traffic of all ports between Bodega Bay and Humboldt Bay. The harbor contains a mooring basin made up of 256 berths of which approximately 43% contain commercial vessels. The slips can accommodate most vessels up to 65 feet in length. The Noyo Harbor District maintains a work hoist available for rental on the main pier for loading vessels, two boat launch facilities, parking, some storage area, restrooms, showers, life jackets for loaning, trash bins and oil disposal services.

In 2018, the Noyo Harbor District undertook a major renovation project to the parking lot and boat ramp in south Noyo Harbor, with funding from a State Division of Boating and Waterways grant. The project included resurfacing the parking lot, a new drainage system for runoff into the Noyo River, a new sidewalk, new handicapped-accessible bathrooms, and a reconstructed boat ramp.

Another important project undertaken by the Noyo Harbor District was to repair the District's high dock. In January 2019, the California Coastal Commission granted an administrative permit for the District to repair its high dock. The high dock was originally built in 1968, and deferred maintenance led to a deteriorated condition that resulted in closure of the structure. A functioning high dock is essential to the local commercial fishing fleet for loading and unloading vessels, and the structure is also used by sport and transient vessels for docking, loading, and unloading of supplies. The repair work includes replacing approximately 6,500 square feet of existing decking boards and bump rails with new decking composed of treated lumber.

From 1930 to 1995, the harbor was dredged every one to two years, with the dredge spoils placed in an upland disposal site. The U.S. Army Corps of Engineers currently provides for a two-year cycle of maintenance dredging of the harbor entrance and river channel to a depth of 10 feet mean lower low water, two-year interim inspections, and periodic repairs of the entrance jetties.

There are approximately 25 businesses operating on the Noyo Harbor waterfront, including fish buyers with hoists and receiving stations, a retail fish market, vessel maintenance and repair facilities, and a shipbuilding facility. There is a local source for flake ice.

**Key Findings**

At a stakeholder open house held in February 2019, participants were given “Harbor Dollars” that they could use to indicate the importance of various issues confronting Noyo Harbor. Key findings are summarized below:

1. **Fuel Dock.** The #1 issue receiving "Harbor Dollars" was the need for a fuel dock. Moreover, in a survey of commercial fishermen conducted for this CSP, respondents indicated that a fuel dock was a top need. There is no fuel dock in Noyo Harbor. There is a fuel dock upstream at Dolphin Isle Marina, primarily servicing smaller vessels due to the shallow depth of the upstream channel. Lack of a fuel dock likely keeps some larger transient vessels from stopping in Noyo Harbor.

2. **Flake Ice.** Participants in the stakeholder open house selected “upgraded flake ice/cold storage” as the #2 issue receiving "Harbor Dollars." Respondents to the fisherman survey indicated that flake ice supplies were limited. Flake ice supplies are important for fishermen as a way to keep fish fresh onboard vessels while at sea. Currently, the only flake ice supplier reports they have made some equipment upgrades, however additional equipment, is needed for efficiency and cost savings. They also felt that co-locating ice and fuel at one dock could be advantageous for both services.

3. **Dredging.** Harbor entrance and channel dredging was the #3 issue at the stakeholder open house, and the top issue for waterfront businesses who were separately surveyed for this CSP. Several factors potentially undermine regular channel dredging. Harbor channel dredging by the U.S. Army Corps of Engineers is largely funded through the federal Harbor Maintenance Trust Fund (HMTF), which receives revenue from taxes on waterborne cargo and on cruise ship passengers. There has been a growing gap between HMTF receipts and Congressional appropriations for dredging.

   Thus, a challenge to maintaining this critical service in Noyo Harbor is identifying match funding, which can come from either local or State sources. Another challenge to sustaining channels of adequate depth in Noyo Harbor is the lack of a permanent dredge spoils disposal site. Dredge spoils are temporarily stockpiled at an upland site, and in the past have been trucked to various locations for upland disposal. There is no permanent upland disposal site in the area, trucking spoils is costly, and the interim ocean disposal site expired in 1997.

4. **North Harbor Vehicle Access and Parking.** Participants at the stakeholder open house indicated that improved North Harbor vehicle access was the 4th largest recipient of "Harbor Dollars," and this was also tied for second most frequently cited need in the waterfront business survey. Concerns about vehicle access relate to the lack of a secondary emergency access into the north harbor area as well as issues relating to inadequacy of parking for both automobiles and delivery vehicles. Improved public parking in the North Harbor area was tied for the second most frequently cited needs in the waterfront business survey.

5. **Mooring Basin.** Reconstruction and reconfiguration of the mooring basin was the #5 issue identified by participants at the stakeholder open house using their "Harbor Dollars." The Harbor District has completed the initial conceptual planning and cost estimates for the mooring basin project. It is anticipated that the mooring basin improvements would be constructed in phases over a period of three years with a total cost of approximately $9.3 million.

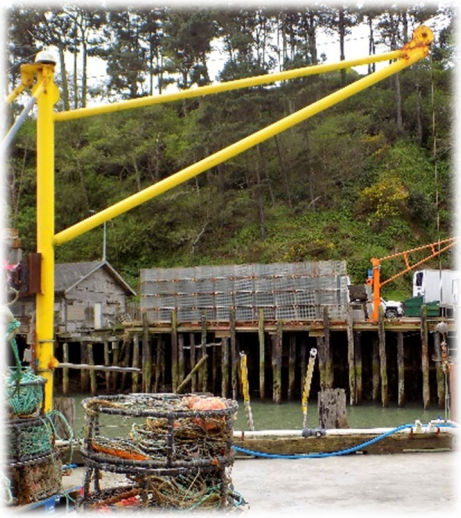
6. **Fish Cleaning Station.** A public fish cleaning station on the south side of Noyo Harbor was the #6 issue identified by participants at the stakeholder open house using their "Harbor Dollars." A fish cleaning facility is a common amenity offered in harbors such as Noyo with active charter and recreational fishing operations.

7. **Local Coastal Program Update.** An updated Local Coastal Program (LCP) was the #7 issue identified by participants at the stakeholder open house using their "Harbor Dollars." The interest behind an LCP update is to make it easier for businesses to locate, expand, or remain in the harbor by lessening the restrictions on allowable uses imposed by the Fishing Village land use designation.

8. **Fish-buyers, Receivers and Processors.** The 8th most important issue receiving "Harbor Dollars" at the stakeholder open house was the need for more fish buyers, receivers, and processors. In addition, respondents to the fisherman survey indicated that the number of fish buyers was below average in terms of adequacy. Declining landings of groundfish and salmon since the 1990s has led to an associated declining in the number of fish buyers operating in Noyo Harbor. For example, the number of receivers who buy groundfish landed by trawlers in Noyo Harbor declined from 8 in 1996-2000 to 4 in 2011-2015.

9. **Gear Storage and Repair Site.** A shoreside gear storage and repair site was the #9 issue identified by participants at the stakeholder open house using their "Harbor Dollars." The availability of gear storage and repair sites is a particular concern for commercial fishermen, and there is potential benefit for Commercial Passenger Fishing Vessel (CPFV) operators and sport fishermen as well.

10. **Improved Hoist Facilities.** Respondents to the commercial fisherman survey indicated that improved hoist facilities were a top need. This was also the #10 issue receiving "Harbor Dollars" at the stakeholder open house. Forthcoming improvements to the high dock may address this concern.



11. **Boatyard/Marine Services and Supplies.** Respondents to the commercial fisherman survey indicated that additional boatyard and related marine repair services were needed in Noyo Harbor, as such services were deemed inadequate. This was also the #11 issue receiving "Harbor Dollars" at the stakeholder open house. Presently, there is one boatyard business operating in Noyo Harbor.

    Respondents to the commercial fisherman survey indicated that the availability of ship chandlery (marine supplies) is inadequate and thus needed in Noyo Harbor. This was also the #11 issue receiving "Harbor Dollars" at the stakeholder open house (along with boatyard/marine repair services). There is no longer a ship chandlery business operating out of Noyo Harbor, and thus vessel operators must travel out of the area to procure vessel parts and supplies or order online and wait for deliveries.

12. **Sidewalks, Trails and Bike Lanes.** Improved sidewalks, trails and bicycle lanes was the #12 issue identified by participants at the stakeholder open house. Conversations at public meetings indicated this need was particularly acute in the North Harbor area, and a third of waterfront businesses surveyed indicated that such sidewalks were needed. Improved sidewalks, shoulder, and pedestrian/bicycle access was the #2 most desired issue in the community survey, and the lack of these was cited by 75% of community survey respondents as the reason for why they do not visit Noyo Harbor.

    More than 75% of community members responding to the survey for this CSP indicated that they would be “very” or “extremely” likely to attend fisherman’s or farmer’s markets and make purchases if they were held at a facility in Noyo Harbor. Roughly the same percentage of community members responding to the survey indicated they were “very” or “extremely” likely to attend community events in Noyo Harbor such as festivals, fairs, crafts/flea markets, annual celebrations, or public performances involving music, theater, or other performing arts.

## Recommendations

The recommendations in Section 7 are intended to have economic, environmental and social benefits and are based on fishing industry and community, interviews surveys and stakeholder events. In addition, City of Fort Bragg representatives, Non-Governmental Organizations and local businesses were consulted. Recommendation development was also shaped by an economic, social and environmental assessment of the fishing community operational setting. The recommendations are intended to facilitate fishing community and working waterfront sustainability, to establish long term continuity, and to maximize economic, social and environmental return on investment.

| **SUMMARY OF RECOMMENDATIONS FOR KEY ISSUES**<br>**Facilities, Access, Regulatory Concerns, and Marketing** |
|---|
| **Facilities** |
| **Ice House** – Pursue full rehabilitation or new construction of ice making facility and cold storage. |
| **Fuel Dock** – Establish an operational fuel dock in conjunction with mooring basin reconstruction so boaters do not need to rely on more distant sources. |
| **Gear switching, repair and dry storage space** – Identify suitable location for this needed amenity to support commercial operations. |
| **Mooring Basin reconfiguration/reconstruction** - Assemble funding and undertake multi-year process to reconstruct mooring basin facilities. |
| **Fish Cleaning Station** - Establish a fish cleaning station in the south harbor to support charter and recreational fishing and to ensure proper disposal of fish waste. |
| **Noyo Harbor District Facilities Master Plan** – Prepare comprehensive facilities master plan as groundwork for necessary capital improvements to support commercial and recreational fishing. |
| **Access** |
| **Dredging management** – Identify opportunities for District to finance necessary dredging of the mooring basin and upper Noyo River as well as for maintaining suitable disposal site for dredged materials. |
| **North Harbor circulation improvements** – Establish a secondary emergency access to/from the north harbor; improve parking and access for pedestrians and bicyclists. |
| **Environmental and Regulatory Concerns** |
| **Fisheries access** – Examine diminished fishing opportunities that undermine the economic viability commercial fishing in the region whether through natural fluctuations, or fisheries regulations. |
| **Sea-Level Rise** – Collaborate with regional partners in preparation of a Sea-Level Rise Vulnerability Assessment to ensure essential public infrastructure will withstand the effects of projected sea-level rise. |
| **Local Coastal Program amendment** – Encourage Mendocino County to amend the very restrictive zoning regulations enforced under the Fishing Village land use designation. |
| **Promotion and Marketing** |
| **Increased tourism facilities** – Increased use/marketing of updated district facilities (south side) and marketing of events. |
| **Coordinate with Visit Mendocino and Visit Fort Bragg** - Reach out to local and regional tourism agencies to ensure that Noyo Harbor is promoted as a visitor destination. Consider options for branding locally- and sustainably-harvested seafood. |

## Funding Sources

The CSP lists nearly 20 potential funding sources, primarily grants and loans for which the District could be eligible. They include State, federal and local sources as well as public-private partnerships and conservation NGOs. The CSP also identifies resources that are available to local businesses to obtain business assistance and low-cost financing.

## Appendices

Appendices include the following documents to provide the District and fishing community with additional resources when considering implementation opportunities.

Appendix A – Community Outreach Documents

- Waterfront Business Survey Methodology, Survey, and Results
- Fishing Community Survey and Results
- Community Member Survey Methodology, PSA, Survey, and Results
- Noyo Harbor Community Sustainability Plan Stakeholder Meetings
    - Stakeholder list
    - Stakeholder Meeting #1 Agenda and Summary Notes – September 26, 2018
    - Stakeholder Meeting #2 Agenda and Summary Notes – November 8, 2018
    - Stakeholder Open House Agenda, Guide, & Summary Results – February 13, 2019

Appendix B

- Sea Level Rise Analysis

## Implementation Matrix

An Implementation Matrix for the recommendations was also developed for the Community Sustainability Plan and is on file at the Harbor District office.

# 1. INTRODUCTION

## 1.1 NOYO HARBOR DISTRICT OVERVIEW

Noyo Harbor is a fishing port located on the coast of Mendocino County just south of the City of Fort Bragg near the mouth of the Noyo River. It is the largest all-weather port between Bodega Bay in Sonoma County and Humboldt Bay in Humboldt County. Noyo Harbor supports a large commercial fishing fleet as well as many sport fishermen and recreational boaters.

**Commercial fishing vessels docked in Noyo Harbor**

The Noyo Harbor District ("Harbor District") was established in 1950 as a designated port district. The Harbor District is governed by an appointed five-member Commission ("Harbor Commission"). Two commissioners are appointed by the Fort Bragg City Council, two are appointed by the Mendocino County Board of Supervisors, and one is appointed jointly by the City Council and the Board of Supervisors. Under the Harbors and Navigation Code of the State of California, the Harbor Commission's responsibilities are "to organize, fund, build, administer, and maintain" the Noyo Harbor.

The Harbor District's boundary encompasses 43 square miles and extends from the community of Cleone on the north to the community of Caspar on the south. It includes all of the land within the City of Fort Bragg and extends inland approximately four miles (See Figure 1.1).

The population within the boundaries of the Noyo Harbor District is approximately 10,000, of which approximately 7,250 are within the City of Fort Bragg. This is roughly 11 percent of

Mendocino County's population of 87,841, although the District accounts for only one percent of the 3,506 square mile County area (PCA, 2014).

The Harbor District owns and operates the 256-berth Noyo Harbor Marina and associated facilities which include: a launch ramp, hoist, main pier, parking lots and storage, restrooms and showers, District office building/maintenance shop, and Grader Park that is used for community events. These facilities are located on the south side of the Noyo River. The District manages a public launch ramp and parking lot upstream of the marina that is owned by the State Department of Boating and Waterways. The District also manages and maintains a public parking lot and a dredge materials storage site on the north side of the river near its mouth. These facilities are leased from the City of Fort Bragg.

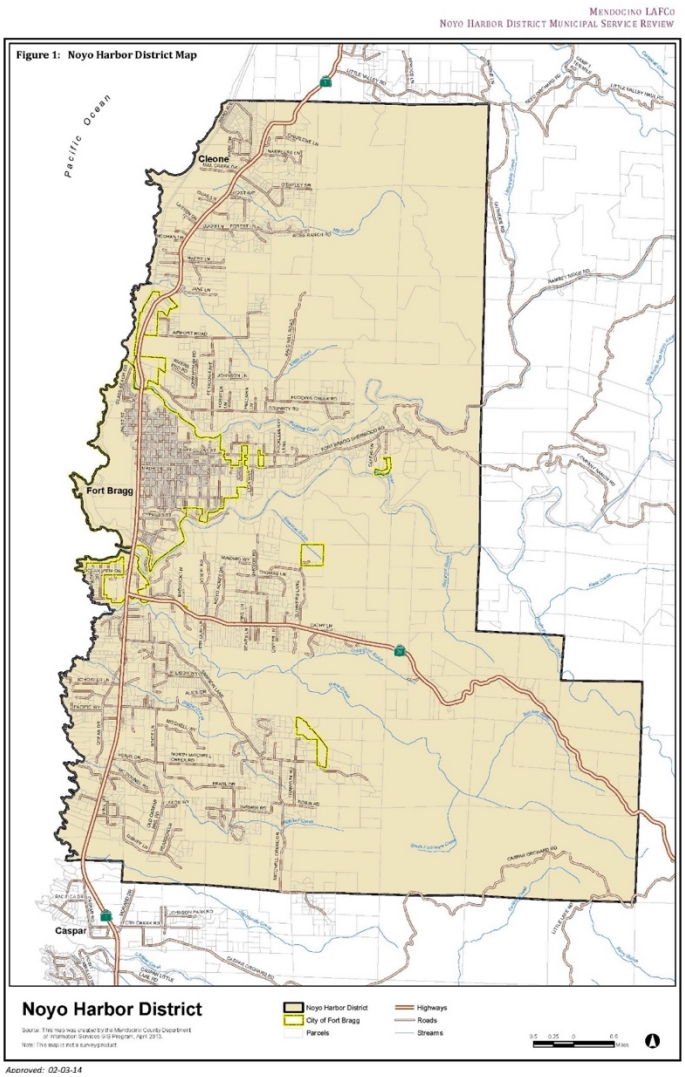



**FIGURE 1.1 - NOYO HARBOR DISTRICT BOUNDARY MAP**

A private marina, Dolphin Isle Marina and RV Park, is located upriver from the Noyo Harbor Marina and provides berths for about 150 boats. The harbor also has a Coast Guard search and rescue station and numerous fishing support facilities including: bait and tackle shops, boat building/repair shops, charter operations, fish buyers, and fish processing plants, fish markets, an ice plant, marine supply stores, seafood restaurants, and lodging facilities.

Noyo Harbor District owns 8 parcels within the Harbor:

- Parcel Number 018-230-09 is a triangular shaped parcel that aligns with the southern bank of the Noyo River. It contains a small northwestern portion of the Noyo Boat Basin, the terminus of Basin Street, and a majority of it is wooded hillside.
- Parcel Number 018-250-19, on the south side of Noyo River is to the east of South Harbor Drive. Includes a majority that is wooded hillside and the rest contains the south half of the Harbor District's Parking Lot.
- Parcel Number 018-240-22 is the largest of the District's Parcels. Also, on the south side of Noyo River, it contains the Noyo Harbor District Office in its southern portion, the

greater majority of the Noyo Boat Basin, and wooded hillside on the southern and western border and transected by Basin Street.

- Parcel Number 018-240-26, on the South side of the Noyo River, is a narrow parcel positioned between Makela Boat Builders and Captain Bobino's.
- Parcel number 018-140-27, on the north side of Noyo River, is another small and narrow parcel that runs roughly east-west and on the east side of N Harbor Drive and just north of the truck staging area.
- Parcel Number 018-140-28 is opposite of and similar in size and shape to parcel number 018-140-27. Small, narrow, running east-west, this parcel lies on the west side of North Harbor Drive and just north of Estes Marine.
- Parcel number 018-140-50 is another small narrow parcel, this one on the North side of Noyo River. It runs east to west and is sandwiched between Noyo Fishing Center and Ocean Fresh, LLC.
- Parcel Number 018-130-53 is one of the more moderately sized parcels on the north side of the harbor. It is just east of Django's Rough Bar and runs up to just below the overpass of Shoreline Highway/Highway 1. Its southern boundary line is adjacent with northside shoreline of the river.

## 1.2 NOYO HARBOR COMMUNITY SUSTAINABILITY PLAN PURPOSE

The Noyo Harbor Community Sustainability Plan (CSP) offers a long-term, strategic roadmap to help the Noyo Harbor District identify key priorities and allocate resources to support commercial fishing and broader harbor-related interests. The CSP provides priority recommendations that focus on key issues identified by Noyo Harbor's fishing community and other working waterfront stakeholders. The CSP compiles a public record of the current condition of the harbor's commercial fishing industry and its working waterfront that can be used to help inform actions taken by State and federal policy-makers, local government entities, and the broader community around the working waterfront.

The CSP process is intended to give the commercial fishing industry a stronger voice about decisions regarding physical infrastructure and harbor management- as these decisions can directly affect their livelihood. The CSP process is intended to raise the awareness of local businesses, civic and political leaders, and the broader coastal community regarding the needs, economic performance, and cultural role of the commercial fishing industry that operates out of Noyo Harbor. The CSP also fulfills Magnuson-Stevens Fisheries and Conservation Act ("MSA") requirements for fishing communities that are engaged in the West Coast Limited Entry Groundfish trawl fishery.

The Harbor District sees the CSP process as a strategic opportunity to shape policies that will both preserve the working waterfront and increase support for Noyo Harbor's commercial fishing community. The CSP is also an effective tool for increased Harbor sustainability and resilience in the face of many challenges related to regulatory, economic and environmental conditions.

The Harbor District and the community it serves recognize Noyo Harbor's importance in providing jobs in the commercial fishing industry as well as in marine-related recreation and tourism. In addition to planning for an economically viable and sustainable commercial fishing industry, the recognizes the Harbor's unique opportunities for community investment, tourism, marine stewardship, and regional cultural heritage and identity. This CSP is community-driven and based on input from the Noyo Harbor District and interested members of the community. It provides a prioritized action plan that is informed by economic, social and environmental conditions in Noyo Harbor.

## 1.3 COMMUNITY ENGAGEMENT PROCESS & COMMISSION GUIDANCE

The Noyo Harbor CSP was prepared for the Noyo Harbor District Board of Commissioners ("Harbor Commission") by Planwest Partners, Inc. ("Planwest"). The CSP documents a strategic planning effort that focused on community and stakeholder input and perspectives gleaned from surveys, interviews, and participation at public meetings.

The community engagement process involved a wide array of participants in the Noyo Harbor commercial and charter fishing industry, along with working waterfront business owners and operators, property owners, and residents of the adjacent coastal region.

**Stakeholder Open House February 13, 2019**

The Planwest team, together with Harbor District staff and Commissioners, implemented an extensive outreach plan to solicit community input and identify high-priority issues. The community engagement process involved preparation of an initial contact list for the working waterfront that included commercial fishermen, business owners and operators, landowners, special interest groups, and civic leaders. One-on-one interviews were conducted in person and by telephone and follow-up phone calls and email exchanges were provided, as needed. Three Noyo Harbor stakeholder meetings served as key events to engage the fishing community. The stakeholder group included participants in the Noyo-area commercial fishing industry, commercial passenger fishing vessel (CPFV) operators (i.e., charter vessels or party boats), Noyo Harbor-area business owners and operators; land owners, and interested members of the public.

Additionally, three targeted surveys were conducted. The first survey was directed at Noyo Harbor business owners. The second survey was directed at commercial fishermen and CPFV operators based in Noyo Harbor. The third survey targeted the broader Noyo-Fort Bragg

area community. At each stage, survey content was reviewed by Harbor District staff and the Harbor Commission prior to release and distribution. Each survey was anonymous and responses were not linked to any specific individuals or businesses. Participation was voluntary. The results of the three surveys are summarized in this CSP.

The Noyo Harbor Business Owner Survey was developed for the purpose of aggregating the various responses to reveal broad, overall views and opinions of waterfront businesses. The following is the distribution methodology for this first survey:

Initial outreach was made through telephone based off an existing community profile data. From this profile the team confirmed and adapted the data to be brought current through the help of Harbor Commissioners, District staff and stakeholders. Changes were noted in the fishery support and visitor-serving establishments currently operational in Noyo Harbor. The purpose of these telephone inquiries was to familiarize the business owner or manager with the CSPs project scope and to introduce the team assisting the Commission in accomplishing CSP outreach.

Initial telephone contact included four questions regarding the number of full and part-time people their business employs, the dates that would define their peak season, whether or not their businesses had experienced capital growth or decline over the prior two years, and if willing, how they would like to complete the rest of the survey. This extended portion of the survey was offered via the on-line platform, Survey Monkey©, email, phone interview or hard copies sent through US Postal Service.

The second survey released was the Noyo Harbor Area Fishing Community Survey. Based on feedback from the first survey conducted, this survey was only distributed through paper copies. The District maintains a Noyo Harbor boat slip tenancy register and the Fishing Community Survey was mailed to those tenants as well as made available at the Harbor District office. This survey focused on adverse regulatory effects on fishing operations, importance of sustaining the working waterfront, adequacy of shoreside and port infrastructure and services provided, the effects of environmental conditions on fisheries of importance, and open-ended response style questions for improvements or suggestions related to local marketing opportunities that could benefit commercial operations. Included also was a prompt for suggestions that might benefit charter and/or pleasure boating excursions. Survey two was much more specifically detailed than the first in order to capture the complex layers of challenges and issues facing the contemporary commercial fishermen and their resilience in an unstable regulatory climate.


The third and final survey conducted was released to a community-wide audience requesting feedback from the broader Fort Bragg community. To address concerns about non-locals dominating responses, a question was included to identify the anonymous respondent as either a resident or non-resident of the Mendocino coast. This survey was offered through the on-line Survey Monkey© platform as well as by paper and email distribution with assistance from the Fort Bragg Visitor's Center, the Noyo Center for Marine Sciences, the Noyo Headlands Unified Design Group, the City of Fort Bragg, the Mendocino Land Trust, and the C.V. Starr Community Center. Public Service Announcements were made on KOZT "The Coast" radio station and KZYX public radio station directing listeners to locations to find the survey. The on-line platform yielded very encouraging returns for this survey. The Noyo Harbor Community Member Survey focused on the public's perception of the harbor as a community asset and key interests for its future. Specifically, respondents were asked to provide detail on how frequently they visited the north and south sides of Noyo Harbor (or why not) and for what purpose, how welcome, safe and satisfied they feel with their experience as visitors, there semblance of pride in the harbor as a part of Fort Bragg's historical and cultural identity, the likelihood of their participation in future community events should an event facility be established or the fisherman's market be expanded, and questions regarding their familiarity with the commercial fishing participants and the Harbor District's Marina Redevelopment Plan.

In addition, a webpage was developed with information relating to the CSP and ways for people to engage with the CSP process. This webpage was hosted on the Noyo Harbor District website. Content on the District website included the following; The overview of the CSPs approach and purpose, a map of Noyo Harbor detailing the Fishing Village parcels (including District owned parcels and the surrounding, coterminous City of Fort Bragg), summaries of Stakeholder meetings (including presentation slides) as well as a concerned community member's questions and correlating team responses. The CSP portion of the webpage included a form by which to contact the NHD office with questions or comments on the CSP process.

Team representatives staffed a Noyo Harbor CSP information booth at the 2018 Mendocino Ocean & Seafood Fair on October 6, 2018. The event (organized by the Mendocino Area Parks Association and held at Noyo Headlands Park) provided an opportunity to distribute information and to discuss the CSP with local residents and visitors.

While preparing the CSP, the Planwest team provided regular updates to the Noyo Harbor Commission at the Commission's regular monthly meetings. Harbor Commissioners and staff also attended the three stakeholder meetings.

## 1.4 NOYO HARBOR/FORT BRAGG REGION - OVERVIEW

The coast of northern California consists of beaches, estuaries, bluffs, and forests between the Coast Range and the Pacific Ocean. Noyo Harbor is located on the coast of Mendocino County near the southern edge of the City of Fort Bragg, just north of the western terminus of State Route 20 at State Route 1. It is approximately 165 miles north of San Francisco. Noyo Harbor is situated just inside of the mouth of the Noyo River, east of the Noyo River Bridge. The geography of Noyo Harbor is defined by the deeply-incised Noyo River channel and estuary.

**Up river view of waterfront businesses Noyo Harbor**

The Noyo River watershed covers 72,323 acres, with headwaters on the upper slopes of the Coast Range immediately west of Willits. The river flows through mountainous terrain covered by Redwood and Douglas fir forests. The climate is moderate with an average annual temperature of 53 degrees Fahrenheit and an average annual rainfall of 40 - 65 inches.

The coastal region of Mendocino County was inhabited by Native Americans of the Pomo tribe for approximately 10,000 years. The first sawmill in the region was built near the mouth of the Noyo River in 1852. The U.S. Bureau of Indian Affairs established the Mendocino Indian Reservation in 1856, spanning the area from the Noyo River to the Ten Mile River. In 1857, the Fort Bragg military outpost was established to "control and safeguard" the native populations that had been displaced to the Mendocino Indian Reservation. As the lumber industry grew, the reservation and the fort were closed just two years later, and native peoples were forcibly relocated to a reservation in Round Valley.

The City of Fort Bragg was incorporated on August 5, 1889. It was a lumber town and, for over 100 years, the timber industry was the primary economic driver in the community. Commercial fishing has also been an important part of the economic base of Fort Bragg and the surrounding communities. The fishing industry on the north coast grew along with the timber industry and Noyo Harbor became a major commercial fishing port known for its salmon and other quality fish products.

Since its inception, Fort Bragg was the largest city on the coast between Eureka and San Francisco. The city presently encompasses approximately 2.92 square miles of land and its population of approximately 7,300 residents has fluctuated very little over several decades. Noyo Harbor is not within the city limits of Fort Bragg, but it is surrounded by the city on three sides.

As in many areas of California and the American West, early patterns of nearly unlimited harvest of timber and fish resulted in resource depletion and associated environmental impacts. In turn, this led to the establishment of regulations intended to preserve natural resources for future years and generations. In the context of fisheries management, regulations affect when, where, how, and who may engage in harvest activity. Today's commercial fishermen and CPFV operators have had to be resilient in the context of many complex and challenging regulations which, together with other economic and environmental factors, have helped shape the fleet operating out of Noyo Harbor.

While service industries and tourism dominate the economy around Noyo Harbor today, historically, the timber and fishing industries have been core components of the regional economy, and these industries continue to serve as key elements of the region's cultural identity.

Factors such as market conditions, public values, stock abundance, fishing technology, and changing fisheries management have each shaped the present-day Noyo-area commercial and CPFV fishing fleets. Jurisdiction over the management of local fisheries is generally based on proximity to shore, with state jurisdiction in nearshore coastal waters and federal jurisdiction extending beyond state waters to the limit of the U.S. exclusive economic zone.

## 1.5 NOYO HARBOR FISHING COMMUNITY

Noyo Harbor is one of Northern California's primary fishing ports. The region is notable for its Dungeness crab, Chinook salmon, red sea urchin, and groundfish fisheries. Key groundfish species include lingcod, sablefish, Dover and Petrale sole, and various rockfish species.

**Commercial vessels in Noyo Harbor boat basin**

A small commercial fishing industry in Noyo Harbor began in the 1890s, using rowboats to land Coho salmon, halibut, lingcod and rockfish. Fish were sold from horse-drawn wagons in town. Transportation limited the wider distribution of the local catch until roughly 1913. At this time, a receiving and processing plant was opened that allowing fishermen to send their boxed, iced salmon to outside markets via the rail line to Willits that had recently been constructed. From there, the iced fish made their way to San Francisco. By 1920, there were up to 300 boats that made the Noyo Harbor their home port. The abundance of groundfish in the area provided a valuable fishery for the fishermen outside of salmon season. The groundfish fishery involves the use of trawl nets, a non-selective harvest method that can result in harmful catch of non-targeted species ("bycatch") (Pomeroy, 2011).

By the 1970s, there was a substantial increase in groundfish landings due to advanced processing techniques, increased demand, and federal policy supporting expansion of the nation's fisheries. This culminated in the 1982 peak of shoreside landings of trawl-caught groundfish at just over 16 million pounds, valued at $6.5 million in ex-vessel revenue out of Noyo Harbor alone. Declining groundfish stocks became evident, and by 1999, many key species were declared overfished. In addition, the groundfish trawl fishery was considered overcapitalized, with more vessels, participants, and gear than were necessary to harvest available catch. Overcapitalization can result in lower overall profits and increased economic stress to commercial fishermen. Federal fishery policy responded to these emerging issues through several measures, with one key action being the federal West Coast groundfish trawl vessel buyback program. The vessel buyback program permanently retired 91 groundfish trawl vessels on the U.S. West Coast. In Noyo Harbor, of the 12 resident groundfish trawlers, 7 participated in the buyback program.

The groundfish story is just one piece of a complex process of decline in commercial fishing. Another change that impacted the fishing industry was reduced access to Chinook and Coho salmon. Along with the federal buyback of the early 1990s, non-tribal salmon fishermen saw allocations reduced significantly. Then, in 2008 the season in Fort Bragg was substantially reduced from what was once a 10-month season to land salmon to a 45-day season and in 2009 the fishery was closed completely statewide.

Dungeness crab, another significant source of revenue for Noyo fishermen, has experienced ongoing impacts in the form of expanded temporal closures due to the presence of domoic acid levels above the federal action level.

In addition to the commercial fleet, Noyo Harbor berths a number of commercial passenger fishing vessels (CPFV) that serve anglers fishing for salmon, Dungeness crab, rockfish, and albacore tuna. Tour operators provide sightseeing, whale watching, and touring cruises. As a sport fisherman attraction, the CPFV operators of Noyo Harbor are valuable to the community, attracting visiting anglers who spend money in the area on accommodations, food, and other recreation.

**Chinook Salmon**
***Oncorhynchus tshawytscha***

Groundfish quota is an important component of this CSP because the Magnuson-Stevens Act of 2017 mandates that, in order to be eligible to participate in a limited access privilege fish harvest program, a fishing community must "develop and submit a community sustainability plan to the Pacific Fisheries Management Council (PFMC) and the

**Lingcod**
***Ophiodon elongatus***

Secretary that demonstrates how the plan will address the social development needs of coastal communities, including those that have not historically had the resources to participate in the fishery, for approval based on criteria developed by the Council that have been approved by the Secretary and published in the Federal Register" (MSA 2007 p. 121, Stat. 3587-3588).

The catch-share regime, or individual transferable quota (ITQ), instituted in the federal groundfish fishery in 2011, is a limited access privilege protocol (LAPP) program. Groundfish is an important fishery for the Noyo Harbor commercial fleet today, although not as significant as the harvests in the 1970s and 1980s.

