

**GARIBALDI
SEAFOOD
INITIATIVE
VALUE CHAIN
ASSESSMENT**

FULL REPORT

JUNE 2019

A Guide for Building Wealth & Well-Being Within the Region's Small-Scale Fishing Industry

Draft v. 2- February 25th, 2019

Developed by Ecotrust for Columbia Pacific Economic Development District and North Coast Partners.

This report, and work describe herein, was made possible by support from The Ford Family Foundation.

Columbia Pacific Economic Development District

The Columbia-Pacific Economic Development District (Col-Pac) is a private non-profit organization established to assist in diversifying and strengthening the economy and livability of Northwest Oregon. The District covers all of Clatsop, Columbia, and Tillamook counties and the western part of Washington County.

Governed by a 17-member volunteer Board of Directors, Col-Pac consists of local public and private leaders including representatives from county commissions, cities, ports, the private sector, workforce, and the minority community. Col-Pac also has a seven member Loan Administration Board that oversees the District's Revolving Loan Fund.

Certified by the U.S. Economic Development Administration (EDA) as a recognized Economic Development District, Col-Pac offers a range of economic and community development services, technical assistance, and referrals in carrying out its mission.

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Rural Development Initiatives, Inc. is a private, nonprofit 501(c)(3) organization based in Eugene, Oregon. RDI was formed in 1991 in response to the timber industry crisis facing the Pacific Northwest. Today RDI is continuing to support rural communities as they work through challenging economic conditions. RDI's nationally recognized programs and services help communities help themselves with effective and results-oriented training and resources necessary for individuals living in rural communities to build and sustain a better future in their communities. Our work is based upon our genuine commitment to help rural people and communities build rural capacity through Leadership Development programs and strengthen Rural Economic Vitality through moving capacity into action.



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1. Introduction & Background

In 2013, Rural Development Initiatives (RDI), in cooperation with its funding and delivery partners, launched WealthWorks Northwest (WWNW), a pilot program to introduce a new economic development approach to rural Oregon. The three primary goals of WealthWorks are to 1) build wealth (in the form of eight stocks of capital), 2) root wealth in local people, places, and firms through local ownership, control and influence, and 3) build lasting livelihoods by intentionally including people and firms on the economic margins.¹

As part of this pilot approach, several regions in Oregon were selected for investment and support by RDI in advancing a WealthWorks approach. The North Coast emerged as one of these regions. Through a stakeholder engagement process, the determination was made to focus on the small-scale seafood value chain in the fishing community of Garibaldi, OR and the surrounding area of Tillamook County. The decision was based on the vision and initiative of key stakeholders in the region and local entrepreneurs to build a sustainable local fishing economy.

Along with RDI, a core team has developed over the past three years to guide and support the WealthWorks North Coast seafood value chain initiative:

- Columbia Pacific Economic Development District (Col-Pac), a non-profit organization established to assist in diversifying and strengthening the economy and livability of Northwest Oregon;
- The Port of Garibaldi, the local government entity responsible for providing essential services to vessels, maintaining shoreside infrastructure, and managing coastal property to support a thriving local economy while maintaining an authentic fishing Port character;
- Economic Development Council of Tillamook County, the county level economic development body promoting a thriving local economy;
- Visit Tillamook Coast, the regional tourism promotion organization.

These partners all have an interest in a vibrant future for the seafood industry in Garibaldi and bring significant assets and capacity to the table. Funds granted to Col-Pac from the Ford Family Foundation to advance seafood value chain efforts on the North Coast enabled the hiring of Ecotrust in January 2018 to serve in a value chain coordination role for the project.

1.1 Goal of the North Coast Seafood Value Chain Initiative

The goal of this initiative is to enhance the local fishing economy of Garibaldi and the Tillamook County region in a manner that generates deep and lasting community wealth. Specifically, this project has narrowed its focus on **increasing the wealth and well-being of small commercial fishing boat owners, crew, fish processors, and retailers in the Garibaldi -Tillamook area**. This initiative uses the WealthWorks approach to economic development that aims to build multiple forms of wealth (individual, intellectual, social, financial, cultural, built, political and capital), increase local ownership and control of assets, and improve livelihood opportunities, particularly for people and businesses struggling economically.

¹ RDI & OSU Extension Service. WealthWorks Northwest Evaluation: Evaluation of WealthWorks Northwest in Exploration and Construction Regions from 2014-16. June 2017.

Maintaining the initiative's focus on the small commercial fishing value chain of the Garibaldi/Tillamook region is important moving ahead. Doing so will serve the project in strengthening partnerships, creating interest, developing knowledge, and concentrating scarce resources and energy into leverage points. Shifting from this focus could create confusion and weaken the project's potential impact. In the future with expanded efforts, a focus may be considered on charter boat and recreational fishing operations who also play an important role in the local fishing and tourism economy.

1.2 The Role of the Value Chain Assessment

This value chain assessment represents an important component of the overall value chain coordination efforts of Ecotrust and a vital step towards narrowing the initiative's focus on strategies to build lasting wealth for small commercial fishing boat owners, crew, and fish processors/retailers in the Garibaldi area. The assessment attempts to draw together a vast array of information and data gathered on the region's seafood value chain within a WealthWorks framework that enables more robust decision making on the most promising opportunities to pursue in order to meet the goals of the initiative. As such, the document serves as a bedrock for the initiative, clarifying and grounding its purpose as well as its direction.

Substantial effort by project partners was devoted to understanding the seafood value chain itself and identifying value chain opportunities in the beginning years of the North Coast seafood value chain initiative. This effort included research, meetings between core partners, as well as some interviews and a few surveys of local fishermen and other regional stakeholders. The process resulted in an emerging focus on the following value chain priorities:

- Improving efficiencies and opportunities for storage and distribution systems for seafood products;
- Value-added seafood product/business development;
- Strengthening Garibaldi seafood branding and marketing.

The assessment builds on this preliminary understanding of value chain opportunities, considers important shifts in the seafood landscape that has occurred in recent years, and incorporates newly acquired data and additional input from stakeholders. The process to produce this assessment is described below.

1.3 Seafood Value Chain Assessment Process

Ecotrust initiated the data collection phase for the assessment shortly after being hired to take on the value chain coordinator role in January 2018. To date, the value chain assessment process to date has included:

- Holding steering committee meetings (8 held to date) and having numerous one-on-one conversations with steering committee members;
- Conducting over 35 meetings/interviews. By stakeholder group, formal meetings and interviews were held with:
 - 11 fishermen,
 - 7 fisheries management staff,
 - 5 employees and owners of local distribution companies,
 - 13 + with various value chain stakeholders - including seafood buyers, other fishing businesses, demand partners, local government representatives, and local NGO's.

- Attending local events including Garibaldi Days, North Coast Tourism Studio, Shop the Docks, and Crave the Coast to deepen understanding of value chain players, partners, dynamics and opportunities;
- Distributing a short survey on value chain opportunities at both Garibaldi Days in July 2018 and the Fishermen’s Appreciation Day in October 2018;
- Attending relevant meetings/conferences including Regards to Rural, OSU Fish as Food Workshop, and south coast fishery value chain meetings;
- Reviewing relevant literature and collecting biological, socio-economic, and ecological data;
- Mapping the value chain with project partners;
- Developing a preliminary set of WealthWorks indicators for the initiative.

To date, larger stakeholder listening sessions have not been held because the steering committee has wrestled with how to the best engage various stakeholder groups with limited time and capacity to be for value chain activities. Additional efforts are planned to gather further data from project stakeholders, especially fishermen and crew members with a narrower focus deckhands, crewmen, and processing workers. Future activities will include distribution of a detailed survey to targeted stakeholders. Those results and data will be incorporated into future versions of this assessment.

Funding has also been received from the USDA’s Rural Business Development Grant program (RBDG) to conduct a detailed feasibility study for seafood-related infrastructure in the Garibaldi region - including equipment such as an ice machine, fish grinder, and cold storage. This work will be carried out by Ecotrust in 2019. The feasibility study will be highly complementary to this assessment and will thoroughly examine potential opportunities specifically around these potential infrastructure needs. Furthermore, as value chain priorities become further narrowed, additional analysis and input will be needed, particularly on demand. Hence, this assessment should be considered a living document and it will be updated periodically over the course of the project to reflect our most current understanding of the value chain and our most promising opportunities.

2. Geographic, Demographic, Socio-Economic, and Environmental Features of Garibaldi & Tillamook County

2.1 Geographic Location & Political Boundaries

The city of Garibaldi is located on the northern Oregon coast at the north end of Tillamook Bay, approximately 85 miles west of Portland and 10 miles north of the city of Tillamook. Garibaldi sits on U.S. Highway 101, which serves as the main transportation artery for communities along the Pacific Coast from Washington to California. Garibaldi is in Tillamook County, which extends from Manzanita on the north end to Neskowin on the south. Along its coastline, the county includes numerous cities & towns such as Bay City, Manzanita, Nehalem, Wheeler, Rockaway Beach, Tillamook, Netarts, Oceanside and Pacific City. The Port District of the Port of Garibaldi includes the cities of Garibaldi, Rockaway Beach, and Bay City as well as some unincorporated areas of Tillamook County.

2.2 Demographics

The population of Tillamook County has only slightly increased in recent years growing from 25,254 in 2010 to 26,690 in 2017. Garibaldi itself also had a slight increase in population during this period

growing from 774 in 2010 to 815 in 2017 (but still down from its 924 residents in 1990).² Lack of population growth directly affects the community's ability to attract and retain people both as producers and consumers in their economy. 91.4% of Tillamook County's population is white. The portion of the white not of Hispanic/Latino origin population is 89.9%, while the remaining 10.1% is of Hispanic/Latino origin. 0.7% of the population is African American, 2.4% is American Indian, 1.7% Asian, .7% Pacific Islander, and 3.5% "other race." The population is 50.6% male and 49.4% female.³

US Census data shows median age in Garibaldi is 51.5 and Tillamook County is 48, well above that of Oregon's 39.2 median age, and the US median age of 37.8.⁴ Median age of the population is an important indicator, as it holds implications for a community's future economic resiliency. A community's Worker Dependency Ratio tracks the ratio of potential workers to non-working residents. By 2040, it is projected that there will only be approximately 1.1 worker for every non-working resident in the area. The baby-boom generation is increasingly flocking to the Oregon Coast including Garibaldi and surrounding Tillamook County for retirement. This is leading to several important socio-economic impacts including rises in housing prices and shifting of businesses, services, infrastructure, and amenities to accommodate retirees rather than the working class.⁵ A substantial proportion, 100 out of 815 Garibaldi's residents are veterans.⁶

2.3 Economy

As described in Ackerman et. al, "The Resilience of Oregon Coastal Communities:"

Tillamook County is known as "the land of cheese, trees, and ocean breeze" (Tillamook County, 2016). The county's major employers include Fred Meyer supermarket, Tillamook Regional Medical Center, and the Tillamook County Creamery Association. The local economy and social identity are instilled in the fishing opportunities from the Port of Garibaldi and the Northwestern sawmill. Through many changes over the last 50 years, Garibaldi has maintained an identity around fishing and marine resources.

While agriculture, timber, and fishing continue to be important contributors to the regional economy, tourists and retirees are predicted to contribute the bulk of disposable income to the Oregon coastal economy for the foreseeable future. The tourism industry is highly seasonal and vulnerable to economic recessions around the country.⁷ The sawmill located at the Port of Garibaldi is run by Northwest Hardwoods, which operates around the clock and specializes in alder.

The Unemployment Rate of 6.2% (US Census 2016 American Family Survey) is well higher than Oregon's and the US rates of approximately 4%. The area's Median Household Income at \$41,161 is about 77% of the median statewide household income of \$53,270 and falls even further behind the national average of \$59,039. As the region's economy experiences growth in service industries, the resident income has fallen significantly below that of both the state and the nation, despite general growth in Oregon's economy.

² U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates for Garibaldi and Tillamook County, OR.

³ U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates. Tillamook County, OR. 2016. Accessed at: <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>

⁴ U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates.

⁵ Ackerman et al. "Resilience of Oregon Coastal Communities." August 2016.

⁶ *Ibid.*

⁷ Ackerman et al. "Resilience of Oregon Coastal Communities." August 2016.

The poverty rate in Tillamook County is about 16%, the same as the Oregon statewide percentage. However, Tillamook County possesses two high poverty hotspots in the Tillamook West and North County Census Tracts where the poverty rates are 25% and 23% respectively.⁸ This area lies within the Tillamook Enterprise Zone, a state recognized rural enterprise zone sponsored by the City of Bay City, the City of Garibaldi, the City of Tillamook, the City of Rockaway Beach, Tillamook County, the Port of Tillamook Bay, and the Port of Garibaldi. This designation encourages small business development and lasts through June of 2019.

2.4 Natural Features

Tillamook County is home to productive ecosystems and diverse natural habitats. The areas natural beauty and abundance contribute to it being a destination for tourism and in serving as a foundation for its natural resource-based economy. The County includes rocky and scenic coastlines and encompasses productive marine habitats, coastal estuaries, forests, heavily timbered interior areas, agricultural land, and the mountains of the Coast Range. Tillamook County is bordered on the north by the large Oswald West State Park and Cape Falcon Marine Reserve Offshore. Tillamook County includes the five rich estuaries of Tillamook Bay, Netarts Bay, Sand Lake, Nestucca River, Nehalem Bay.⁹ Garibaldi is located on the northern end of Tillamook Bay.