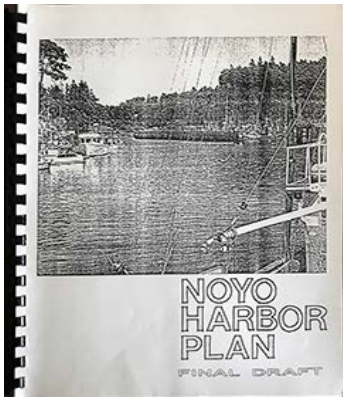
The Fort Bragg Groundfish Conservation Trust operates a community quota fund with more than 4 million pounds of groundfish trawl quota available for lease, as a way to secure local access to the groundfish fishery for the Fort Bragg community. Leasing quota share from a community quota fund is a strategy designed to reduce the cost for the next generation of local groundfish fishermen to access quota shares without needing many thousands of dollars to purchase such quota. As such, a community quota fund can be an effective way to reduce barriers to entry for new fishermen. Acquiring additional quota shares also helps Noyo Harbor fishermen to operate economically.

# 2. NOYO HARBOR PLANS AND LAND USE REGULATIONS

The Harbor District prepares and adopts plans for capital improvement projects in conjunction with its annual budgeting process. The District's last long-range planning effort, the Noyo Harbor Plan, was undertaken in 1992 and it generated a list of recommended facility improvements to guide Harbor District's efforts. Like the CSP, the Noyo Harbor Plan was funded by a grant from the State Coastal Conservancy. In 2014, a Municipal Service Review document prepared for the Harbor District identified an updated list of opportunities for operational and facility improvements. In 2018, the District retained a consultant to prepare a strategic plan for funding and implementing the replacement of the Noyo Harbor Marina. Each of these documents is summarized below as background for the CSP's updated list of priority public improvements to support the Noyo Harbor fishing community and working waterfront. Successful implementation of the priority capital improvement projects will require strategic planning, focus and allocation of resources.

## 2.1 NOYO HARBOR PLAN (1992)

In 1992, the Noyo Harbor District engaged in a comprehensive planning process that addressed many of the same topics currently being examined in the CSP process. This process resulted in the Noyo Harbor Plan (also known as the "Noyo Harbor Urban Waterfront Restoration Plan") which was prepared with extensive input and review from a citizens advisory committee, local commercial fishermen, and District staff. The Noyo Harbor Plan offered recommendations for facilities improvements in the following areas:




**Noyo Harbor Plan, 1992**

1. Commercial Fishing and Recreational Boating: The Plan identified the need for key support facilities including: a mobile lift haul-out (to be located on the south side of the Harbor); a boat repair yard to service the haul-out; expansion of the existing work dock and possible addition of new work dock space; additional showers and laundry facilities for harbor berth holders. It also recommended a new boat launch ramp for recreational boaters, and that additional boat berths be provided in the mooring basin, in a new marina site, and at under-utilized parcels along the river.

2. Public Works: Plan recommendations focused on traffic circulation and parking improvements including extending North Harbor Drive on the west side of the Highway 1 Bridge to connect with South Main Street at Cypress Street; consideration of a second access road to the south side of Noyo Harbor; and establishment of a public parking lot on the north side of the harbor.
3. Shoreline Access: The Plan provided conceptual layout of a trail system through Noyo Harbor and around Noyo Bay, including small parking lots and staging areas, viewing decks on the north side of Noyo River, stairway access at either end of the Highway 1 bridge, and possibly a shore-boat taxi service to ferry harbor users and boaters across the river.
4. Recreation and Visitor-Serving Facilities: The Plan recommended that the parking lot at the Noyo Harbor jetty should be expanded and additional day use facilities provided. It also suggested that an educational salmon-rearing facility could be located in the south harbor area.

In the quarter century since the Noyo Harbor Plan was approved, several recommendations have been, or are in the process of being, implemented by the Harbor District or the City of Fort Bragg, including the following:

- Refurbishing and extending the main boat launch at the end of South Harbor Drive, improving the main parking lot in the south harbor, and adding a set of handicapped accessible restrooms in the parking lot.
- Building a viewing platform with interpretive signage and a fish-cleaning station was established in north Noyo Harbor between Carine's Fish Grotto and Ocean Fresh Seafood. The access point is managed by the Mendocino Land Trust.
- Developing a public access trail extending from the top of North Harbor Drive to the north side of Noyo Harbor along an easement on the Harbor Lite Lodge property. The trail is maintained by the City of Fort Bragg.

**Interpretive Kiosk, Noyo Harbor**

- Acquiring and developing public parks on the bluffs on both sides of Noyo Bay. Pomo Bluffs Park extends along the bluffs on the south side of the bay and has a paved, multi-use trail that runs from the Highway 1 at the south end of the Noyo Bridge to the southwestern point of Noyo Bay. On the north side of bay, Noyo Headlands Park includes a multi-use blufftop trail extending from Highway 1 to Pudding Creek where it connects with trails in MacKerricher State Park. Pending funding, the City has conceptual plans to extend the coastal trail at Noyo Headlands Park to the beach at Oceanfront Park along an abandoned roadbed (Old Mill Road) that descends the bluff.

- Acquiring public access easements in conjunction with coastal permits issued for the Noyo Harbor Inn property on Casa del Noyo Drive and the Cummings Trust property on Highway 1 south of the Noyo Bridge.

## 2.2 NOYO HARBOR DISTRICT MUNICIPAL SERVICE REVIEW (2014)

In 2014, the Noyo Harbor District Municipal Service Review ("MSR") was prepared and approved by the Mendocino Local Agency Formation Commission. All special districts within California are required to have an MSR to analyze information about governance structures and efficiencies of service providers and to identify opportunities for greater coordination and cooperation between providers.

While the Noyo Harbor District has primary responsibility for operating the public facilities at Noyo Harbor, the U.S. Army Corps of Engineers is responsible for dredging and maintaining the channel. The Harbor is located primarily within Mendocino County's jurisdiction, although some lands along the periphery are within the City of Fort Bragg's jurisdiction. In addition, the California Coastal Commission and a number of State resource agencies are involved in permitting for development activities in the Harbor. The MSR estimated that the service area of the Noyo Harbor District, which operates the only two public boat ramps within a 50-mile radius, to be about 225 square miles.

The MSR identified several key opportunities to support and improve the functionality of Noyo Harbor, including:

- Creating a new marina area in the lower flats to expand boat capacity;
- Constructing a breakwater to improve channel entrance safety;
- Expanding District boundaries to capture broader tax base from existing harbor users;
- Expanding and improving the main pier for public access and commercial fishing users; and
- Establishing a formalized arrangement for dredging and soil removal to be the sole responsibility of the U.S. Army Corps of Engineers.

## 2.3 NOYO HARBOR DISTRICT - STRATEGIC PLANNING & HARBOR MARINA REDEVELOPMENT PLAN (2018)

In 2018, the Noyo Harbor District contracted with Marina Business Associates to prepare a comprehensive plan for replacement of all of the existing docks (with the exceptions of half of “B Dock” and the recently replaced "C Dock") at the Noyo Harbor Marina. The plan proposes that redevelopment of the marina occur in three phases and include harbor basin dredging, repairs to the existing wave wall, installation of new restrooms and laundry

facilities, installation of a new Fuel Dock with vessel pump-out facilities, and hazmat disposal facilities.

The study includes a comparative market analysis based on data gathered from three comparable coastal marinas: Crescent City Harbor District, Moss Landing Harbor District, and Spud Point Marina in Bodega Harbor. The study provides a pro-forma budget and planning assumptions, and identifies funding requirements based on the Harbor District's net operating income, and potential loan and grant funding.

## 2.4 COASTAL ACT AND LOCAL COASTAL PROGRAM (LCP) POLICIES

This section describes the regulatory framework that governs the permitting process for development in Noyo Harbor under the California Coastal Act and the County of Mendocino's Local Coastal Program.

The California Coastal Act of 1976 ("Coastal Act") includes specific policies that address commercial fisheries, coastal-dependent industrial uses, terrestrial and marine habitat protection, shoreline public access and recreation, lower cost visitor accommodations, visual resources, water quality, as well as other topics. The Coastal Act identifies commercial fishing, coastal-dependent industry and commerce, and coastal-dependent public recreation as the highest priority uses in the coastal zone. Coastal Act policies are the statutory standards applied to Coastal Commission and local government planning and regulatory decisions pursuant to the Coastal Act. Coastal Act policies specifically addressing commercial fishing, boating and harbors include:

**Coastal Act Policies**

**Section 30233(a).** The diking, filling or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: (1) new or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities; (2) maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps; (3) in wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland; provided, however, that in no event shall the size of the wetland area used for such boating facility, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, be greater than 25 percent of the total wetland area to be restored; (4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities; (5) incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and

maintenance of existing intake and outfall lines; (6) mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas; (7) restoration purposes; (8) nature study, aquaculture, or similar resource-dependent activities.

**Section 30224.** Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities in natural harbors, new protected water areas, and in areas dredged from dry land. Section 30234. Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. Existing commercial fishing and recreational boating harbor space shall not be reduced unless the demand for those facilities no longer exists or adequate substitute space has been provided. Proposed recreational boating facilities shall, where feasible, be designed and located in such a fashion as not to interfere with the needs of the commercial fishing industry.

**Section 30235.** Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosions and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

**Section 30255.** Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland.

The Coastal Act provides for the transfer of permitting authority, with certain limitations reserved for the State, to local governments through adoption and certification of Local Coastal Programs (LCP) by the Coastal Commission. Most of Noyo Harbor is in the unincorporated area of Mendocino County and subject to the Mendocino County LCP. Some lands in and around Noyo Harbor are within the city limits of Fort Bragg and subject to the City's LCP.

The Mendocino County LCP establishes the regulatory framework for development in Noyo Harbor. The Coastal Element includes policies to support harbors and commercial and sport fishing and policies which are specific to Noyo Harbor (see below). The policies establish that the commercial fishing industry shall be the primary use in Noyo Harbor and that the Harbor District has an important advisory role with regard to planning and development activities. The policies also identify the County's responsibility to help secure funding for maintenance and harbor facilities improvement, and to develop a secondary emergency access route from the north harbor.

**Mendocino County Coastal Element Policies: Harbors, Commercial and Sport Fishing**

**3.10-1.** At both the Noyo Harbor and Albion Harbor the commercial fishing industry is the primary use and shall be continued in conformance with Coastal Act, Section 30234.

**3.10-2.** The County should request the Noyo Harbor District to provide advice on planning and coordinating commercial fishing facilities, recreational boating, public access and coastal-dependent industrial development within the Noyo River harbor area, including Noyo Bay and all of the area designated as Fishing Village on the land use plan. Such advice would be considered in any amendment of the area land use plan. Such advice would be considered in any amendment.

**3.10-3.** All applications for approval of development projects within the areas described in policy **3.10-1** shall be referred to the appropriate Harbor or Port District for review. Prior to consideration of any application, including a change in the number or size of boat berths or for channel or breakwater improvements in the unincorporated area, the Board of Supervisors shall request a report from the Harbor or Port District or from interested Harbor District members. Utilizing this report and other appropriate information, the County, shall analyze the effect of the proposed development on the commercial fishing industry, and where adverse impacts are found shall require mitigation measures such as reservation of a specified number of berths for commercial fishing boats. The Board shall make a finding as to whether approval or disapproval of the proposed project would adversely affect the commercial fishing industry. If adverse effects resulting from approval are found, the project shall not be approved unless appropriate mitigation measures are required. If the Board finds that disapproval of the project would adversely affect the commercial fishing industry, it may request the assistance of the Harbor or Port District in negotiating agreements for mitigation impacts that will allow the project to proceed.

**3.10-4.** In order to provide for safe and protected anchorages along the Mendocino coast for the maximum number of vessels, especially during seasons of heavy fishing activity, the placement and numbers of permanent moorings shall be regulated. The Noyo Harbor District may be requested to advise in developing and if appropriate implementing an ordinance for controlling the use of moorings and anchorages in Mendocino County.

**3.10-5.** County policies shall support the maintenance and improvement of existing harbor facilities of the region including the design and construction of a breakwater at Noyo Harbor, formulation of a master plan for Albion Harbor, and completion of the Noyo Harbor Master Plan.

**3.10-6.** The County shall provide assistance in securing available funding for the maintenance and improvement of existing harbor facilities.

**3.10-7.** The County shall encourage improved emergency support services provided by the U.S. Coast Guard and other emergency response units.

**Mendocino County Coastal Element Policies: Noyo Harbor**

**4.4-1.** In order to provide for Noyo Harbor's potential port expansion, development on the flat lands within the harbor area shall be limited to uses which are directly related to the coastal-dependent industries of fishing and boat-building. Recreational boating

facilities shall be designed and located so as not to interfere with the needs of the commercial fishing industry. The number of restaurant facilities and housing accommodations on the flats shall be limited to the existing square footage unless it can be clearly shown that a particular parcel or building is not needed by coastal dependent industry. Appropriate sites at the bluff level overlooking the harbor may be utilized for restaurants and other visitor accommodations.

**4.4-2.** The selection and use of dredge spoils disposal sites on flatlands along upstream portions of the Noyo River within the coastal zone shall be coordinated with all concerned public agencies, including the Harbor District and the City of Fort Bragg. Harbor expansion that involves development of wetlands areas shall be carried out in accordance with applicable provisions of the coastal act, including Section 30233, and this plan. Such developments shall be permitted only where there are no feasible less environmentally damaging alternative sites, and where feasible mitigation measures have been provided to minimize adverse environmental effects. This plan shall support harbor-related construction in accordance with the Noyo Harbor District Plan and policies of this Coastal Element. County policies shall support the maintenance and improvement of existing harbor facilities of the region including the design and construction of a breakwater at Noyo Harbor, formulation of a master plan for Albion Harbor, and completion of the Noyo Harbor Master Plan.

**4.4-3.** The County shall develop an evacuation route for the Noyo Harbor area, in addition to North Harbor drive, by re-opening the road west of Agostino's (AP# 18-120-19) for emergency use only. The County shall coordinate evacuation procedures with the U.S. Coast Guard and all concerned law enforcement agencies.

Most of Noyo Harbor is designated Fishing Village, "FV" by the County's LCP. The intent of the FV designation is to ensure that adequate lands are available in Noyo Harbor to support the fishing industry. The FV zoning designation is very restrictive with regard to the types of uses that can be developed in Noyo Harbor. This has helped focus development activity in the harbor on coastal-related uses which, in turn, supports the fishing community and the appeal of the “working harbor.” Non-conforming uses in the harbor face the biggest challenges as the FV zoning makes it difficult and, in some cases, impossible to expand. Further, non-conforming uses which sit vacant for more than a year (for example, Capt’n Flints restaurant) lose their “grandfathered” status and subsequent uses are required to conform to the FV zoning.

## 2.5 OTHER AGENCIES WITH REGULATORY AUTHORITY

**TABLE 2.1- OTHER STATE AND FEDERAL AGENCIES WITH REGULATORY AUTHORITY OVER NOYO HARBOR ACTIVITIES**

| Agency | Authority |
|---|---|
| California Department of Fish & Wildlife (CDFW) | CDFW's mission is to ensure the long-term sustainability of California fish and wildlife resources. CDFW plays a major role in regulating commercial and sport fishing. In addition, CDFW reviews all CDPs for compliance with the Fish & Game Code and various other environmental laws. CDFW, together with other agencies, has permitting authority over work performed in wetlands and waters of the State (i.e., Noyo River). |
| Regional Water Quality Control Board (RWQCB) | Noyo Harbor is within the region of the North Coast RWQCB. The RWQCB is responsible for administering both state and federal regulations for water quality control. The RWQCB has a major role in permitting for boatyards, dredging, filling of wetlands, storm drainage, construction sites, and other activities. |
| State Lands Commission | The State Lands Commission manages tidelands, submerged lands, and beds of navigable rivers, streams, lakes, bays, etc. In 1961, the Noyo Harbor District was granted certain sovereign tide and submerged lands in trust (121 acres and 8.1 shore miles at Noyo Harbor and along the Noyo River) "in furtherance of navigation, commerce, and fisheries upon certain trusts and conditions and providing for the government, management, use and control thereof." The District collects lease revenues from granted public trust lands. The Commission retains authority, as a responsible agency, for reviewing leases and permits for a variety of development activities on granted public trust lands and for issuing public trust lands leases and permits. |
| US Fish & Wildlife Service/NOAA Fisheries (FWS) | FWS is a federal agency dedicated to management of fish, wildlife and natural habitats. FWS is responsible for protecting endangered species, restoring fisheries and wildlife habitat, and managing migratory birds. FWS reviews all development permits that might impact the Noyo River because it supports an anadromous fishery that incudes Coho salmon which is listed as endangered and chinook and steelhead which are listed as threatened under the federal Endangered Species Act. |
| US Army Corps of Engineers | The U.S. Army Corps of Engineers has permitting authority for all construction and dredging in navigable waters, including such activities in the Noyo River. The Corps of Engineers is also responsible for maintenance and repair of the Noyo Harbor jetties and periodic dredging of the harbor channel with a required cost-share contribution from the Noyo Harbor District. |

# 3. CRITICAL INFRASTRUCTURE, FACILITIES, AND SERVICES

## 3.1 PORT FACILITIES AND SERVICES

Viable port operations require physical infrastructure for fleet operations and berthing such as docks, piers, offloading hoists, a fuel facility, dry and cold storage, ice, parking, and marine supplies and services. With the exception of a permanent fuel facility and a vendor with adequate marine supplies, most of this infrastructure exists in Noyo Harbor. Commercial and recreational fishing communities also rely on establishments which provide commodities such as bait, ice, and fuel; and support services such as fish receivers and processors, marine supplies, and marine repair services.

The Noyo Harbor District provides much of Noyo Harbor's physical infrastructure including docks, piers, offloading hoists, vehicle access, parking, launching, storage and repair areas. Private enterprises operating in Noyo Harbor provide other supplies and services.

**Dock with Hoist, Noyo Harbor**

**TABLE 3.1 - NOYO HARBOR MARINA FACILITIES AND SERVICES SUMMARY**

| Facilities and Services | Currently Provided? | In Redevelop-ment Plan? | Notes |
|---|---|---|---|
| Fuel Dock | No | Yes | No fuel dock is significant customer service value issue |
| Pump-Out Facility/Service | Yes | Yes | Available by appointment - $10 service fee |
| Hazardous Waste Disposal | Yes | Yes | Oil disposal drop available |
| Gates | Yes | Yes | Yes - Lockable |
| Public Restrooms | Yes | Yes | In Park areas & recent South side facility |
| Slip Holder Only Restrooms | Yes | Yes | Locked restrooms with showers |

| Facilities and Services | Currently Provided? | In Redevelop-ment Plan? | Notes |
|---|---|---|---|
| Slip Holder Laundry Facilities | No | Yes | |
| Slip Holder Lounge Facilities | No | No | |
| Picnic / Barbecue Facilities | Yes | Yes | Limited. Barbecue and picnic tables in marina park area |
| Launch Ramp | Yes | Yes | New boat ramp April, 2019. |
| Dry Boat Storage Facilities | Yes | Yes | Limited nearby storage yard |
| Vessel Maintenance Services | Yes | Yes / Concession | Limited nearby mechanic and other service vendors |
| Boatyard Facility / Services | No | Yes / | Concession |
| Marina Boat Chandlery Services | No | Yes / Concession | Inadequate chandlery and boat supplies |
| Vessel Charter Services | Yes | Yes | Fishing, whale watching and diving charters available |
| Boat Rental Services | No | Yes / | Concession |
| General Store /Other Retail Services | Yes | Yes | Several small fish and general store operations in basin |
| Restaurant / Other Food Services | Yes | Yes | Several deli, café and full service restaurants in the basin |
| Organized Yacht Club | No | Yes / inactive | Noyo Harbor Yacht Club |
| % of Live-Aboards Allowed in Marina | No | Yes | None currently allowed. 10% max with separate agreement ($300 / month +) |

When commercial fishing based in Noyo Harbor was at its peak in the 1970s and 1980s, the relatively large number of vessels using the harbor supported a full complement of marine supplies and services providers. According to the 1992 Noyo Harbor Plan, in 1990 there were five fish and/or urchin processing plants, three boat repair yards, seven stores that provided marine hardware, equipment and repair, and one boat building yard located at the harbor. Since that time the number of active commercial vessels has declined, which in turn has led to a decline in the businesses that support and maintain these vessels.

The decline in the fishing industry also presents challenges for the Harbor District in maintaining critical harbor infrastructure. The Harbor District is presently addressing the most critical infrastructure needs including a major renovation project on the south side of Noyo Harbor which is scheduled for completion in spring of 2019. This project includes boat launch ramp and parking lot improvements.

**FIGURE 3.1 NOYO HARBOR FACILITIES AND SERVICES**

**Marina Redevelopment Planning**

In 2018, the Noyo Harbor District contracted with Marina Business Associates to prepare a comprehensive plan for replacement of all of the existing docks (with exceptions for half of the salvageable “B Dock” and for the recently replaced "C Dock") at the Noyo Harbor Marina. The plan proposes that redevelopment of the marina occur in three phases and include harbor basin dredging, repairs to the existing wave wall, installation of new restrooms and laundry facilities, installation of a new Fuel Dock with vessel pump-out facilities, and hazmat disposal facilities.

The study includes a comparative market analysis based on data gathered from three comparable coastal marinas: Crescent City Harbor District, Moss Landing Harbor District, and Spud Point Marina in Bodega Harbor. The study provides a pro-forma budget and planning assumptions, and identifies funding requirements based on the Harbor District's net operating income, and potential loan and grant funding.

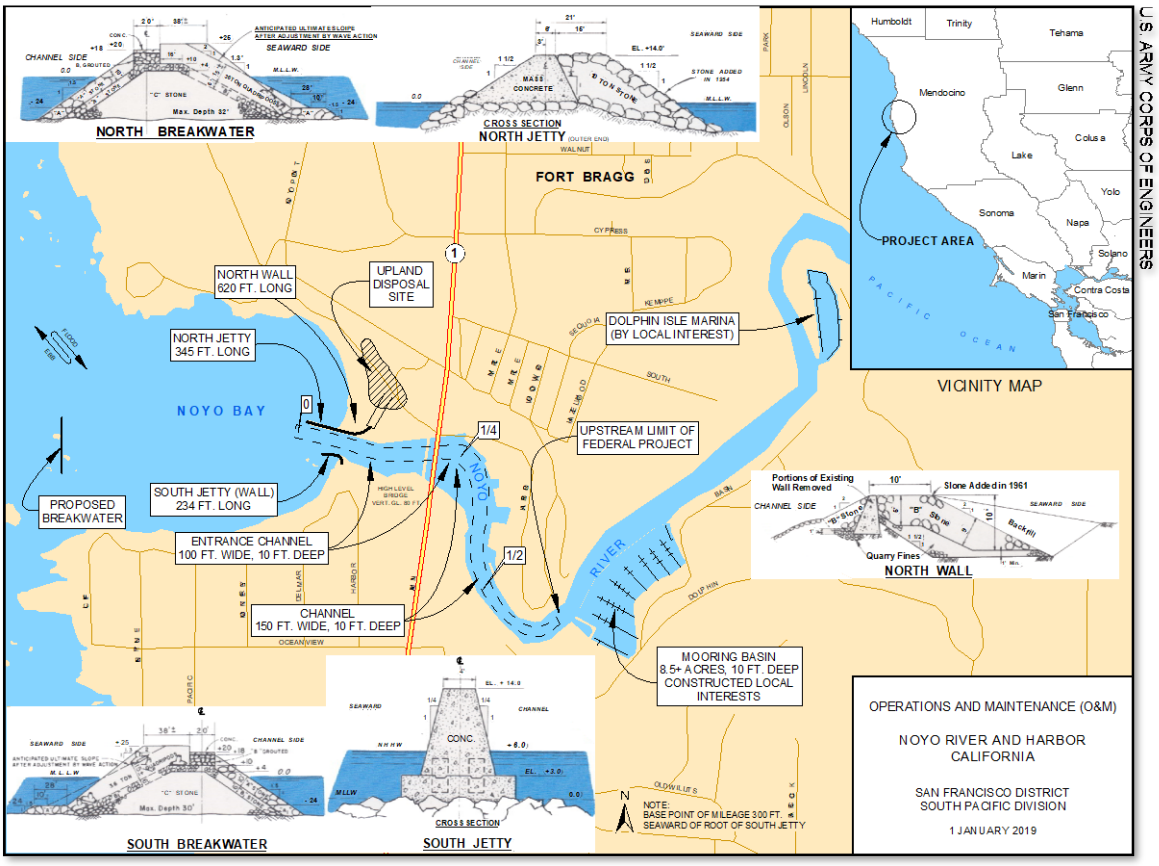
**Vessels Docked in Noyo Harbor Boat Basin**

## 3.2 HARBOR ENTRY AND MAINTENANCE DREDGING

Figure 3.2 depicts a map prepared by the US Army Corps of Engineers that shows details of a Jetty Repair project for Noyo Harbor that is proposed to be completed in 2018/19 (pending funding) to reinforce the north jetty and the south jetty. The map also shows a “proposed breakwater” which would be located south of the entry to Noyo Bay. Funding has not been identified for the breakwater project.

Periodic maintenance dredging of the Noyo Harbor entrance, the harbor channel and the mooring basin is necessary to maintain adequate depths for navigation. The US Army Corps of Engineers provides funding for dredging of the harbor channel and entrance; the Harbor District is responsible for a share of the costs. The Harbor District is solely responsible for maintenance dredging in the Mooring Basin. Dredging of the upper portion of the Noyo River that extends beyond the mooring basin and leading to Dolphin Isle Marina, is also the exclusive financial responsibility of the Harbor District with no federal assistance from the USACE.

**FIGURE 3.2 - NOYO HARBOR OPERATIONS AND MAINTENANCE MAP (U.S. ARMY CORP OF ENGINEERS)**




The Corps of Engineers' Operations and Maintenance schedule provides for a two-year cycle of maintenance dredging of the entrance and harbor channels to a depth of 10’ Mean Lower Low Water, two-year interim inspections, and periodic repairs of the entrance jetties. The harbor channel was last dredged in the 2016 season (July to October).

The Harbor District is responsible for furnishing a suitable upland placement site for disposal of dredge materials for all dredging operations in the Harbor. The District leases a property from the City of Fort Bragg which is referred to as the “North Jetty Upland Disposal Site.” The site is approximately two acres in size and is located immediately inland from Noyo Beach and west of the Noyo River bridge on the north side of the Public Parking lot. Locally known as the “Dredge Spoils Site,” the site is used for dewatering and storage of dredge materials. It has limited capacity and needs to be emptied periodically to accommodate additional material. Disposal of dredged materials has been an ongoing challenge for the Harbor District.

In 2013, the Corps of Engineers published a “Pilot Study Evaluating Nearshore Sediment Placement Sites, Noyo Harbor, CA” following a multi-year study which evaluated potential locations for placement of dredged sediments in an area north of Noyo Bay. Three placement locations offshore of MacKerricher State Park (at depths of 40 to 60 feet, approximately two and five miles north of the entrance to Noyo Bay) were investigated with modelling focused on the southerly two sites. The Pilot Study included field data collection and modeling of

sediment transport and suspended sediment concentration under combined wave and current conditions. The Pilot Study found overall "mild sediment accretion at the coast" in late summer and "significant erosion" in the winter months and recommended that further research be conducted.

The Corps of Engineers has performed a preliminary assessment with projections regarding the volume and characteristics of dredged material, capacity of alternative placement locations, and the economic rationale for continued maintenance dredging. The next step for Corps of Engineers is preparation of a Dredged Material Maintenance Plan, which will identify future placement/disposal sites for the next 20 years of dredging. In 2019, Corps of Engineers proposes to complete a Dredged Material Management Plan, conditional on funding availability.

## 3.3 STREET ACCESS AND PARKING

There are two main access routes to Noyo Harbor- North Harbor Drive, a City of Fort Bragg-owned and maintained street which provides access from State Route 1 to the north side of Noyo Harbor, and South Harbor Drive, a Mendocino County-owned and maintained street which provides access from State Route 20 to the south side of Noyo Harbor. These streets provide paved vehicular and limited pedestrian/bicycle access to the two sides of the Harbor. Other than the State Route 1 bridge across the Noyo River, there are no other bridges providing vehicular, pedestrian or bicycle access between the north and south sides of the Harbor.

**Shoulder of North Harbor Drive**

North Harbor Drive extends eastward from its intersection with State Route 1 and descends into the harbor area where it makes a 180-degree turn and traverses the length of the north harbor to its terminus in the public parking lot at Oceanfront Park. North Harbor Drive is approximately 24' in width without curbs, gutters or sidewalks. The paved surface of North Harbor Drive is in fairly good condition, though the edges of the roadway are crumbling as there are no curbs or gutters and a considerable amount of parking occurs along the sides of the roadway. Placement of gravel or base rock along the roadway edges or a low impact design (LID) engineered solution could help protect the roadway and provide a safer surface for pedestrians.

There have been a number of efforts to identify a secondary or emergency access route into north Noyo Harbor. In the early 1990's, the City evaluated a route that extended from the State Route 1/Cypress Street intersection, across the log decks of a lumbermill property, and

down an old roadbed that traverses the bluffs above Oceanfront Park to connect with North Harbor Drive at the public parking lot.

More recent discussions have focused on an alignment that would utilize an existing private road easement that extends from North Noyo Point Road (just north and west of the North Cliff hotel property), down to the Dredge Spoils Site to connect with North Harbor Drive at the public parking lot.

No studies have been conducted to evaluate the feasibility of obtaining a public access easement or even an emergency vehicle access easement over that route. Consideration would need to be given to ownership, maintenance, potential conflicts with dredging operations, potential geotechnical issues, and the North Noyo Point Road/Highway 1 intersection geometrics.

Access to the south side of Noyo Harbor is provided via South Harbor Drive which extends from State Route 20 to Basin Drive. Basin Drive extends eastward to Dolphin Isle Marina. Both South Harbor Drive and Basin Drive are County-owned and maintained roads. There are ongoing maintenance challenges on the stretch of Basin Drive between the upriver Boat Ramp parking area and Dolphin Isle Marina relating to drainage and slippage of the roadbed.

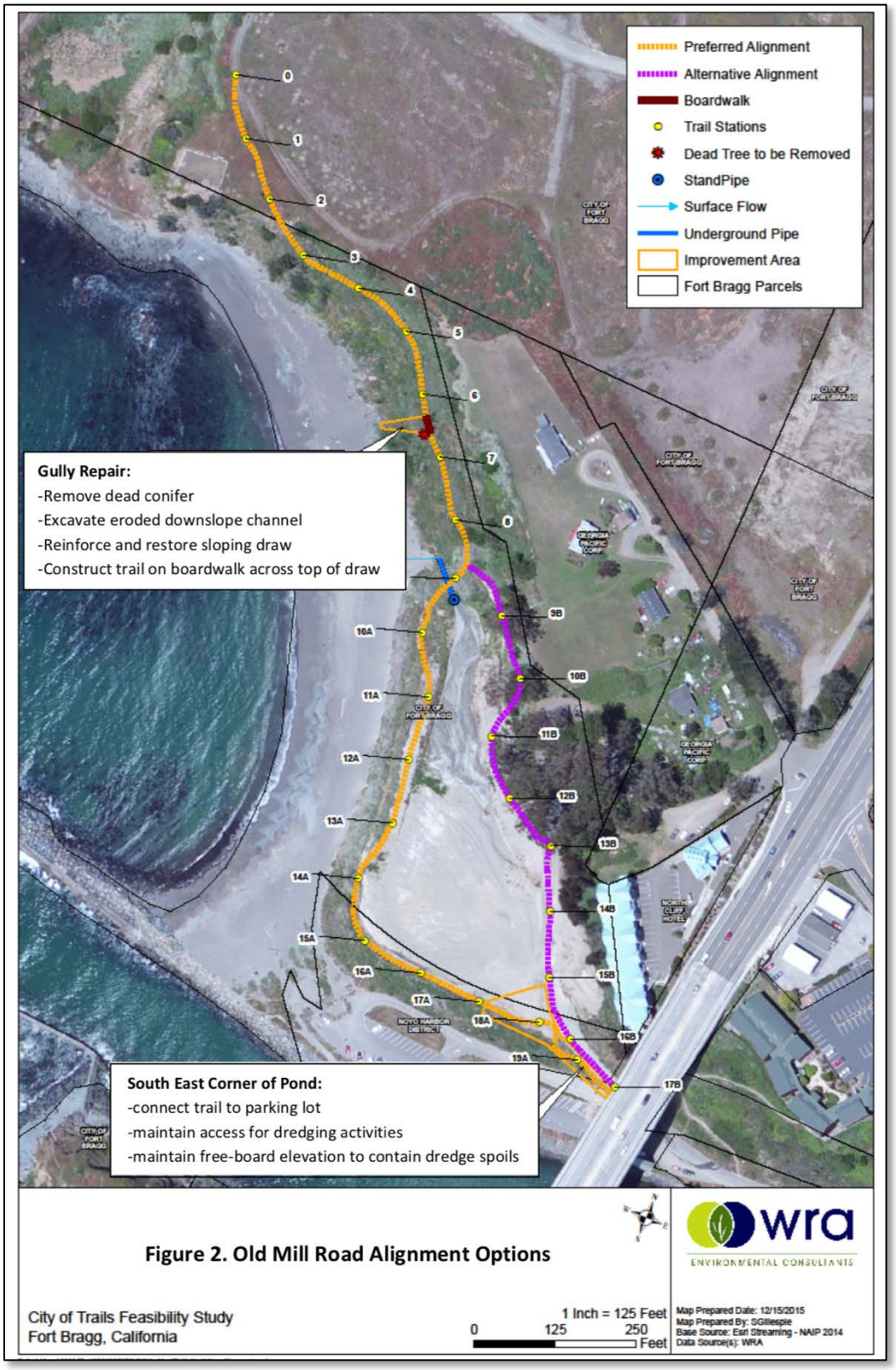
**Upriver Boat Launch**

## 3.4 PEDESTRIAN AND BICYCLE ACCESS

In 2015 and 2016, the City of Fort Bragg initiated a study to evaluate alternative options for improving pedestrian and bicycle access facilities to the north side of Noyo Harbor. The City studied two basic alternatives: creating a partially cantilevered walkway along North Harbor Drive, and extending the coastal trail from Noyo Headlands Park along the "Old Mill Road" alignment to connect with the public parking lot at Oceanfront Park.

The City of Trails Supplemental Trail Feasibility Studies for Old Mill Road and North Harbor Drive (Questa Engineering Corp, 2017) provides geotechnical analysis, conceptual plans and cost estimates for the trail alternatives. As shown in Figure 3.3, the preferred alignment for the Old Mill Road trail skirts the outer perimeter of the dredge storage site.

**FIGURE 3.3- OLD MILL ROAD ALIGNMENT OPTIONS (QUESTA TRAIL FEASIBILITY STUDY)**



The study addresses the feasibility of the installation of a Class I or II bicycle trail that could run parallel to North Harbor Drive. The Mendocino County Regional Transportation Plan (2017) identifies short range priority improvements for the Fort Bragg area. Noyo Harbor access via Old Mill Road and North Harbor Drive are noted two such priorities. Specifically, to improve Old Mill Road to a multiuse trail and provide stabilization for a landslide area while linking it to the Coastal trail with the inclusion of ADA parking. For North Harbor Drive the priority is the development of a separated trail between Noyo River Inn and the Noyo Fishing Center to connect with the lower portion of North Harbor Drive.

The estimated cost of the trail (in 2017 dollars) is $660,000. The alternatives analysis for the North Harbor Drive trail addressed two potential alignments: one alignment is located adjacent to the roadway for its entire length from the end of the sidewalk just east of Harbor Lite Lodge, to the base of North Harbor Drive in Noyo Harbor; the second alignment traverses a portion of the slope below the roadway with a switch-backed ramp structure. The estimated cost of the North Harbor Drive trail facility is $2.9 million.

## 3.5 TSUNAMI WARNING SYSTEM

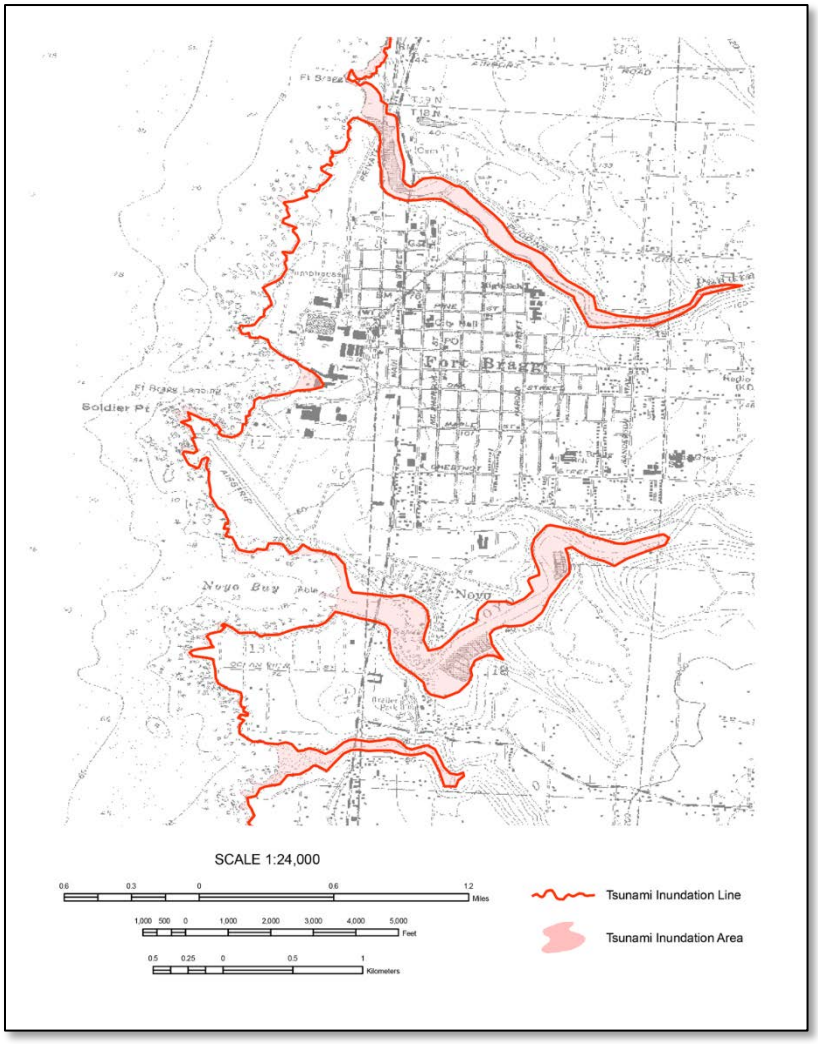
A tsunami is a series of waves caused by undersea earthquakes. Tsunamis can result from distant earthquakes along the Pacific Rim, in which case the West Coast and Alaska Tsunami Warning Center or the Pacific Tsunami Warning Center will issue information and, if necessary, warnings. Localized earthquakes on the Cascadia Subduction zone or other faults may generate a tsunami with little or no warning other than the earthquake itself. Figure 3.4 shows a map (prepared for the California Office of Emergency Services) of the potential inundation area along the Noyo River for a tsunami associated with a magnitude 8.4+ event in the Cascadia Subduction zone, or a magnitude 8.8+ event originating in more distant locations on the Pacific Rim.

As shown, a major tsunami would inundate a considerable amount of land on either side of the river in Noyo Harbor and would extend upriver nearly one-half mile past Dolphin Isle Marina. Even a much smaller tsunami, such as that experienced on March 11, 2011, can cause a significant amount of damage to dockside infrastructure and boats.

There are two tsunami sirens located in Noyo Harbor. One is situated on the north side of the river near the bridge and the other on the south side of the river at the parking lot for the upriver public launch ramp. The sirens are intended to provide an audible warning system to notify persons in Noyo Harbor to evacuate in the event of a tsunami. The tsunami warning system is overseen by the Mendocino County Office of Emergency Services

**Tsunami Siren at WCB Launch Ramp**

**FIGURE 3.4 - TSUNAMI INUNDATION MAP FOR NOYO HARBOR (CALOES)**




The Mendocino County Office of Emergency Services (located at the Sheriff's Office) is responsible for coordinating emergency response in unincorporated areas, including Noyo Harbor. Because the County's Emergency Operation Center is located in Ukiah, the Noyo Harbor District can play an important role in providing on-the-ground information and providing other assistance to the County during emergencies in Noyo Harbor.

## 3.6 WATER AND WASTEWATER INFRASTRUCTURE

Most of Noyo Harbor is served by the City of Fort Bragg's water and wastewater systems. In the north harbor, water and sewer mains are located under North Harbor Drive. The North Noyo Harbor Lift Station is located on a City-owned parcel at 32251 North Harbor Drive and pumps effluent through a force main to the City's Wastewater Treatment Facility. Effluent from properties in the south harbor is pumped to the Wastewater Treatment Facility from the South Noyo Harbor Lift Station, which is located next to the Salmon Trollers Marketing Association Hall.

The City of Fort Bragg's 2018/19 Capital Improvement Program (CIP) included a $17.6-million-dollar allocation for improvements of the city's Waste Water Treatment Facilities. This was inclusive of $1 million dollars in the FY 2018/19 budget to rehabilitate three wastewater lift stations, two of which are located in North and South Noyo Harbor. The CIP Project Details indicate that the North Noyo Harbor Lift Station and the South Noyo Harbor Lift Station are both "at the end of their useful lives and ready for a full rehabilitation". The rehabilitation of the aforementioned is detailed as a high priority project. Lift stations are pumping station that pumps wastewater from a lower to higher elevation where the natural topography and facility layout is not sufficiently designed for gravity to complete the flow on its own. Funding for the Wastewater Treatment Plant Upgrade Project was achieved by assistance through the United States Department of Agriculture (USDA) Rural Development and the Clean Water State Revolving Fund.

The Harbor District is responsible for water distribution and sewer collection facilities serving District facilities and the Noyo Harbor Marina. The District's sewer system ties into the City's facilities at the base of South Harbor Drive and the water system connection is in the District parking lot. South harbor properties upriver of the Noyo Harbor Marina, including Dolphin Isle Marina, are served by private water and septic systems.

In general, water and sewer infrastructure in Noyo Harbor is adequate to serve existing and future uses. Water supply is the biggest infrastructure challenges facing future development in Noyo Harbor. Ultimately, the City of Fort Bragg must address the limited capacity of the City's water supply to serve new development and the vulnerability of the City's Noyo River water source (which provides roughly half of the City's water) due to sea level rise and regulatory constraints. The Noyo River is the primary source for the city's raw water with a set limitation of 3.0 cubic feet per second. Gravity feeds the untreated water to a 5,000-gallon wet-well and ultimately delivered (through the assistance of a lift station) to the Water Treatment Plant (WTP) located at 31301 Cedar Street Inn Fort Bragg.

# 4. ECONOMIC CONDITIONS AND PERFORMANCE

## INTRODUCTION

Noyo Harbor is one of the most important fishing ports in Northern California, notable for its Dungeness crab, Chinook salmon, red sea urchin, and multi-species groundfish fisheries, targeted by a fleet of commercial, charter, and sport fishing vessels operating out of Noyo.

Opportunities for enhancing visitor-serving waterfront infrastructure and marine-related recreation and tourism uses in Noyo Harbor derive from capitalizing on (and enhancing) key regional economic development assets. These include rebounding regional groundfish fishery stocks and associated Noyo fishing industry cluster; unique Noyo-area coastal environment and visitor-serving infrastructure; a unique regional culture and history; and engaged community groups that range from the Harbor District to fisherman organizations and the Chamber of Commerce.

Constraints include limited emergency and general-use roadway access to the Fishing Village district, along with inadequate parking and a lack of safe pedestrian and bicycle access; declines in marine supplies and services providers; declining numbers of commercial fishermen and vessels; and declines in several key fish stocks such as salmon that impact regional income flows from commercial and CPFV fishing operations, and from angler visits.

In recent decades, key fisheries that have generated considerable fishing-related jobs and income include Chinook salmon, Dungeness crab, red sea urchin, and groundfish species such as lingcod, sablefish, Dover and Petrale sole, and a number of rockfish species. These fisheries have supported a relatively large fleet of commercial, CPFV, and sport angler vessels and associated support businesses.

Since about 2000, the fishing community has had to be resilient in adapting to declining stocks of salmon and certain groundfish species (many of the latter have since recovered); sea star wasting disease adversely affecting red sea urchin and abalone abundance; diminished Dungeness crab fishing opportunities linked to domoic acid from toxic marine algal blooms; and to new regulatory measures such as Rockfish Conservation Areas, Dungeness crab trap limits; Marine Protected Areas; the Pacific Groundfish Trawl Rationalization Program; and emergency fishery closures.

Due to these challenges there are far fewer commercial fishing vessels homeported out of Noyo Harbor, which has had ripple effects on fish buyers and processors; firms supplying and maintaining vessels, fishing equipment and gear; the economics of channel and harbor maintenance dredging; Harbor District income; and on deckhand and crew employment.

Adaptive measures include fishermen choosing to participate in more than a single fishery as a way to diversify and stabilize fishing income (Hackett et al., 2015); creation of community quota funds that lease groundfish trawl quota to local fishermen as a way to sustain a local trawl fleet; and efforts to develop new lucrative seafood markets.

NOAA fisheries indicates that a number of formerly overfished or depleted groundfish stocks have been rebuilt, suggesting the possibility of a brighter future for remaining trawl and other commercial fishermen targeting groundfish.

Limited access measures such as vessel permits and catch share programs raise the cost of entry into commercial fishing as an occupation, which is likely linked to the rising average age of commercial fishermen (Hackett et al., 2017). Community quota funds that provide leased quota offer one way to reduce the up-front cost of entry. Other mechanisms need to be found to ease entry conditions for the next generation of commercial fishermen.

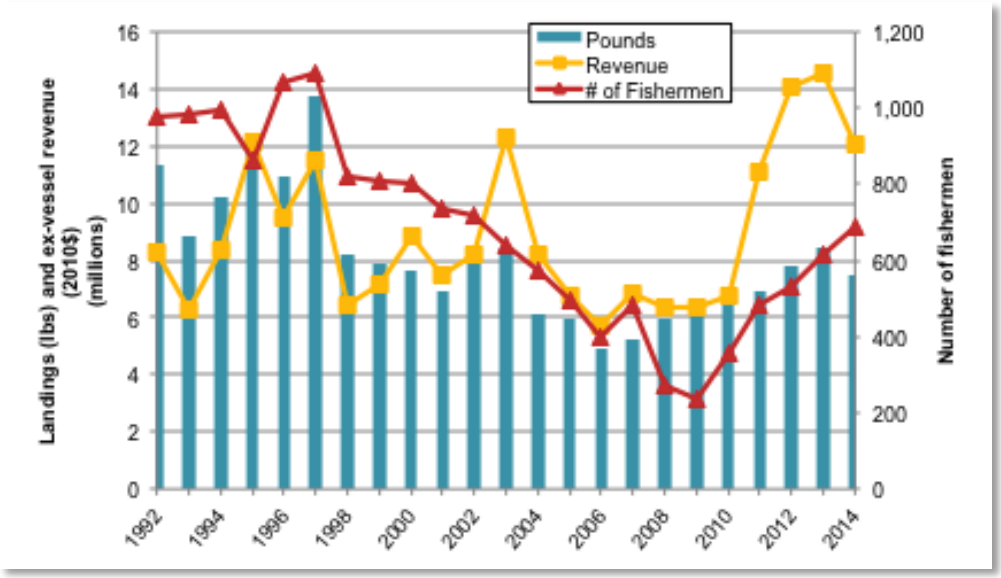
Section 4.1 below provides summary information on landings poundage and value from commercial fishing operations in Noyo Harbor, followed by a summary of commercial passenger fishing vessel operations (also known as charter or party boats). Waterfront employment estimates are given in section 4.2. Economic conditions and performance in the limited entry groundfish trawl fishery are summarized in section 4.3. Summary information on Noyo Harbor District rents and fees is provided in section 4.4. A list of sources cited in this chapter is given in section 4.5.

## 4.1 LANDINGS & VALUE

The following section provides summary information on commercial landings and value (revenue from fish sold by fishermen to receiver-processors, known as "ex-vessel value") in Noyo Harbor and also in the broader Fort Bragg port region.

### Commercial fishery landings, value, and numbers of fishermen making landings, Noyo Harbor and Fort Bragg-area ports

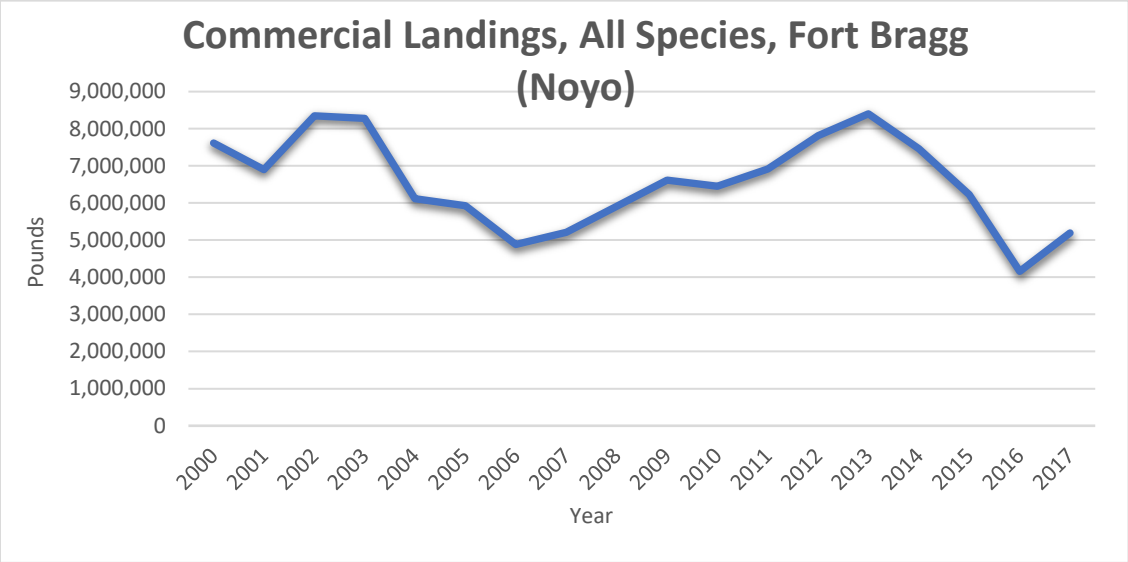
**FIGURE 4.1 - EX-VESSEL REVENUE, NUMBER OF FISHERMEN, ALL COMMERCIAL FISHERIES, NOYO HARBOR, 1992-2014**




**Source – Hackett et al. (2017)**

The information in Figure 4.1, drawn from Hackett et al. (2017), provides a relatively long historical perspective on overall commercial fishing activity in Noyo Harbor. Revenue data have been adjusted for inflation and are thus reported in constant 2010 dollars. One can see that the number of fishermen making commercial landings in Noyo Harbor generally rises and falls in association with total ex-vessel revenue, though the overall trend (as in most other California fishing ports) is a decline in numbers of active commercial fishermen. There is a notable rebound in numbers of commercial fishermen after 2009 through 2014 that may be linked to particularly strong Dungeness crab fishery production.

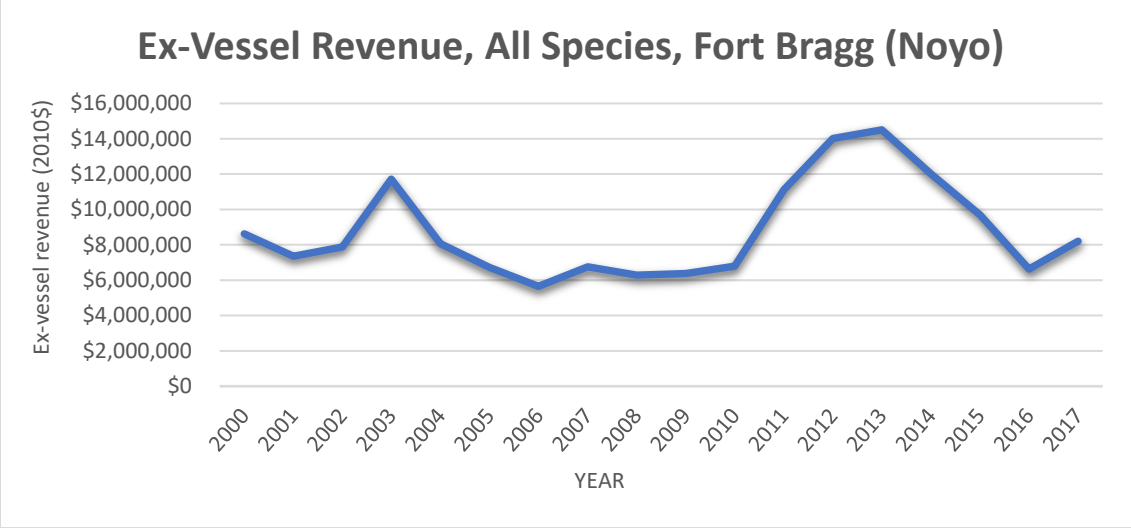
**FIGURE 4.2 - COMMERCIAL LANDINGS, ALL FISHERIES, NOYO HARBOR, 2000-2017**




**Source – CDFW (2018)**

Figure 4.2 extends overall Noyo landings data shown in Figure 4.1 through 2017. Since 2000, total poundage of commercial fish landings in Noyo Harbor has ranged from just over 4 million pounds (2016) to over 8 million pounds (2002-3; 2013).

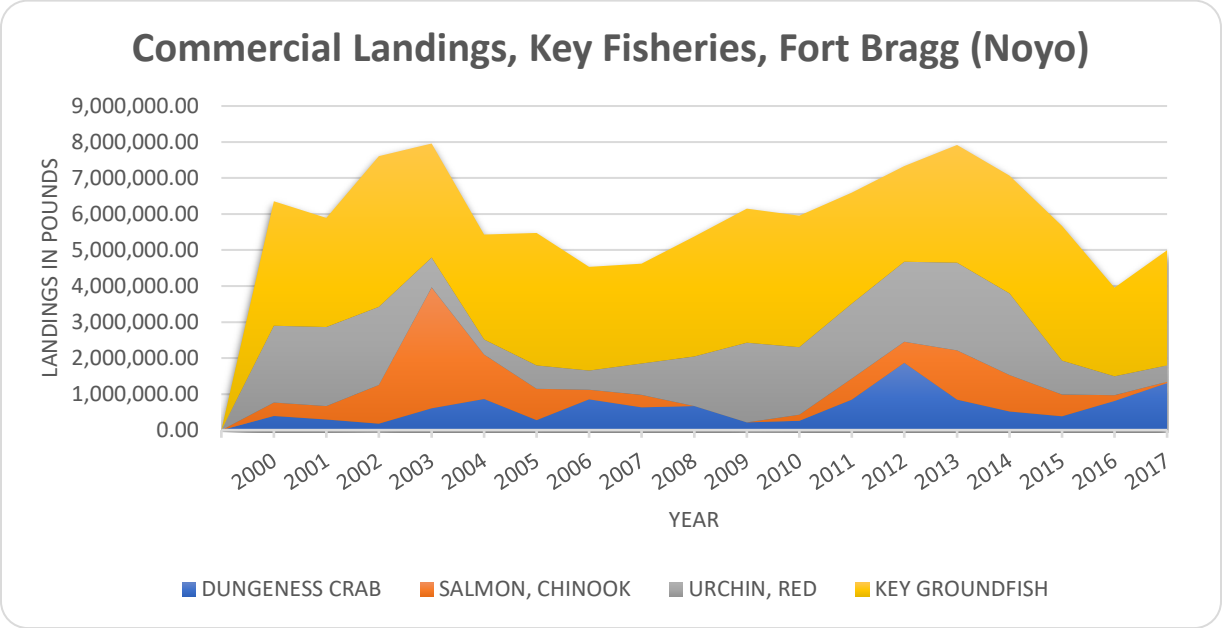
**FIGURE 4.3 - EX-VESSEL REVENUE, ALL FISHERIES, NOYO HARBOR, 2000-2017**




**Source – CDFW (2018)**

Inflation-adjusted ex-vessel revenue in Figure 4.3 extends the data in Figure 4.1 through 2017. One can see that total inflation-adjusted ex-vessel revenue (in constant 2010 dollars) from commercial fishing vessels landing in Noyo Harbor generally fluctuated between about $6 million (when salmon and urchin landings were very low) and a bit over $14 million in 2012-13 (a record time period for the value of Dungeness crab landings).

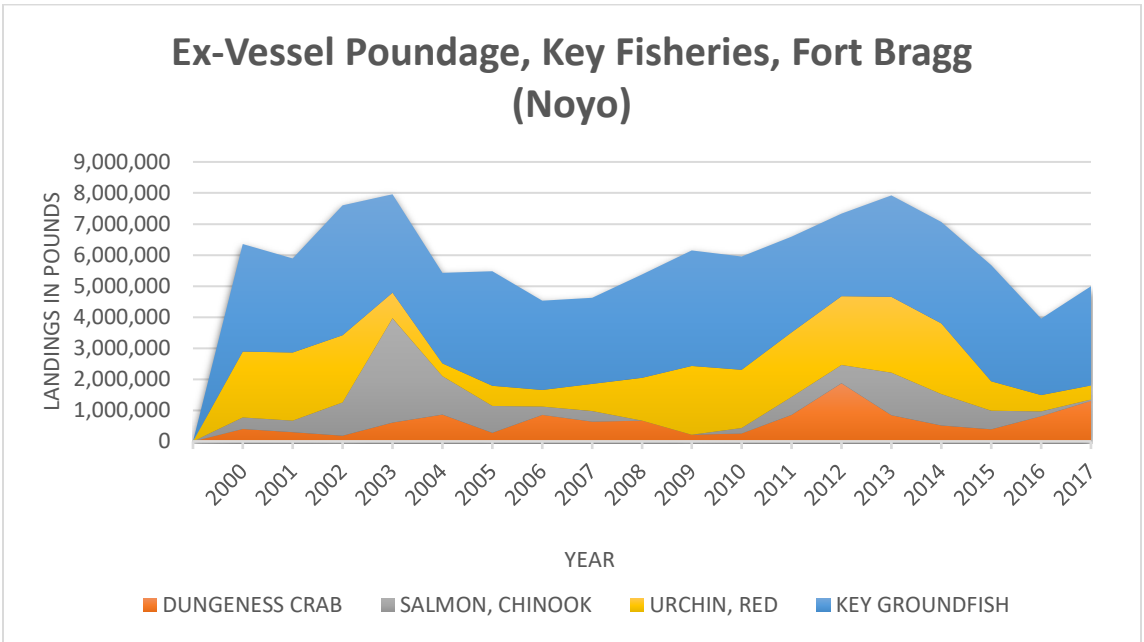
**FIGURE 4.4 - COMMERCIAL LANDINGS, KEY FISHERIES, NOYO HARBOR, 2000-2017**




**Source – CDFW (2018)**

Figure 4.4 is focused on key fisheries for Noyo Harbor. Key fisheries were selected based on current or recent historical economic importance. One can see that the groundfish fisheries group plays a prominent economic role for the commercial fishing industry operating out of Noyo, oftentimes dominating the combined landings of salmon and Dungeness crab in this time period. One can also see the importance of red sea urchin landings over this 17-year period.

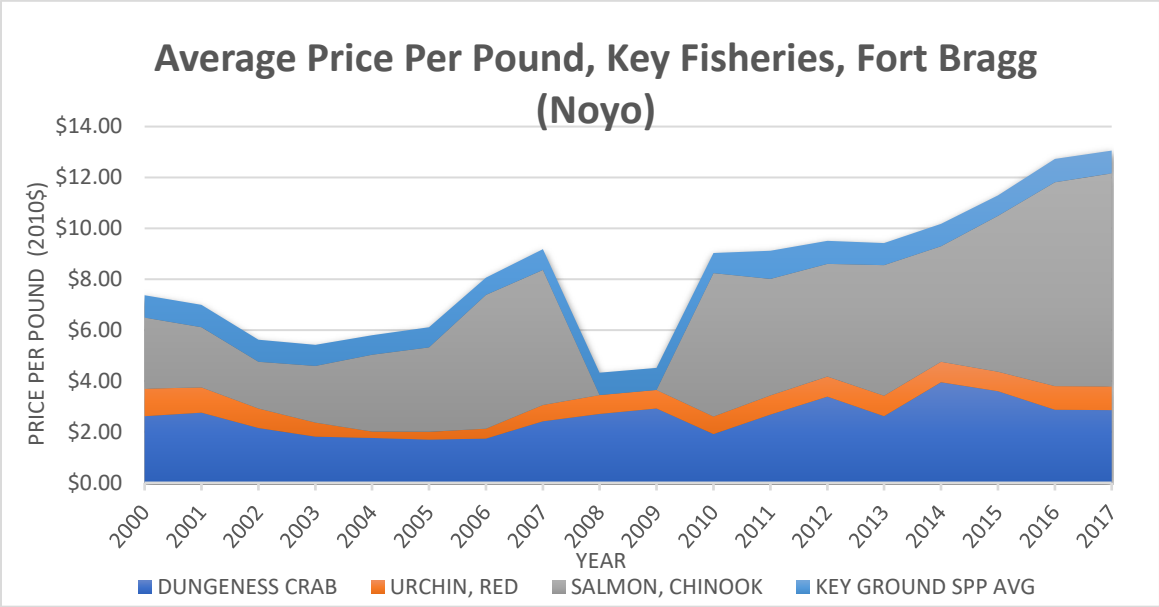
**FIGURE 4.5 – EX-VESSEL REVENUE, KEY FISHERIES, NOYO HARBOR, 2000-2017**




**Source – CDFW (2018)**

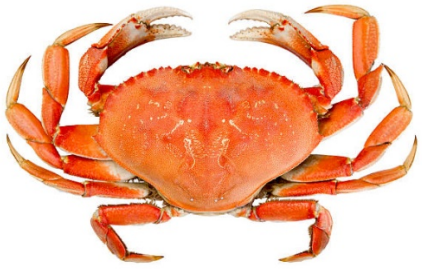
Focusing on the most important commercial fisheries (based on landings and value) to Noyo Harbor, from Figure 4.5 one can get insight into why participating in multiple fisheries can serve as a critically important coping mechanism for commercial fishermen (Hackett et al. 2015). Salmon trollers shut out from the Chinook salmon fishery in 2008-9 could still generate revenue from also participating in the Dungeness crab fishery, and to a lesser extent the open-access groundfish fishery. Likewise, those targeting Dungeness crab in weak years such as 2002 or 2010 could still generate revenue from also participating in the groundfish or salmon fisheries.

**FIGURE 4.6 – AVERAGE PRICE PER POUND, KEY FISHERIES (WITH GROUNDFISH AGGREGATED) NOYO HARBOR, 2000-2017**



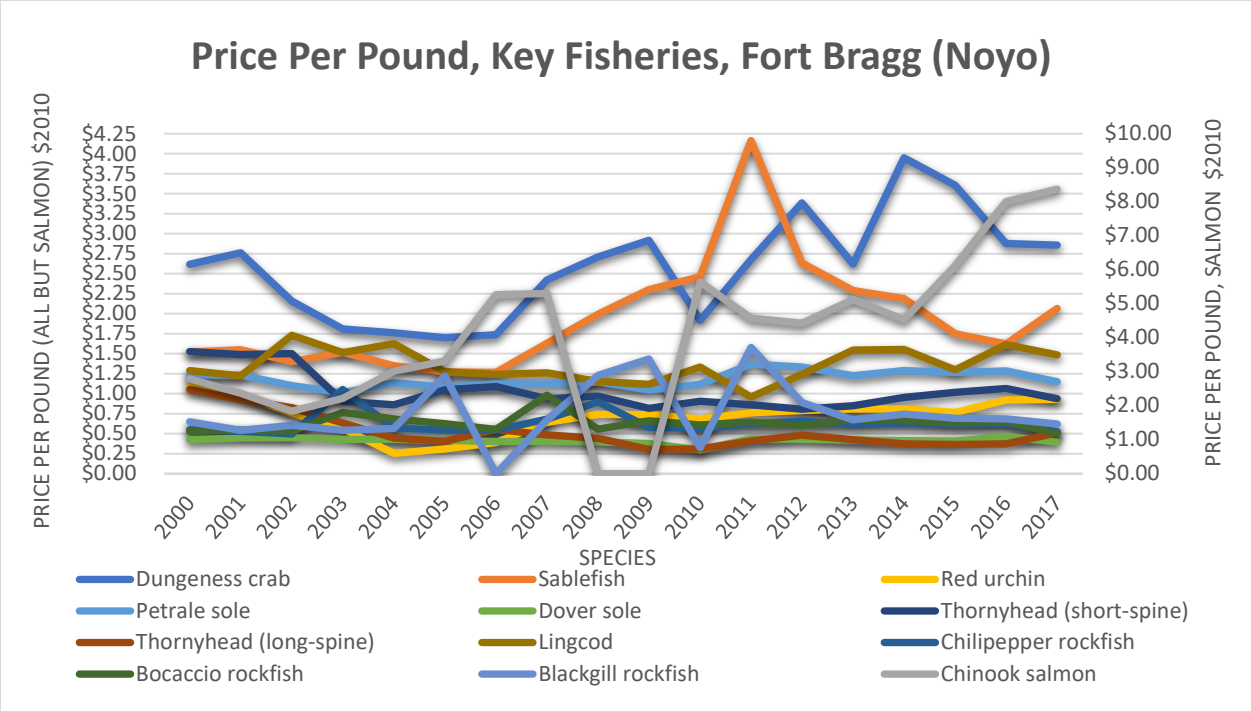

**Source – CDFW (2018)**

Average inflation-adjusted price per pound in Figure 4.6 is represented by the vertical height of each colored area. From Figure 4.6 one can see that salmon bring by far the highest price per pound of the key species landed in Noyo Harbor. Next highest is the average price per pound for Dungeness crab.



**Dungeness Crab (Metacarcinus magister)**

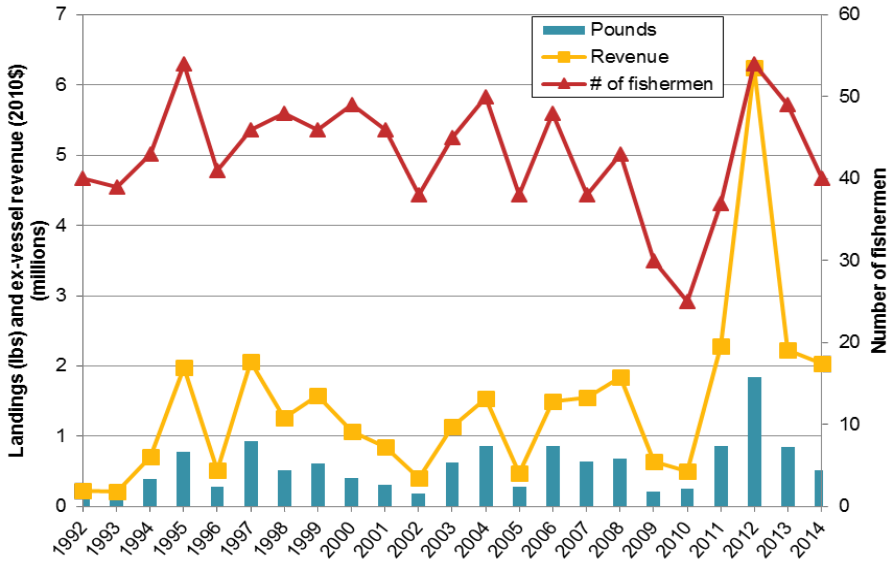
**FIGURE 4.7 – AVERAGE PRICE PER POUND, KEY FISHERIES, NOYO HARBOR, 2000-2017**




**Source – CDFW (2018)**

Figure 4.7 disaggregates the average inflation-adjusted ex-vessel price data given in Figure 6. One can see that average annual price per pound for salmon tend to be much higher than for the other key species during this time period. Other species that receive relatively high ex-vessel prices include Dungeness crab and sablefish. Detailed information on each of these key species follows.