As described in Ackerman et. al, *The Resilience of Oregon Coastal Communities*:

Tillamook Bay is the largest bay on Oregon's Northern Coast and second largest in the state after Coos Bay. The bay is an important habitat for a large variety of mammals, birds, fishes, invertebrates, and private oyster farming. However, the rough navigational conditions of the bay limit its attraction to fishermen and inhibit the expansion of the fishing industry due to safety concerns. These conditions include a shallow boat draft in the bay that only allows access for smaller boats and a rough bar where the Pacific Ocean meets the bay that is difficult to cross (The Oregonian, 2010).

3. Fishermen, Crew, & Seafood Businesses in Tillamook County

The Port of Garibaldi plays an important role in the north coast region's seafood industry. Garibaldi provides entry and exit from Tillamook Bay to the larger Pacific Ocean. Garibaldi is also home to a Coast Guard Station, which provides vital rescue services to the fishing fleet adjacent to what is one of the most dangerous bar crossings on the west coast. The closest major ports to Garibaldi are Astoria to the north and Newport to the south.

The Port's harbor provides moorage for commercial, as well as charter and recreational fishing vessels with moorage for 277 vessels.¹⁰ Two docks are devoted to commercial boats with 53 slips with water and power hookups. Additional commercial vessels can be accommodated in transient moorage. As of November 2018, there were about 8 commercial vessels on the waitlist. A few of the vessels on the commercial dock are not active commercial fishing boats. Transient slip space is significantly more expensive than a permanent slip. This means those on a waitlist incur an increased financial burden and makes opening slip space important to the financial operations of small fishing businesses.

⁸ Oregon DHS Office. "High Poverty Hotspots- Tillamook County." May 2015. Accessed at:

<https://www.oregon.gov/dhs/business-services/ofra/Documents/High%20Poverty%20Hotspots%20Tillamook.pdf>

⁹ Oregon Coastal Atlas. Accessed at: <https://www.coastalatlantlas.net>

¹⁰ Port of Garibaldi. "Harbor." Accessed at: <http://portofgaribaldi.org/harbor/>

Accounting for permanent and transient vessels, the Port of Garibaldi is home to a fleet of about 50-60 small commercial fishing vessels. These vessels range in size from smaller dory boats of about 20 ft. in length to larger fishing vessels reaching up to 60 – 70 ft. Some of these vessels are active in a diversity of fisheries year-round, while others are owned by fishermen who are retired or partially retired and will fish occasionally. Reportedly, some wealthy boat owners have commercial licenses and fish only occasionally in Garibaldi.¹¹

Each active commercial boat represents an independent small business that hires crew members thus creating direct jobs. Some boats are fished single-handedly by the owner/operator, while others have one or more crew members, with the greatest number of crew (3-4) on the larger tuna and crab vessels. While the Garibaldi fleet is aging much like in the rest of the U.S., there are a number of young people investing in the region's fisheries through vessel and permit ownership or leasing.

Garibaldi remains home to numerous multi-generational and family fishing operations. However, this way of life and business model is generally declining. As reported in the Garibaldi Long Form Fishing Community Profile, "the wives of Garibaldi fishermen have outside jobs for the most part, to supply a steady paycheck and health insurance for their family." The majority of Garibaldi fishermen live in adjacent communities in Tillamook County but fish out of the Port of Garibaldi. Local fishermen are dependent on other communities for the purchasing of commercial gear, food, supplies, and boat repair services, and they also provide economic boost in these communities where they reside.

The Port has lost the presence of large major seafood processors over the last three decades, including the most recent closure of Smith's Pacific Shrimp. Currently, the Port is home to three seafood processing and buying stations. These are Garibaldi Landing (co-owned by Ilwaco Landing and Fish People), Tillamook Bay Seafoods (an independent buying and aggregation facility), and Deepwater Seafoods (locally owned buying station selling almost exclusively to Pacific Seafoods). Both Garibaldi Landing and Deepwater do a small amount of processing on site mostly for local retail markets that they operate in the Port. Fish is also purchased and sold locally by The Spot, a small retail operation in the Port. Garibaldi is home to two small seafoods businesses that have developed diversified business models which give them greater control over the markets for their catch. CS Fishery was started as a community supported fishery model. Today, the business sells through two main channels. They sell through food trucks, operating locally and in Portland, and through a store front "Sourced" owned by the company. CS Fishery also sells product through wholesale markets and at restaurants throughout the region. Their fish is caught by local fishermen and the businesses owner. CS Fishery is in the process of partnering on a new development for worker housing, seafood processing, and sales in the small town of Wheeler north of Garibaldi.¹² Blue Siren Shellfish harvests and sells fish and shellfish from Garibaldi to boutique wholesale customers like TwoXSea along the Tillamook Coast and to Portland area restaurants. Most other fishermen based in the Port of Garibaldi sell the majority of their catch through the three buying and processing stations.

¹¹ Package and Conway. "Long Form Fishing Community Profile Garibaldi, OR." March 2010. Accessed at: http://oregonmarinereserves.com/content/uploads/2016/02/HDRResearch_Profile_Garibaldi_2010.pdf

¹² Dauphinais. "Two Big Changes for the Tiny Town of Wheeler: First, Disney, Then Fish!" *PDX Monthly*. September 4, 2018. Accessed at: <https://www.pdxmonthly.com/articles/2018/9/4/two-big-changes-for-the-tiny-town-of-wheeler-first-disney-then-fish>

Notably, when this seafood value chain initiative started in 2014, there were limited options for fishermen to deliver and sell their seafood to. This was a significant issue, as a competitive buying environment is vital to a healthy fishing community as it directly impacts the prices paid to fishermen for their harvest. A modest but significant investment in Garibaldi's seafood value chain in the form of a grant from RDI to Tillamook Bay Seafoods for a hoist brought about an important shift in the local seafood landscape. The hoist enabled the business to function as an aggregator. Tillamook Bay Seafoods became an independent buying station that an array of other seafood buyers/wholesalers could utilize to purchase fish directly from fishermen in the community. The growth of Tillamook Bay Seafoods as well as the merger of Garibaldi Landing through a joint venture of Ilwaco Landing and Fish People has significantly altered the seafood landscape in Garibaldi in the last two years.

A competitive environment provides fishermen with choices for where to sell their fish and typically increases the price they are paid for their catch. Garibaldi Landing and Deepwater Seafoods can provide bait and ice to fishermen that deliver their catch to them. At times, these assets are used as leverage to be competitive and retain the loyalty of fishermen. These larger buyers are capable of purchasing in large volumes and can take virtually all the species that a fisherman brings in, ensuring a home for each fisherman's hard-earned catch. Whereas selling fish to other options on the dock may have varying limits to product type and volume sold and purchased. Those with purchasing power can use negative tactics to pressure fishermen to not sell their catch through other channels. These tactics can include, reducing the price paid to fishermen, refusing to buy some of their catch, and not providing needed supplies like bait and ice. However, businesses throughout the port are also generally cooperative and will support each other with supplies, equipment, and a helping hand when needed. Furthermore, stiff competition for limited seafood supply may result in not enough volume in a given plant to meet the demands of markets and may result in reduced profitability of these operations. The costs of operating even a small processing plant can be high in a place like Garibaldi, and margins on these operations are slim.

To further support port operations and fishing businesses, vessels (especially tuna and Dungeness crab vessels) homeported elsewhere including Newport, Ilwaco, Astoria and beyond sometimes make deliveries into Garibaldi. This helps with increasing volume of seafood flowing through local processing plants and buying stations and contributes to their resiliency and successful operation. Managing safe harbor entry, a well-dredged harbor, and access to moorage, supplies, and vital infrastructure supporting vessel operations, is crucial to attracting these outside vessels.

In addition to the Garibaldi-based fleet, the community of Pacific City is home to the small, yet historic dory fleet of both charter and commercial fishing boats that launch from the beach at Cape Kiwanda. Sea Q Fish Company is a family run dory fishing business that catches, fillets, and sells their product, which includes rockfish, tuna, crab, salmon, and cod directly to wholesale markets including stores and restaurants in Pacific City.

Three main fishing organizations are active in the County including the Fishermen's Advisory Committee of Tillamook County (FACT), the Pacific City Dorymen's Association, and the American Albacore Fishing Association (AAFA). Fishermen get their information primarily through informal means of communication through one-on-one conversations on the dock or with buyers/processors, with many of fishermen not interested in participating in formal management or community meetings.¹³

¹³ Package and Conway. "Long Form Fishing Community Profile Garibaldi, OR." March 2010. Accessed at: http://oregonmarinereserves.com/content/uploads/2016/02/HDResearch_Profile_Garibaldi_2010.pdf

3.1 Fisheries Ownership & Access

As stocks have declined, fisheries management at both state and federal levels has moved away from open access fisheries towards limited entry fisheries and catch share, or individual fishing quota (IFQ) programs. These programs limit who can participate in a fishery to achieve social, economic, and environmental performance goals by requiring a permit or quota limit for each fishery. Thereby creating a type of ownership of the fishery. Fishermen with consistent historical landings, in a particular fishery, are among the first to be initially issued quota at the outset of a given limited entry or IFQ program. How much quota a fisherman receives is based on historical landings. If a fisherman was not among initial issues, they must purchase a permit/quota on the open market or be gifted permits/quota from a family member. It is becoming increasingly recognized that limited entry and catch share programs can have dramatic negative impacts on small-scale fishermen and fishing communities who do not have the financial and political capital to secure access to fisheries. Ocean conditions are constantly changing, and fishermen need to diversify to withstand fluctuations in stocks and fish prices by participating in other fisheries or seeking employment in other industries. The advent of limited entry and catch share programs makes diversification a costly challenge, as each new permit brings additional cost.

Of the primary wild capture species of importance to Garibaldi/Tillamook County seafood industry, only one remains an entirely open access fishery: albacore tuna. All others (Dungeness crab, chinook salmon, gaper clams and basket cockles, black rockfish, and lingcod) operate under state limited entry permit systems. The implementation of the West Coast Groundfish Individual Fishing Quota (IFQ) program has also resulted in consolidation and shifts in the fishery that have reduced the role of Garibaldi/Tillamook area ports in this fishery.

Dory fisherman from Pacific City Craig Wenrick described this shift and the rising cost of fishing in the following manner:

“Was a time when you could buy a \$50 license, go to sea in a leaky dory and make enough to make a living. Those days are gone. It costs so much to get started: \$38,000 for a boat, trailer and all the equipment. And then there are the permits, which you can only get by buying out somebody else: \$7,000 for rockfish, \$1,500 per boat-foot for crab, \$45,000 for the one I have, salmon, etc....Probably \$90,000 or more just to get started. And then there are the fees: poundage fees, processing fees, commodity fees, restoration and enhancement fees for salmon, and state ad valorem fees. Licensing our filet room went from \$150 to \$460 a year.”¹⁴

An increase in fishing pressure and impacts to the albacore tuna stock could result in consideration of a limited entry program for Highly Migratory Species (HMS) including albacore tuna by the Pacific Fishery Management Council. Due to the tremendous importance of albacore to the Garibaldi fleet, any program that limited access to the fishery should be anticipated to have dramatic impacts on the community, the fleet, and the region’s seafood industry.¹⁵ It is important that the fleet, the community,

¹⁴ Moore. “Pacific City fisherman a rare breed.” *Tillamook Headlight Herald*. July 13, 2011. Accessed at: https://www.tillamookheadlightherald.com/news/pacific-city-fisherman-a-rare-breed/article_197f7fb8-ad9a-11e0-b9af-001cc4c03286.html

¹⁵ Pacific Fishery Management Council. “Highly Migratory Species Background.” Accessed at: <https://www.pcouncil.org/highly-migratory-species/background/>

and relevant seafood industry stakeholders be prepared to respond to any future attempts to alter the open access nature of the fishery. The American Albacore Fishing Association (AAFA) which a number of Garibaldi fishermen are active within, currently opposes moving to an IFQ system for albacore and supports continuance of an open access system.¹⁶ In 2018, Tillamook residents possessed 12 Albacore tuna landing licenses, although due to the way the license is structured, some vessels with other commercial permits are not required to have a specific albacore tuna license.¹⁷

In addition the Albacore licenses, in 2018 Tillamook County residents possessed 88 state commercial fishing permits including: a total of 20 Dungeness crab permits (five 500 pot crab permits, seven 300 pot crab permits, and eight 200 crab pot permits), 38 salmon ocean troll permits, 12 rockfish permits (one which is nearshore endorsed), two Columbia river salmon gillnet permits, six ocean pink shrimp permits, and two ocean scallop permits.

In addition to the required quota, permit, or license needed to participate in a fishery, fishermen must also possess individual or crew fishing licenses. In 2018, 101 Tillamook County residents held a total of 146 commercial fishing and crew licenses including 47 licenses in Tillamook, 26 in Garibaldi, 20 in Rockaway/Rockaway Beach, 18 in Nehalem, 11 held by residents of Pacific City, and the remainder scattered across other county locations.¹⁸

The cost for these various limited entry fishery permits range dramatically from the least expensive rockfish and salmon troll permits costing \$5,000 to \$210,000 for 300 pot crab permits.¹⁹ Dungeness crab permits are by far the most valuable permits in the County and represent a significant economic asset held within the County. It appears that all, or nearly all, of the state permits can be leased by the owner to others with lease fees charged by the owner to use the permit. While leasing permits can offer the potential to participate in a fishery without having to make the financial commitment to purchase a permit, it also makes it more challenging and costly for young or new fishermen wanting to get into the fishery and facilitates absentee ownership of fishing permits by those no longer active in the fishery. In the Dungeness crab fishery, captains and crews can also participate in the fishery through being hired to drop pots for boats.