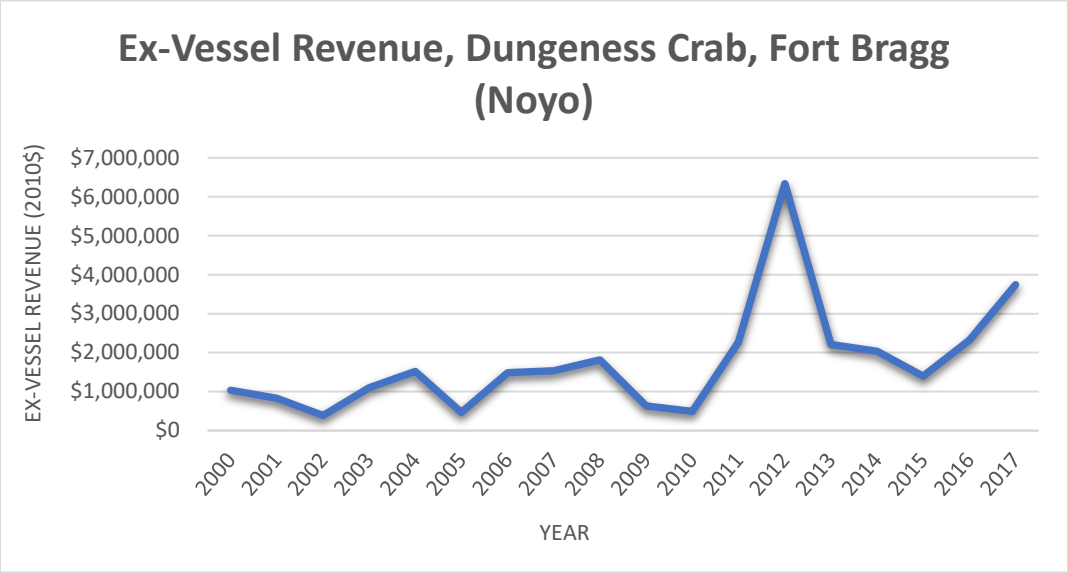
**FIGURE 4.8 – AVERAGE POUNDS, REVENUE, AND NUMBER OF FISHERMEN, DUNGENESS CRAB (METACARCINUS MAGISTER) FISHERY, NOYO HARBOR, 1992-2014**




**Source – Hackett et al. (2017)**

From Figure 4.8 one can see that an average of roughly 40 commercial fishermen made Dungeness crab landings in Noyo Harbor. One can also see that the number of fishermen targeting Dungeness crab fluctuates year to year, and is correlated with revenue and poundage of landings.

**FIGURE 4.9 – EX-VESSEL REVENUE, DUNGENESS CRAB (METACARCINUS MAGISTER), NOYO HARBOR, 2000-2017**



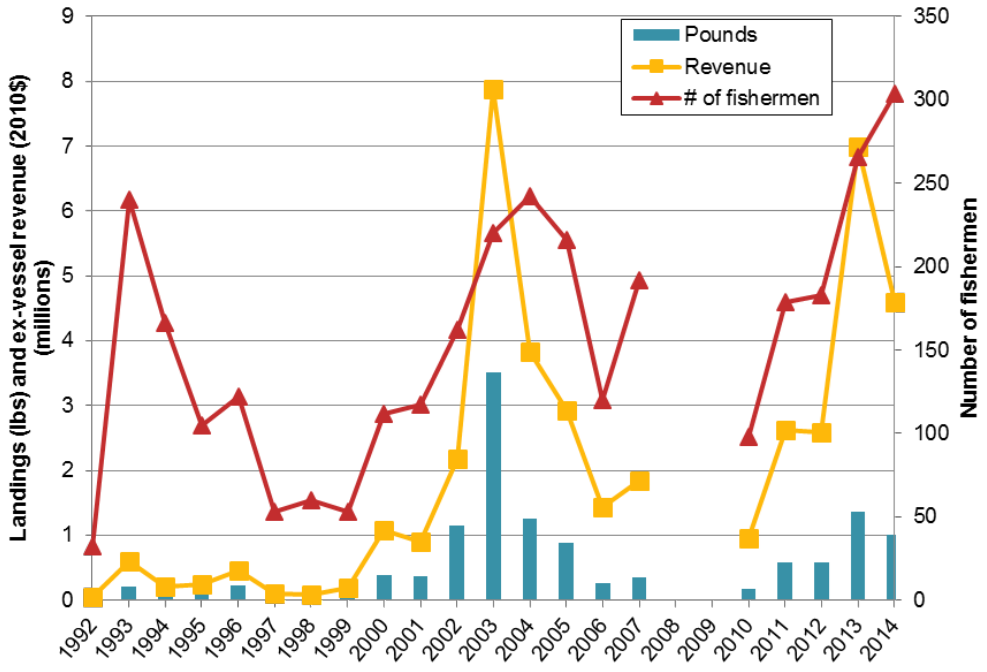

**Source – CDFW (2018)**

Figure 4.9 extends the time period outwards to 2017 for the inflation-adjusted value of Dungeness crab landings reported in Figure 8. One can see that the record revenue year of 2012 was followed by several relatively weaker years, as is typical for the naturally fluctuating Dungeness crab fishery. In recent years the Dungeness crab fishery has been adversely affected by fishing season delays and closures linked to toxic algal blooms and associated domoic acid concentrating in Dungeness crab.

From Figure 4.10 one can see the boom and bust cycle in Noyo salmon troll fishery activity – a key fishery of great historical significance to Noyo Harbor. As noted by CDFW (2010), exceptionally low returning salmon counted on the Sacramento river led the Pacific Fishery Management Council and CDFW to take emergency action to close the commercial and sport California ocean salmon fisheries in 2008 and again in 2009. The 2010 season was also very limited. The future of the salmon fishery is linked to a complex set of river and ocean factors associated with dams, drought, water diversions, oceanic upwelling events, and climate change.

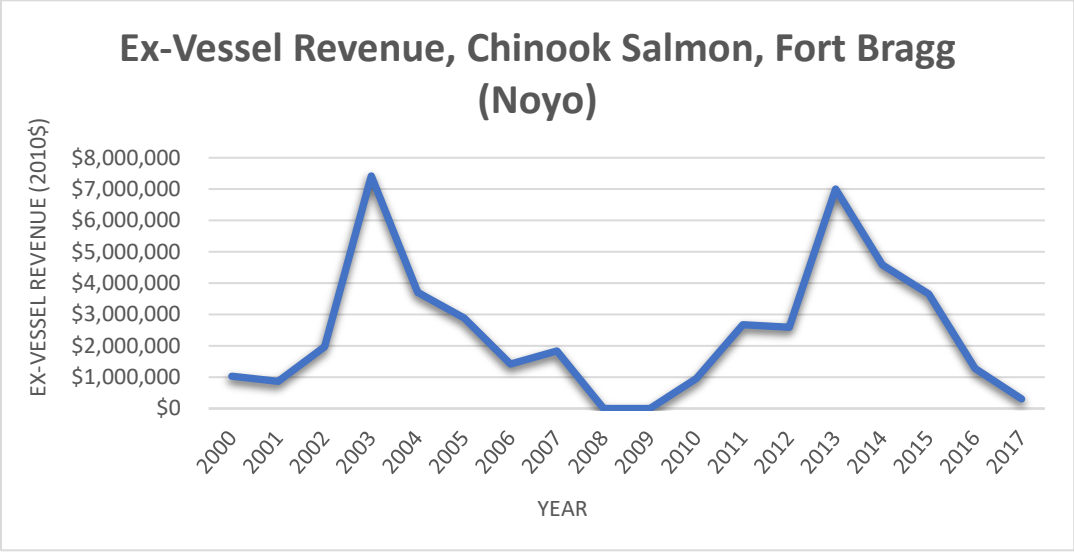
**Chinook Salmon (Oncorhynchus tshawytscha)**

**FIGURE 4.10 – AVERAGE POUNDS, REVENUE, AND NUMBER OF FISHERMEN, SALMON-TROLL FISHERY, NOYO HARBOR, 1992-2014**




**Source – Hackett et al. (2017)**

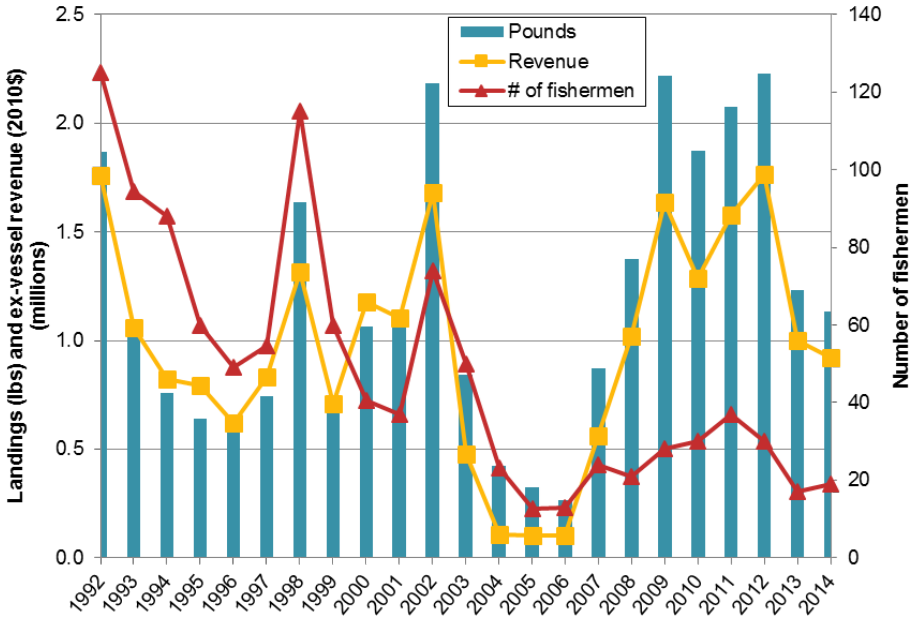
**FIGURE 4.11 -- EX-VESSEL REVENUE, SALMON (ONCORHYNCHUS TSHAWYTSCHA), NOYO HARBOR, 2000-2017**




**Source -- CDFW (2018)**

Figure 4.11 above extends landings value data outwards to 2017 from what is reported in Figure 4.10. By doing so one can clearly see the continuing boom and bust cycle in the Chinook salmon commercial ocean fishery. Weak to non-existent revenue in 2000-1, 2008-9, and 2017 stand in sharp contrast to relatively stronger years in 2003 and 2013.

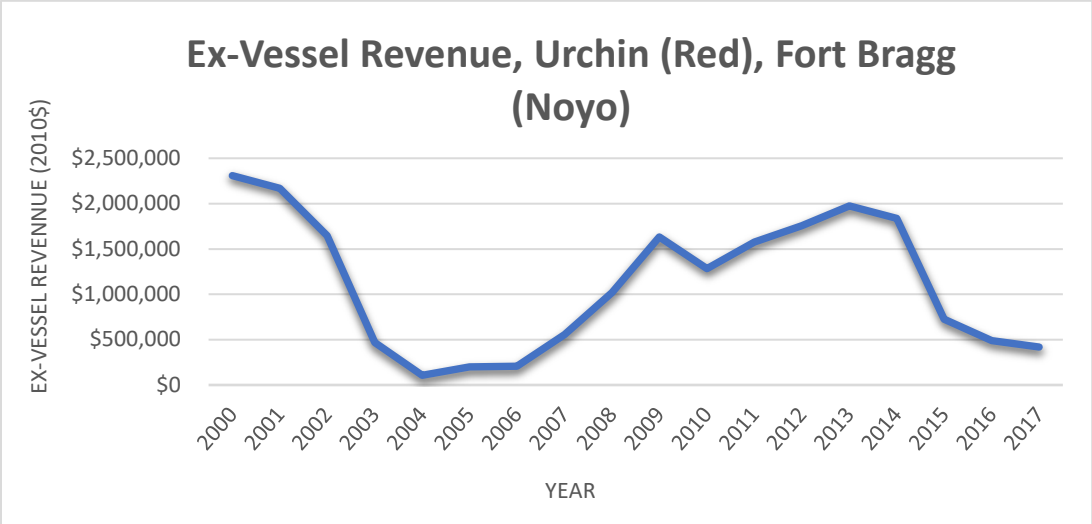
**FIGURE 4.12 – AVERAGE POUNDS, REVENUE, AND NUMBER OF FISHERMEN. RED SEA URCHIN (MESOCENTROTUS FRANCISCANUS), NOYO HARBOR, 1992-2014**




**Source – Hackett et al. (2017)**

Over the 22-year period from 1992-2014 one can see generally strong activity in the urchin-dive fishery in and around Noyo Harbor, with the exception of very weak landing years in 2005-6. From Figure 4.12 one can also see a generally declining number of commercial divers targeting red sea urchins over this same period.

**FIGURE 4.13 – EX-VESSEL REVENUE, RED SEA URCHIN (MESOCENTROTUS FRANCISCANUS), NOYO HARBOR, 2000-2017**

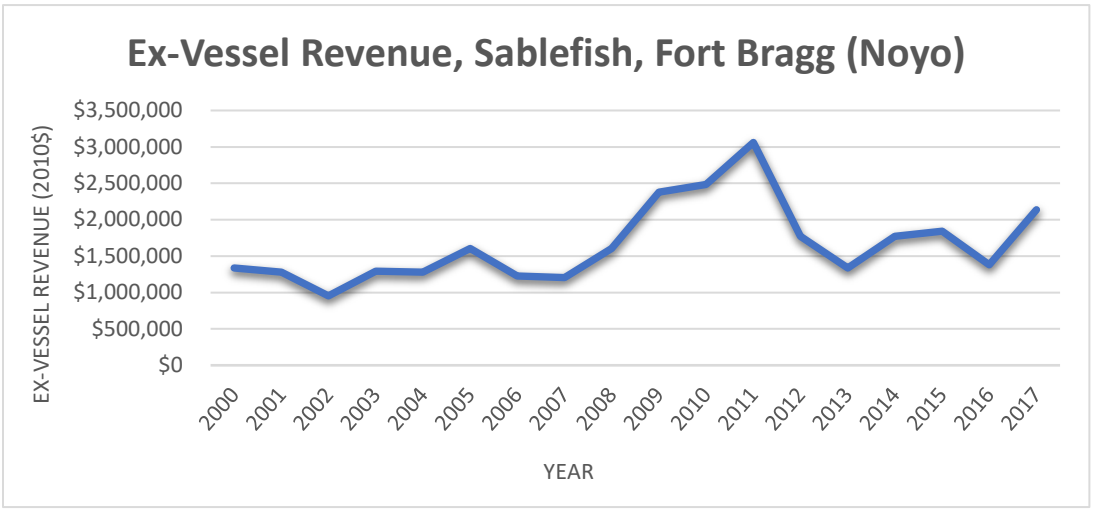



**Source – CDFW (2018)**

**Red sea urchin**

Figure 4.13 above extends the ex-revenue data presented in Figure 4.12 to 2017. By doing so one can see that the value of red sea urchin landings declined sharply following the 2014 season. As will be described in greater detail in the environmental section of this report, these declining landings are linked to a cascade of harmful marine environmental events (most notably sea star wasting disease) that ultimately resulted in "urchin barrens" bereft of kelp, leading to fewer red sea urchins, with those that remained having lower-quality roe, the valuable export product from this fishery.

**FIGURE 4.14 – EX-VESSEL REVENUE, SABLEFISH (ANOPLOPOMA FIMBRIA), NOYO HARBOR, 2000-2017**

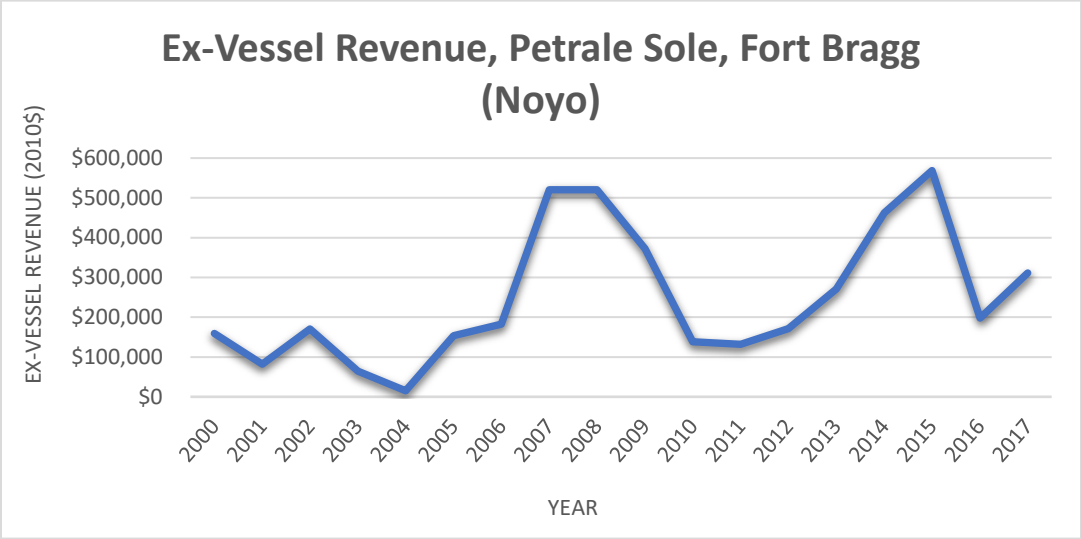



**Source – CDFW (2018)**

The inflation-adjusted economic value of sablefish landings in Noyo Harbor between 2000 and 2017 is provided in Figure 4.14. Hackett et al. (2017) did not include groundfish species in their analysis, which was focused on selected coastal fisheries expected to be most impacted by Marine Protected Area formation, and thus data from 1992-1999 are not available for this report. The total inflation-adjusted value of sablefish landings in Noyo peaked in 2011 at a bit over $3 million, rising from about $1 million in 2002. Sablefish is one of the most important targeted groundfish species for Noyo Harbor.

**Sablefish (Anoplopoma fimbria)**

**FIGURE 4.15 – EX-VESSEL REVENUE, PETRALE SOLE (EOPSETTA JORDANI) , NOYO HARBOR, 2000-2017**




**Source – CDFW (2018)**

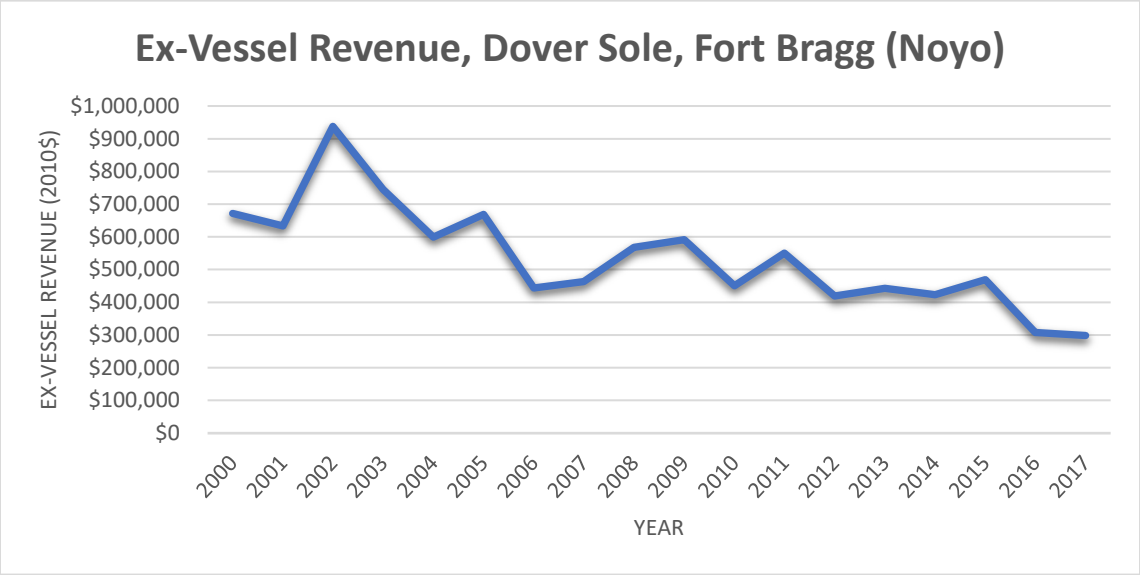
The petrale sole fishery generates considerably less ex-vessel revenue than sablefish, as one can see when comparing Figures 4.14 and 4.15. The inflation-adjusted ex-vessel revenue from petrale sole landings in Noyo fluctuated widely from nearly zero in 2004 to more than $500,000 in 2007-8 and again in 2015. Petrale sole was declared overfished in 2010, and rebuilt in 2015.

**Petrale sole (Eopsetta jordani)**

One can see from Figure 4.16 that the overall trend in the inflation-adjusted value of Dover sole landings in Noyo harbor has been steady to declining since about 2002 when the revenue peaked at over $900,000. The most recent data (2017) is that the inflation-adjusted value was hovering at about $300,000 for this species.

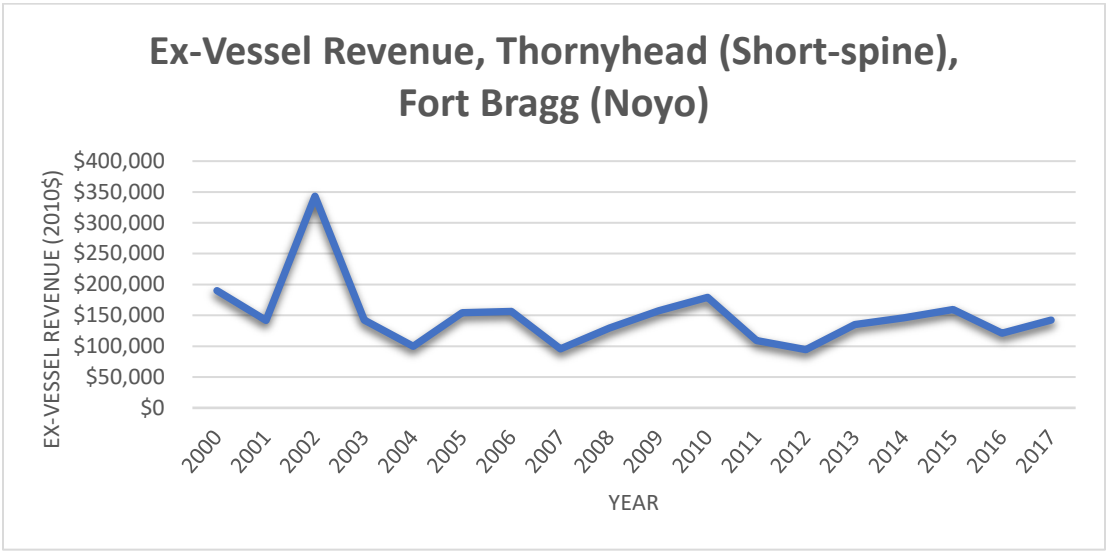
**Dover sole (Solea solea)**

**FIGURE 4.16 – EX-VESSEL REVENUE, DOVER SOLE (SOLEA SOLEA), NOYO HARBOR, 2000-2017**




**Source – CDFW (2018)**

**FIGURE 4.17 – EX-VESSEL REVENUE, SHORT-SPINE THORNYHEAD (SEBASTOLOBUS ALASCANUS), NOYO HARBOR, 2000-2017**

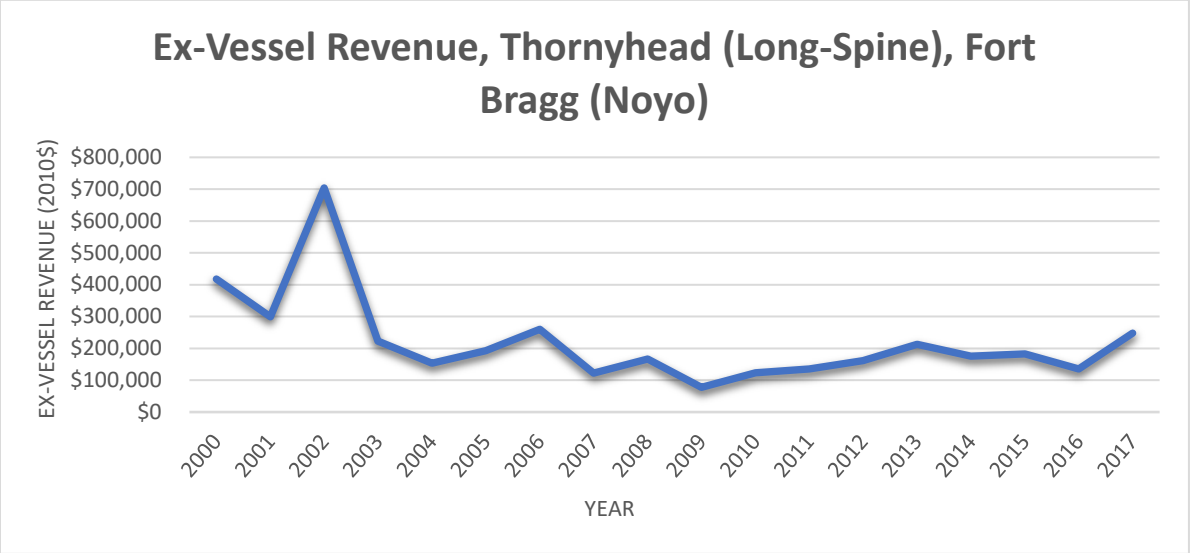



**Source – CDFW (2018)**

**Short-spine thornyhead (Sebastolobus alascanus)**

Somewhat similar to the pattern for Dover sole, one can see in Figure 4.17 that following a spike in landings in 2002, short-spine thornyhead landings have been steady at around $150,000 in inflation-adjusted value.

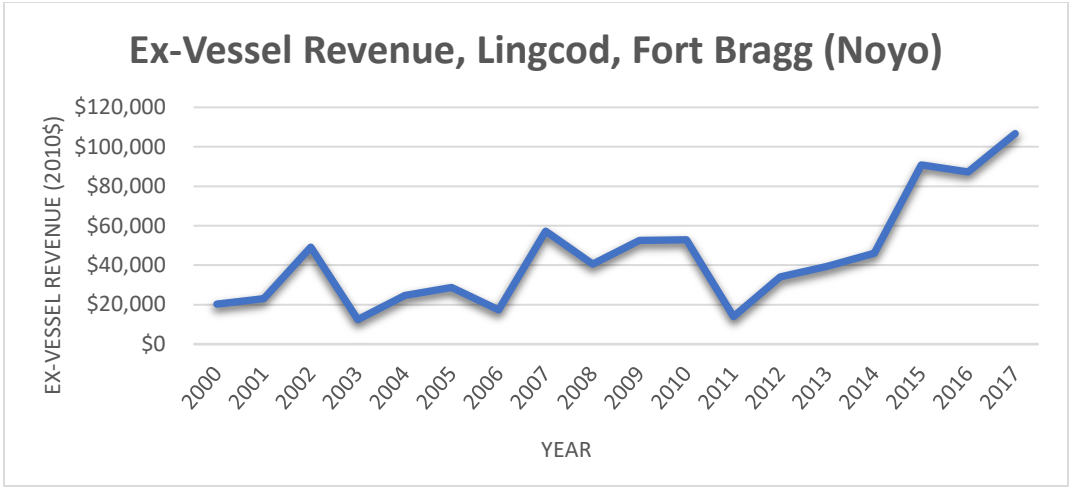
**FIGURE 4.18 – EX-VESSEL REVENUE, LONG-SPINE THORNYHEAD (SEBASTOLOBUS ALTIVELIS), NOYO HARBOR, 2000-2017**




**Source – CDFW (2018)**

Similar to the revenue trend data for short-spine thornyhead, from Figure 4.18 we can see that ex-vessel revenue for long-spine thornyhead since 2002 has remained steady at around $200,000 in Inflation-adjusted value.

**FIGURE 4.19 – EX-VESSEL REVENUE, LINGCOD (OPHIODON ELONGATUS), NOYO HARBOR, 2000-2017**




**Source – CDFW (2018)**

Unlike the trend in other key groundfish species landed in Noyo Harbor, inflation-adjusted ex-vessel revenue from lingcod landings in Noyo Harbor has grown between 2000 and 2017, as shown in Figure 4.19. In particular real revenue has grown from less than $20,000 in

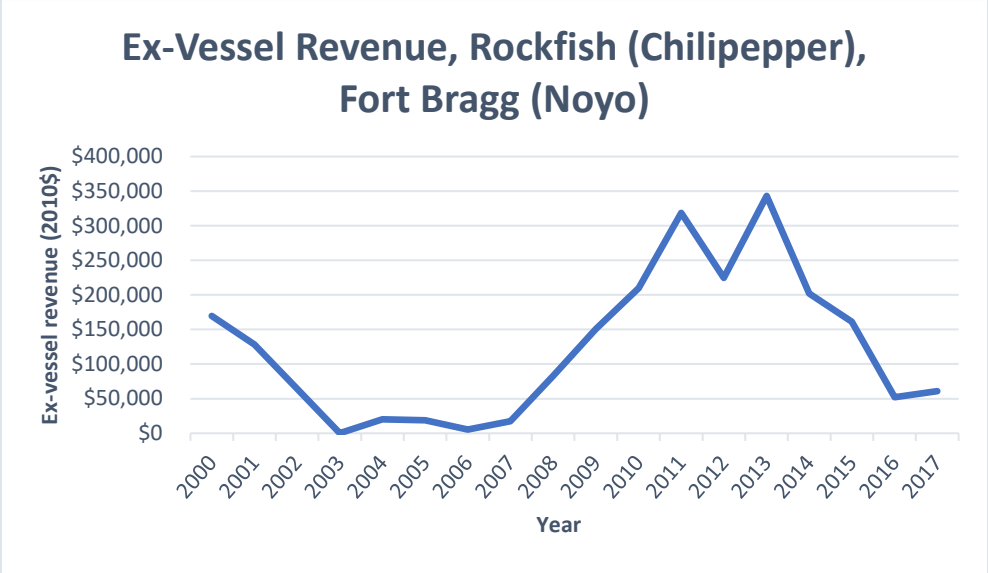
**Lingcod (Ophiodon elongatus)**

2003 to over $100,000 in 2017. Lingcod stocks were declared overfished in 1999, and rebuilt in 2005.

From Figure 4.20 one can see that Chilipepper rockfish landings in Noyo Harbor had a boom-bust cycle between 2000 and 2017. Inflation-adjusted ex-vessel revenue grew to about $343,000 in 2013, and then declined back to about $60,000 by 2016-17. CDFW (2018) reports an ex-vessel average price of $0.63 per pound between 2000 and 2017.

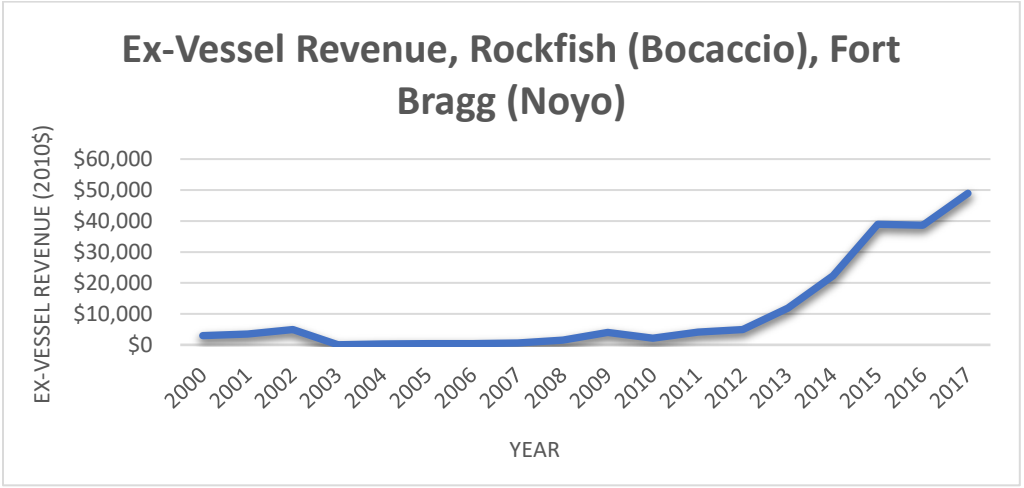
**Chilipepper rockfish (Sebastes goodei)**

**FIGURE 4.20 – EX-VESSEL REVENUE, CHILIPEPPER ROCKFISH (SEBASTES GOODEI), NOYO HARBOR, 2000-2017**




**Source – CDFW (2018)**

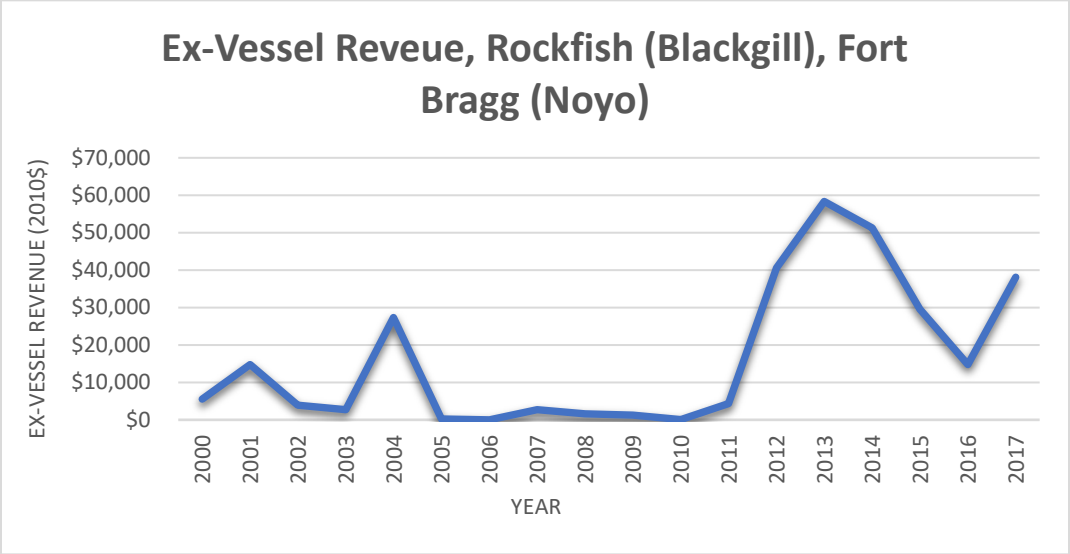
**FIGURE 4.21 – EX-VESSEL REVENUE, BOCACCIO ROCKFISH (SEBASTES PAUCISPINIS), NOYO HARBOR, 2000-2017**




**Source – CDFW (2018)**

Inflation-adjusted revenue from bocaccio rockfish landings in Noyo Harbor since 2000 has followed a trend somewhat similar to that of lingcod. As shown in Figure 4.21, ex-vessel revenue from Bocaccio rockfish landings were at or near zero until beginning to rise sharply after 2012. Bocaccio stocks were declared overfished in 1999, and rebuilt in 2017, which helps explain the near-zero landings during much of the period from 2000 to 2010.

**FIGURE 4.22 – EX-VESSEL REVENUE, BLACKGILL ROCKFISH (SEBASTES MELANOSTOMUS), NOYO HARBOR, 2000-2017**

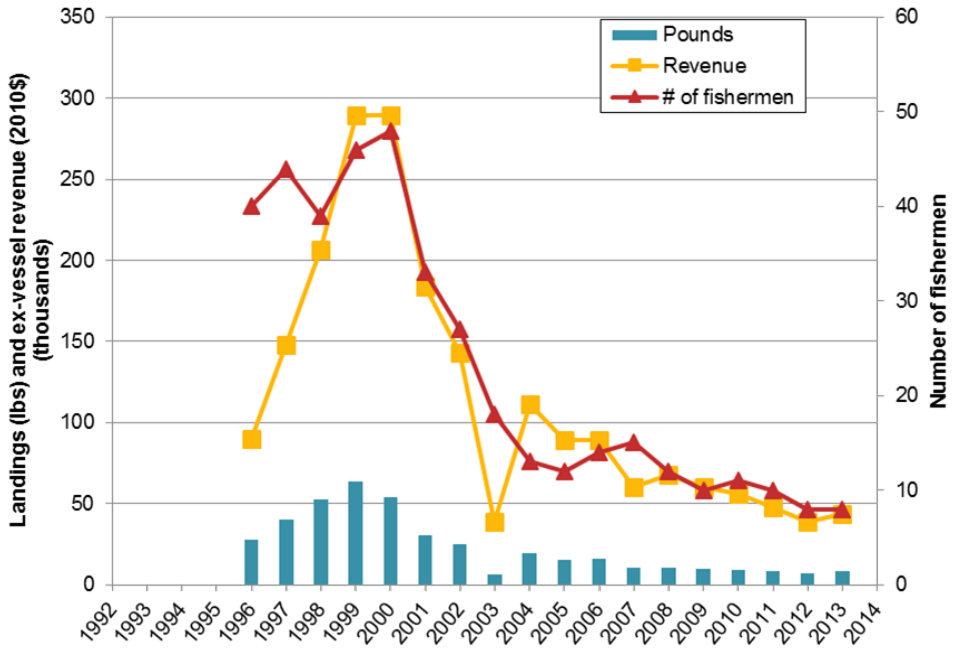



**Source – CDFW (2018)**

As with bocaccio rockfish, inflation-adjusted ex-vessel revenue from blackgill rockfish landings in Noyo Harbor grew sharply starting in 2012 from zero to near-zero revenue for much of the earlier period between 2000 and 2017, as shown in Figure 4.22. Beginning in about 2015 the PFMC began a more restrictive total allowable catch in the Noyo area to help rebuild stocks (PFMC, 2017).

Since the early 1990s Noyo Harbor has hosted a number of nearshore hook & line and trap fisheries for fish sold in either live or dead condition. One example of these fisheries is given in Figure 23. From Figure 23 one can see the emergence and subsequent decline in activity in the live-landed nearshore finfish (hook and line) fishery. A key challenge in developing and sustaining a live fish fishery is developing regional markets (primarily centered on the San Francisco Bay area) capable of absorbing live fish, and fish buyers with vehicles equipped with holding tanks capable of transporting live fish to these market centers.

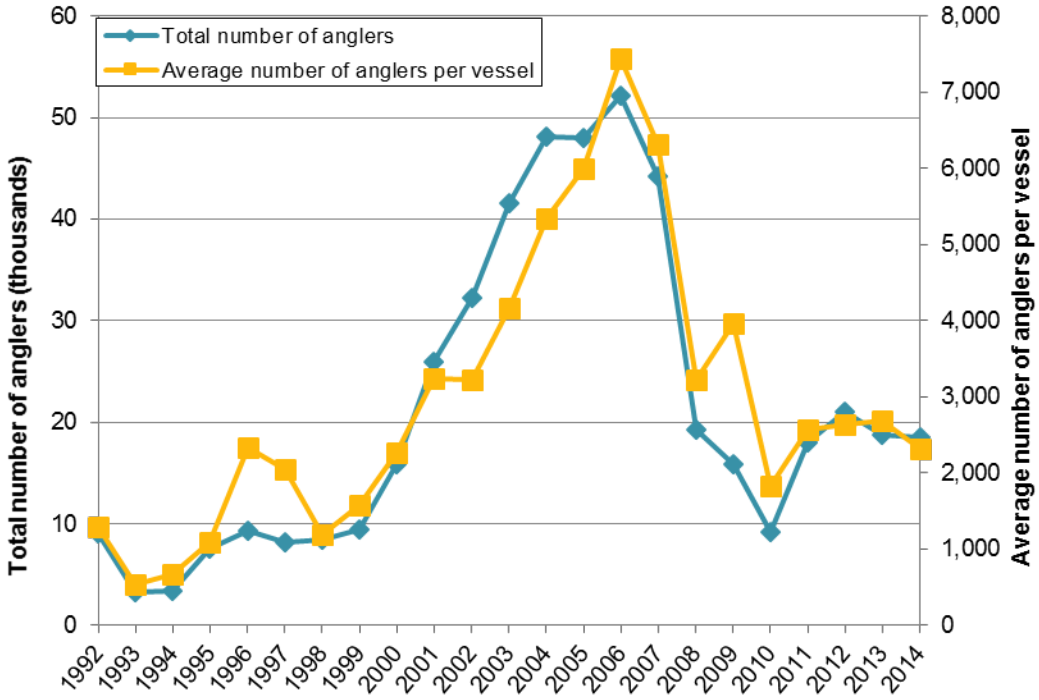
**FIGURE 4.23 – AVERAGE POUNDS, REVENUE, AND NUMBER OF FISHERMEN, NEARSHORE FINFISH HOOK & LINE LIVE FISHERY, NOYO HARBOR, 1992-2014**




**Source – Hackett et al. (2017)**

## Commercial Passenger Fishing Vessel (CPFV) operations: Time series information on numbers of CPFV operators, anglers, trips, and targeted fish

**FIGURE 4.24 – TOTAL NUMBER OF CPFV ANGLERS AND AVERAGE NUMBER OF ANGLERS PER VESSEL, FORT BRAGG AREA PORTS, 1992-2014**



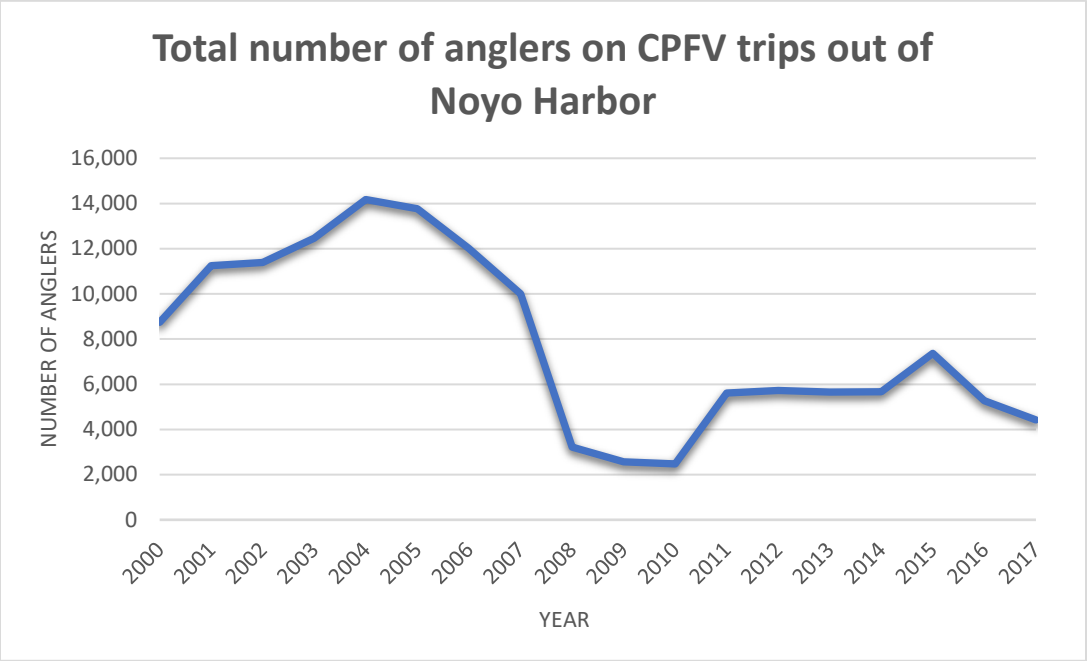

**Source – Hackett et al. (2017)**

CPFV operators provide ocean fishing opportunities for recreational anglers visiting Noyo Harbor and the Mendocino coast. The data in Figure 24 (and other CPFV diagrams drawn from Hackett et al. (2017)) derives from CDFW data for the "Fort Bragg Area" that includes not only Noyo Harbor but also the ports of Albion, Anchor Bay, Elk, Little River, Point Arena, and Westport. From Figure 4.24 we can see a sharp rise in annual numbers of anglers and average annual number of anglers per vessel up to about 2006, followed by a sharp decline until numbers stabilized in around 2011. A likely reason for the sharp decline is the emergency closure of the salmon fishery to both commercial and sport fishermen in 2008 and 2009, and the very limited season in 2010. The Great Recession may have also played a role.

Unlike the data drawn from Hackett et al. (2017), which covers the entire Fort Bragg region of fishing ports, the data in Figure 25 represents the total annual number of anglers on CPFV trips out of Noyo Harbor. The purpose of Figure 4.25 is to provide insight into annual numbers of anglers on CPFV trips out of Noyo Harbor compared to those on CPFV trips originating out of all Fort Bragg area ports. Comparing the total number of anglers in Figures 24 and 25 one can see that roughly about a quarter to a third of all anglers on CPFV trips originating in the greater Fort Bragg port region (ranging from Westport to Anchor Bay) were

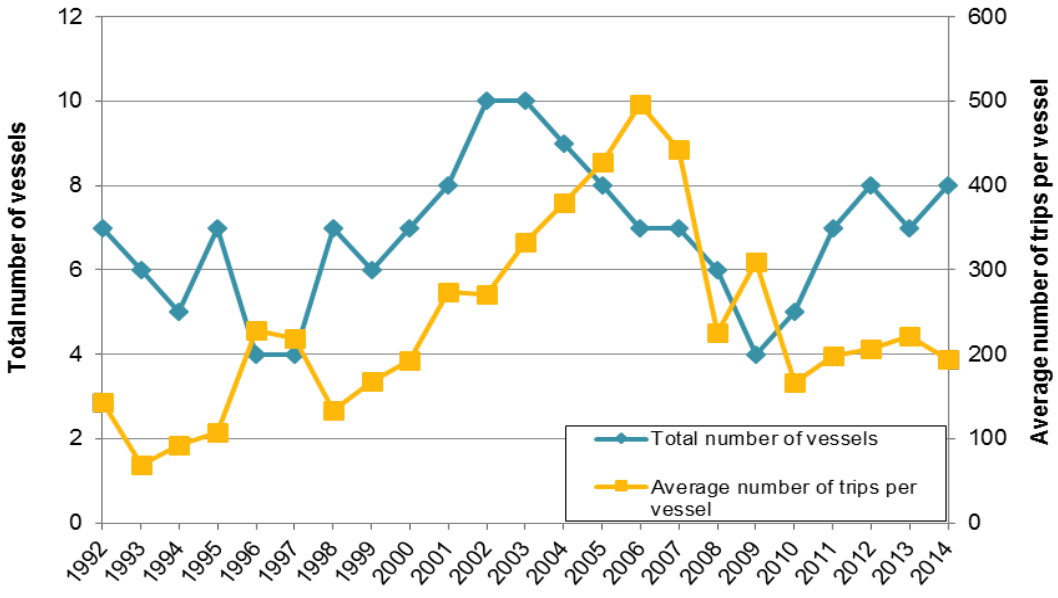
from Noyo Harbor. About 14,000 anglers went on Noyo-based CPFV trips in 2004 and 2005, a figure that declined dramatically to about 3,000 or fewer anglers on Noyo-based CPFV trips in 2008-2010. Total numbers of anglers have recovered somewhat since 2010, but remain less than half of peak angler headcount.

**FIGURE 4.25 – TOTAL NUMBER OF ANGLERS ON CPFV FISHING TRIPS ORIGINATING FROM NOYO HARBOR, 2000-2017**




**Source – CDFW (2019)**

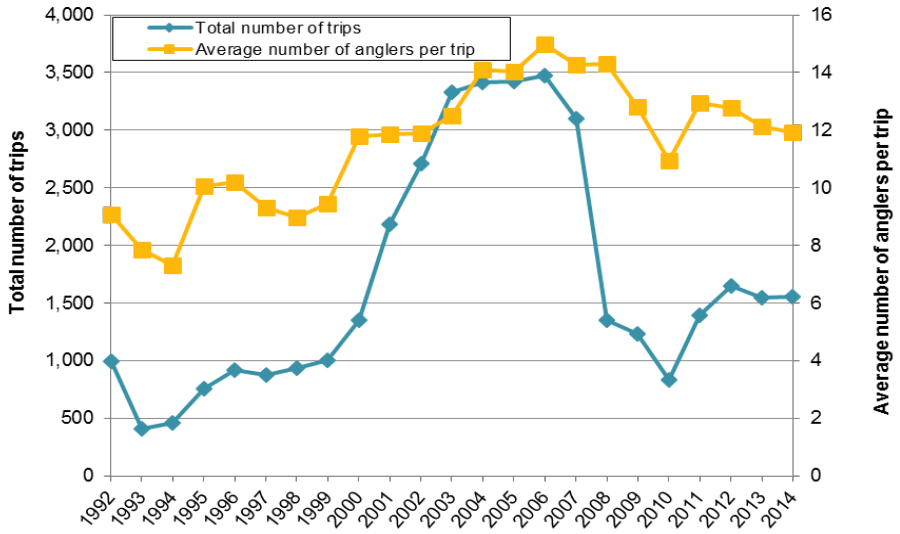
**FIGURE 4.26 -- TOTAL NUMBER OF CPFV VESSELS AND AVERAGE NUMBER OF TRIPS PER VESSEL, FORT BRAGG AREA PORTS, 2002-2014**




**Source – Hackett et al. (2017)**

In Figure 4.26 we can see a decline in number of CPFV vessels operating out of Fort Bragg area ports that corresponded to the salmon closure and Great Recession, though not as sharp as the decline in total number of anglers in Figures 4.24 and 4.25. There was similarly a decline in the annual average number of CPFV trips, which fell from over 400 to around 200. Note that CPFV operators can and do provide partial-day trips.

**FIGURE 4.27 – TOTAL NUMBER OF CPFV TRIPS AND AVERAGE NUMBER OF ANGLERS PER TRIP, FORT BRAGG AREA PORTS, 1992-2014**

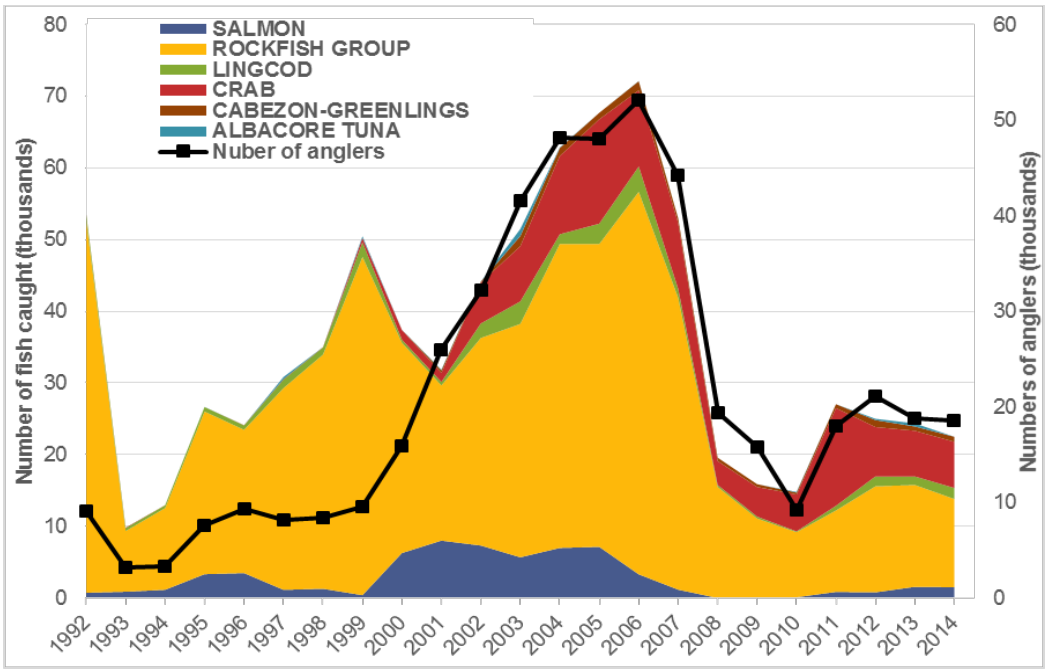



**Source – Hackett et al. (2017)**

From Figure 4.27 we can see a rising trend in average number of anglers per CPFV trip between 1994 and 2005, followed by a decline, and then stabilizing at around 12 passengers per trip. The total number of CPFV trips out of Fort Bragg area ports spiked upwards between 2000 and 2007, declined sharply between 2008 and 2010, and then modestly recovered after that time. Again, the emergency closure of the salmon fishery and the Great Recession are likely reasons.

Rockfish have been a mainstay species group landed by anglers on CPFV trips out of Fort Bragg area ports since the early 1990s, as shown in Figure 4.28. Dungeness crab became more important to anglers on CPFV trips starting around 2001. Annual Chinook salmon landings during this period peaked at a bit less than 10,000 fish caught by CPFV anglers between 2000 and 2005, zeroed out in the closure years of 2008 and 2009, and have hardly recovered since that time. Perhaps rockfish served as a less desirable substitute for anglers seeking salmon, which may explain the correlation between salmon catch and numbers of CPFV anglers.

**FIGURE 4.28 – TOTAL NUMBER OF FISH CAUGHT FOR EACH FISHERY ON CPFV TRIPS, FORT BRAGG AREA PORTS, 1992-2014**




**Source – Hackett et al. (2017)**

## 4.2 VESSEL CREW AND WATERFRONT BUSINESS EMPLOYMENT

### Estimated numbers of deckhands and crew

It is difficult to track deckhand numbers. CDFW does not track deckhands working on commercial fishing vessels, nor does any other government entity, and so a survey of commercial operators is required in order to gain a firm number. As a full-scale survey such as that is beyond the scope of this community sustainability plan project, we interviewed experts at the Noyo Harbor District for crew count numbers for the overall commercial fishery. We also include a separate estimate of crew for shore-based Noyo vessels in the groundfish trawl fishery from PFMC, and a rough estimate of CPFV crew.

In interviewing Bill Forkner (Noyo Harbor Commissioner and long-time area fisherman), and Bill Sanborn (Noyo Harbormaster) we were provided a rough estimate of approximately 159 deckhands working commercial fishing vessels in Noyo Harbor during peak season, and approximately half that at seasonal lows. PFMC (2017) estimates there were a total of 22 crew or deckhands on the 6 active shore-based groundfish IFQ vessels between 2015 and 2016. Presumably these groundfish trawl crew are included in the 159. Hilger and Lovell (2017) estimate from their 2012 survey that the average CPFV vessel in California employed 3.1 crew. Based on the estimated 8 CPFV vessels operating out of Noyo Harbor (Hackett et al. 2017), a rough estimate for CPFV crew operating out of Noyo Harbor at peak would be about 25.

**Estimated number of employees at waterfront and marine-related businesses**

To generate information on peak and off-peak employment by waterfront and marine-related businesses in the Noyo Harbor area, Planwest staff called all waterfront businesses for which listings were available, as well as other businesses that provide marine supplies and services. A total of 29 such businesses were contacted, some multiple times. Of those, responses were provided by 27. Respondents indicated total peak employment of 363 part- and full-time workers, with 266 part- and full-time workers employed during off-peak periods. If average employment by relevant sector were applied to the two non-responding businesses, then estimated total peak headcount employment increases to 409, with off-peak headcount employment rising to 295. Note that peak employment in sectors linked to commercial fishing occurs at different times of year than for visitor-serving businesses.

Summing the employment estimates for vessels, waterfront businesses, and marine-related businesses in the Noyo Harbor area, and including estimates for non-responding businesses, we estimate total headcount employment ranging between 375 and 568.

## 4.3 ECONOMIC CONDITIONS AND PERFORMANCE, LIMITED ENTRY GROUNDFISH TRAWL FISHERY

**Introduction and sector-adopted measures to adapt to significant regulation changes**

"Groundfish" is a generic term that refers to fish species residing on or near the ocean floor, differentiating them from migratory species and marine invertebrates (starfish, sea urchins, sea cucumbers etc.). Groundfish are sometimes further divided into roundfish, rockfish, and flatfish species groups. While a variety of gear is used to catch groundfish, a large share of groundfish landings derive from trawl gear. Based on value of landings in Noyo Harbor in recent years, key groundfish species include Dover sole, short- and long-spine thornyheads, and sablefish (collectively, the DTS complex), historically the most important part of the California trawl fishery; lingcod; chilipepper, blackgill, and bocaccio rockfish; and petrale sole. The California groundfish fishery is comprised of some 90 different species, all of which are managed by NOAA Fisheries and the Pacific Fishery Management Council under the Pacific Coast Groundfish Management Plan framework.

The Pacific Fishery Management Council (PFMC) was established through the Magnuson-Stevenson Fishery Conservation and Management Act of 1976, the primary law governing marine fisheries management for federal waters of the United States. The primary goals of the PFMC are the conservation of overfished stocks, value maximization of groundfish resources, and maximizing groundfish landings (within the constraints of overfished or rebuilding stocks) while promoting availability of quality seafood for consumers and promotion of recreational fishing. The Pacific west coast groundfish commercial fishery became a regulated entity in 1982 with the approval of the Fishery Management Plan (FMP) (PFMC/NMFS, 2016).

In the early days of the west coast groundfish FMP, the trawl fishery was managed through trip limits. As this management grew and changed it became a multiform regulatory system

with limits ranging by species and gear type. Trip limits then fluctuated from bi-weekly landings limits to monthly and bimonthly landings limits. PFMC (2017) notes that as early as 1985 the West Coast groundfish trawl fishery was severely overcapitalized with approximately 500 vessels, two to three times the number of vessels needed to harvest the annual trawl allocation. Moreover, trip limits for non-whiting West Coast groundfish species were reduced in 1991 over concerns regarding declining stocks.

Overcapacity and inefficiencies in groundfish fisheries motivated the introduction of a limited entry program. Amendment 6 of the FMP in 1994 introduced a license limitation plan with limited entry permits (LEPs). This was intended to reduce the number of vessels in the fleet and specifically, to restrict or regulate the use of particular types of gear. The restricted gear types for the Pacific groundfish fishery are trawl, trap/pot, and longline. In addition, the length of fishing vessels was restricted. Fishermen with LEPs can participate in the groundfish harvest in federal waters off of Washington, Oregon, and California.

In addition to the LEP, the West Coast groundfish commercial fishery also features a limited entry fixed gear (LEFG) fishery for sablefish and non-sablefish endorsed permits; daily trip limits (DTL) for non-sablefish endorsed permits; an open access (OA) fishery; and a state-permitted nearshore fleet. All federally-regulated West Coast groundfish fisheries with the exception of OA require fishermen to obtain an LEP. The ability to own and fish multiple fish permits on a single vessel became possible in 2001, when a permit stacking program was introduced for the sablefish fixed gear fishery (PFMC, 2017). LEPs are no longer issued by NOAA Fisheries, rather they must be purchased or leased from an existing owner. As of 2016 the number of LE trawl permits stands at 176, LEFG (sablefish endorsed) permits at 169 and LEFG (non-sablefish endorsed) at 67 (PFMC, 2017). Despite these efforts, by 1999 non-whiting groundfish landings and ex-vessel revenue had declined by more than 50 percent from the early 1980s, while shoreside trawl vessels were typically operating at only 27-41 percent of capacity – an indication of the need to rationalize the fishery and better match vessel capacity to available harvest (PFMC, 2017).

In 2000 the NMFS declared the West Coast groundfish fishery a disaster, and the Secretary of Commerce declared it a failure, having cost fishermen $11 million dollars in lost revenue. With vessel overcapacity and in many cases depleted stocks, it was recognized that the fishery needed to be rationalized (matching harvest capacity with available stocks) in order to economically sustain a commercial fishery. As a result, the trawl vessel buyout program was implemented in 2003 by the PFMC and NOAA Fisheries. The vessel buyback program was primarily self-funded by participants in the fishery. A $10 million federal appropriation was matched with a $36 million loan to be repaid over 30 years through a 5 percent landings fee on trawl-caught groundfish. As a result of the vessel buyback, 92 trawl vessels were removed from West Coast trawl fisheries (PFMC, 2017). In Fort Bragg, 7 of 12 resident groundfish trawlers participated in the buyback program and exited the fishery. This resulted in a considerable reduction in the size of the Noyo-based trawl fleet, including impacts on processors and other support services and businesses (Pomeroy et al., 2011).

The Magnuson Stevens Act (MSA) allows for the creation of limited access privilege programs (LAPPs) such as quota-based catch share systems. The Pacific Groundfish Trawl Rationalization Program was implemented in 2011 to appropriately match fishing effort to available stocks, by way of the West Coast shore-based groundfish IFQ program (as well as a similar program for non-shore-based participants). The program covers groundfish fisheries operating off the coasts of Washington, Oregon, and California, and is overseen by NMFS. This groundfish IFQ program applies to shore-based groundfish trawlers, such as those at Noyo Harbor, with a cooperative-based catch share system used for the offshore whiting fleet. IFQ programs give fishermen a right to a particular share of the fishery's total allowable catch, as well as some control over when the quota is filled within an open season (CDFW, 2011). The latter can reduce the race for fish, or derby conditions, that may occur in overcapitalized fisheries. IFQ programs with tradable quota can also concentrate an economically viable quota on a smaller number of vessels, which can support fishery rationalization by reducing the number of active vessels in an overcapitalized fishery. As of January 1, 2014, Pacific groundfish IFQs became transferable, with restrictions on concentration of quota ownership by individual fishermen.

The MSA requires all LAPPs, such as the Pacific coast groundfish trawl rationalization program, to recover the costs associated with the management, data collection, and enforcement of the program, including observers who verify landings and bycatch on each vessel. In accordance with the MSA, NMFS collects mandatory fees that may vary year to year, but cannot exceed three percent of the ex-vessel value of groundfish landed by vessels under the trawl rationalization program (NOAA Fisheries, 2013). For shore-based participants, the receiver purchasing the catch in the landing port is responsible for gathering the fee. The NMFS, the primary entity managing the West Coast groundfish trawl fishery, divides the total allowable catch into IFQ shares to the eligible fishermen, and each allotment is known as a quota share (QS). The QS can be used to derive a specific poundage of quota by multiplying the QS by the total allowable catch in a particular fishery.

According to PFMC (2017), Noyo Harbor-based trawlers received about 6.3% of total West Coast trawl ex-vessel revenue from 1996-2000, a percentage that declined a bit by 2011-2015, to 4.8%. By contrast, Eureka-based trawlers received 9.25% of total West Coast ex-vessel revenue from 1996-2000, though that share declined to 6.7% by 2011-2015. It is noteworthy that while Noyo Harbor-based trawlers received less than 5% of trawl-based groundfish ex-vessel revenue in 2011-2015, 10 Fort Bragg community members (as of 2016) were the top holders of West Coast for non-whiting shore-based IFQ quota shares, exceeding those of top groundfish ports such as Astoria and Coos Bay (PFMC, 2017). For example, as of 2017 Fort Bragg-area residents held 9.8% of West Coast Dover sole quota, 7.6% of rockfish quota, and 7.8% of sablefish quota. Five Fort Bragg-area buyers acquired over 4.1 million quota pounds since trading began in 2014 (PFMC, 2017).

According to PFMC (2017), as of 2015 (the most recent available data), there were 6 vessels active in the shore-based ITQ groundfish fishery homeported out of Noyo Harbor, relatively little changed from the 7 vessels that were active as early as 2009, but far fewer than the 18 vessels with trawl permits between 1996 and 2000. Noyo Harbor Commissioner Forkner

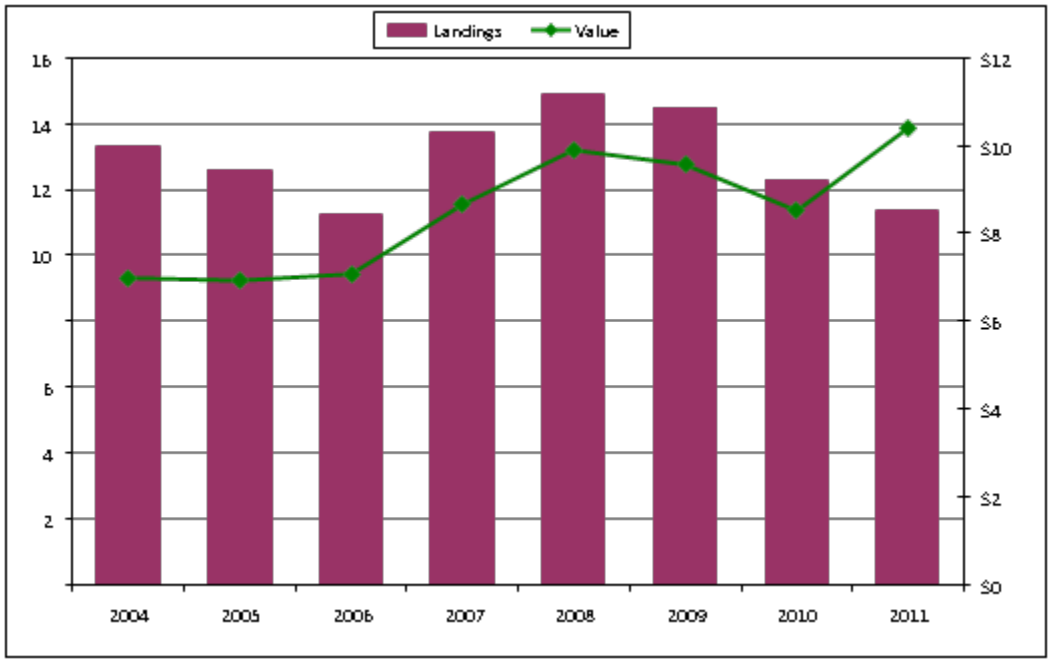
noted that there were as few as 2 groundfish trawl vessels actively fishing out of Noyo Harbor in 2018. Likewise, the number of receivers who buy groundfish landed by trawlers in Noyo Harbor declined from 8 in 1996-2000 to 4 in 2011-2015. By way of contrast, there were also 6 active shore-based ITQ groundfish vessels homeported out of Eureka, down from the 10 that were active as recently as 2009, and from the 20 vessels with trawl permits between 1996-2000. The number of groundfish trawl receivers in Eureka declined from 9 to 2 in the same time period. Active vessels in Crescent City fell from 31 in 1996-2000, to 7 in 2009, to only 2 in 2015, with only one receiver by 2011-2015. Eureka and Noyo Harbor had the largest active groundfish fleets of any ports in California as of 2015. Noyo Harbor also had the highest "fishing engagement index" of all California fishing ports that are "highly engaged" in the shore-based West Coast groundfish trawl IFQ program through 2013 (PFMC, 2017).

From the standpoint of IFQ trawl fishermen, profitably landing California groundfish has become more challenging in recent years. Concerns identified in Wilderness Markets (2015) include:

- Timing of quota releases: Fishery managers reportedly may not release a total allowable catch (and thus specific quota poundage) in time for fishery season openings, which can result in participants making their landings based off of outdated quota amounts.
- Management costs: Having an observer onboard their vessel (a stipulation of the West Coast Groundfish Observer Program [WCGOP]) can reportedly cost a vessel operator up to 25% of their revenue.
- Inefficient shoreside support services: Some vessel operators report their home ports facilities lack the capacity needed to efficiently offload their landings.
- An undifferentiated marketplace: IFQ fish harvested from sustainable US fisheries may not be adequately labeled, resulting in consumers being unable to differentiate such fish from lower-cost (and potentially less sustainably harvested) fish imports in the marketplace.
- Lack of transparency and perceived risk: Financial institutions report difficulties in cost-effectively tracking the transfer of quota shares, leased quota, and lien holders, which increases the risk of making loans to participants in the groundfish trawl fishery.