Therefore, fishing enterprises can include the permit/quota owner, vessel owner, the captain, and crew. Again, in some operations the permit holder, vessel owner, and captain may be the same individual. This arrangement is what is known as an owner-operator and is an ideal situation for ensuring that the maximum economic benefit from the fishery goes to the captain and crew who are participating in the fishery. However, as described above, in many situations the permit owner may no longer participate in the fishery and leases it out for use. In such cases, the permit owner may not be fishing due to injury or other short-term circumstance, or the owner may be for all effective purposes, retired from fishing and awaiting the most economically optimal time to sell the permit. In many cases, fishermen rely on the value of the assets acquired (permits, quota, boats, etc.) throughout their career as income in their retirement years.

¹⁶ American Albacore Fishing Association Current Positions, Accessed at:

[http://www.americanalbacore.com/information/aafa-subcommittee#AAFAs Current Position](http://www.americanalbacore.com/information/aafa-subcommittee#AAFAs_Current_Position)

¹⁷ "Commercial boat licenses." Oregon Department of Fish and Wildlife, 2018.

¹⁸ "Commercial boat licenses." Oregon Department of Fish and Wildlife, 2018.

¹⁹ Seafarers Permits and Brokerage. Permits for Sale. Accessed at: <http://www.seafarersbrokerage.com/permits---fees.html>

Because of these circumstances, to be successful in the current fishing industry environment, one must have high level business acumen, financial discipline, and be able to comprehend and navigate a complex and rigid policy and management framework in which they operate. Fishing enterprises have very little cash flow and liquidity. This can be a barrier to acquiring permits or pivoting to direct or alternative markets, such as supplying restaurants, as there is often a very large gap between the delivery product and payment. Successful financial management requires saving income in strong fishing seasons and allows for borrowing of funds when needed for the purchase of permits or quota, or to supplement income in down times. This requires strong financial discipline and access to capital.

Commercial fishing jobs for crewmen continue to be a mixed bag and success in this role is dependent on factors such as work ethic, ability to get connected to a safe/law-abiding/well-performing vessel and captain, and financial discipline. Ideally, serious commercial fishing crew members who choose the industry as a career should be on a trajectory to ownership in a fishery, which is often critical to increasing income and financial well-being. Young and new entrants to a fishery face a tremendous amount of risk and challenges when deciding whether to embark on a path to ownership and greater investment in a fishery. The pathway from crew to owner is fraught with peril due to the following factors:

- Crew often have zero safety net. Commercial fishing crew members don't qualify for unemployment. In 1999, the Oregon legislature passed a law not requiring unemployment for fishing vessels operating with less than 10 crew members.
- Vessel and permit owners, not crew, receive disaster relief if there is any sort of disaster that results in fishermen not being able to get out on the water and work.
- Many crew (and owners) have not historically had access to health insurance, although the passage of the Affordable Care Act likely increased health care access for crew.
- Because crew get paid on a percentage basis of the vessel's catch, if there is a bad season, then they may earn little income and may have few options in rural Tillamook County to earn other income.
- Crew have very little job security and generally can get laid off at any time for a multitude of reasons.
- Some get trapped in a vicious debt cycle by not paying their income taxes, for those that do, they can become disenfranchised. While the captain or boat owner typically reports what they paid to the crew, crew members are responsible for paying their income taxes. By the time taxes are due, they may have little to no money to pay and become locked into a debt cycle of backed taxes or they simply live in an informal economy. As a result of either having no reported income or years of backed taxes, they become disenfranchised – they cannot access social services, SNAP, healthcare, loans to purchase a house, some can't even rent a home and must do so through someone else.
- Some people attracted to be on a fishing crew are there because they have no other options. Crew can suffer from substance abuse and are, at times, highly transient, bouncing from boat to boat. As a result, there can be a lot of turnover with deckhands, which is hard on both crewmembers and captains.

While this provides a current snapshot at fisheries ownership and participation in Tillamook County, additional information is needed to understand how fisheries landing revenue flows into the community and translates into income for permit and vessel owners, captains, and crew. It is also recommended to collect additional data on trends in ownership of fishery permits, as well as on nuances in the various limited entry program's that reduce local ownership or pose as a threat to it. Successful community-

based fisheries require management provisions that prioritize owner-onboard and provide for new entrants and intergenerational access into the fishery.

3.2 Shellfish Aquaculture in Tillamook County

While arguably not of primary importance to the initiative whose focus is on wild capture seafood industry and fishermen (rather than shellfish farmers), there is significant shellfish aquaculture activity in Tillamook County. The industry is important to consider as a component of the region's seafood industry and for its impacts on the region's image as a seafood producer. Furthermore, in other commercial fishing communities including in Alaska and Maine, there is increasing interest in diversified business models that combine wild seafood harvest with shellfish or kelp farming.

Shellfish operations in Tillamook County include the large Pacific Oyster operation in Tillamook Bay owned by Pacific Seafoods with processing at Pacific City. Pacific Oyster has been using space in the Port of Garibaldi for its hatcheries and operates a popular restaurant, The Fish Peddler, in Bay City that offers an insider look at the oyster processing operation through clear glass windows into the plant. High end oysters are cultivated further south in Netarts Bay at Nevor Shellfish Farm and Whiskey Creek Hatchery, the latter which represents the largest shellfish hatchery in the U.S. and supplies oyster larvae to growers across North America. Netarts Bay is subject to significant fluctuations in ocean chemistry and is highly susceptible to the increasing threat of ocean acidification. In 2007-8 the hatchery (along with others on the west coast) experienced a crash in seed production due to harmful pH levels and has since worked with scientists to develop technology that allows them to adapt hatchery operations to avoid intake of acidic water.²⁰ Today, these shellfish operations are attracting tourists through occasional hatchery tours and pop-up dining events with chefs.²¹

4. Garibaldi's Seafood Supply & Demand

4.1 Seafood Supply Summary

As has been described, fisheries play a large part in the Garibaldi and Tillamook area economy and play an even more important part of Garibaldi's identity. Like the rest of the Oregon coast, Garibaldi has dealt with significant variability in their seafood supply. Oregon coast fisheries have experienced significant population declines, particularly in salmon and groundfish stocks over the last 25 years.²² "Overall, regulations are becoming more focused on conserving and rebuilding commercially important species along the Pacific Coast (NOAA, 2006, 2016). As long as populations continue to fluctuate or decline, conservation will remain a high priority, necessitating the enforcement of quotas and gear restrictions to allow the populations to rebuild (Pacific Coast Groundfish, 2016). While this management policy may hamper the profitability of fishing communities in the short term, the long-term goal remains to maximize the economic value of marine resources."²³

²⁰ Sigliano. "The great oyster crash." *Grist*. August 18, 2011. Accessed at: <https://grist.org/food/2011-08-17-the-great-oyster-crash/>

²¹ Dauphinais. "Olympia oyster bar launches a pop-up on the Oregon Coast." *PDX Monthly*. June 26, 2018. Accessed at: <https://www.pdxmonthly.com/slideshows/2018/6/26/olympia-oyster-bar-launches-a-pop-up-on-the-oregon-coast>

²² Ackerman et al. "Resilience of Oregon Coastal Communities." August 2016.

²³ *Ibid.*

To highlight that variability, 2017 represented most successful year, in terms of total landings revenue, for the region in the last 16 years. While two years prior, in 2015, total landings revenue was the lowest during the same period. This variability was due to a swing in the harvest of Dungeness crab, which is most valuable species in Garibaldi²⁴, and the State of Oregon. In Garibaldi, Dungeness crab generally comprises $\frac{2}{3}$ of the total landings revenue. While they account for $\frac{1}{3}$ of the statewide landings revenue.²⁵

The successful harvest in 2017 was the result of the combination of a strong markets and harvest for Dungeness crab(\$3.08M) coupled with record landings and/or (through 2017) prices for lingcod, albacore tuna, lack rockfish, and clams. Garibaldi’s seafood industry is dominated by landings of 7 species (Table 1), which make up 96% of the total fisheries revenue over the last five years. In that time, chinook salmon has dropped from the #2 species in 2014 (after Dungeness crab) to #7 in 2018. Of the top 7 species, only Chinook salmon had a historically low harvest. While 2018’s harvest is not complete (2018 data represents landings and revenue from Jan. 1 - Oct 10th), total landings have already surpassed that of 2017, at \$5.13M, with similar species performance to 2017.

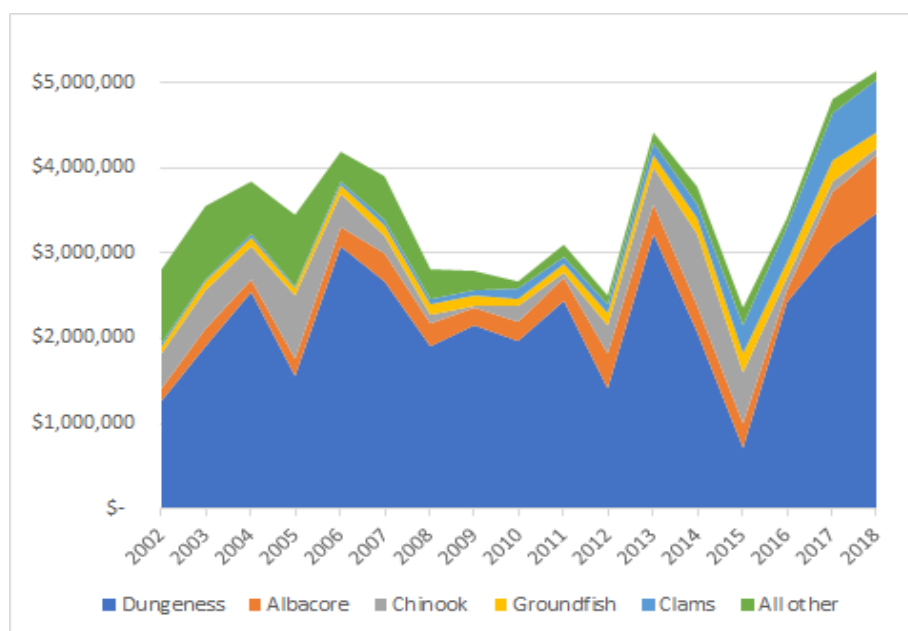


Figure 1: Garibaldi Landing Revenue by Top Species - 2002 - 2017

²⁴ Garibaldi is part of PacFIN’s Tillamook area port group, which also includes Netarts, Pacific City and Salmon River. For Oregon Department of Fish and Wildlife reporting, Garibaldi is grouped with Gearhart, Seaside, Cannon Beach and Nehalem Bay. Garibaldi is ~95% of the total harvest. As such, for the remainder of “Section 4. Garibaldi’s Seafood Supply and Demand”, we will refer to Tillamook Area, simply as “Garibaldi”.

²⁵ All landing data from Pacific Fisheries Information Network (PacFIN) retrieval dated June 8th, 2018 11:44am, Pacific States Marine Fisheries Commission, Portland, Oregon (www.psmfc.org), except where noted.

Species	2014-2018 Revenue
Dungeness	\$11,733,282
Albacore	\$2,089,313
Chinook	\$1,775,358
Gaper Clams	\$1,055,826
Basket Cockles	\$1,012,474
Black Rockfish	\$533,801
Lingcod	\$485,993
All Other Species	\$785,335
Total	\$19,471,382

Table 1: Five Year Cumulative Revenue of Garibaldi's Top Seven Species

Garibaldi is one of five major port groups for fisheries landings tracked by PacFIN for Oregon and is smaller than the other four areas (Figure 2). If you dig a little deeper with a more granular breakdown from Oregon Department of Fish and Wildlife (Table 2), Garibaldi is the second-largest of the smaller ports, after the much larger ports of Newport, Astoria, and Charleston, which together made up 83% of Oregon's 2017 fisheries revenue.²⁶ Port revenue is critical piece of data for justifying needed harbor maintenance (jetties, dredging, docks, dock infrastructure) , and for attracting new seafood businesses supporting the front end of the value chain, such as dock side buyers, processors, and distributors.