## Summary groundfish trawl data

**FIGURE 4.29 – NON-WHITING GROUNDFISH LIMITED ENTRY TRAWL LANDINGS AND (NOMINAL) VALUE, CALIFORNIA 2004-2011**

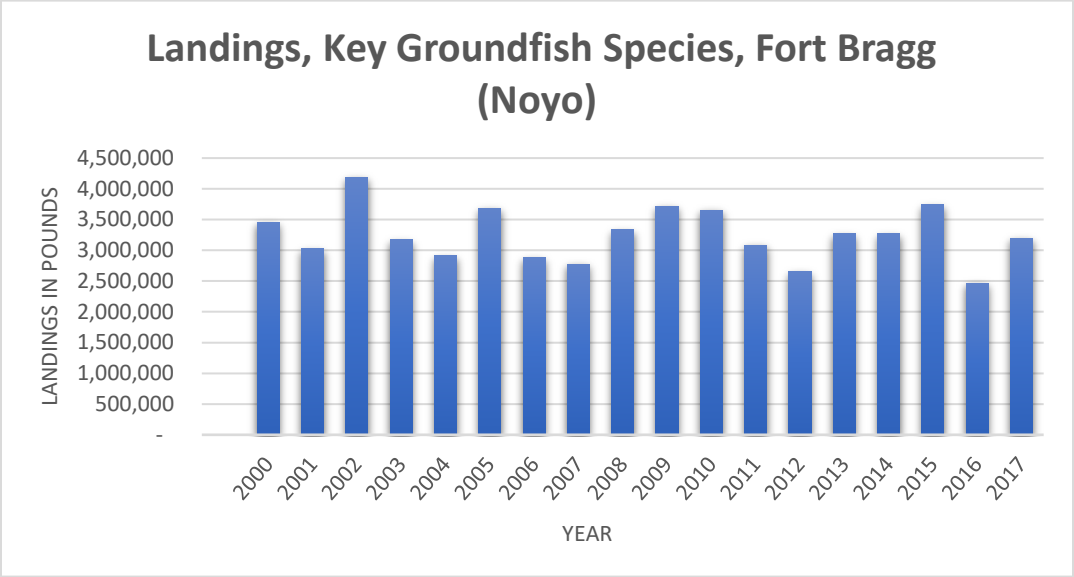



**Source – CDFW (2011)**

Non-whiting groundfish landings and nominal (not inflation-adjusted) ex-vessel revenue from the limited entry trawl fishery in California is given in Figure 4.29. One can see that the nominal value of landings in this eight-year period ranged from a bit over $7 million to a bit over $10 million, while the poundage of landings ranged from a bit over 11 million pounds to nearly 15 million pounds.

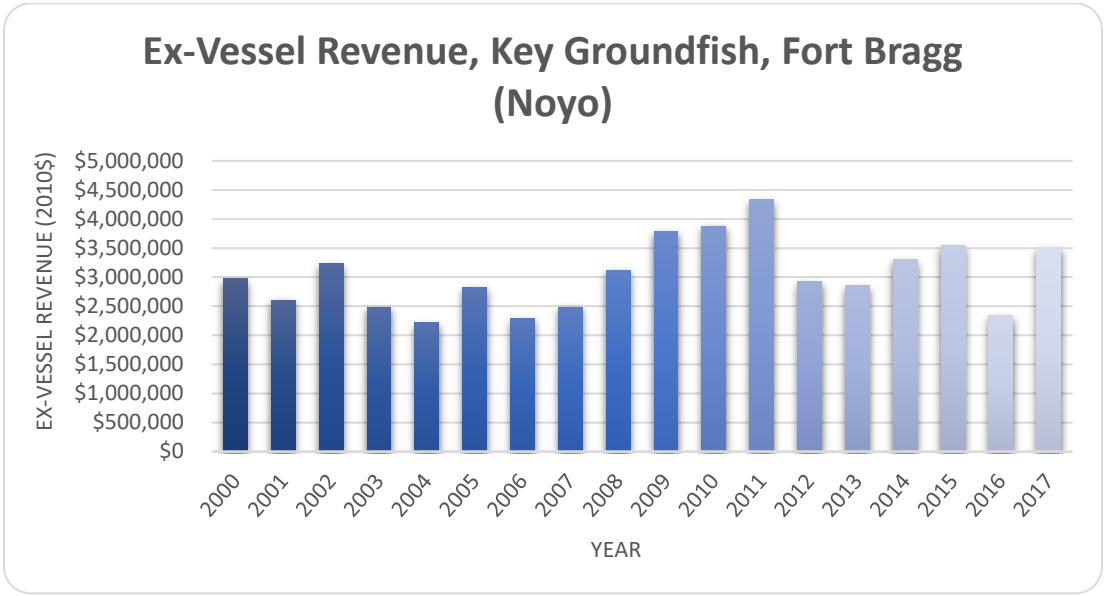
The data in Figure 4.30 represent all Noyo Harbor landings of key groundfish species – Dover sole, short- and long-spine thornyheads, and sablefish (the DTS complex); lingcod; chilipepper, blackgill, and bocaccio rockfish; and petrale sole. The CDFW database does not distinguish limited entry landings from those originating from the open-access groundfish fishery. Discussions with fishery participants indicates that the great majority of key groundfish landings derive from vessels operating in the limited access groundfish fishery. One can see that landings fluctuate year to year, ranging from approximately 2.6 million pounds to about 4.2 million pounds. While Figures 29 and 30 are not directly comparable, one can see that Noyo Harbor represents a sizeable share of California's total groundfish landings.

**FIGURE 4.30 – LANDINGS OF KEY GROUNDFISH SPECIES, NOYO HARBOR, 2000-2017**




**Source – CDFW (2018)**

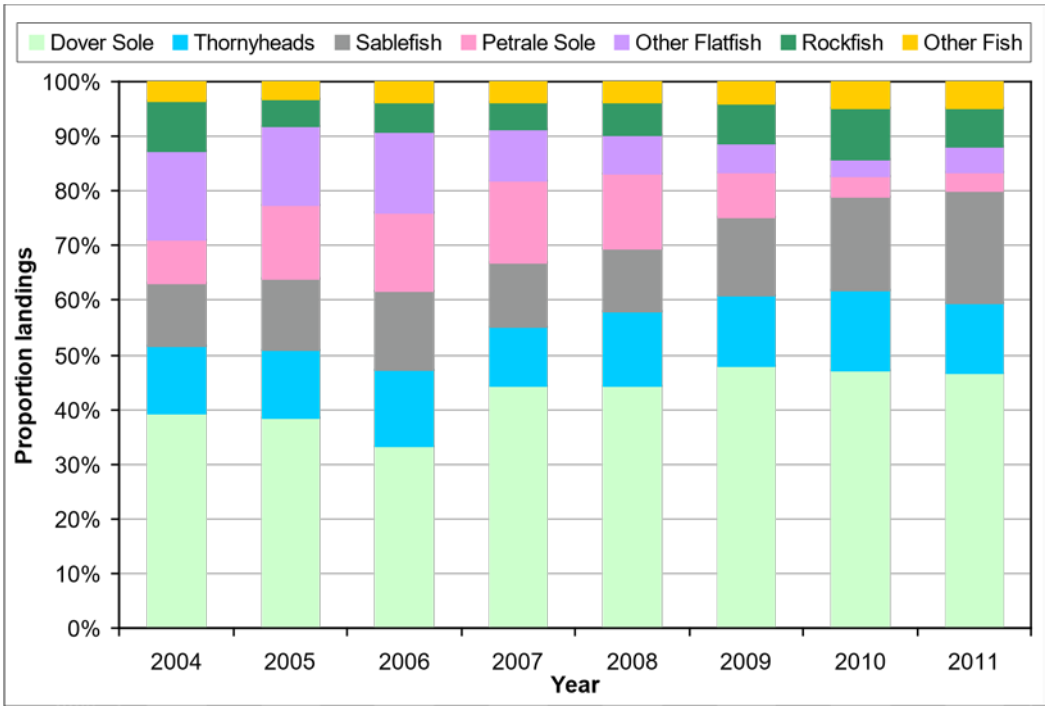
**FIGURE 4.31 – EX-VESSEL REVENUE, KEY GROUNDFISH SPECIES, NOYO HARBOR, 2000-2017**




**Source – CDFW (2018)**

Inflation-adjusted ex-vessel revenue generated from landings of key groundfish species in Noyo Harbor is provided in Figure 4.31 above. One can see that the inflation-adjusted value of key groundfish landings in Noyo Harbor ranged from a low of about $2.2 million in 2004, to a high of about $4.4 million in 2011. As with Figure 4.30, the CDFW database from which the data in this chart was drawn does not distinguish limited entry groundfish landings from open-access landings.

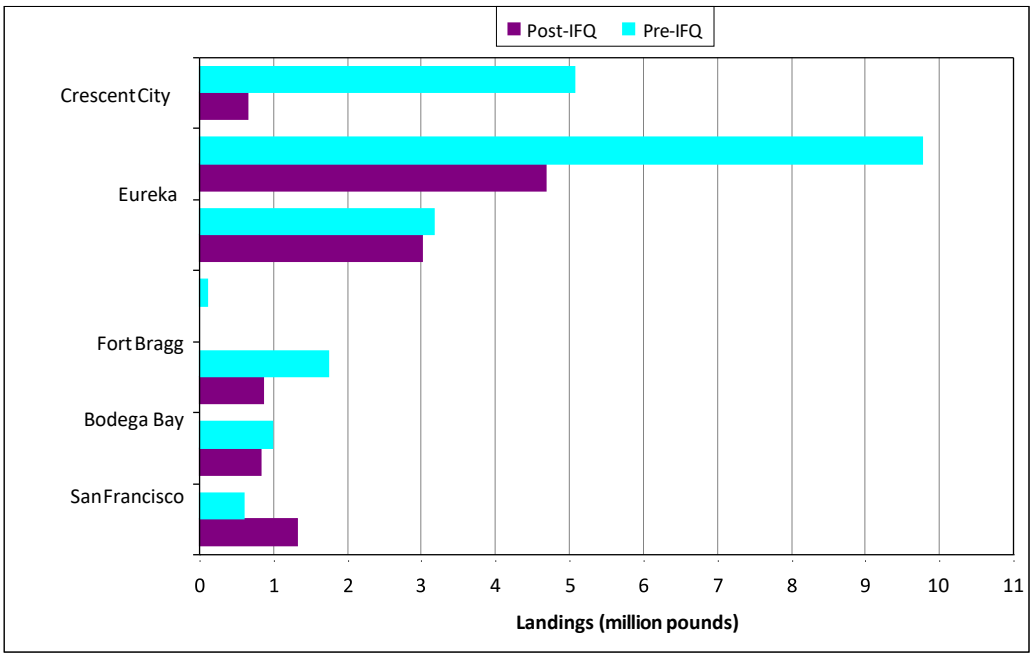
**FIGURE 4.32 – NON-WHITING GROUNDFISH LIMITED ENTRY TRAWL FISHERY LANDINGS BY SPECIES, CALIFORNIA 2004-2011**




**Source – CDFW (2018)**

For California as a whole, one can see from Figure 4.32 that the Dover sole, thornyhead, and sablefish (DTS) limited-entry trawl fishery complex generated the majority of total landings over the 2004-11 period, with Petrale sole, other flatfish, rockfish, and other fish making up the remaining share of landings.

**FIGURE 4.33—GROUNDFISH LIMITED ENTRY TRAWL FISHERY LANDINGS, BY CALIFORNIA PORT AREAS, 2004-2011**




**Source – CDFW (2018)**

From Figure 4.33 one can see that during the 2004-10 period, landings in Fort Bragg area ports was the third largest for limited entry groundfish in California, with about a third of the Eureka area's total and a bit over 60 percent of the Crescent City area's total. In the first post-IFQ year of 2011, Fort Bragg area ports made about the same poundage of landings as average in the preceding seven years, but landings declined sharply in Crescent City and Eureka area ports. Thus, in the initial period after IFQ formation, Fort Bragg area ports became the second largest limited-entry groundfish landing ports in California.

According to Harbor Commissioner and commercial fisherman Bill Forkner, approximately 90% of the key groundfish species are landed through Limited Entry (LE) Trawl, leaving only a relatively small share of landings to the open-access groundfish program. The poundage limits for the open access fishery tend to be very low. While some open access Lingcod and Sablefish are available, for example, Forkner notes that the relatively small poundage (in the hundreds of pounds total) are not significant enough to act as a reliable source of income for most non-quota fishermen. Another challenge presented by limited entry is for the young, start-up fishermen attempting to break into the industry. The initial investment required to lease the permits is unaffordable without existing capital for investment. The cost to lease or purchase an existing permit is considerably high for any person hoping to break into the commercial fishing industry.

## 4.4 RATES, RENTS, AND FEES

Noyo Harbor District receives income from a variety of different rates, rental charges, and fees for use of District facilities. The rate schedule is available from the Noyo Harbor District. Charges for the use of berths, floats, and end ties varies based on time period (daily, monthly, temporary, and annual) and on the greater of berth length or vessel length. A charge of $50 is required for use of a pump. Hoist charges include a fixed expense for all engines ($50), and an hourly rate that depends on the weight of the items being moved ($20 per hour for items under 1000 pounds and $50 per hour for items over 1000 pounds). A fixed fee of $10 is charged for use of the launch ramp, and a variable charge for launches and lay days is also imposed based on vessel size. A $3 daily charge is imposed for parking. An annual combined parking and launch permit costs $140. Ground rent is $75 per month. A $10 charge is imposed for use of the pump-out station. A $25 per hour charge plus materials is imposed for cleanup of oil spills. Late charges and encroachment charges are also assessed, but are not included on the rate schedule.

Harbor District income (not inflation-adjusted) from rates, rents, and fees over the three fiscal years is given in Table 4.1. One can see that slip rent is the dominant source of income, rising to nearly half a million dollars in annual income by fiscal year 2016-17. Ground rent, encroachment charges, and parking fees together represent roughly $60,000-$70,000 in annual income. Income from hoist charges is minor, and declined slightly over the three fiscal years.

**TABLE 4.1 – NOYO HARBOR DISTRICT INCOME FROM RATES, RENTS, AND FEES**

| Nature of Income | Fiscal Year 2014-15 | Fiscal Year 2015-16 | Fiscal Year 2016-17 |
|---|---|---|---|
| Slip Rent | $454,713 | $467,726 | $498,849 |
| Hoist Charges | $710 | $505 | $400 |
| Main Pier Charges | $7,038 | $6,620 | $6,600 |
| Parking Fees | $15,150 | $19,759 | $10,801 |
| Ground Rent | $27,598 | $29,771 | $28,799 |
| Encroachments | $17,104 | $18,226 | $18,400 |
| Late Charges | $368 | $1,243 | $460 |
| Misc. Revenue | $922 | --- | $600 |

# 5. ENVIRONMENTAL CONDITIONS

The California North Coast marine ecosystem is one of the world's richest. There is nutrient-rich cold-water upwelling near the coast that supports marine life ranging in size from whales to micro-organisms. The North Coast marine habitat is quite diverse, including rocky intertidal areas, estuaries, sandy bottoms, submerged canyons, and sea mounts. This diversity is reflected in commercial and recreational landings of a wide range of valuable finfish as well as crustaceans and other marine invertebrates.

Regulatory agencies such as the California Department of Fish and Wildlife and the National Marine Fisheries Service are tasked with serving as public trustees of resources such as marine fisheries. A healthy marine environment and responsible fishery management serve as the foundation for robust fishery stocks. Fishery management has historically been reactive, leading at times to cycles of overharvest followed by sharp harvest restrictions that adversely affect fishery participants and port communities. Balancing the imperatives of conservation and sustainable fishery harvests is further challenged by external factors such as climate change that may be further linked to the spread of marine diseases and red tide events.

**Sunken vessel, the "San Juan", since removed by Noyo Harbor District**

State and federal fishery management is directed at when, where, how, and how many commercial and recreational fishery participants harvest from the fishery commons. Regulations may take the form of restrictions on vessel or gear, season or area closures, trip or bag limits, restrictions on size or sex of fish that can be legally harvested, and license, permit, or quota systems that restrict access to fisheries. Governments also charge fees for access (licenses and permits) or taxes on landings to fund fishery management, which results in state and federal databases that document fishery participation, landings, and commercial fish sales.

## 5.1 FISHERY MANAGEMENT PLANS

Two fisheries are particularly relevant in the context of fishing community sustainability plans. One of these is the state-regulated nearshore finfish fishery, and the other is the federally-regulated groundfish fishery. These fisheries are prominent because fishing community sustainability plans are linked to the federal Magnuson-Stevens Act and thus emphasize federal fisheries, and 16 of the 19 species covered by California's 2002 Nearshore Finfish Fishery Management Plan (FMP) are also covered in the federal Pacific Groundfish FMP.

As the Nearshore Finfish FMP covers 19 different species, most of which overlap with the Pacific Groundfish FMP, management is complex. The Pacific Groundfish FMP states that state fishery regulations covering the same species cannot be less restrictive. Overfishing and overcapitalization (an inefficiently large commercial fishing fleet) made recovery of fishery stocks a key goal of the Nearshore Finfish FMP in 2002. The State of California uses regionally-based transferable permits to restrict access, with inter-regional transfers subject to a 2 for 1 purchase, with the extra permit retired from use. As of 2014 there were 157 nearshore fishery permits in California. While permit retirements and non-renewals reduced active permits by 45 percent between 2003 and 2016, the nearshore fishery commercial fleet remains larger than the FMP's capacity goal for the fleet.

The Pacific west coast groundfish commercial fishery became a regulated entity in 1982 with the approval of the Pacific Groundfish FMP. "Groundfish" is a generic term that refers to fish species residing on or near the ocean floor, differentiating them from migratory species and marine invertebrates (starfish, sea urchins, sea cucumbers etc.). Groundfish are sometimes further divided into roundfish, rockfish, and flatfish species groups. While a variety of gear is used to catch groundfish, a large share of groundfish landings derive from trawl gear. Trip limits were initially used to manage harvest, though this regulation did little to limit the size of the commercial trawl fleet. As early as 1985 the West Coast groundfish trawl fishery was severely overcapitalized with approximately 500 vessels, two to three times the number of vessels needed to harvest the annual trawl allocation.

In 2000, the National Marine Fisheries Service (NMFS) declared the West Coast groundfish fishery a disaster, and the Secretary of Commerce declared it a failure, having cost fishermen $11 million dollars in lost revenue. With vessel overcapacity and in many cases depleted stocks, it was recognized that the fishery needed to be rationalized (matching harvest capacity with available stocks) in order to economically sustain a commercial fishery. As a result, the trawl vessel buyout program was implemented in 2003. In 2011 an individual fishing quota (IFQ) program was instituted to limit access to the federal groundfish trawl fishery. The total allowable catch is divided into IFQ shares allocated to eligible fishermen, and each allotment is known as a quota share (QS). The QS can be used to derive a specific poundage of quota by multiplying the QS by the total allowable catch in a particular fishery.

The vessel buyback program along with reductions in total allowable catch resulted in a sharp reduction in numbers of trawl vessels operating on the US west coast south of Alaska,

including Noyo Harbor. In recent years many key groundfish species that had been overfished were deemed to be recovered. Among other challenges, one contentious issue is the division of total allowable catch between the groundfish trawl quota fishery and the "open access" fishery. Commercial fishermen with vessels equipped for salmon trolling have experienced substantial adverse economic impacts due to sharp and cyclical declines in the salmon fishery, and these fishermen benefit from a larger share of the allowable groundfish catch to be allocated to the open-access fisher.

## 5.2 GEAR RESTRICTIONS AND MONITORING REQUIREMENTS

**South side of Noyo Harbor including Noyo Harbor District office**

A variety of different gear types can be used in the state nearshore finfish and the federal Pacific groundfish fisheries. Allowable gear types for the nearshore finfish fishery includes hook-and-line and traps. The federal Pacific groundfish fishery allows those gear types as well as trawl gear. Trawl gear utilizes a large net, and can result in catch of non-targeted species of fish, sometimes known as bycatch, some of which may derive from depleted stocks. In order to assure catches are compliant with quota shares, and to limit bycatch, the Pacific groundfish FMP requires on-board observers. When the IFQ program was put in place, NMFS agreed to pay for a portion of the observer costs to help the fleet through the adjustment period. In September 2015, the industry was required to pay the full cost.

All groundfish vessels participating in the Pacific groundfish quota program are billed for observers on a per-day basis. For vessel operators, the requirement to pay for vessel observers is one of the most expensive compliance costs associated with participation in the catch share program. As a result, observer costs are the same for both small and large vessels. Because of this, individual fishing quotas could migrate to vessels with higher revenues, leaving fewer small harvesters in the fleet. Finally, the observer fee system puts pressure on vessels to fish in unsafe conditions. Because vessels are billed per day both for at-sea and for standby time during a trip, vessels may incur higher costs for standing down due to bad weather.

## 5.3 CLIMATE CHANGE AND SEA LEVEL RISE

The broad consensus of the scientific community is that the world's climate is warming and changing, with many consequences on the marine environment. One of these consequences is ocean warming, which affects the spatial distribution of habitats for fish and other marine organisms. Ocean warming is linked red tide events, the spread of diseases, and shifts in species abundance. Another consequence of climate change is ocean acidification that among other things affects the ability of crustaceans to form shells. Still another consequence of climate change is sea level rise linked to both melting terrestrial ice and thermal expansion of sea water. As a result, climate change impacts include fishery participants, port infrastructure, shoreline development, and the health, safety and economic vitality of coastal communities.

CALIFORNIA OCEAN PROTECTION COUNCIL

"Waiting for scientific certainty is neither a safe nor prudent option. Consideration of high and even extreme sea levels in decisions with implications past 2050 is needed to safeguard the people and resources of coastal California."
State of California Sea-Level Rise Guidance, 2018, p. 13.

While the broader community wrestles with policies to reduce greenhouse-gas emissions, coastal communities are confronted with the imperative to adapt to the consequences of climate change.

In order for ports and coastal communities to effectively adapt to sea level rise, policy makers must first develop localized projections for the extent and nature of impacts from a rising sea. While such projections are subject to a degree of uncertainty regarding the scope and extent of sea level rise, decisions ultimately must be made based on the best available science. The State of California has prepared a science-based methodology to help state and local governments analyze and assess risks associated with sea-level rise when making planning, permitting and investment decisions.

The State of California Sea-Level Rise Guidance, 2018 Update (Guidance) was adopted by the State's Ocean Protection Council in March 2018, and provides State agencies and local governments with a science-based methodology to assess risks associated with sea-level rise. This guidance provides probabilistic sea-level rise projections tied to specific anthropogenic ("human-caused") greenhouse-gas emissions scenarios. The State's sea-level rise guidance provides a step-by-step approach to help decision makers assess risk based on factors such as a project's location, lifespan, cost, and adaptive capacity.

The Guidance provides sea-level rise projections for the 12 active NOAA tide gauges on the California coast. The State guidance recommends using low, medium-high and extreme risk aversion projections to evaluate a spectrum of potential impacts, consequences, and responses. Three specific risk aversion scenarios are recommended based on the type of project and the level of risk associated with the development type (or planning area):

- Low risk aversion scenario: The upper value for the "likely range" (which has approximately a 17% chance of being exceeded); may be used for projects that would have limited consequences or a higher ability to adapt.
- Medium-high risk aversion scenario: The 1-in-200 chance (or 0.5% probability of exceedance); should be used for projects with greater consequences and/or a lower ability to adapt.
- Extreme risk aversion (H++) scenario: Derived from an extreme ice-melt scenario (which does not have an associated probability at this time); should be used for projects with little to no adaptive capacity that would be irreversibly destroyed or significantly costly to repair, and/or would have considerable public health, public safety, or environmental impacts should that level of sea level rise occur.

Arena Cove, located about 35 miles south of Noyo Harbor, is the closest NOAA Tide Gauge to Noyo Harbor. It is considered a good proxy with regard to variability in land elevations due to subsidence and tectonic activity. Table 5.1 presents the probabilistic sea-level rise projections for Arena Cove.

**TABLE 5.1 – ARENA COVE SEA LEVEL RISE PROJECTIONS**

| | | Probabilistic Projections (in feet) (based on Kopp et al. 2014) | | | | | H++ scenario (Sweet et al. 2017) *Single scenario |
|---|---|---|---|---|---|---|---|
| | | MEDIAN | LIKELY RANGE | | 1-IN-20 CHANCE | 1-IN-200 CHANCE | |
| | | 50% probability sea-level rise meets or exceeds... | 66% probability sea-level rise is between... | | 5% probability sea-level rise meets or exceeds... | 0.5% probability sea-level rise meets or exceeds... | |
| | | | | Low Risk Aversion | | Medium - High Risk Aversion | Extreme Risk Aversion |
| High emissions | 2030 | 0.3 | 0.2 - | 0.5 | 0.5 | 0.7 | 1.0 |
| | 2040 | 0.5 | 0.3 - | 0.7 | 0.9 | 1.2 | 1.6 |
| | 2050 | 0.7 | 0.5 - | 1.0 | 1.2 | 1.8 | 2.6 |
| Low emissions | 2060 | 0.8 | 0.5 - | 1.1 | 1.4 | 2.2 | |
| High emissions | 2060 | 1.0 | 0.6 - | 1.3 | 1.7 | 2.5 | 3.7 |
| Low emissions | 2070 | 0.9 | 0.5 - | 1.3 | 1.8 | 2.9 | |
| High emissions | 2070 | 1.2 | 0.8 - | 1.7 | 2.2 | 3.3 | 5.0 |
| Low emissions | 2080 | 1.0 | 0.6 - | 1.6 | 2.1 | 3.6 | |
| High emissions | 2080 | 1.5 | 1.0 - | 2.2 | 2.8 | 4.3 | 6.4 |
| Low emissions | 2090 | 1.2 | 0.7 - | 1.8 | 2.5 | 4.5 | |
| High emissions | 2090 | 1.8 | 1.1 - | 2.6 | 3.4 | 5.4 | 8.0 |
| Low emissions | 2100 | 1.3 | 0.7 - | 2.1 | 3.0 | 5.4 | |
| High emissions | 2100 | 2.1 | 1.3 - | 3.1 | 4.1 | 6.7 | 9.9 |
| Low emissions | 2110* | 1.4 | 0.8 - | 2.2 | 3.1 | 6.0 | |
| High emissions | 2110* | 2.3 | 1.5 - | 3.2 | 4.2 | 7.0 | 11.6 |
| Low emissions | 2120 | 1.5 | 0.9 - | 2.5 | 3.6 | 7.1 | |
| High emissions | 2120 | 2.6 | 1.8 - | 3.8 | 5.0 | 8.2 | 13.9 |
| Low emissions | 2130 | 1.7 | 0.9 - | 2.8 | 4.1 | 8.1 | |
| High emissions | 2130 | 2.9 | 1.9 - | 4.3 | 5.7 | 9.7 | 16.2 |
| Low emissions | 2140 | 1.8 | 0.9 - | 3.1 | 4.6 | 9.4 | |
| High emissions | 2140 | 3.2 | 2.1 - | 4.8 | 6.5 | 11.1 | 18.7 |
| Low emissions | 2150 | 1.9 | 0.9 - | 3.4 | 5.1 | 10.7 | |
| High emissions | 2150 | 3.6 | 2.3 - | 5.4 | 7.3 | 12.6 | 21.5 |

Source: NOAA

The projections for 2050 are only provided for the "high emissions" scenario, and the impacts between now and 2050 will be the result of greenhouse gases that have already been emitted. Any international action in the coming years to lower emissions will not make a significant impact on near-future sea level rise. But beyond 2050, sea-level rise projections vary considerably depending on the trajectory for greenhouse gas emissions.

For projects with a lifespan beyond 2050, Table 5.2 presents a range of sea-level rise for each level of risk-aversion based on a "low emissions" and a "high emissions" scenario. The extreme-risk aversion scenario is only provided for a "high emissions" scenario as it represents a worst-case scenario for the second half of this century given the potential for non-linear acceleration of sea-level rise and positive feedback related to ice-sheet dynamics. To compare them, these different sea-level rise projections for Noyo Harbor for 2100 are:

**TABLE 5.2 – SEA LEVEL RISE PROJECTIONS SHOWING DIFFERENT EMISSION SCENARIOS**

| Risk Aversion Level | Emissions Level | Height | Emissions Level | Height |
|---|---|---|---|---|
| Low | Low | 2.1 Feet | High | 3.1 Feet |
| Medium | Low | 5.4 Feet | High | 6.7 Feet |
| Extreme | | | High | 9.9 Feet |

Source: NOAA

It should be noted that sea-level rise projections in the State Guidance may not fully account for acute impacts from sea-level rise exacerbated by storm surges, El Niño events, or king tides that may result in even greater damaging impacts to Noyo Harbor facilities, infrastructure and property.

# 6. SOCIAL FACTORS

## 6.1 ORGANIZATIONS

Organizations provide a means for people with shared interests to amplify their voice, raise public awareness, and thereby more effectively influence public policy. By doing so, organizations benefit communities by motivating civic engagement, networking, and the sharing of information. While the term 'community' means different things to different people, it includes geographical communities and communities formed around shared interests. The focus of this report is on people in the geographical community of Noyo Harbor that share an interest in fishing. The broader context is one in which economic growth, social change, and prosperity has been centered on urban metropolitan areas that are linked by regional supply chains to rural resource-dependent communities. Organizations serve an important role in sustaining rural communities by making them more resilient to changing social and economic forces.

There are a number of organizations within the Noyo Harbor fishing community, primarily linked to a shared interest in fishery access, harbor infrastructure and land use, and providing a local voice in fisheries management and public policy. These organizations are made up of commercial fishermen that may at times form broader coalitions with related waterfront businesses, sport fishermen, environmental groups, and local government on matters of common interest. These organizations may serve as a primary means of networking and information-sharing for members of the Noyo fishing community. The collaborative nature of these organizations serves as a networking hub where members can share knowledge of economic opportunities, challenges, and potential threats with their fellow fishermen.


**Signage denoting Noyo Harbor working waterfront**

One historically important subgroup of the Noyo Harbor fishing community is the commercial fishermen who target groundfish in the West Coast groundfish IFQ fishery. As outlined elsewhere in this report, participants have suffered due to the boom-and-bust dynamic of rapid fishery growth, followed by overcapitalization and stock depletion due to weak management, which set in motion a series restrictive fishery management measures including an industry funded buy-out of permits and vessel, trip limits culminating to the

current management structure commonly known as Catch Shares. While many key groundfish stocks have recovered, the number of active trawlers in California has sharply declined including those in Noyo Harbor and as elsewhere on the US west coast.

The Fort Bragg Groundfish Association (FBGA) is a 501c 5 non-profit, tax exempt organization formed in 2011 to create new opportunities and better conditions for local commercial fishermen whose family-owned boats and fishing operations are critical to economic stability on the North California coast. A recent example of FBGA creating opportunity is seen through its productive networking and collaboration with California fishing association in Half Moon Bay and Moro Bay in the formation of the California Groundfish Collective (CGC), formerly known as the California Risk Pool.

The California Groundfish Collective centers around a voluntary collective agreement between Fish Marketing Associations in California to establish a common pool of quota drawn from member holdings and rules that govern quota access that are intended to reduce the collective risk of catching constraining species.

Through this voluntary agreement, the CGC provides an innovative solution to harvesting marketable seafood in the recovering Pacific Coast groundfish fishery by creating written and spatial harvest plans designed to target healthy, abundant stocks of fish while avoiding vulnerable overfished species.

An unintended catch event of overfished groundfish species can be highly variable in timing, location, and magnitude, and can occur even when exercising reasonable avoidance measures. As a result, fishermen could unintentionally exceed their entire individual quota allocation for one or more overfished species during a single tow or trip. In that situation a fisherman must acquire quota on the open market to cover the unintended catch. The CGC mimics a traditional Risk pool risk management model used widely in the insurance industry. Unlike dollar premiums in the insurance industry, members form of currency is their contribution of overfished species to the collective pool and when a fishermen fishes according to the voluntary collective agreement, they draw upon the pool of quota to cover the unintended catch of overfished species. The CGC uses best science and technology to protect the resources they rely on by reducing bycatch, avoiding sensitive species, and protecting critical fish habitat. These efforts have provided fresh, local seafood for consumers, jobs, fishermen revenue, industry stability in small ports and improved conservation of marine resources.

The Salmon Trollers Marketing Association, Incorporated, is a 501c non-profit association in Noyo Harbor focused on the shared economic interest of salmon and related fisheries. The Salmon Trollers Marketing Association was established in 1951 and advocates for those commercial fishermen operating vessels outfitted with troll gear who participate in salmon fisheries ranging from the North Coast of California to Oregon and Alaska. Salmon trollers traditionally also participate in the Dungeness crab fishery. The group has a history of representing regional commercial salmon fishing interests in policy contexts related to the

management of salmon and related fisheries. One important function of the Salmon Trollers Marketing Association is to seek assistance to buffer members from severe economic harms linked to management of the salmon fishery. One notable example was the organization's efforts in seeking disaster relief following the emergency closure of the California salmon fisheries in 2008 and 2009. The organization operates out of Salmon Trollers Hall on South Harbor Drive.

Noyo Women for Fisheries is a non-profit organization that was established in the 1970's as a support group for women whose domestic partners spent long periods of time away from home while out on fishing ventures. The seeds of the network began to grow and the group evolved into a broader entity, inviting any woman that had ties to or concerns regarding the challenges and dangers that faced their local fishing fleets. The group has advocated and fundraised for fishermen and their families in the event of overwhelming circumstances such as illness, accident or injury. Noyo Women for Fisheries has also been active in promoting local fundraising (and popular community events) such as Winesong (a charity that supports the Mendocino Coast District Hospital), Mendocino County's annual Crab, Wine and Beer Festival (a benefit for Mendocino Coast Clinics), as well as Chamber of Commerce mixers (promoting, supporting and improving the business and economic climate of the Mendocino coast).

The Noyo Women for Fisheries has also sponsored educational field trips for local youth to visit the harbor and receive first-hand knowledge about the importance of the fishing industry in the regional economy and culture. The group has 15-20 members and meets monthly. Noyo Women for Fisheries is co-chaired by Julee and Jen Estes.

California Sea Urchin Commission is not a Noyo-specific fisherman organization, though it represents the interests of commercial divers targeting red sea urchin in the Noyo Harbor region. The California Sea Urchin Commission (Commission) was created in 2004 and it represents the interests of California's nearly 300 licensed commercial divers. As stated on their website, Commission activities are funded by an assessment on sea urchin harvested and processed in California, paid by divers, and remitted by urchin processors. Commission initiatives may include a diver-based urchin assessment program; independent scientific research; developing and advocating for management alternatives; public information and educational programs; developing new or expanding existing markets; establishing quality improvement standards; promoting California uni; and advocating for the urchin fishery.

Point Arena Submarine Cable Committee (Cable Committee) also is known as Point Arena Joint Cable Fisheries Liaison Committee Inc. is a non-profit organization established in 1999 as a 501c6 in response to AT&T's installation of underwater cables across historical commercial trawl fishing grounds. The purposes of the organization are to facilitate inner-industry communications, coordination, and cooperation between the trawl fishing industry of Fort Bragg and undersea fiber-optic telecommunications companies operating in Northern California. With the organization's long-standing presence in the community and financial stability, is considered a front runner in its ability to assist and support the trawl industry participants who work out of Noyo. In the past, the organization has provided substantial funding to supplement the local ice plant and some funding for the repair and maintenances

of the Noyo Harbor District's High Dock. The organization also supports participation in fishery management decisions by providing an opportunity to seek reimbursement for travel-related expenses when attending associated industry events like the Pacific Fisheries Management Council meetings. The Cable Committee also offers college scholarships to local high school graduates, and generously supports youth development through 4H and FAA. Finally, the Cable Committee supports the industry by providing needed vessel safety equipment and other required equipment to be successful for operating in the commercial fishing industry out of Noyo Harbor.

## 6.2 SOCIAL AND SUSTAINABILITY INDICATORS

The social dimension of sustainability reflects a community's resilience to adverse political, environmental, and economic challenges. The attribute of resilience is built on the capacity of a community to inform, marshal broad and meaningful engagement, and find common ground in order to collectively address problems and move forward. Consequently, social indicators reveal the extent of both intra-group solidarity and engagement, and effective intergroup coalition formation and leadership. At the foundation of such indicators are relationships built on trust, shared experience, and a recognition of interdependence. Social indicators relevant to this CSP include the following:

**Relationships within the commercial fishing industry**

Intra-group solidarity in the Noyo fishing community is built on trust, mutual support, and shared experience going back for generations. There are modest differences within the Noyo fishing community based on factors such as fishery participation, gear configuration, and vessel size, which have led to the existence of several different fishery organizations in and around Noyo Harbor, as described in section 6.1 above. Shared interests include factors such as fisheries with joint participation across sub-groups, entrance channel dredging, CDFW vessel license fees and landings taxes, marine supplies and services providers, fish receiver/processors, and Harbor District infrastructure. A fisherman survey done as a part of this CSP indicated the importance of these shared interests to the Noyo fishing community.

**Relationships between the Noyo fishing community and the broader regional community in Fort Bragg and beyond**

While intra-group efforts by the Noyo fishing community can be successful in shaping specific fishery management issues and regulations, inter-group engagement is necessary to address problems of concern to the broader community. Examples include entrance channel dredging and Harbor District infrastructure that also benefits sports fishermen, pleasure boaters, whale-watchers, and those in visitor-serving businesses. As a part of this CSP, in December of 2018, a community-wide survey was conducted to solicit interests and concerns in the broader Noyo and Fort Bragg-area communities. It is noteworthy that approximately 80% of respondents stated that they were "extremely" or "very" proud to say that Noyo Harbor is a piece of Fort Bragg's historical and cultural identity. In another question, upwards of 90% of respondents identified Noyo Harbor as "extremely" or "very" important to Fort Bragg and the regional community, environment and economy.

These and other results of the community survey indicate that the broader community is supportive of Noyo Harbor conditions and the positive role of the Noyo fishing community. Similar findings derive from a survey of waterfront businesses conducted for this CSP. The broader community generally feels welcomed and safe when visiting Noyo Harbor, maintains pride in its history and the origins of Noyo, and cares to see the stakeholders find solutions to their problems addressed and solved. Moreover, responses to the fisherman survey indicated that commercial fishermen were generally supportive of increased tourist visitation, despite the fact that few of them directly benefit from such visitation.

**River Access – South Side**

### Relationship between commercial fishermen, CPFV operators, and sport fishermen

Commercial and sport fishermen compete for a shared fishery resource (as reflected in season opener times, competition for prime fishing spots, and overall catch allocations), and to some extent may compete for or block timely access to dock space, hoists, fueling, parking, and ice access. Despite these areas of potential rivalry, commercial and sport fishermen also share a common interest in entrance channel dredging, Harbor District infrastructure, healthy fishery stocks, and marine supplies and services providers.

### Relationships between fishermen and allied groups

There are several examples of successful relationships between the Noyo fishing community and groups that support fishing in some way. One example is a group described earlier in this report, the Noyo Women for Fisheries. The founding members are immediate family of commercial fishermen. As this particular group's purpose evolved, it became a mission of theirs to provide support and advocacy for the families and members of the fishing community. Another example would be the partnership between the Fort Bragg Groundfish Association and The Nature Conservancy in forming the California Groundfish Collective and associated risk pool, described in section 6.1 above as well as the Fort Bragg Groundfish Conservation Trust that provides reliable and affordable access to a limited and expensive fishery resource such as quota pounds and permits

### Relationships between Noyo commercial fishermen and the scientific community

A survey of trust reported in Hackett et al. (2017) indicates that North Coast commercial fishermen have an average level of trust in university researchers of 3.2 – essentially a neutral score on a five-point scale in which 5 would be the maximum level of trust. Average trust levels in agencies such as CDFW is lower, at just below 2.5. Comments indicate that some commercial fishermen associate the scientific community as allied with anti-commercial fishing environmental interests. Agencies such as CDFW are charged with a public trustee role in protecting state resources, which can subordinate fisherman interests. For example, restricted access programs put into place in California since 2000 have had a primary goal of

rebuilding fishery stocks with the Rockfish Conservation Area (RCA), protecting sensitive habitat with the Essential Fish Habitat (EFH), and reducing fishing fleet effort and capacity through the vessel buyback by removing 91 vessels and LEP from the groundfish fishery. Over time, these measures, resulted in near-term reduced fishing opportunities and declining income for fishery participants and fewer marine services in Noyo Harbor.

Marine Protected Areas (MPAs) were put into place in California's North Coast region in 2012 as a part of the Marine Life Protection Act of California. MPAs are a conservation tool that restrict commercial fishing and other extractive uses, but which may also improve future fishery stocks. After problems emerged in other MPA regions due to providing a limited role for the commercial fishing industry, the MPA selection process in the North Coast region was much more collaborative, directly engaging fishermen along with scientists and environmentalists. As a result, the fishing community had a relatively stronger role in shaping the location, size, and types of MPAs created in the North Coast region. Survey results reported in Hackett et al. (2017) show that many commercial fishermen took the perspective that "it would have been worse" if their participation were more limited. In the fisherman survey conducted for this CSP, one question gave fishermen an opportunity to rank fishery-related regulations in terms of their adverse effects on their fishing operations. It is noteworthy that respondents on average ranked MPAs as 5$^{th}$ out of the 12 regulations listed for being "of greatest concern" from fishermen who responded.

**Relationships between the fishing industry and organizations focused on environmental conservation**

Fruitful collaborations between the commercial fishing industry and environmental groups are not very common. The example given in 6.2.D addressed how The Nature Conservancy (TNC) engaged in the fishery with the goal of improving its environmental and economic performance. TNC partnered directly with fishermen in the Fort Bragg Groundfish Association to create a quota risk pool to address and mitigate the risk of incidental take of groundfish. Another example is when TNC supported the development of community quota funds. TNC directly invested in establishing the Fort Bragg Groundfish Conservation Trust (FBGCT). Their organizational investments included business planning, programmatic development and leadership capacity. The FBGCT was established to facilitate divesture of TNC's ownership interest of quota share/pounds and limited entry permits in the West Coast groundfish fishery to the Fort Bragg community.

Statewide conservation-focused agencies and organizations with an interest in, or responsibility for, coastal California waters include the California State Coastal Conservancy (partial funders of this Community Sustainability Project), California Coastal Commission (agency that reviews and approves LCPs) and The Nature Conservancy (collaborators of the California Groundfish Project).

Regional conservation groups include the Noyo Watershed Alliance (authors of the Noyo River Watershed Enhancement Plan), and the Mendocino Land Trust (sponsors coastal clean-up days and organizes volunteers to remove garbage and recyclable debris from the waters).

### Media relationships

Shared, real-life stories of fishermen and the commercial fishing industry create awareness of the traditional role that California fishermen play in local food provision. The Noyo Harbor fishing community has been featured in numerous media stories over the years, ranging from off-the-boat fresh fish purchase opportunities to ocean hazards and accidents to collaborations such as with The Nature Conservancy. Media periodically represent the important role of the commercial fishing industry to the regional cultural identity of coastal communities such as Fort Bragg.

### Food security

Food security has particular relevance in discussions concerning fishing communities for the portion of population living below poverty level. Food security is a condition in which all people at all times have physical, social, and economic access to safe and nutritious foods that meet their dietary needs and food preferences for an active and healthy lifestyle, as defined by the International Food Policy Research Institute. Food insecurity is associated with lower-income communities in which economic circumstances can lead to hunger or nutritionally inadequate diets. The subject of food security is highly relevant in the Fort Bragg community as the median household income is more than 38 percent lower than the rest of the State of California, and approximately 19 percent of the community lives at or below the poverty line.


The role that fishermen play in healthy local food production is regionally important. According to the Food and Agriculture Organization of the United Nations, fish contribute approximately 15 to 20 percent of all animal protein in the diets of human beings around the world. Aside from concerns about the bioaccumulation of mercury in wild fish, and that wild-caught seafood can be an expensive source of protein, seafood is generally considered to be part of a healthful diet.

## 6.3 TOURISM, COMMERCIAL FISHING, CPFV, WORKING WATERFRONT SHARED INTERESTS

**Sport and commercial boats docked in Noyo Harbor's Marina**

Tourism has become an important economic mainstay in the coastal community of Fort Bragg, offering visitors a scenic landscape, outdoor recreational opportunities, and a variety of sport fishing options. Commercial passenger fishing vessel (CPFV) operations, also known as charter boats, provide anglers with access to ocean-going vessels operated by fishermen with extensive local experience and knowledge. Anglers on CPFV vessels operating out of Noyo Harbor target salmon, various groundfish species including lingcod, Dungeness crab, and albacore when available. Noyo CPFV operators were adversely affected by the emergency closure of the salmon fishery (due to low returns of Sacramento River fall Chinook runs) in 2008 and 2009, followed by a severely limited season in 2010. Salmon is a key attraction for anglers on CPFV vessels, and angler visits to Noyo follow the availability of ocean salmon.

There are numerous waterfront visitor-serving businesses in the Noyo Harbor area, primarily on the north side of the river and in adjacent Fort Bragg. Visitor services include tours, boat rentals, bait and tackle, restaurants, shops, and lodging facilities. The economic prospects for these waterfront businesses are closely tied to visits by anglers and outdoor recreationalists. As a result, there is a shared economic interest with the commercial fishing industry in the health and availability of salmon and other marine fish stocks.

The emergency closure of the salmon fishery in California in 2008-09 thus had a broad ripple effect that expanded outwards from commercial fishermen, CPFV operators, and waterfront businesses to adversely affect the entire Noyo-Fort Bragg region. As noted earlier in this report, shared economic interests serve as a foundation for forming coalitions to advocate for responsible management of fishery stocks, funding for Harbor District infrastructure, and visitor attraction to the region.

## 6.4 COMMUNICATION AND EDUCATION

**Communication**

The Noyo Harbor District runs a website that contains information on the district as well as relevant information useful for boaters who operating out of the harbor. An introductory statement details the special district status vested unto the Noyo Harbor Board of

Commissioners under the California Harbors and Navigation Code. Information is present regarding the Noyo Harbor Marina with its available amenities for transient vessels. The site also catalogues the meeting agendas and minutes of the Noyo Harbor District's Board of Commissioners. Links for NOAA's National Data Buoy Center detailing the National Weather Service Marine Forecast and Noyo Harbor's monthly tide predictions via tides.net are also present on the District's website. Recently, a webpage was introduced to list content related to projects the District is currently involved in.

The Mendocino Coast Chamber of Commerce runs a website with information concerning a variety of visitor attractions and upcoming events. Information includes a visitor guide, directions and maps, weather information, and destination wedding planning information.

**Education**

The California Commercial Fishing Apprenticeship Program is a program developed under Sea Grant California—a collaboration of the National Oceanic and Atmospheric Administration, the State of California and statewide universities as a way to "create knowledge products, and services that benefit the economy, the environment and the citizens of California." This apprenticeship program is aimed at training young people interested in participating commercial fishing in California with on the job training focused on newly available marketing and fishing opportunities.

The North Pacific Fishing Vessel Owner's Association (NPFVOA) developed The Vessel Safety Program in 1984 called. NPFVOA works closely with the regulatory agencies of the United States Coast Guard (USCG) and Occupational Safety and Health Administration (OSHA). The safety program's core topics for education are focused on the following; survival at sea, first aid and CPR, firefighting, and stability and navigation training.

Fishing Vessel Drill Conductor Courses are geared towards cold water and survival training skills including EPIRBs, signal flares, MAYDAY calls, firefighting, flooding & damage control, immersion suits and PFDs, emergency drill, helicopter rescue, life rafts, and abandon ship procedures. The trainings are offered at a nominal cost to commercial fishermen and meet requirements for operators of documented vessels in federal waters. The Alaska Marine Safety Education Association (AMSEA) is an established organization that conducts the trainings across the country.

The California Division of Boating and Waterways offers access to a comprehensive list of boating safety classes and courses endorsed and approved through themselves and the National Association of State Boating Law Administrators (NASBLA). The courses are affordable and generally offered in an on-line format.

# 7. PRIORITIES, RECOMMENDATIONS & IMPLEMENTATION

The Community Sustainability Plan recommendations are based on surveys, interviews and stakeholder input from the fishing industry, local business owners, and the broader community. This input identified needs related to infrastructure, facility and service needs; regulatory issues which affect fishery landings; and access concerns. Noyo Harbor District Commissioners used the stakeholder input as a foundation for prioritizing recommendations to improve fishing industry conditions and working waterfront operations for Noyo Harbor.

**View of Noyo Harbor from Upper N. Harbor Drive**

Community Sustainability Plan recommendations are intended to help make District operations more sustainable, to support the local commercial fishing industry, to reduce climate change vulnerability, and to foster resilience to environmental, economic and regulatory changes. The recommendations collectively serve as a Harbor District and Fishing Community sustainability and investment strategy, with local resources leveraged by outside grant funding and related support.

It is important to note that some of the recommendations in this report are already being implemented, and thus the report reaffirms the importance of continued support and investment. Other recommendations require additional technical or financial analysis before specific actions can be taken. In some instances, important co-benefits (which may take the form of increased District revenues, higher waterfront property values, increased visitor spending, and improved environmental conditions) should be taken into account.

## 7.1 PRIORITIZATION PROCESS

**Participants at the Stakeholder Open House**

A list of 30 different Harbor-related projects and activities with benefits to the fishing community and the working waterfront was compiled based on surveys, interviews and stakeholder meetings in the initial phases of the planning process. At the third stakeholder meeting, participants were each given $15,000 in fictitious "Harbor Dollars" to "spend" on these activities (see Stakeholder Open House Guide in Appendix A). The meeting room was lined with displays explaining each harbor issue and participants could "spend" their Harbor Dollars by dropping them into individual containers at each display station. For a week following the open house, stakeholders had access to the displays and containers for Harbor Dollar spending at Salmon Troller's Hall. In all, participating stakeholders spent more than $774,000 (Harbor Dollars). The following list presents the top 12 items receiving the most Harbor Dollars, along with the corresponding amount spent on each item. These 12 items represent more than 81% of the total Harbor Dollars spent:

| **Harbor Dollars** | **Improvement or facility** |
|---|---|
| $138,000 | 1. Fuel dock |
| $119,000 | 2. Upgraded flake ice/cold storage |
| $75,000 | 3. Harbor entrance and channel dredging |
| $51,000 | 4. Improved north harbor vehicle access |
| $40,000 | 5. Mooring basin reconfiguration/reconstruction |
| $39,000 | 6. Fish cleaning station |
| $32,000 | 7. Local Coastal Program (LCP) Update |
| $29,000 | 8. More fish-buyers, receivers, processors |
| $28,000 | 9. Shoreside gear storage and repair sites |
| $28,000 | 10. Improved hoist and loading/off-loading facilities |
| $25,000 | 11. District encourages boatyard/marine services and supplies |
| $24,000 | 12. Improved sidewalks, trails and bicycle lanes |

Each of these priority items is discussed in more detail below.

## 7.2 TOP 12 PRIORITIES AND RECOMMENDED ACTIONS

### 1. INSTALL A FUEL DOCK

The need for a fuel dock received the highest number of Harbor Dollars and survey respondents also strongly indicated the need for this facility. Noyo Harbor does not have a fuel dock available for vessel operators. Fuel represents one of the largest fishing operating costs. The lack of a fuel dock is a key factor inhibiting commercial operators and pleasure boaters from using Noyo Harbor. It was reported in interviews that commercial fishermen as well as pleasure and recreational craft travelling along the north coast often bypass Noyo Harbor due to the lack of a fuel dock. Without a fuel dock, fishing vessels in Noyo Harbor have limited refueling opportunities.

To act on this recommendation, the District should continue its efforts to secure grant funds for a fuel dock as part of the mooring basin improvements. A mooring basin location would allow convenient water and dockside equipment access and would allow for easy access by District staff. If the District seeks to lease the facility to an operator, discounted rent may be necessary for the facility to be commercially viable. A regional fuel cooperative could be considered to reduce fuel costs based on a commitment for higher volume purchases.

**TABLE 7.1 SUSTAINABILITY BENEFITS —INSTALLATION OF A FUEL DOCK**

| Environmental | Social | Economic |
|---|---|---|
| Use of approved fuel storage and fueling facilities reduce potential environmental risks of a fuel spill. | Helps to support local fishermen by providing more convenient access to fuel and may increase usage of the harbor by transient vessels. | Improved access to fuel dock is likely to bring additional revenue into waterfront community. Convenient and competitively priced fuel will provide an economic benefit to vessel operators using Noyo Harbor. |

### 2. PROVIDE UPGRADED FLAKE ICE AND COLD STORAGE FACILITIES

The need for a reliable and accessible and affordable source of flake ice and a cold storage facility received the second highest amount of Harbor Dollars and was identified as a key priority in interviews and surveys. Flake ice and cold storage are critically important for both commercial and recreational fishermen. Currently, the availability of cold storage in Noyo Harbor is considered inadequate by many stakeholders. Very few commercial fishermen making local landings are able to seamlessly process their catches due to lack of sufficient readily available refrigerated or freezer storage. Cold storage and freezer facilities can help fishermen store bait and baited gear and to hold fish until market conditions improve. Access to cold storage could facilitate Noyo's smaller commercial fleet to establish new and competitive niche local and regional markets in which buyers such as restaurants and

households can reliably purchase small quantities of fish on a regular and dependable schedule.

Commercial fishing operations in Noyo Harbor have also been challenged by inadequate access to flake ice. The one currently operational ice house has dealt with aging equipment and, according to the owners, when mechanical failures necessitate equipment replacement or repair, financial resources are limited to maintain operations (personal communication, Stacy Bradley, January 2019).


**Former Ice House, Noyo Harbor**

The District should encourage the existing private ice house operator to work with local economic development entities to determine whether low-cost financing is available for further equipment upgrades. The District should explore cost-sharing opportunities to assist the existing ice facility given that it is a high priority but low profit operation and it is a critically important facility to support the fishing industry. This could include potential co-location of ice and fuel dispensing. The District could also explore partnership with local non-profit organizations interested in sustaining the local Noyo Harbor fishing community, to add additional capacity to a collaborative venture and may have access to funding sources that neither the public sector nor private entities may have.

**TABLE 7.2 SUSTAINABILITY BENEFITS —UPGRADED FLAKE ICE AND COLD STORAGE FACILITIES**

| Environmental | Social | Economic |
|---|---|---|
| More efficient ice-making and refrigeration systems reduce energy consumption and water use. Boats can ice up locally vs. steam to other ports for ice, which reduces the carbon footprint of diesel engine emissions. | Greater seafood sales and distribution supplies. Secure bait and baited gear. Improved culture and sense of belonging when minimum services are restored or provided that support fishing business. | Fishermen can hold product longer to take advantage of higher market prices. Faster trip turn-around when baited gear potentially co-located with offload site. Flash freeze & quick offload to controlled cold storage results in higher quality and higher value product. Expand market opportunities for vertical integration and higher profits. |

### 3. ENSURE TIMELY HARBOR ENTRANCE AND CHANNEL DREDGING

Regularly scheduled dredging of the harbor channel and upper channel received the third highest amount of Harbor Dollars. Routine dredging of the harbor entrance and channel is critically important in order to maintain navigational access to Noyo Harbor for larger vessels. The U.S. Army Corps of Engineers performs dredging to keep the Noyo Harbor entrance and main channel open for fishing, recreational and Coast Guard vessels. The Army Corps of Engineers is responsible for maintaining at least 10’ mean lower low water at the

entrance and harbor channel. The channel is typically dredged on a biannual basis. It was last dredged in 2016, with 10,000 cubic yards of dredge spoils removed although dredging of the harbor entrance was not completed due to severe ocean conditions during the dredging operation. A key driving force behind dredging is to accommodate the commercial fishing fleet that operates out of Noyo Harbor. Channel maintenance dredging funding is a shared Harbor District and the Army Corps of Engineers responsibility. Funding for dredging the mooring basin, however, is exclusively the District's financial responsibility. The mooring basin was last dredged in 2015, removing 24,000 cubic yards of accumulated sediment.

Inadequate funding for dredging operations, combined with the limited capacity of the upland dredge spoils storage site, has resulted in repeated delays in the dredging schedule. The District is also responsible for furnishing an upland disposal site for all dredging operations in the harbor. A key challenge is to find a suitable disposal location rather than storing dredged materials indefinitely on the District's temporary storage site just north of the harbor entry.

The District should support the Corps of Engineers' efforts to develop a long-term Dredge Materials Management Plan and encourage legislative representatives to prioritize ongoing funding for Noyo Harbor maintenance dredging operations. In addition, the District should plan for periodic dredging of the mooring basin (which is solely the District's responsibility) in conjunction with the other dredging operations.

**TABLE 7.3 SUSTAINABILITY BENEFITS —TIMELY HARBOR ENTRANCE AND CHANNEL DREDGING**

| Environmental | Social | Economic |
|---|---|---|
| Maintenance of a navigable harbor entry and channel provides for safe passage of vessels, lessening the likelihood of groundings and related environmental hazards. Disposal of spoils in innovative ways that promote environment stewardship. | Regular maintenance dredging provides safer navigation for all mariners. Increases likelihood of recreational and pleasure boaters entering the harbor. Existing larger commercial vessels will continue to use Noyo for their port of call, thereby helping to retain a local fishing community. | More vessel access, increased landings and revenue. Higher demand for services could trigger private investment. |

## 4. IMPROVE NORTH HARBOR VEHICLE ACCESS AND PARKING

Significant Harbor Dollars were spent on improving vehicle access for the north harbor area. North Harbor Drive, a City-maintained street, is the sole street accessing the north side of Noyo Harbor. Vehicle access is constrained by a singular entrance and exit point and the narrow, two-lane roadway. North Harbor Drive presents precarious conditions for drivers, bicyclists and pedestrians due to its narrow width and lack of pedestrian and bicycle facilities.

The fact that there is only one road in and out of Noyo Harbor is a concern from a safety point of view. Any number of natural or man-made disasters could render North Harbor Drive unusable, thereby preventing emergency vehicle access to and safe evacuation of the harbor area. Survey respondents and stakeholders also expressed concerns about inadequate parking for employees and visitors, and inadequate space for commercial truck deliveries on North Harbor Drive in the harbor area.

**Commercial Fishing Transportation Parking, North Harbor Drive**

The District should seek Mendocino County and City of Fort Bragg assistance in establishing a secondary emergency access route to/from the north harbor along the alignment of the existing private access road that extends from North Noyo Point Road to the dredge spoils site. The District should also work with these two entities to identify improvements to the segment of North Harbor Drive in the lower harbor to better accommodate on-street parking, including designated handicapped spaces and loading zones. Improved shoulders and drainage would have the added benefit of protecting the edges of the roadway and providing for safer pedestrian access.

**TABLE 7.4 SUSTAINABILITY BENEFITS —IMPROVED NORTH HARBOR VEHICLE ACCESS AND PARKING**

| Environmental | Social | Economic |
|---|---|---|
| Improved vehicle access reduces pick-up and delivery time for trucks and reduced vehicle emissions. Improved storm drainage facilities may enhance quality of stormwater discharge to Noyo River. | Establishment of a secondary emergency access will enhance public safety and emergency response capabilities for residents, workers and visitors in Noyo Harbor. | Convenient parking for employees and access for delivery vehicles results in economic efficiencies. |

## 5. COMPLETE MOORING BASIN RECONFIGURATION/RECONSTRUCTION

Stakeholders indicated that mooring basin reconfiguration and reconstruction is a top priority. The mooring basin reconfiguration/reconstruction garnered the fifth largest amount of Harbor Dollars.

The planning process for mooring basin improvements is in process, and a Strategic Planning & Harbor Marina Redevelopment Plan identifies phasing and costs for replacement of all existing docks (with the exceptions of the partially salvageable "B" dock and the recently reconstructed "C" Dock). The preliminary plans involve demolition of the existing docks F, G, H and K and subsequent rebuilding of F, G, and H Docks, reconfigured with American Disabilities Act (ADA) compliant gangways. Reconfiguration would yield fewer berths and

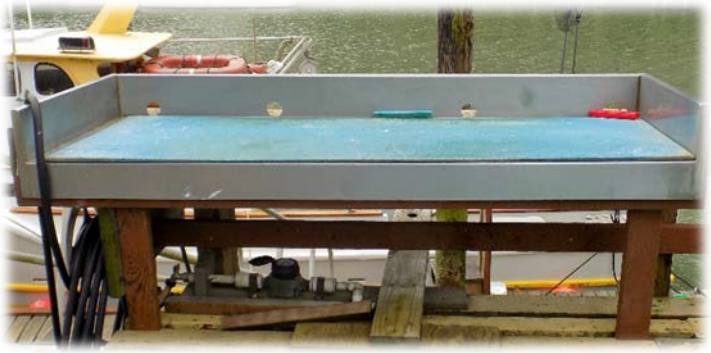
would allow larger vessels to dock. The new marina facilities would include 225 double loaded slips, 6 end tie slips, 5 side tie slips and a fuel dock. The project includes repairs to the existing harbor wave wall, installation of new restrooms and laundry facilities and installation of a new fuel dock with vessel pump-out facilities, and hazmat disposal facilities. The total estimated cost is approximately $9.3 million, which could be funded by a combination of low-interest loan and grant funding.

**TABLE 7.5 SUSTAINABILITY BENEFITS —COMPLETE MOORING BASIN RECONFIGURATION / RECONSTRUCTION**

| Environmental | Social | Economic |
|---|---|---|
| The Marina Redevelopment project would be required to comply with all environmental regulations to protect sensitive habitat and species. | The improved facilities would better accommodate the fishing fleet and support the return of fish buyers/processors, and may incentivize additional investment in the Harbor. | The new facility would accommodate more larger vessels and may result in higher moorage revenues for the District and create an economic boom from the commercial and sport fishing industry and sounding business. |

## 6. INSTALL A FISH CLEANING STATION

Sport fishermen do not have access to a privately owned or publicly managed fish cleaning station on either the north or south side of Noyo Harbor. The CPFV, or charter vessels operating out of Noyo Harbor that draw and generate substantial tourism dollars to the area would benefit greatly from a station where their daily catches can be cleaned. A fish cleaning facility is a common amenity offered in harbors such as Noyo with active charter and recreational fishing operations.



**Existing North Side Fish Cleaning Station**

**TABLE 7.6 SUSTAINABILITY BENEFITS —INSTALL FISH CLEANING STATION**

| Environmental | Social | Economic |
|---|---|---|
| Fish cleaning stations help avoid illicit fish waste product disposal in the river, and may deter landings in excess of bag limits | A fish cleaning station on the south side of the harbor would benefit recreational fishermen and CPFV operators and make their experience in the harbor more memorable. Social interaction often occurs on and around marine infrastructure and services. A fish cleaning station also provides a location for educational materials. | A fish cleaning station is an amenity that supports recreational fishing which, in turn, contributes to a healthy economy in the Harbor and the wider community. |

## 7. UPDATE THE LOCAL COASTAL PROGRAM (LCP)

Updating of the Mendocino County Local Coastal Program (LCP) to address current conditions in Noyo Harbor received the seventh highest amount of Harbor Dollars. Most of Noyo Harbor is under the jurisdiction of Mendocino County is within the Fishing Village (FV) zoning district as defined by the Mendocino County Local Coastal Program (LCP). Under the FV classification, principally permitted uses include fishing and boating uses, such as mooring, launching, storage, servicing, supply, construction and repair. While the FV district is primarily intended to protect and preserve Noyo Harbor for businesses and activities that are dependent upon the waterfront location, the FV district provides some leeway for visitor-serving facilities by designating conditional uses such as shops, bars and restaurants.

The interest behind an LCP update is to make it easier for businesses to locate, expand, or remain in the harbor and to lessen the restrictions on allowable uses imposed by the Fishing Village land use designation. Currently, only businesses that are deemed coastal dependent (fishing and boating uses; boat mooring, launching, storage, servicing, supply, construction and repair) are considered principally permitted uses. Uses that involve services that support tourism such as hotels, bars and restaurants can be developed as a conditional use and are subject to numerous restrictions.

To promote economic resilience and vitality, the District should encourage Mendocino County to amend the very restrictive zoning regulations in the LCP to streamline permitting processes in the FV district and to establish non-conforming use regulations that are more specifically tailored to the unique circumstances facing businesses in Noyo Harbor. A County-initiated LCP amendment is the most straight-forward approach. Alternatively, the District could initiate an LCP amendment and submit it to the County for approval and processing through the California Coastal Commission's certification process.

**TABLE 7.7 SUSTAINABILITY BENEFITS —UPDATE THE LOCAL COASTAL PROGRAM**

| Environmental | Social | Economic |
|---|---|---|
| The Local Coastal Program includes many policies to ensure that new development is protective of coastal resources. | Amending the LCP to make it easier for businesses to thrive in Noyo Harbor would benefit all working waterfront stakeholders. | Revised regulations to streamline permit processing and support coastal-dependent and visitor-serving businesses would help to support and sustain businesses in the harbor. |

## 8. ENCOURAGE MORE FISH-BUYERS, RECEIVERS, PROCESSORS

While the Harbor District has no direct control over the number of fish buyers operating in Noyo Harbor, the encouragement of more fish buyers by the Noyo Harbor District ranked eighth highest in expenditure of Harbor Dollars. Declines in landings of groundfish species, salmon, and red sea urchin are, in part, linked to reduced numbers of receiver/processors who serve as the market for fish brought to port by commercial fishermen.

The District could have a role by designating certain sites where mobile and seasonal fish buyers could locate. While this recommendation is primarily to attract commercial buyers, it could result in more local and visitor attraction to on vessel sales, where warranted by Harbor regulations. This could include seasonal signage at access locations, such as a 'Catch For Sale' Boards at prominent locations in the Harbor directing buyers to certain docks and vessels.

**TABLE 7.8 SUSTAINABILITY BENEFITS —ENCOURAGE MORE FISH BUYERS, RECEIVERS, PROCESSORS**

| Environmental | Social | Economic |
|---|---|---|
| Aggregated sales to specialty and seasonal buyers could reduce travel and associated fuel costs. Direct purchases from fishermen shortens the chain of custody, reduces the risk of seafood fraud, and may reduce reliance on seafood imports from areas with lower environmental standards. Reduced carbon footprint from vessels steaming to more distant ports to sell product. | Direct vendor to consumer sales increases social interactions with commercial fishermen. Buying directly from fishermen ties into the "foodie" movement that is driving demand for a traceable product, Noyo could be a distinguished port for its role in seafood traceability. Increased landings go to support surrounding infrastructure & services needed for a working waterfront. | Increased local sales, especially direct to consumers and direct to restaurants, provide an opportunity for the commercial fleet to vertically integrate and increase revenues with a premium ex-vessel price. More markets mean more jobs. Opportunity for job sharing of employees between buyers/processors. |

## 9. ESTABLISH SHORESIDE GEAR STORAGE AND REPAIR SITES

The ninth largest expenditure of Harbor Dollars was for the provision of more shoreside gear storage and repair sites. The availability of gear storage and repair sites is a particular concern for commercial fishermen, and there is potential benefit for CPFV operators and sport fishermen as well. It was repeatedly noted that the lack of such facilities in Noyo Harbor complicates commercial fishing operations.