²⁶ Oregon Department of Fish & Wildlife, 2017 Commercial Landings, (https://www.dfw.state.or.us/fish/commercial/landing_stats/2017/index.asp)

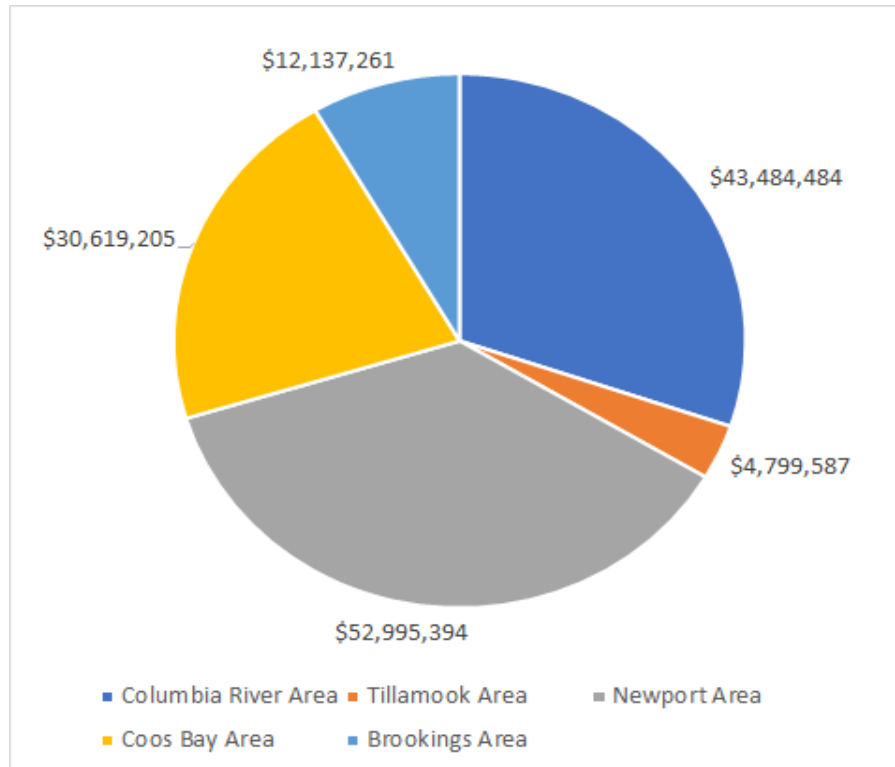


Figure 2: 2017 Revenue by Major Port Area (PacFin)

Port	Revenue
Newport	\$52,688,253
Astoria	\$40,064,561
Charleston	\$27,484,562
Gold Beach/Brookings	\$8,712,364
Gearhart/Seaside/Cannon Beach/Garibaldi/Nehalem Bay	\$4,654,543
Bandon/Port Orford	\$3,515,030
Columbia River	\$3,512,084
Waldport / Yachats / Florence / Winchester Bay	\$3,173,604
Netarts / Pacific City / Siletz Bay / Salmon River / Depoe Bay	\$296,005

Table 2: 2017 Revenue by Port Area (ODFW)

Seasons of harvest for the top seven species is interwoven, with the actual harvest of 2017 shown below to generally demonstrate the high and low harvest periods for these species (Figure 3). Many factors affect the seasonality of harvests from year to year, including management decisions, such as season start date and catch limits, availability of species, economic opportunity of pursuing one species vs. another, and availability of processing resources.

Dungeness crab and basket cockles start the year strong and are 88% and 77% complete by the end of March, respectively. Black rockfish harvest is spread from April through September, with 85% of the harvest during those months. April and May kick off the chinook and lingcod harvest. The most productive months for these species extend through September, with 97% and 87% of total harvest during that time. Finally, albacore tuna and gaper clam harvests start in July, with the gaper harvest complete in August, and the albacore harvest continuing through October.

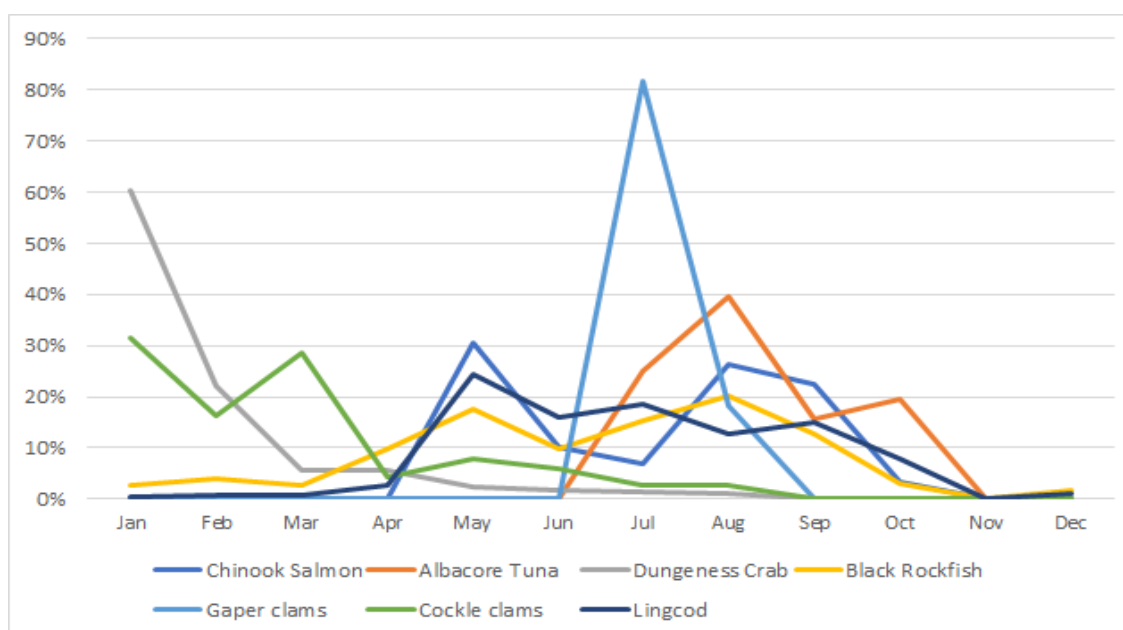


Figure 3: 2017 Harvest Seasonality, by Species

4.2 Market Demand Trends

In Oregon, the total 2017 harvest was \$144M, of which 40%, or \$58M was Dungeness crab. Four other species, Pacific whiting (\$16.3M), sablefish (\$15.5M), Pink shrimp (\$12.7M), and Albacore tuna (\$10.8M) delivered an additional \$55.3M in landings. These 5-species accounted for 80% of the total landings for

State of Oregon²⁷. Oregon exported \$47.5M in seafood products in 2017, with Canada accounting for 31% of exports. 60% of exports are as frozen whole fish without any value add, except for packaging.²⁸ For Dungeness crab, China and Canada are the largest importers.

In Oregon, there has been a recent increase in the number of processing businesses, with 9 new processors added since 2015, bringing the total number to 32.²⁹

4.3 Market Supply and Demand by Species

Dungeness Crab

Supply

Dungeness supply fluctuates dramatically, and has seen three consecutive years of improved landings, after the worst year since 2002, in 2015. Landings of Dungeness in Garibaldi vary similarly to Oregon's and are in line with the Oregon average price per pound, although the last three years have seen prices between \$0.20-0.40/lb. higher than Oregon's average. Total landings revenue in Garibaldi has accounted for about 5% of Oregon's total. The overall Dungeness harvest landed in Garibaldi has been on a slightly downward trend since the mid 2000's.

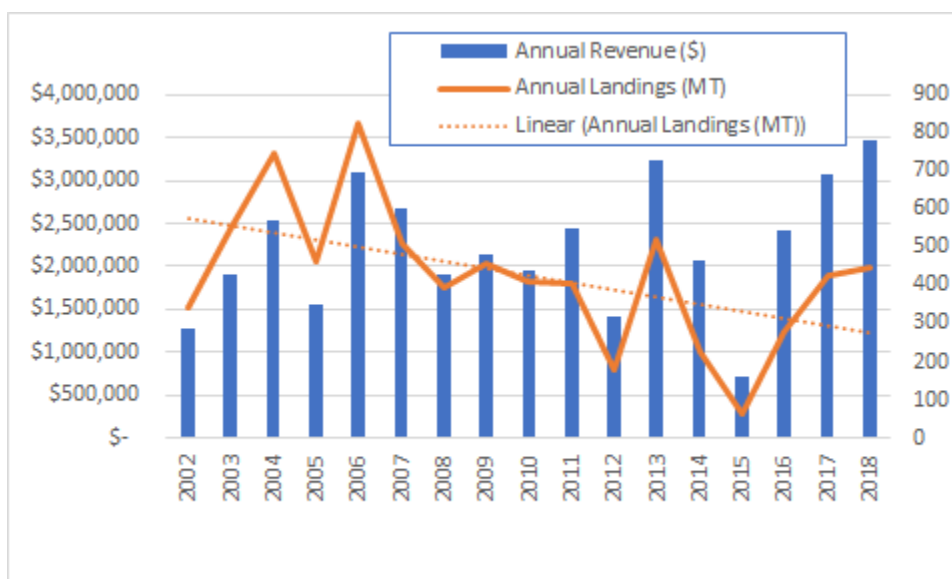


Figure 4: Garibaldi Dungeness Crab Landings 2002-2018

²⁷ Pacific Fisheries Information Network (PacFIN) retrieval dated June 8th, 2018 11:44am, Pacific States Marine Fisheries Commission, Portland, Oregon (www.psmfc.org).

²⁸ Erik Knoder, *In Cod (and Crab!) We Trust -- Oregon's Seafood Processing Industry* (State of Oregon Employment Department, May 2018)

https://www.qualityinfo.org/article-display-content/-/asset_publisher/XVT3gmCRNaoO/content/in-cod-and-crab-we-trust-oregon-s-seafood-processing-industry

²⁹ *Ibid.*

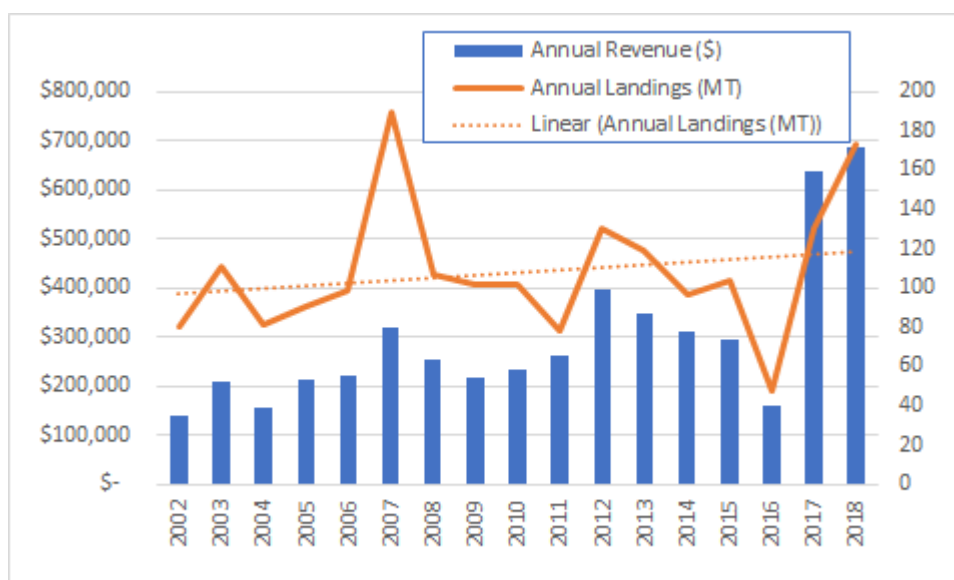
Demand

Dungeness crab demand has been steady, with stable prices despite harvests. Two factors are likely leading to this: strong import demand from China, and high Snow crab prices, leading to substitution with Dungeness crab in retail and restaurants.³⁰ In 2016, China imported 8000 Metric Tons of Dungeness crab, which was nearly 25% of the total landed harvest from US and Canada combined.³¹

Pacific Albacore Tuna

Supply

Albacore has seen a recent jump in revenue during the last two years, with both landed weight and price at or near recent historical highs. After a record low harvest in 2016 of 47.9MT, 2017 came in at 130.1MT followed by 173.1MT in 2018. Despite the big jump in harvest weight, prices jumped \$0.69 over the previous high in 2017. Garibaldi landed 7% of Oregon's Albacore in 2018, a record. Landings are trending slightly up since 2002. In Oregon, albacore is troll or pole caught, and is sold off the boat in three forms: blast frozen, brine frozen, and fresh. Albacore is not considered overfished and has been given a "Best Choice" green rating by the Monterey Bay Aquarium Seafood Watch program.³² The fishery that operates off the west coast has also been certified by the Marine Stewardship Council (MSC) which is important to increasing the market value of the fishery.³³



³⁰ John Sackton, *Outlook for Dungeness Crab in 2018*, (Oregon Dungeness Crab Commission)

<http://oregondungeness.org/wp-content/uploads/2017/11/Oregon-dungeness-2018-outlook-presentation.pdf>

³¹ Data from various sources: Canada harvest data - PACIFIC REGION INTEGRATED FISHERIES MANAGEMENT PLAN CRAB BY TRAP APRIL 1, 2018 TO MARCH 31, 2019 (<http://www.pac.dfo-mpo.gc.ca/fm-gp/ifmp-eng.html>) China Imports - Sackton, *Outlook for Dungeness Crab in 2018*, US harvest data - NOAA Office of Science and Technology (<https://www.st.nmfs.noaa.gov/commercial-fisheries/commercial-landings/annual-landings/index>)

³² "Monterey Bay Seafood Watch: Albacore Tuna." October 21, 2014. Accessed at:

<http://www.seafoodwatch.org/>

[/m/sfw/pdf/reports/t/mba_seafoodwatch_albacore_tuna_north_pacific_trollpole_report.pdf](http://www.seafoodwatch.org/m/sfw/pdf/reports/t/mba_seafoodwatch_albacore_tuna_north_pacific_trollpole_report.pdf)

³³ Marine Stewardship Council. AAFA and WFOA North Pacific Albacore Tuna. Accessed at:

<https://fisheries.msc.org/en/fisheries/aafa-and-wfoa-north-pacific-albacore-tuna/@@view>

Figure 5: Albacore Tuna 2002-2018

Demand

As a highly migratory species, albacore tuna is caught in all tropical and temperate oceans across a wide range of their migration path by many different ports around the world. As a result, albacore tuna is a commodity product, with world demand coupled with overall cross-species tuna supply driving price. The bulk of albacore ends up canned, and albacore is a premium canned product as the only tuna able to be labeled “white” tuna in the US. Overall US canned tuna sales are down, due to multiple factors, including changing demographics, concerns about traceability, labor practices in SE Asia, and impact to dolphins. There is strong demand for sashimi grade flash-frozen albacore.

In Oregon in 2017, fresh-iced tuna prices averaged \$1.90 per pound (max \$3.17), blast-frozen tuna prices averaged \$2.67 per pound (max \$3.25, a record), and brine-frozen tuna prices averaged \$1.85 per pound (max \$3.10).³⁴ In 2016 (the last year with detail on preservation method), 40% of the Oregon catch was blast frozen, 35% was brine frozen, and the remaining 25% was iced/fresh. Astoria sold 71% of its catch blast frozen, while Newport’s was predominantly brine frozen. Smaller ports in Oregon, sold more than half of their catch as iced/fresh.³⁵

The American Albacore Fishing Association (AAFA) promotes marketing, sales, and supports the responsible management of the albacore stock. AAFA’s efforts include paying for MSC certification of the fishery and AAFA tuna was notably the first MSC certified tuna product in the world.³⁶ Garibaldi fishermen are active in AAFA and in 2018 Garibaldi Landing was a designated AAFA unloading station. The Oregon Albacore Tuna Commission was established by the Oregon legislature to market and promotion the consumption of ‘troll caught’ Albacore.³⁷

Chinook Salmon

Supply

Chinook salmon has been recently highly cyclical, with 4-5 good years, followed by 4-5 poor years. Garibaldi is currently in a down cycle, with three straight years of less than 10MT annual harvest in Garibaldi. According to the Northwest Fisheries Science Center (NOAA), the forecast for 2019 is slightly improved over 2018, however it still suggests another poor harvest year ahead. The only recent bright spot for the Chinook fisheries in Garibaldi is the premium \$3+ per pound average fetched at the dock since 2002. The trend for Chinook harvest is steeply down.

³⁴ Keith Matteson, *ANNUAL OREGON ALBACORE TUNA (Thunnus alalunga) REPORT, 2017* Oregon Department of Fish and Wildlife, (<https://www.dfw.state.or.us/mrp/publications/docs/2017%20Annual%20ODFW%20Albacore%20Report.pdf>)

³⁵ Christian Heath, *ANNUAL OREGON ALBACORE TUNA (Thunnus alalunga) REPORT, 2016* Oregon Department of Fish and Wildlife, (<https://www.dfw.state.or.us/mrp/publications/docs/2016%20Annual%20ODFW%20Albacore%20Report.pdf>)

³⁶ American Albacore Fishing Association. Accessed at: <http://www.americanalbacore.com/about-us/available-products>

³⁷ Oregon Albacore Tuna Commission. Accessed at: <http://oregonalbacore.org/>

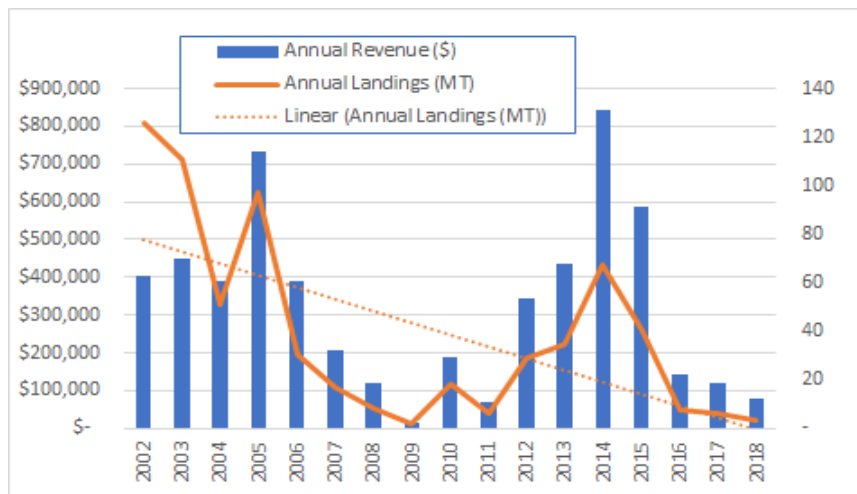


Figure 6: Chinook Salmon 2002-2018

Demand

Chinook salmon is one of the most prized species of Salmon, for taste and texture. In the US, wild-caught Chinook competes with other more plentiful species of wild-caught salmon, as well as farmed chinook, primarily from Canada. Given Garibaldi's steep drop in annual harvests recently, it's hard to imagine chinook returning to its position as the top fin fish harvested. Regardless of landings, chinook salmon remain a strong contributor to the local economy, as this prize resources value has seen dramatic increases and fetched an average price of \$8.73/lb. for a total landings revenue of \$119,893 in 2017.

Clams

Supply

Gaper clams, after being a nominal commercial species in Garibaldi through 2010, has skyrocketed in the last 8 years to become one of the top revenue species, with nearly \$300K in both 2017 & 2018. The steady increase in harvest has not driven the prices down, as price/lb. has increased from \$0.47 to \$0.93 during those same 8 years. While there are human food uses for gapers, the Oregon Department of Fish & Wildlife estimated that only 2.6% of the 2012 clam harvest was used for human consumption.³⁸ The vast majority of these dive harvested clams are used for bait, mainly crab bait, in the US and Canada. There is little evidence this has changed. The trend for gaper clams is strongly up. Gapers, along with basket cockles, are one of the few species where the bulk of the Oregon harvest is found in Tillamook Bay. As of 2018, the Tillamook Bay annual dive harvest for gaper clams is capped at 235,000 lbs.³⁹ With a limit of 10 Resident Coastwide Bay Calm Dive Permits allowing commercial harvest in Tillamook and

³⁸ Ainsworth, D'Andrea, Vance, Groth, Perotti *Status of Oregon bay clam fisheries, stock assessment, and research*, Oregon Department of Fish and Wildlife Information Report Number 2014-09, December 2014

³⁹ Oregon Administrative Rules, Oregon Department of Fish and Wildlife, OAR 635-005-0355

Netarts Bay's, this fishery (along with cockles) has provided for an average of more than \$50,000 in landings per permit in the last two years.

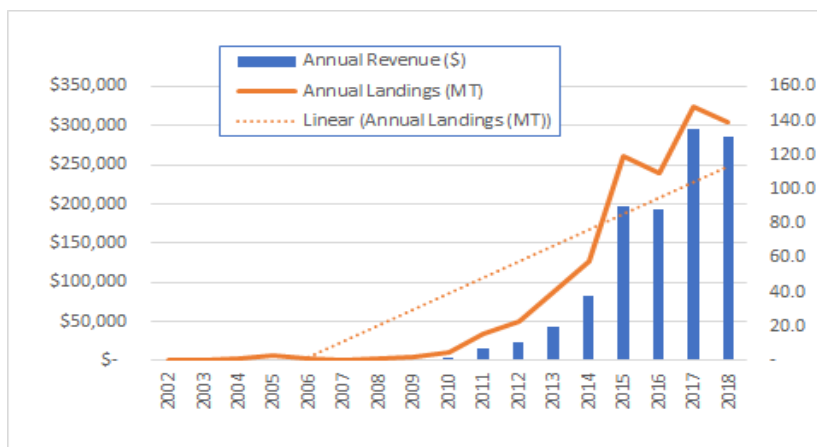


Figure 7: Gaper Clams 2002-2018

Basket cockles have been harvested throughout the last 17 years. Similar to gapers clams, cockles have seen a dramatic increase in both harvest weight and revenue. 2018 saw a price of \$1.22 and revenue of \$325K, both records. Quotas have been set for Tillamook Bay for dive harvest of cockles at 185,000 lbs. There is no limit for their harvest in the intertidal zone. The trend for cockles is strongly up.

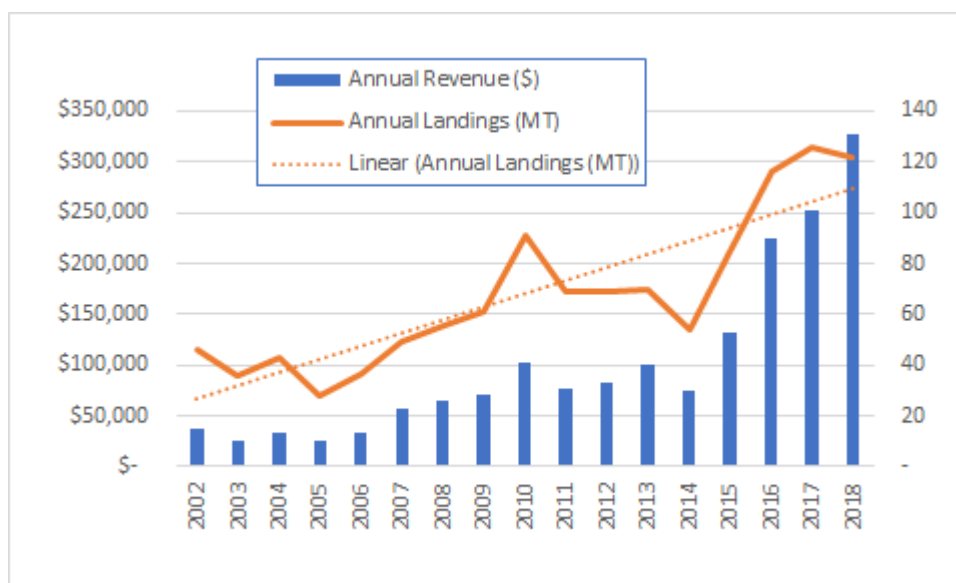


Figure 8: Basket Cockles 2002-2018

Demand

Gaper clams and cockles have added \$2M in landings revenue in the last five years, after years of being a small producing fishery. Today the market for gapers & cockles out of Tillamook Bay are driven by the bait market for Dungeness crab, which continues to deliver higher prices year-over-year, despite

increasing harvests. There seems to be potential for higher prices. In State of Washington, gapers are fetching from \$4 to as much as \$7 per pound, and cockles around \$3 per pound.⁴⁰

Groundfish

Supply

Black rockfish has provided a modest but consistent fishery for Garibaldi over this period. 2017 saw record revenue, on the combination of a solid harvest with good market price. Garibaldi has traditionally garnered lower prices for Black rockfish than the Oregon average, but bucked that trend for the first time in 2017. Garibaldi once delivered 30-40% of Oregon's Black Rockfish harvest, but that has declined over this period to around 20%. Black rockfish landings are trending slightly down.

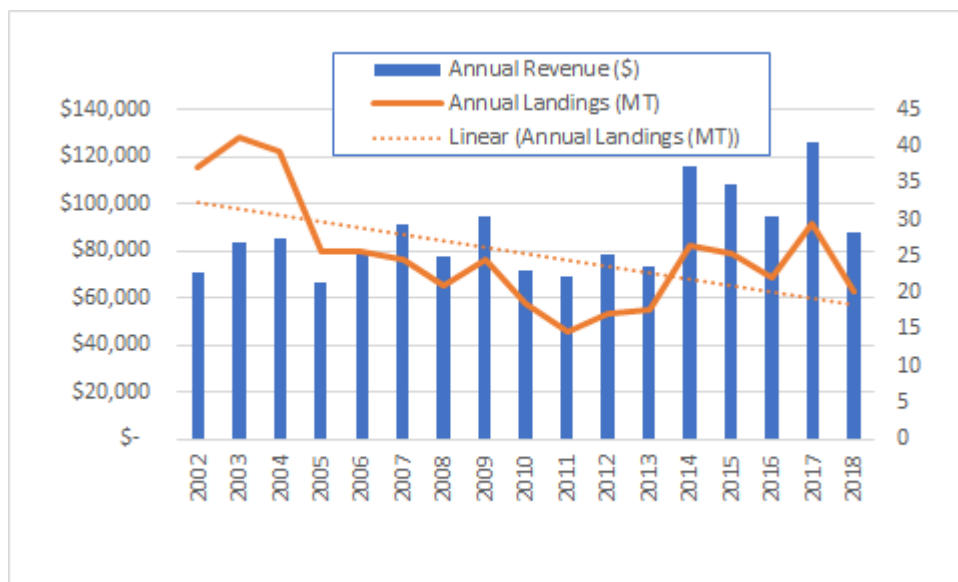


Figure 9: Black Rockfish 2002-2018

Lingcod is unique in Garibaldi, in that it garners a much higher price/lb. than the Oregon average (\$2.69/lb. vs. \$1.50/lb. in 2018), this could be due to the exclusive use of the hook & line gear catch methods practiced by the fleet helping to establish a higher quality product. In 2017, Garibaldi fishermen saw a record price/lb. of \$2.78 as well as record landings revenue of \$121,534. The harvest is trending up.