The Harbor District should work with the fishing industry to evaluate locations on District property in the south harbor where uses for temporary gear storage and gear repair have historically occurred, and assess the feasibility of dedicating space for such uses. District parking lots, which are underutilized for much of the year could fill the need, provide a valuable service, and potentially serve as an additional District revenue source during the winter months. The District may want to also evaluate whether some of its vacant parcels could be improved, if needed, for dry storage and gear repair. Ideally, a District-owned facility would be fenced with a secure gate. Service equipment including a mobile hoist and a forklift (along with a part-time operator) would be of great benefit.

**Crab Pots**

**TABLE 7.9 SUSTAINABILITY BENEFITS —ESTABLISH SHORESIDE GEAR STORAGE AND REPAIR SITE**

| Environmental | Social | Economic |
|---|---|---|
| Greater access to shoreside facilities for vessel maintenance and gear repair can reduce potential for spills and leaks, thus protecting sensitive coastal habitat. | Convenient and secure dry storage and gear repair benefits commercial fisherman as well as other user groups: recreational and pleasure craft owners, etc. Improved relationships between District and user groups by working together to solve infrastructure needs. | Potential revenue stream for District and increased demand for associated services (hardware, mechanics, general supplies, services sought by visiting boat owners). Preventative and routine mending and repair of gear is necessary to reduce unwanted and unexpected costs. |

## 10. IMPROVE HOIST AND LOADING/OFF-LOADING FACILITIES

The 10th largest expenditure of Harbor Dollars was for improved hoist and associated loading/off-loading facilities. The District's High Dock near the marina entrance has been inaccessible for over two years due to its deteriorated condition and length of time needed to obtain the required permits and proposals. The lack of a functional High Dock has presented a significant hardship to vessels needing to access a public hoist for loading and off-loading.

When operational, the High Dock is used to load and unload large and heavy equipment and fishing gear (such as nets, doors, pots/traps, polls, anchor, and life rafts) to and from commercial fishing vessels, and also for sport and transient vessels. Historically, the High Dock has served as a means for Noyo Harbor to distinguish itself as a robust and functional fishing port enabling numerous user groups to switch gear types easily and inexpensively.

Gear switching allows vessel operators to participate in multiple and often profitable fisheries throughout the year, creating year-round landings and port activities.

The Harbor District has completed the permitting process for repairs to the High Dock facility and expects to complete the project within the coming year. The High Dock also has been used in the past as an event destination, bringing in visitors and local community members to the harbor. Because the port is out of the way for many locals in Fort Bragg and beyond, it is often overlooked, creating a disconnect between residents and the District. Social events in Noyo Harbor serve an essential role in relationship building, education, and creating a deeper understanding of the commercial and recreational fishing industry in Fort Bragg - as well as creating a revenue source for the District.

**High Dock**

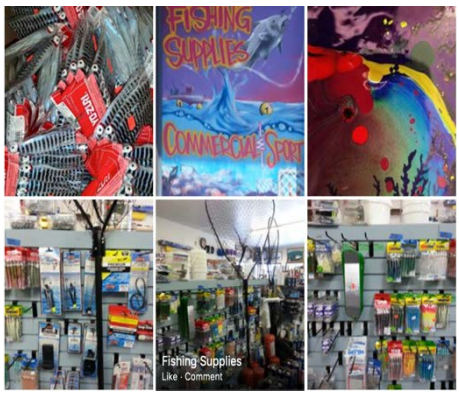
**TABLE 7.10 SUSTAINABILITY BENEFITS—IMPROVE HOIST AND LOADING / OFF-LOADING FACILITIES**

| Environmental | Social | Economic |
|---|---|---|
| The High Dock project will use decking materials that are protective of water quality and avoids impacts to the river and associated environmental resources. The hoist allows for the safe transport of materials over the water. | Improved facilities to support the fishing industry create security and stability, incentivize further investments and reduce the risk of further consolidation and loss of the historical commercial fishing fleet | The improved High Dock will result in more efficient loading/off-loading operations for vessels and represents a renewed revenue stream for the District. |

## 11. ENCOURAGE BOATYARD/MARINE SERVICES AND SUPPLIES

The 11th largest expenditure of Harbor Dollars was for the District to find ways to encourage more boatyard/marine services and supplies. As recently as ten years ago, Noyo Harbor had three chandleries serving the commercial and recreational fleets. It now has none.

Marine services and supplies are typically private sector operations and the fact that none presently operate in Noyo Harbor is indicative of the shrinking of the local fishing fleet, and is linked to the broader systemic loss of basic port infrastructure and marine services needed to support a fishing community in Noyo Harbor. While the expansion of internet purchasing and express delivery services plays an important role, other market trends have also come into play affecting marine suppliers in Noyo Harbor. The feasibility of any commercial enterprise is dictated primarily by the market for its goods and/or services.




Notwithstanding the decline in ship chandlery services in Noyo Harbor, it should be noted that a diversified retailer in Fort Bragg has increased its inventory of commercial and recreational fishing supplies. The Englund Marine and Industrial Supply location in Eureka, California (135-mile drive from Noyo Harbor) has been cited as a primary destination for boatyard and marine supplies or services for fishermen in Noyo Harbor. This type of reliance on a distant chandlery and/or online purchasing creates additional costs and delays for the vessel operators awaiting equipment, parts or repairs and adds to their cost whether through deliveries or personal travel time and expense.

The District could include retail uses as principally permitted in the Fishing Village designation, as part of the Local Coastal Program Amendment in recommendation 7. Reduced permitting costs would be investment incentive and reduce development time.

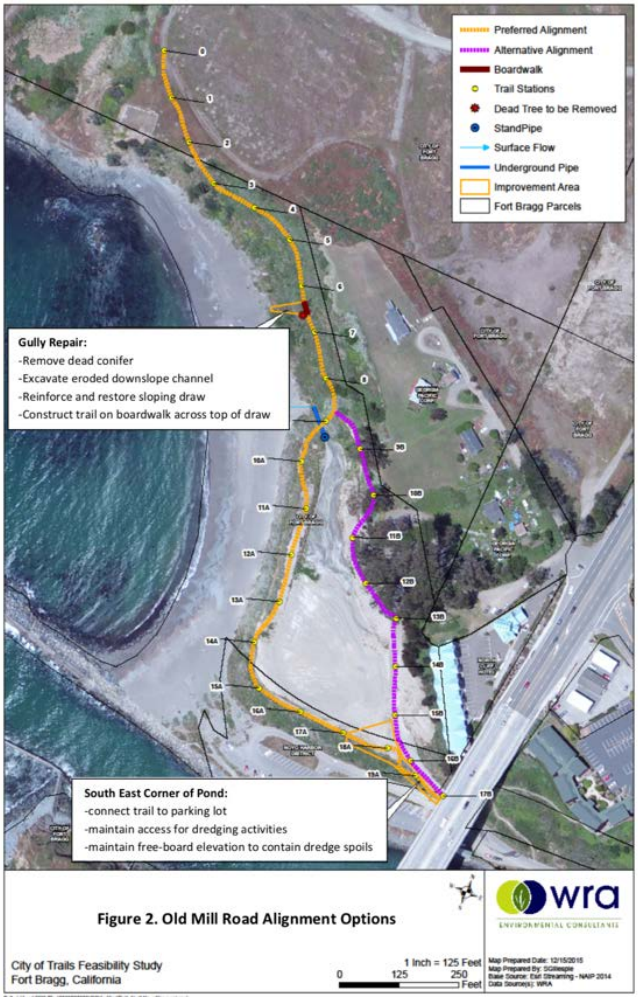
**TABLE 7.11 SUSTAINABILITY BENEFITS—ENCOURAGE BOATYARD / MARINE SERVICES AND SUPPLIES**

| Environmental | Social | Economic |
|---|---|---|
| More convenient access to necessary supplies and services can reduce the need for travel and associated vehicle emissions. | Additional ship chandlery could help keep more fishing-related expenditures in Noyo Harbor and provide a venue for interactions among various segments of the fishing and boating community. | Improved access to marine supply/services businesses would have a direct economic benefit to the commercial and recreational fleets. It would also support transient vessels and may help attract more activity to Noyo Harbor. |

## 12. IMPROVE SIDEWALKS, TRAILS AND BICYCLE LANES

Stakeholders spent the 12th largest amount of Harbor Dollars on improving sidewalks, trails, and bicycle lanes. As noted elsewhere in this document, North Harbor Drive lacks an adequate shoulder, is narrow, has a sharp blind turn, lacks sidewalks, and so is widely considered unsafe for walkers and bikers travelling between Fort Bragg and Noyo Harbor. In addition, North Harbor Drive within the waterfront areas of the Harbor lacks sidewalks, curbs, gutters, shoulders, drainage facilities and parking controls. The edges of the roadway are rutted and potholed, further undermining its suitability for parking, walking or biking.

**FIGURE 7.1 —ALIGNMENT OPTIONS FOR MULTI-USE TRAIL FROM NOYO HEADLANDS PARK TO NORTH HARBOR**




Unsafe conditions for pedestrians and bicyclists also exist along North Harbor Drive within the lower harbor area. The safety challenges facing pedestrians and bicyclists seeking to access the north side of Noyo Harbor diminishes the visitor experience.

The District should work to form relationships with key individuals in the City of Fort Bragg and Mendocino County to identify improvements to facilitate safe pedestrian and bicycle access into the north harbor area, possibly via an extension of Noyo Headlands Park's multi-use pathway. Pedestrian and bicycle access to the harbor could be established along the alignment of the old roadbed which extends from the park to the dredge spoils site.

**TABLE 7.12 SUSTAINABILITY BENEFITS—IMPROVE SIDEWALKS, TRAILS AND BICYCLE LANES**

| Environmental | Social | Economic |
|---|---|---|
| Providing facilities for bicycles and pedestrians can reduce automobile traffic and associated vehicle emissions. | Walking and biking can be social activities that bring together people in the community. Also, it creates additional activities for families to spend time together for recreation and exercise | Providing multiple means of access and facilitating walking and biking can increase activity and result in higher sales at local businesses. |

## 7.3 ADDITIONAL RECOMMENDATIONS

In addition to the "Top 12" priorities and actions identified above, the following recommendations are intended to help with the implementation phase:

**Fishing vessels in Noyo Harbor's Marina**

**Prepare a Facilities Master Plan**. A comprehensive Facilities Master Plan for the District could help lay the groundwork for the necessary capital improvements identified in the "Top 12" list above. A Facilities Master Plan would provide cost estimates, identify potential funding sources, and establish implementation timeframes. This could serve as the basis for a multi-year Capital Improvement Plan to help the District in its annual budgeting process and in efforts to obtain grants and other funds for necessary improvements.

**Prepare for Sea-Level Rise**. There is a considerable amount of low-lying property in Noyo Harbor which is at risk of flooding and inundation as a result of sea-level rise. Proactively planning for future sea-level rise is one way to enhance the resilience of Noyo Harbor. A Sea-Level Rise Vulnerability Assessment is the first step in ensuring that essential public infrastructure (roads, marina, jetty, launch ramps, water sources and distribution lines, wastewater collection and treatment facilities, etc.) will withstand the effects of sea-level rise. It is also important to consider the effects of sea-level rise on beaches, wetlands, and other natural resources and to consider adaptation strategies.

Encourage Mendocino County, the City of Fort Bragg, the Coastal Commission, Caltrans, and other state and local agencies to collaborate on a regional sea-level rise vulnerability assessment and adaptation strategy for the Mendocino Coast. Such a study is necessary to ensure that essential public infrastructure such as roads, bridges, jetties, marinas, wharves and docks, and water and sewer systems will be resilient to the effects of projected sea-level rise exacerbated by storms and tides. It is also important to consider the effects of sea-level rise on beaches, parks, natural resources and other valued resources that support the economy of the Mendocino coast, and to consider appropriate adaptation strategies for them. In addition, there is a considerable amount of private property, including low-lying properties in Noyo Harbor, which is at risk as a result of sea-level rise. Proactively planning for the future is one way to enhance the resilience of Noyo Harbor.

**Support Promotion and Marketing Efforts.** Tourism is a major component of the local and regional economy and Noyo Harbor is a key feature in the local tourism market. Noyo Harbor's strong connection to the north coast fishing heritage and its authentic working waterfront makes it a popular visitor destination. The inherent appeal of a working harbor with a commercial fishing fleet

contributes to tourism promotion and with the added benefit of providing fresh and sustainably-caught seafood.

There are two local/regional destination marketing organizations that can help promote Noyo Harbor and its businesses. There may also be opportunities for branding locally-caught seafood. Visit Mendocino County (VMC) is the regional destination tourism marketing organization in Mendocino County. Visit Fort Bragg is the City of Fort Bragg's promotion and marketing arm. Both entities play a key role in promoting Noyo Harbor businesses and opportunities for boating, sight-seeing, and dining.

In developing a Facilities Master Plan or other forward-looking strategic planning document, the Harbor should include a communications strategy for promoting Harbor activities, businesses (fishing and other), services, and educational opportunities based on the mission and goals of the District.

The Harbor District should establish a small but diverse stakeholder working group or Ad hoc committee to reach out to VMC and Visit Fort Bragg to discuss opportunities for increasing promotion of Noyo Harbor to capitalize on the synergies between the working waterfront, the fishing heritage of the north coast, and tourism.

**Periodic Review and Update of the Plan.** The Noyo Harbor Community Sustainability Plan identifies priority actions and practical strategies to help support the fishing community. The Plan is intended to send a clear message to the fishing community about its valuable contributions to Noyo Harbor and the broader coastal community and about the Harbor District's interest in ensuring that the needs of the fishing community are addressed. The District will use this Plan to help guide political, economic and regulatory decision-making affecting the waterfront.

For the Plan to be most effective, it must be recognized as the collective effort of an engaged, committed and resilient community. The Plan should be reviewed and updated periodically. This initial version will serve as a baseline for measuring changes in key variables and guidance on where to invest precious time and resources.

The Plan will be posted on the District website and the District will request that Mendocino County, the City of Fort Bragg, and the Fort Bragg-Mendocino Coast Chamber of Commerce add links on their websites as well. With respect to the groundfish specific section of the CSP, according to the Magnusson Stevens Act, "to be eligible to participated in a limited access privilege program to harvest fish, a fishing community shall … develop and submit a community sustainability plan to the Pacific Fisheries Management Council and the secretary that demonstrates how the plan will address the social development needs of coastal communities, including those that have not historically had the resource to participate in the fishery, for approval based on criteria developed by the Council that have been approved by the Secretary and published in the Federal Register" (MSA 2007 P. 121, STAT. 3587-3588. Consequently, the Plan would also be submitted to the Pacific Fishery Management Council.

Plan preparation and adoption is considered an important first step; publicizing and implementing is an equally important second step.

## 7.4 STRATEGIC ALLIANCES

The following list identifies agencies and organizations with key roles in supporting the Noyo Harbor fishing community and its working waterfront businesses. It is vitally important that the District maintain collaborative relationships with each of these entities as each one will play an important role in helping with implementation of the Plan's priority recommendations.

**Mendocino County.** Most of Noyo Harbor is within the unincorporated area of the County of Mendocino and subject to its permitting jurisdiction. As noted above, the planning and zoning policies in the County's Local Coastal Program govern new development and the protection of coastal resources in Noyo Harbor.

**City of Fort Bragg.** Areas of Noyo Harbor that are within the jurisdiction of the City of Fort Bragg include lands west of the Noyo Bridge on the north side of the harbor and lands along upper portion of North Harbor Drive (Harbor Lite Lodge, residences, Noyo Harbor Inn). All of North Harbor Drive is within the City of Fort Bragg, despite being surrounded by properties under Mendocino County jurisdiction. Additionally, the City provides water and sewer service on both north and south sides of Noyo Harbor.

**United States Army Corps of Engineers.** The U.S. Army Corps of Engineers has permitting authority for construction along and dredging in the Noyo River. The Army Corps of Engineers also has responsibility for Noyo Harbor jetty maintenance and repairs. A Noyo Harbor District cost-share contribution helps fund periodic river channel dredging.

**Fort Bragg Groundfish Association.** Established in 2011, the Fort Bragg Groundfish Association is a member of the California Groundfish Collective ("Collective") which is comprised of fishing associations from Fort Bragg, Half Moon Bay, and Morro Bay. The Collective is partnered with The Nature Conservancy and seeks to find innovative solutions to sustainable fishing and pools quotas of its members to improve their ability to make landings.

**Fort Bragg Groundfish Conservation Trust**. Established in 2014 to address concerns of consolidation and loss of historical fishing rights in the Groundfish Fishery. The Trust acquires and manages quota share/pounds and permits to anchor in the community for the benefit of fishermen fishing out of Fort Bragg. The organization aims to increase opportunities for local fishing operations to participate in sustainable fishing activities, and to develop opportunities in a manner that enhances the economic, social, and environmental conditions of fishery participants and fishery resources.

**Salmon Trollers Marketing Association.** The Salmon Trollers Marketing Association, Incorporated, is a 501c non-profit association in Noyo Harbor focused on the shared economic interest of salmon and related fisheries. The Salmon Trollers Marketing Association advocates for those commercial fishermen operating vessels outfitted with troll gear who participate in salmon fisheries ranging from the North Coast of California to Oregon and Alaska.

**California State Parks Division of Boating and Waterways.** The California State Parks Division of Boating and Waterways (DBW) is a State agency that is dedicated to support for recreational boating. DBW is responsible for planning, developing and improving facilities on state-owned and state-managed properties and to providing funding so that local agencies can renew deteriorated facilities or develop new public access for recreational boating.

**State Coastal Conservancy.** The State Coastal Conservancy (SCC) is a State agency established to protect and improve natural lands and waterways, to help people access and enjoy the outdoors, and to sustain local economies on California's coast. SCC is a non-regulatory agency that supports local communities by providing technical assistance and grant funding for projects that help to implement its conservation and public access goals. The SCC has programs to help with revitalization of working waterfronts and to prepare communities for the impacts of climate change.

**California Coastal Commission.** The California Coastal Act of 1976 gave the California Coastal Commission authority over protection of coastal resources and permitting for new development in the designated "coastal zone." Policies of the Coastal Act are implemented by Mendocino County through its Local Coastal Program (LCP).

**California Department of Fish and Wildlife.** The California Department of Fish and Wildlife (CDFW) is a key player in the establishment of regulations governing commercial and sport fishing. In addition, CDFW has permitting authority over developments in wetlands and waters of the state.

## 7.5 POTENTIAL PUBLIC PROJECTS FUNDING SOURCES

As a public entity, the Noyo Harbor District can access grants and low-interest or forgivable loans to finance capital projects. The following table provides a partial of potential funding sources listing:

**TABLE 7.13 GRANTS AND LOW-INTEREST LOANS FOR PUBLIC PROJECTS**

| AGENCY | PROGRAM | PURPOSE |
|---|---|---|
| Economic Development Administration | Several programs including: Global Climate Change Mitigation Fund, Public Works and Economic Development Program; Local Technical Assistance; Planning Program www.eda.gov | Programs looking beyond the immediate economic horizon, anticipating economic changes, diversifying local and regional economy. Show cooperation between business sector and local government. |
| National Oceanic and Atmospheric Administration (NOAA) | Coastal Resilience Grants https://coast.noaa.gov/resilience-grant/ | Funds project that prepare coastal communities and ecosystems to withstand the impacts of extreme weather and climate-related hazards. |

| AGENCY | PROGRAM | PURPOSE |
|---|---|---|
| California Maritime Infrastructure Bank and Authority | Lease Financing to member authorities (Noyo Harbor District would need to become a member) www.californiamaritimeinfrastructureauthority.org | Funds for dredging, land acquisition, new facilities or improvements such as boat ramps, marina buildings and public waterfronts. |
| California State Parks Division of Boating and Waterways | National Boating Infrastructure Grant (BIG) Program https://dbw.parks.ca.gov | Designed to provide transient dockage for recreational boats 26' or more in length. Up to either $200k or $1.5 M per grant depending on tier |
| California State Parks Division of Boating and Waterways | Local Assistance, Statewide Ramp Repair and Modification Grant Program https://dbw.parks.ca.gov | Minor repairs or necessary expansions to boat ramps at public boat launching facilities. Up to $1.5M available statewide. |
| California State Parks Division of Boating and Waterways | Local Assistance, Boat Launching Facility Grant Program https://dbw.parks.ca.gov | Construction of boat launching ramps, restrooms, boarding floats, shore protection, parking for vehicles and boat trailers, utilities, landscaping, etc. No minimum or maximum amount per grant. |
| California State Parks Division of Boating and Waterways | Local Assistance, Statewide Non-Motorized Boat Launching Facility Grant Program https://dbw.parks.ca.gov | Create or improve public non-motorized boating access. Typical grants are $10k to $500k. |
| California State Parks Division of Boating and Waterways | Local Assistance Statewide Sign Grant Program https://dbw.parks.ca.gov | Installs and replaces signs for previously-funded DBW projects that are obsolete, or otherwise in need of replacement. |
| California State Parks Division of Boating and Waterways | Local Assistance Public Small Craft Harbor Loan Program https://dbw.parks.ca.gov | Construction of new, expanded or improved marina facilities. No minimum or maximum. |
| State Coastal Conservancy | Resource and Public Access Program (Grant/Loan) https://cc.ca.gov/grants | Project construction that improves public access and outdoor recreation as well as resource protection and enhancement. No minimum or maximum. |
| State Coastal Conservancy | Climate Ready Grant Program https://cc.ca.gov/grants | Advanced planning and implementation of on-the-ground actions that reduce GHG emissions and lessen the impacts of climate changes on communities and natural resources. |
| Ocean Protection Council | California Ocean Protection Act (Grant/Loan) www.opc.ca.gov | Funds projects and programs that target key OPC priorities: science-based decision making, climate change, sustainable fisheries and marine ecosystems, land based impacts to |

| AGENCY | PROGRAM | PURPOSE |
|---|---|---|
| | | ocean resources, and existing and emerging ocean uses. |
| California Department of Housing & Community Development | Community Development Block Grant Program – Economic Allocation<br>www.hcd.ca.gov | Grants/loans for public infrastructure improvements necessary to accommodate creation, expansion or retention of identified businesses. (Access program through Mendocino County) Up to $500k for Enterprise Fund. Up to $3M for Over-the-Counter. |
| California Department of Housing & Community Development | Community Development Block Grant Program – Planning & Technical Assistance<br>www.hcd.ca.gov | Studies and plans for economic development activities that meet specified objectives. (Access program through Mendocino County). Up to $100k. |
| National Fish and Wildlife Federation | Fisheries Innovation Fund Grant<br>www.nfwf.org | Funds for improving capacity in fishing communities, including promoting participation in community-supported fishing associations; reducing bycatch; and improving fishery-related data collection. |
| California Sea Grant | California Sea Grant<br>www-csgc.ucsd.edu/FUNDING | Grants structured around healthy marine ecosystems, sustainable resource use, coastal community development, new technology, and education, training and public information. Goals include working with stakeholders to resolve resource-use conflicts, creating social and economic incentives to encourage marine resources preservation and sustainable use, and promoting vibrant coastal economies. |
| Packard Foundation | Sustainable Fisheries Fund | Sustainable Fisheries Fund was created to promote Marine Stewardship Council certification program participation. Fund provides assessments, full assessments, stakeholder participation, and strategic planning and capacity building grants to demonstrate sustainability. |
| The Nature Conservancyand Environmental Defense Fund | https://www.nature.org/<br>https://www.edf.org | Conservation NGOs currently working with local fishermen on sustainable fishing issues in California, particularly on projects associated with the Limited Entry Trawl ITQ fishery |
| Sea Pact | http://www.seapact.org/projects.html | A coalition of seafood industry leaders who strive to advance environmentally sustainable fisheries and aquaculture practices and provide the building blocks of a long term and sustainable seafood industry by financially contributing to improve the fishing and fish farming systems from which they procure. |

In addition to grants and loans, there are other public financing options available to the Noyo Harbor District including seeking a voter-approved parcel tax or establishing a Community Facilities District to help finance necessary public improvements and services. Another option for competitively financing equipment purchases is the California Lease Finance Program (CaLease).

## 7.6 POTENTIAL RESOURCES FOR NOYO HARBOR BUSINESSES

Noyo Harbor's fishing industry is an investment and employment source as well as a community cultural identity icon and tourist/visitor attraction. A number of resources and economic development tools are available to support Noyo Harbor's fishing community, businesses, and District. In addition to banks and conventional lenders, two non-profit entities provide local businesses support in Mendocino County and can help new and expanding businesses access low-cost loans to support job creation and local economic development:

- West Business Development Center provides one-on-one confidential business advising on a wide range of topics including: preparing a business plan, financial analysis and forecasting, securing a loan, budgeting, digital marketing, growing staff, etc. In most cases, there is no charge to recipients of West Business Development Center services.
- Economic Development & Financing Corporation (EDFC) is a non-profit Community Development Financial Institution (CDFI) that focuses on providing gap financing, acting as an alternative lender for small businesses and coordinating economic development activity for Mendocino County. EDFC participates in the USDA Rural Development Intermediary Relending Program and the USDA Microentrepreneur Assistance Program. In early 2018, EDFC received a grant from the CDFI Fund to start a CDFI revolving loan fund.

These local services are available to help Noyo Harbor businesses grow and prosper. In addition, federal and State financing sources specifically targeted to the commercial fishing industry are:

**TABLE 7.14 FEDERAL AND STATE FINANCING SOURCES TO CONSIDER**

| AGENCY | PROGRAM | PURPOSE |
|---|---|---|
| (NOAA) | Fisheries Finance Program www.nmfs.noaa.gov | Direct government loan program to provide long-term loans to aquaculture, mariculture and commercial fisheries industries. |
| US Small Business Administration (SBA) | 7(a) Loan Program and 504 Loan Program https://www.sba.gov | Qualifying businesses can use loans to purchase lands or buildings and pay for new construction or remodeling costs. Commercial fishing vessels are also eligible to receive loans. |
| Northern California Community Loan fund (previously California Fisheries Fund) | Small loan fund eligible to fishermen, processors, retailers, ports, non-profits, quota funds. https://www.ncclf.org | Funding for a variety of projects including measures to improve monitoring, data collection, dockside infrastructure and marketing and access to fishery resources |

# 8. REFERENCES

## EXECUTIVE SUMMARY


Durham, David L. (1998). California's Geographic Names: A Gazetteer of Historic and Modern Names of the State. Clovis, Calif.: Word Dancer Press. p. 115. ISBN 1-884995-14-4.

Kroeber, Alfred L. (1916), "California place names of Indian origin" (PDF), University of California Publications in American Archaeology and Ethnology, 12 (2): 31–69.

California Governor's Office of Planning and Research (OPR) General Plan Guidelines 2017

45 Stocks Rebuilt as of September 30, 2018. Fishery Stock Status Updates. NOAA Fisheries. https://www.fisheries.noaa.gov/national/population-assessments/fishery-stock-status-updates


## CHAPTER 1


Magnuson-Stevens Fishery Conservation and Management Act. 16 U.S.C. ch. 38 § 1801 et seq. Public law 94-265. Statutes at large; 90 Stat 331. April 13, 1976

Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSA 2007). Public Law 109-479. Statutes at large 120 § 3575. January 12, 2007

NOAA Technical Memorandum, NMFS-NWFSC-85. Community Profiles for West Coast and North Pacific Fisheries, Washington, Oregon, California, and other U.S. States. https://www.nwfsc.noaa.gov/research/divisions/cb/ecosystem/humandim/communityprofiles/California/Fort_Bragg_CA.pdf (Website accessed Nov. 11, 2018)

North Coast Regional Water Quality Control Board. 2005. Section 2.3.5 (Noyo Watershed) of Watershed Planning Chapter. https://www.waterboards.ca.gov/northcoast/water_issues/programs/wpc/11noyosec2.pdf

Policy Consulting Associates, LLC and Mendocino LAFCo. (PCA, 2014) *Noyo Harbor District Municipal Service Review* (2014).

United States Census Bureau. United States Quick Facts. census.gov. Web. 15 Nov. 2018. https://www.census.gov/quickfacts/mendocinocountycalifornia

Pomeroy, C., C. Thomson, and M. Stevens. 2011. Fort Bragg/ Noyo Harbor Fishing Community Profile, in California's North Coast Fishing Communities Historical Perspective and Recent Trends. Publication No. T-072. La Jolla, CA: California Sea Grant College Program.

## CHAPTER 2

Noyo Harbor Plan 1992

Noyo Harbor District Municipal Service Review 2014

Strategic Planning & Harbor Marina Redevelopment Plan 2018

The California Coastal Act 1976

The County of Mendocino General Plan 2009, 7.0 Coastal Element, Fishing Village Land Use Classification (updated 2012) https://www.mendocinocounty.org/home/showdocument?id=5284. Website accessed 8/16/2018.

## CHAPTER 3

Strategic Planning & Harbor Marina Redevelopment Plan 2018

Noyo Harbor Operations and Maintenance Map. United States Army Corps of Engineers

Pilot Study Evaluating Nearshore Placement Sites, Noyo Harbor, CA. United States Army Corps of Engineers

The City of Trails Supplemental Trail Feasibility Studies for Old Mill Road and North Harbor Drive (Questa Engineering Corp, 2017)

Tsunami Inundation. California Office of Emergency Services.

City of Fort Bragg 2018/2019 Capital Improvement Plan

Questa Engineering Corp., 2017. The City of Trails Supplemental Trail Feasibility Studies for Old Mill Road and North Harbor Drive

# CHAPTER 4

California Department of Fish and Wildlife (CDFW). 2019. Custom database: Annual number of anglers on CPFV trips out of Noyo Harbor, 2000-2017. Data provided by Joann Eres, CDFW, March 13, 2019.

CDFW. 2018. Final California Commercial Landings Report 2000-2017, https://www.wildlife.ca.gov/Fishing/Commercial/Landings#260042120-2017 Website accessed 7/25/2018.

CDFW. 2011. Status of the Fisheries Report: An Update through 2011. Chapter 17. Groundfish Highlight: Update on the New Federal Individual Fishery Quota Program (Traci Larinto, Ed). https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=65560.

CDFW. 2010. Salmon Emergency. Department of Fish and Game Current Issues, Fall 2010. http://www.fgc.ca.gov/public/reports/DFGissues/Salmon%20Emergency.pdf. Website accessed 8/18/2018.

Hackett, S., L. Richmond, and C. Chen. July 12, 2017. Socioeconomics of North Coast Fisheries in the Context of Marine Protected Area Formation. La Jolla, CA: California Sea Grant College Program. http://oceanspaces.org/sites/default/files/36-hackett-final-0712717.pdf

Hackett, S., A. Pitchon, and D. Hansen. "Economic Attributes of Stayers and Leavers in Four California Fisheries." California Cooperative Oceanic Fisheries Investigations Reports, 2015, 56, pp. 1-10.

Hilger, J., and S. Lovell. 2017. An Economic Profile of the Charter Fishing Fleet in California. Marine Fisheries Review 79, 26-33.

Pacific Fishery Management Council (PFMC). 2017. West Coast Groundfish Trawl Catch Share Program. Five-year Review – Draft. http://www.pcouncil.org/wp-content/uploads/2017/10/F2_Att2_ES_5yrReview_Aug2017_NOV2017BB.pdf. Website accessed 8/17/2018.

PFMC/NMFS. 2016. Action to Modify the Fixed Gear Sablefish Fishery Managed under the Pacific Coast Groundfish Fishery Management Plan, Including Measures to: Implement electronic fish tickets for sablefish landings, Revise the own/hold control limit, Allow for joint fixed gear/trawl permit registration.

http://www.westcoast.fisheries.noaa.gov/publications/nepa/groundfish/misc_ea/fixed-gear-sablefish-ea-102016.pdf Website accessed 8/2/2018.

Pomeroy, C., C. Thomson, and M. Stevens. 2011. Fort Bragg/ Noyo Harbor Fishing Community Profile, in California's North Coast Fishing Communities Historical Perspective and Recent Trends. Publication No. T-072. La Jolla, CA: California Sea Grant College Program.

Wilderness Markets. 2015. West Coast Groundfish in California: Value Chain Assessment. https://www.packard.org/wp-content/uploads/2016/01/Wilderness-Markets-West-Coafst-Groundfish-in-California-synthesis-Final-Dec-20-2015-Web.pdf. Website accessed 8/20/20

**Chapter 4 Photo Credits**

Dungeness Crab --- https://sanctuaries.noaa.gov/education/crab-toolkit.html
Chinook Salmon --- https://e360.yale.edu/features/for_california_salmon_drought_and_warm_water_mean_trouble
Red Sea Urchin --- https://caseagrant.ucsd.edu/seafood-profiles/red-sea-urchin
Petrale Sole --- https://thisfish.info/fishery/species/petrale-sole/
Dover Sole --- https://www.seafoodsource.com/seafood-handbook/finfish/sole-dover
Shortspine thornyhead --- https://www.fisheries.noaa.gov/region/west-coast
Abalone -- https://en.wiktionary.org/wiki/abalone
https://theconversation.com/abalone-poaching-lifting-the-lid-on-why-how-and-who-88486
Rock cod -- https://www.wildlife.ca.gov/fishing/ocean/fish-id/sportfish/rockfish
Lingcod -- https://www.recfin.org/resources/fishid/lingcod/
Chilipepper Rockfish -- https://www.recfin.org/resources/fishid/chilipepper-rockfish/

## CHAPTER 5

State of California Sea-Level Rise Guidance, 2018. California Ocean Protection Council

NOAA Office for Coastal Management Sea Level Rise Inundation project. https://coast.noaa.gov/digitalcoast/data/slr.html Accessed Feb. 2019

## CHAPTER 6

Noyo Harbor District. The Official Site for Noyo Harbor and Marina. http://www.noyoharbordistrict.org/. Website accessed April 02, 2019.

**Photos credits:** Photos taken by Planwest Partners team, except Chapter 4 fish photos as noted above.