⁴⁰NOAA National Marine Fisheries Service Fisheries Information Query, 2012-2016 Gaper Clam & Nuttall Cockle landings by state. (<https://foss.nmfs.noaa.gov/apexfoss/f?p=215:200:::NO::>)

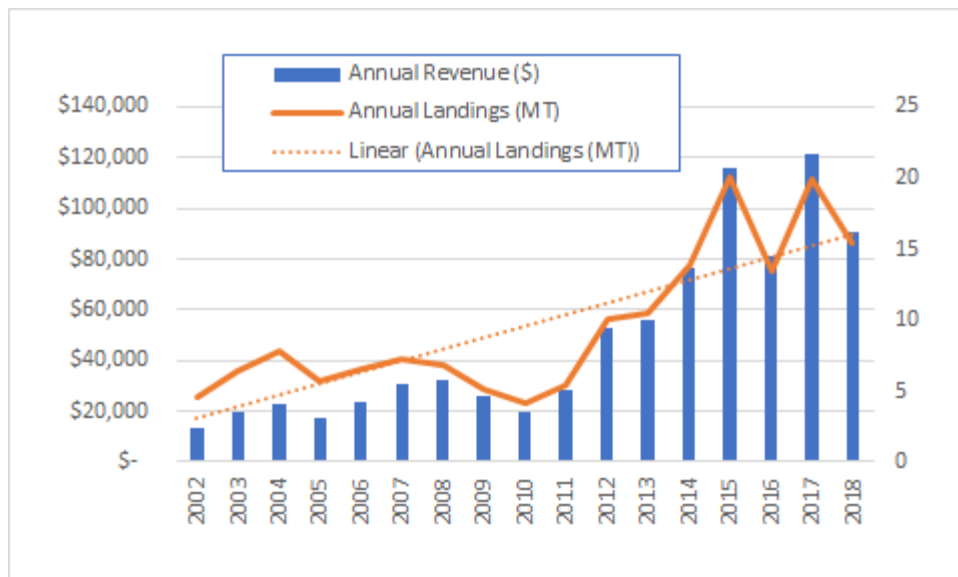


Figure 10: Lingcod 2002-2018

Demand

Black rockfish is the most plentiful nearshore catch in Oregon, while lingcod is 2nd, and together the two species accounted for 76% of the total nearshore fishery harvest. The price for black rockfish in Oregon varies primarily based on live vs. fresh with live fish in 2017 averaging ~\$0.75 more per pound. Lingcod prices are higher for line-caught which meets the “Best Choice” rating by Seafood Watch, and for which Oregon’s harvest makes up 60% of the North American supply.⁴¹ Tillamook Area’s hook and line rockfish and lingcod have an advantage over trawl-caught species in being superior in quality. Other fisheries including in Kodiak have used these similar fishing fleet attributes to develop niche markets for black and dusky rockfish.

5. WealthWorks Seafood Value Chain Description & SWOT Analysis for Garibaldi & Tillamook County

The three main goals of a WealthWorks value chain are: 1) boosting stocks of the eight types of capital (intellectual, financial, natural, cultural, built, political, individual and social capital), 2) increasing the local ownership and control of that capital within the region, and 3) improving livelihoods, including moving people, places and firms on the economic margins towards the mainstream.⁴²

To develop strategies to achieve these goals, it is first essential to understand the seafood value chain in the Garibaldi region which this assessment seeks to help achieve. While every value chain is distinct with its own dynamics and challenges, a seafood value chain takes complexity to another level. As has been

⁴¹ Rodomsky, B.T., T.R. Calavan and K.C. Lomeli. 2018. The Oregon Commercial Nearshore Fishery Data Update: 2017 (pdf). Oregon Department of Fish and Wildlife Marine Resources Program. 53 pp (https://www.dfw.state.or.us/mrp/publications/docs/2017_Commercial_Nearshore_Fishery_Data_Update.pdf)

⁴² Aspen Institute Community Strategies Group, “Construct a WealthWorks Value Chain.” Accessed at: <https://www.wealthworks.org/basics/construct-wealthworks-value-chain>

stated in previous work exploring and describing seafood value chains, “few supply chains are more complex, convoluted, and cryptic than those involving seafood.”⁴³ Seafood is a highly regulated and competitive global industry. As is common in fishing communities across the United States, the fisheries of Garibaldi and the larger Tillamook area are subject to a myriad of agencies and entities who have responsibilities in overseeing different aspects of the seafood value chain. Regulatory, legal, financial, community, and environmental interests create a mosaic of interwoven stakeholders that have claim to authority, ownership, and responsibilities affecting the seafood value chain from the time a fish is pulled from the water to when it reaches a dinner plate.

WealthWorks value chains, like other value chains, are focused on demand. Yet, because wild fisheries are a natural resource whose supply is highly variable based on an array of environmental and political factors, it is important to consider supply when determining value chain opportunities. Being aware of the status of commercially important fishery stocks is something that every good fisherman does, and this something a long-term initiative should also consider. Fish and other sources of wild harvest seafood are unpredictable resources. Some distinguishing characteristics of seafood supply chains include handling of highly perishable products (which limits sales opportunities for fishermen and can lead to consolidation of power), operations working on extremely thin margins, and a lack of transparency and traceability (due to processing, aggregation and distribution processes). Importantly, the seafood market is a global market and seafood is the largest traded commodity by value in the world. Demand for domestically caught seafood is driven by global forces. As an example, the market for Dungeness crab landed in Garibaldi, and across the west coast, is driven particularly by demand from a growing the middle-class in China. Developing seafood businesses or marketing strategies that stray too far from the typical seafood value chain model, large seafood processors selling high volumes at low margins on the global market, is challenging and risky.

A map of Garibaldi’s seafood value chain is presented in Figure 11. This map is useful in understanding the various types of players in the region’s seafood value chain and how they connect to each other in this complex web. Appendix 7.1 includes a detailed inventory of many value chain players interacting in the seafood value chain of the Tillamook region, including demand partners, transactional partners, and support partners.

⁴³ Future of Fish and The Nature Conservancy. “Making Sense of Wild Seafood Supply Chains.” 2015. Accessible at: http://futureoffish.org/sites/default/files/docs/resources/TNC.SeafoodSupplyChainReport.V10.Web_.pdf

Building Garibaldi's Local Seafood Economy: Value Chain Map

Goal: To increase the wealth and well-being of small commercial fishing boat owners, crews and small to mid-sized seafood / seafood related businesses in the Garibaldi area.

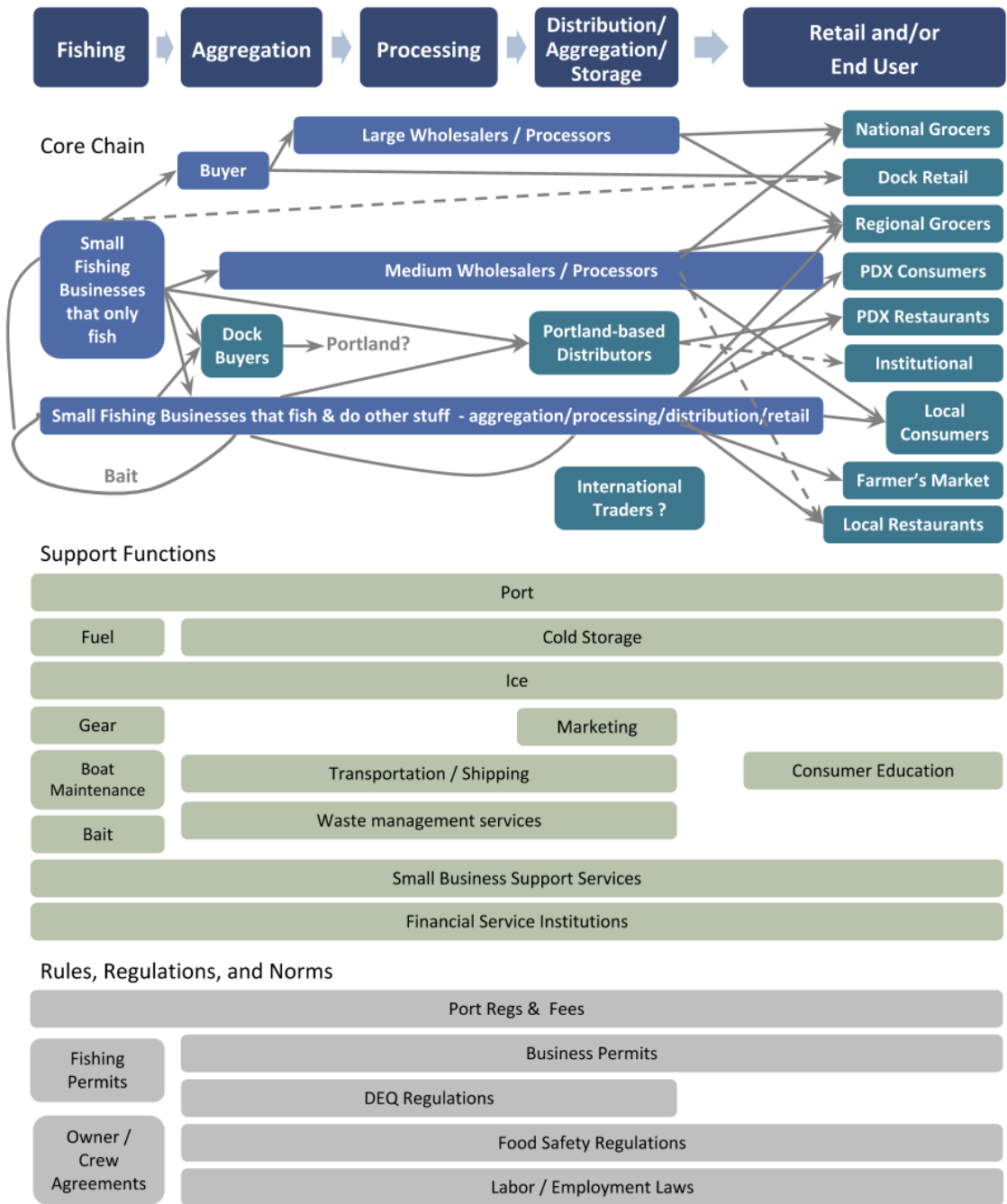


Figure 11: Garibaldi Seafood Supply Chain Map

5.1 Seafood Value Chain SWOT Analysis

An inventory of strengths, weaknesses, opportunities and threats related to Garibaldi's seafood value chain is presented below. This SWOT analysis aids in the process of understanding the assets of the value chain, where there are weaknesses (or gaps), and what the opportunities are. From this inventory, gaps and opportunities can be prioritized to deliver the greatest potential impact in boosting the stocks of the eight types of capital, increasing local ownership, and improving livelihoods for small-boat commercial fishermen, crew, and small to midsize seafood businesses.

Seafood Value Chain Strengths (Assets):

- The Port of Garibaldi provides a strong asset to the community through supporting recreational and commercial business growth, providing strong leadership dialogue, vision, and capacity to advance new projects and infrastructure by working collaboratively.
- In addition to the Port, the community possesses several local leaders who are recognized for their ability to organize the community and proactively solve challenges.
- Fishermen engage in a relatively diverse portfolio of fisheries, seven core species, allowing for year-round activity and enhancing resiliency of the fleet. Diversity in both buyers and species harvested extends and diversifies the seafood value chain through local, regional, national, and international markets.
- The fleet profile is largely made up of local owner-operator vessels that fish from the Port of Garibaldi and reside in Tillamook County. In 2018 Tillamook County residents possessed 88 state commercial fishing permits.
- Strong demand and a competitive environment exist for seafood in the Port with two major buyers and one independent buying station currently operating alongside a handful of smaller businesses who purchase and sell seafood.
- Garibaldi and Tillamook County have been undergoing a resurgence in economic development and revitalization. The Port, Visit Tillamook Coast, EDC, Col-Pac and other partners have been successfully working together to strengthen the community economic and social well-being.⁴⁴ An example of this can be seen in efforts like that of the Garibaldi Cultural Heritage Initiative to restore and open the historic Pier's End, demonstrating energy, vision, and passion for the future of the community.
- U.S. Highway 101 runs through Garibaldi and Tillamook County, which serves as the main transportation artery for communities along the Pacific Coast from Washington to California. Portland and Salem are easily accessible. People travel from Portland and surrounding larger communities to purchase seafood in Garibaldi and participate in other activities.
- In the face of increased pressure from tourism and impacts from a growing population of retirees, the community is committed to maintaining the fishing village character of Garibaldi.⁴⁵
- Tillamook County's Transient Lodging Tax (TLT) generates several million dollars per year which can be utilized at both the county and city level for community infrastructure development and to create an attractive environment to draw in future residents.

⁴⁴ Port of Garibaldi Strategic Business and Capital Facilities Plan. August 2017. Accessed at: <http://portofgaribaldi.org/wp-content/uploads/2018/01/2017-SBP-Final.pdf>

⁴⁵ Ackerman et al. "Resilience of Oregon Coastal Communities." August 2016.

- Visit Tillamook Coast is invested in raising the profile of the region’s fishing fleet and seafood industry through communications, media, and events that tell the story of the seafood and people behind it. Their intention is to build stronger connections between the industry, visitors while building local pride in the industry. Events like Crave the Coast and the Nevor Shellfish pop-ups are putting Garibaldi and the region on the map of Portland foodies.
- There is strong interest and support for enhancing Garibaldi’s Port and downtown area and introducing more retail or amenities for residents and tourist in town, which would increase the community’s attractiveness to business, tourists, and future residents. ⁴⁶ Funding and plans for new signage through Shop the Docks, Visit Tillamook Coast, and related efforts are in place and set to move ahead in the coming years.
- Tillamook County is a major engine for shellfish production and is home to some of the largest producers on the west coast, Pacific Oyster and Whiskey Creek Shellfish Hatchery. There are at least 4 active oyster producers in the county and 18 oyster plats on submerged lands in Tillamook bay (see Appendix 7.3).
- The region has at least three active fishing organizations including the Fisheries Advisory Committee of Tillamook County, the Pacific City Dorymen’s Association, and the American Albacore Fishing Association. Two commodity commissions, the Dungeness Crab Commission and Albacore Tuna Commission, also exist to support the marketing and promotion of Garibaldi’s top two species.

Weaknesses (Gaps)

- Infrastructure to support commercial fishing and seafood business operations. Although the Port of Garibaldi has done an immense amount of rehabilitation on commercial docks, roads, and more, some additional vital infrastructure is needed to support fishing operations. Low and inconsistent volume of fish landings can make providing regular, full-time jobs in either the harvesting or processing/buying sectors extremely difficult. Improving infrastructure and available amenities at the port, may yield higher landings volumes throughout the year, and could help create efficiencies and reliability with transportation, processing, and distribution.
 - Ice is a common resource of interest across the fleet. It is vital for fishermen to have reliable and equitable access to this resource to properly handle and care for their highly perishable products. Both Deepwater Seafood and Garibaldi Landing provide ice to fishermen, however efficient access, reliability, and quality, continue to challenge the fleet.
 - Fuel is a vital resource of common interest across the fishing fleet. A new location for a fuel pump that all boats can access is desired. Garibaldi Landing provides fuel via a stationary pump on floating dock. As well, a fuel truck does come to the Port of Garibaldi and services boats in need. However, fishermen cannot always meet the fuel truck for a scheduled delivery, and the stationary pump is in a shallow section of the harbor that not all boats can access, especially at low tides.
 - Aggregation points with cold storage is a common need of the fleet. It is desired for both storage of seafood headed to market and storage of bait.
 - For direct marketer’s distribution/transportation of product to processing facilities, clients, and consumers to a larger regional audience, is markedly an issue. Transportation and distribution are also challenging for larger buyers running on thin margins. Volumes of product are often not high enough to fill a truck, making transportation more costly.

⁴⁶ *Ibid.*

- Shared and equitable access of additional dock equipment, including forklifts and loading ramps have been voiced as a need for the fleet and other industry partners.
- Commercial boat slips are in high demand. The Port of Garibaldi has 53 commercial fishing slips and has been creative in making room for a few extras. There is currently a waiting list for fishermen who want to dock their commercial vessels, as transient moorage is considerably more expensive. Both fishermen and industry partners have relayed a desire to see more commercial fishing slips and get boats out of transient moorage.
- Jetty maintenance and dredging are ongoing and costly necessities for the Port of Garibaldi. Relentlessly addressing these needs is mandatory to maintaining a safe functioning port.
- Fishermen need business support services but are not yet well connected to the organizations and businesses that can provide these professional services.
- The high cost of living on the coast, lack of adequate and affordable housing in Tillamook County-and the lack of competitive educational opportunities make it difficult to attract and retain a suitable workforce to properly support the growing tourism and seafood industries.⁴⁷
- Labor force development has been identified as a need by local industry partners. Programs or mentorships to help develop the capacity and knowledge of local workers to effectively support fishing, processing, and distribution operations should be perused.
- Garibaldi's has deep pride for and a strong cultural connection to its fishing heritage. This strong connection to the past has been recognized to pose a challenge for long-term visioning and planning for necessary changes to keep the port and fleet resilient. The community is known for its strong viewpoints and connection to the past. Local stakeholders are not always supportive of change and this can lead to differing visions for the future, gridlock in decision making. This can also mean a lack of acceptance of new ideas from younger generations or those with lesser longstanding ties to the community. When private and public discussion become impassioned, strong divisiveness can discourage people from accepting leadership positions.⁴⁸
- The distance from major metropolitan areas and fluctuating volumes of products results in high shipping costs and makes investment less attractive.
- No rules or regulations have been considered for farming of kelp, in open ocean or bays, in the State of Oregon. With no guidance, this entrepreneurial opportunity has yet to be realized in the State of Oregon.
- Fishermen are notoriously independent. The fishing community is rarely homogenous in its views, beliefs, needs or ideas. Fishing is inherently competitive at every level. From boat-to-boat and fishing businesses to buyers, competition, non-cooperation, seems to be the norm.
- Local fishermen can be distrustful of management, environmental, and outside organizations. Conservation and environmental performance are not yet a hallmark of the fleet or larger community, but these are features that consumers are currently demanding, and will increasingly demand, in the marketplace.
- Crew face many challenges to make a living in the industry. Creating a path to financial well-being and ownership, is difficult for anyone getting into the industry. Currently, very little resources exist to support fishermen and crew with business planning, financial planning, and gaining access to capital.
- The nature of limited entry and IFQ programs requires significant financial capacity for a fisherman to be able to purchase needed permits to secure an ownership stake in the fishery.

⁴⁷ *Ibid.*

⁴⁸ *Ibid.*

- Networks and connections for the region’s fishermen and fishing fleet should be improved. Certainly, some networks in the community are strong, but overall there is room to further build critical networks and relationships. Being somewhat isolated reduces the level of potential social capital that can flow from relationships between fishermen and fisheries support organizations in different regions and stifles the ability to exchange knowledge, information, and lessons learned on common challenges.
- The Pacific City dory fleet may in theory be able to grow in numbers, yet the challenging and dangerous nature of launching from the beach and lack of infrastructure makes it likely that this fishery will not grow. It could potentially decrease in its number of fishermen and crew.

Opportunities

- Strong demand for traceable, sustainable, and “artisanal” local seafood exists with seafood consumers. Fishermen and seafood companies are responding by developing new business models to further distinguish seafood in the marketplace and create higher value.
- Early success of “Shop the Docks” and recent off-the-boat sales of tuna suggests greater opportunities for local sales.
- There is a strong local supply of clams from Tillamook Bay, and interest on the part of fishermen, state agencies, buyers and chefs in developing higher value human consumption markets for these clams.
- There is a strong local supply of rockfish and potential to develop higher value niche markets for hook and line and pot-caught rockfish, the latter which is a highly unique fishery.
- The popularity and expansion of the Tillamook Creamery Visitor’s Center, as well as continued growth of agritourism and food centered events in Oregon and Tillamook County, indicates a growing market demand for experiences and services that connect tourists to the sources of their food. According to Visit Tillamook, in 2018, Crave the Coast, a food centered event held in Garibaldi, attracted more than 700 people.
- There are local seafood restaurants in Tillamook County that can greatly improve their sourcing of local seafood, which would benefit local fishermen and contribute to a more authentic and local culinary landscape of the region. Demand for local, healthy products is growing for Tourists and locals alike.
- There are opportunities for fish waste to be channeled to local farmers and turned into compost. An interested farmer estimates this type of endeavor could generate between \$10,000 - \$20,000 in gross revenue. They would need guaranteed access to all available fish waste to make the venture profitable. Assistance with writing grants or finding funds to acquire a few key pieces of equipment to make the compost will also be necessary.
- Food hub research is beginning in 2019 for both seafood in Garibaldi and terrestrial foods around Tillamook County. These efforts will help to bring further understanding regarding how to best improve storage and distribution of goods and build a more robust regional food system. Visit Tillamook Coast is contracting with Food Roots and the Port of Garibaldi received a grant from the USDA Rural Business Development Grant program to study the feasibility of cold storage, ice machines, and fish grinders to bolster the local seafood industry.
- Historic “Pier’s End” provides a wonderful connection to the local maritime culture and is building positive energy in the community. The building has been used for photo shoots, dinners, tours, fish print classes, marine biology classes, boat building classes, and much more. More energy, volunteers, and funding can be used to support the effort and restore this building to a “living culture” museum and community space that thrives at the intersection of commercial fishing, community, and tourism.

- Individual companies are investing in a vibrant future of Garibaldi's seafood industry including Garibaldi Landing, Deepwater Seafoods, Tillamook Bay Seafoods, CS Fishery, and others. CS Fishery is actively working to develop new seafood infrastructure and attractions north of Garibaldi in Wheeler. The facilities are envisioned to host worker housing, processing, and a community kitchen space, with an intention to support the local community first and visitors second. The company is waiting on building permits to clear before beginning construction.
- Fishermen need to become savvy business people to succeed, and capacity exists in Tillamook County to help them on this path. Tillamook SBDC has an energetic new director who is proactive about reaching fishermen, and Food Roots runs the local individual development account program which fishermen can participate in. Three small fishing businesses are also receiving support and getting connected to other small food-producing businesses through the Ecotrust Ag of the Middle accelerator program.
- Further regional/local seafood branding to draw attraction to all seafood coming from the region. Visit Tillamook has secured some funding to begin this work. Impressions from events, and visitors seem to demonstrate that the area is well known for seafood, but no branding currently exists to support or build consumer interest.
- As there is increasing attention being paid to the challenge of the "graying of the fleet" and the impacts of limited entry and catch share programs on local fishermen and fishing communities, Garibaldi and Tillamook County have an opportunity to build their networks and engage in regional and national conversations. There are efforts happening regionally and nationwide ranging from apprenticeship programs, to young fishermen's networks, to community permit banks. These programs are constantly evolving to help communities promote and secure intergenerational access to fisheries and stem the tide of an aging fleet.

Threats

- Safe access to ocean and entry to the Port of Garibaldi is seen as the most critical factor impacting the success of the region's seafood value chain. Major safety concerns exist related to crossing of the bar and depth of the harbor. The condition of the bar reduces the number of fishing days and a silted in harbor prevents larger boats from being able to access the Port. The need for jetty repair and dredging is the number one threat to this fishing fleet and port. Despite ongoing pressure from the Port, the south jetty remains in a state of disrepair.
- The fleet's heavy reliance on Dungeness crab creates a precarious position for the community in the event of potential negative naturally occurring impacts, domoic acid being a recent example, or to the price of this species in the world market place. Current tariffs being placed on seafood traded with China, including Dungeness crab, is a real concern.
- In all communities, especially a fishing community, attitudes matter. Garibaldi has a reputation as sometimes being bold, brash, or even unwelcoming. Just like many other small towns and coastal communities, Rumors, feuds, and hearsay are common. These characteristics can reflect negatively on the community and make partnerships challenging both with locals and non-locals alike. Innovation can be stifled when and when judgment is harsh and forthcoming from various directions. The most successful fishing communities with the greatest social capital and most resilience are those where community togetherness, camaraderie, and respect are values that are upheld at every level.⁴⁹
- The threat of a massive earthquake and tsunami is ever-present along the Cascadia subduction zone. A major event would likely devastate the community and industry.

⁴⁹ Ackerman et al. "Resilience of Oregon Coastal Communities." August 2016.

- Environmental issues, both human-caused and naturally occurring, can have large and lasting impacts to fishery resources and the people who depend upon them. Some issues of relevance in the region include:
 - Ocean warming. It is a well-documented threat that can exacerbate ocean issues and contribute to the rise of new threats. Ocean hypoxia, ocean acidification, domoic acid and adverse migrations of species are few examples of issues related to ocean warming.
 - Ocean acidification. After witnessing massive die-offs of oyster seed, Whiskey Creek Shellfish Hatchery, in collaboration with Oregon State University, has been forced to create new management and operating procedures to adapt to acidifying waters for growing oyster seed.⁵⁰ How natural occurring populations of shellfish and other marine life native to Oregon are being affected is not yet well documented or known. There is a particular need to understand how wild species are being affected while in larval stages of their life cycle.
 - Domoic acid is a naturally occurring neurotoxin, produced by marine algae, that accumulates in shellfish.⁵¹ Warmer ocean water exacerbates the growth of this algae and increases the threat of domoic acid entering the food chain. Since 2015, the buildup of domoic acid in Dungeness crab has caused delays in openings of the fishery or unusually long in-season closures off the coasts of California, Oregon, and Washington. New management standards have been adopted to address this threat and protect consumers; however, this often means closures of fishing grounds and loss of income for fishing communities.
 - Wastewater runoff from nearby agricultural operations is an issue in Tillamook Bay. In the winter time, as heavy rains come, cow manure runs off fields, out of waste management tanks, and into the watershed. Faecal matter entering the watershed causes closures for harvesting shellfish in the bay and could pose as a threat to consumer perceptions of shellfish products harvested for human consumption from Tillamook Bay. This could make development of higher value niche markets for Tillamook Bay clams a challenge.

6. Value Chain Opportunities & Preliminary Recommendations

Garibaldi and Tillamook County are well-positioned to capitalize on the many social, economic, and ecological strengths and assets that exist within the community and region to increase the wealth and well-being of commercial fishermen, crew, and the seafood businesses. There is much reason for optimism as it relates to the regional seafood industry, which is not the case for many fishing communities across the country today. The region's fishermen and seafood industry have demonstrated tremendous resilience in the face of numerous stressors over the past 108 years. The weaknesses and threats that the community and seafood value chain currently face are common in many of the United States' fishing communities today. These include environmental threats like climate change and ocean acidification, lack of infrastructure, the graying of the fleet, high cost and difficulty of entry into fisheries, and challenges implementing cooperating efforts. The community should find that camaraderie and

⁵⁰ "Hatchery, OSU Scientists Link Ocean Acidification to Larval Oyster Failure." *Life at OSU*, 5 Oct. 2017, today.oregonstate.edu/archives/2012/apr/hatchery-managers-osu-scientists-link-ocean-acidification-larval-oyster-failure.

⁵¹ <https://www.noaa.gov/Media-Release/Warmer-West-Coast-Ocean-Conditions-Linked-to-Increased-Risk-of-Toxic-Shellfish>.

speed progress by building relationships with other fishing communities in Oregon and beyond. Furthermore, the energy of local partners and fishing businesses is substantial and there is strong overlapping interest with an array of governmental and nonprofit entities in supporting a thriving local fishing industry that can be harnessed for progress.

Specific expertise and regional capacity to solve some of these industry-specific challenges and capitalize on opportunities should be developed and cultivated. Other fishing communities that have the presence of one or more trade associations or nonprofits that directly tackle these types of issues are at a benefit of having specialized and focused support to address key issues. Fisheries and the seafood industry are highly complex and specialized. Effectively navigating the management, policy, and marketplace challenges is difficult without specific knowledge and experience in these areas. Enhancing and building additional capacity in a way that is appropriate for the region potentially lies at the core of generating lasting, wealth-building impact. This particularly includes cultivating and supporting leaders and organizations that have the health and well-being of the fishing community and seafood industry at the heart of their mission, not ancillary to it. These should be leaders and organizations that are well-suited to harness the self-interest and community interest of others in improving the industry. The Port is playing this role to an extent in Garibaldi but is limited by what it can accomplish due to its mandated objectivity and the numerous essential services it must perform.

Building capacity goes hand-in-hand with recognition that efforts to improve the region's seafood value chain should be considered long-term in their nature. The issues that face the community are persistent and as described, plague many fishing communities. There are very few, if any, easy short-term solutions to be found. For example, installing a public crane in Kodiak took over 10 years and building a brand for Kodiak Jig Seafoods Rockfish was a several year endeavor that takes ongoing effort to sustain. Port Orford has been working to establish a successful community supported fishery for the last nine years. Community permit and quota banks are endeavors that take at least several years to establish. The federal fisheries management process moves slow and typically takes 3-4 years to make a final decision on most matters.

The underlying need to build capacity, as well as the long-term nature of the challenges and solutions should be considered when prioritizing value chain opportunities and determining next steps of the initiative. Building the capacity described above may be viewed as a preliminary step to further action, or it could take place alongside other efforts and may demonstrate further if a new organization or entity may be needed.

In general, the characteristics of a thriving fishing community that Garibaldi should seek to cultivate that will support overall wealth building include:

- The right balance of a competitive buying environment with a blend of commodity and niche markets for local and regional seafood.
- Infrastructure needed to sustain a competitive local environment.
- Enabling conditions for safe exit/entry to the Port.
- Access to fishery resource for current and future generations.
- Access to business resources and capital.
- Pride and hope in the past and future of the region's fishing industry.
- An active and engaged voice in the management process.
- Engagement and understanding of the ecological changes impacting fisheries.
- Connections to other fishing communities.
- Openness to connections, support and engagement from potential partners.

- Respectfulness across the fleet, cooperation, and willingness to innovate.

The WealthWorks process requires that we ask the following types of questions when seeking to prioritize value chain opportunities:

- What market opportunities exist within the value chain to increase the eight capitals?
- Which will help fishermen and small-fishing businesses earn more income, especially low-income?
- Which will enhance livelihoods for crew?
- What are the specific needs of the target group (small-scale fishermen, crew, small to mid-sized fishing businesses) that have not yet been addressed?
- Which opportunities are at the right scale to be manageable, but large enough to make an impact?
- What are interdependencies with other sectors that may be capitalized on (an asset in this context)?
- Which opportunities will build capacity that can be sustained over the medium and long-term?
- Which opportunities will enhance rather than reduce local control and ownership of assets such as permits and boats?

The chart in Appendix 7.5 offers a tool to help methodically assess the opportunities according to the above factors. The next steps will be for initiative partners to work with fishermen, crew, and seafood businesses to consider the larger capacity building question and work to determine next steps and near-term opportunities to focus on. An infrastructure assessment has been funded and will move ahead to explore infrastructure options that will inform the path forward.

A list of value chain opportunities and potential actions is found below.

Table 3: Garibaldi/Tillamook WealthWorks Seafood Value Chain Opportunity List ([click for link to full chart](#))

Cross-cutting Issue	Key Partners	Recommended Actions
<p>Enabling Environment: Improve cooperation across the industry and boost capacity for seafood value chain efforts</p>	<p>Port, fishermen, City of Garibaldi, local organizations.</p>	<ul style="list-style-type: none"> • Communication & Relationships: Improve communications amongst the Port, other stakeholders, fishermen, and seafood businesses. Take steps to enhance transparency and objectivity in fishing industry matters. Set the bar for high levels of integrity and cooperation across the community. Consider conducting a training with an outside consultant on how to improve in these regards. • Capacity: Consider the need/potential for a new association or organization that provide specific expertise and can support cooperative efforts amongst the fleet and partners, including ongoing seafood value chain efforts.

Opportunities	Key Partners	Recommended Actions
<p>1. Improve seafood industry infrastructure in Garibaldi & Tillamook County</p>	<p>Port, Ecotrust, Food Roots, EDC, Visit Tillamook Coast, local seafood processors and buyers.</p>	<ul style="list-style-type: none"> • RBDG Grant: Carry out USDA funded feasibility assessment to assess the need/potential for ice, cold storage, a fish grinder, and potentially other infrastructure in the Port or County. Closely engage local fishermen and processors in the assessment. Coordinate closely with Food Roots, EDC, and Visit Tillamook Coast on their food hub assessment and Partners for Rural Innovations grant. • Optimize Commercial Slip Space: Take actions to optimize and open up additional space in the harbor for commercial vessels. This issue has come up numerous times in conversations with fishermen. Moving vessels from transient to permanent slips will lower the cost of operating and will help ensure priority of the is given to commercial vessels.
<p>2. Enhance local fisheries access & ownership</p>	<p>EDC, Col-Pac, RDI, SBDC, Port.</p>	<ul style="list-style-type: none"> • Data Management & Communication: <ul style="list-style-type: none"> ○ Build a regional culture around understanding and tracking data on fisheries ownership in the County and the economic performance/impact of fisheries. ○ Engage the EDC (or other partner) to annually track fisheries ownership data; incorporate reporting of the data into Port, County, EDC, Col-Pac and other relevant economic development/planning meetings. ○ Monitor potential management changes that might limit entry into the albacore tuna fishery, as well as any changes in Dungeness crab, and clam fisheries that might impact local fishermen. ○ Develop relationships with fishermen, local fishing organizations, and other organizations/entities working on community fishing access issues. • Support for Fishermen/Aspiring Fishermen: <ul style="list-style-type: none"> ○ Develop Tillamook SBDCs capacity to support fishermen on a path to ownership and diversification. ○ Assess interest in a regional or statewide fishermen’s apprenticeship program. ○ Identify fishermen in the County near retirement age as well a crew wanting to purchase permits, or purchase/upgrade vessels. ○ Consider plans to address the heavy reliance on Dungeness crab. The Maine lobster fishery offers a strong example of both encouraging intergenerational access and diversification. • Permit Bank and/or Financing Mechanisms: Coordinate and develop channels for information sharing with Oregon’s South Coast on efforts to establish a fishery permit bank and explore other permit banks created at the national level. Explore creative financing options to increase fishermen’s access to capital and

		implement a fisheries diversification model. Monitor opportunities for policy/management changes to enhance local access and ownership.
3. Enhance the ability & capacity of fishermen/ seafood businesses to access local small business development and other business support services & connect to capital	SBDC, Food Roots, Ecotrust, Port, RDI, Col-Pac, Business Oregon	<ul style="list-style-type: none"> • Connect Fishermen & Crew with Services: <ul style="list-style-type: none"> ○ Fish Biz Day: Assess the potential impact of a Fish Biz Day, or commercial fishing trade show type event, to serve either as an intermittent or regularly occurring event to connect fishermen with local small business development services and industry service providers. The event could draw fishermen from other communities and enhance Garibaldi's profile in the state as a vital commercial fishing port. ○ 1:1 Support: Work one-on-one with fishermen and crew in need to support to build trusting relationships with local organizations including Tillamook SBDC and Food Roots to become clients and active users of their programs. • Build Capacity of Service Providers: Provide information gathered from Ecotrust's Ag of the Middle Accelerator to Tillamook SBDC that is specifically useful to supporting commercial fishermen. Consider other ways to bolster the capacity of local business support organizations and service providers to support local fishermen. • Loan Program: Examine opportunities and need for loans to upgrade or replace aging vessels and gear. Innovative programs could potentially be developed to repurpose gear for lower-income fishermen and crew, such as crab pots and buoys.
4. Expand connections to new buyers & markets	TwoXSea, Wilder Land and Sea, local harvesters, Garibaldi Cultural Heritage Initiative, Sea Grant.	<ul style="list-style-type: none"> • Food-grade Clams: Identify opportunities and barriers to food-grade clam markets. Draft a project concept that could be submitted for funding. • Black Rockfish: Assess the potential for higher value-niche markets for locally caught black rockfish. Black rockfish is abundant in waters near Garibaldi and is a versatile, flaky white fish that can command significant prices in niche markets that differentiate it based on sustainability and quality. • Shop the Docks: Support, expand, and ensure the sustainability of Shop the Docks as a way to boost off-the-dock sales for fishermen and build connections between the fleet and the public.
5. Promote regional fisheries tourism & increase local purchasing of seafood	VTC, 40+ businesses, and more	<ul style="list-style-type: none"> • Port Signage: Move ahead with and as possible, seek to speed up, next steps on signage in the Port and improvements in the Port and downtown districts. • Shop the Docks: See above

		<ul style="list-style-type: none"> • Support local restaurants in sourcing more local seafood. A model for a successful and highly profitable fish market and restaurant exists in Newport-based “Local Ocean.” • Events: Collaborate with the fleet, VTC, Port, the Garibaldi Tourism Commission and other partners to host events in the region that highlight local seafood. <ul style="list-style-type: none"> ○ Continue to engage the Port, VTC, and a broad array of local partners in promoting local seafood sales events like Shop the Docks and special opportunities to buy local seafood. Tap into the social media capabilities and contact lists to generate a groundswell of interest. Partner with the shellfish industry when possible to increase the diversity of products and consumer appeal.
<p>6. Brand local and regionally caught seafood</p>	<p>Seafood processors/distributors; fishermen; Visit Tillamook Coast</p>	<ul style="list-style-type: none"> • Assess the value of branding efforts to the target audience and how effective such efforts might be given predominant sales channels and the presence of the Dungeness and Albacore commissions and related marketing efforts like AAFA. • Continue efforts of VTC like those mentioned above to create an awareness of Garibaldi and Tillamook as an Oregon coast seafood hotspot. • Make the photography, video and other assets VTC has developed on the seafood industry available to local fishermen and businesses if they are not already.
<p>7. Composting of fish waste (or other fish waste solutions).</p>	<p>CARTM, local farmers, BioGas Corp.</p>	<ul style="list-style-type: none"> • Clarify options and what resources would be required to advance fish waste solutions: <ul style="list-style-type: none"> ○ Option 1 - Composting - coordinate with Nehalem farmer, Jared Gardner. ○ Option 2 - Understand options for use in the Tillamook digester with Tillamook Solid Waste & other stakeholders including Tillamook Creamery.

7. Appendices

7.1 Inventory of Seafood Value Chain Actors & Potential Partners

Support Partners

Policy & Regulation

Pacific Fishery Management Council - The Pacific Fishery Management Council is one of eight regional fishery management councils in the United States. With jurisdiction over the 317,690 square mile exclusive economic zone (EEZ) off Washington, Oregon and California. The EEZ extends from the 3 miles off the shoreline to 200 nautical miles at sea. The Council manages fisheries for about 119 species of salmon, groundfish, coastal pelagic species, and highly migratory species. The Council is also active in international fishery management organizations. The Pacific Fishery Management Council is made up of 14 voting representatives from Oregon, Washington, California, and Idaho; many advisory bodies; and 16 staff members located in Portland, Oregon.⁵²

Oregon Department of Fish and Wildlife (ODFW), Fish Division and Marine Resource Program - ODFW is charged by statute to protect and propagate fish in the state. These mandated responsibilities are carried out through ODFW's Fish Division. This includes direct responsibility for regulating harvest of fish, protection of fish, enhancement of fish populations through habitat improvement, and the rearing and release of fish into public waters. The Marine Resources Program (MRP) falls within the Fish Division and is ODFW's home for management of fish and wildlife species and habitats in the ocean, bays, and estuaries. MRP staff are responsible for the monitoring, sampling, research and management of commercial and sport marine fisheries and associated marine habitats. In addition to fisheries-focused work, MRP is engaged in a wide variety of research, management and policy actions about all aspects of ocean use and conservation.⁵³ The authority of ODFW's management extends throughout Oregon's territorial sea. Oregon's territorial sea is a three-mile-wide strip of ocean under state jurisdiction that reaches from the shoreline out to sea. In addition to implementing the states regulations for acceptable fishing practices and catch limits within Oregon territorial sea boundaries, ODFW works to ensure all federally mandated regulations for fishing practices, species, and catch limits are managed are enforced in accordance with federal law.

Oregon Department of Agriculture (ODA) - ODA's mission is to ensure healthy natural resources, environment, and economy for Oregonians now and in the future through inspection and certification, regulation, and promotion of agriculture and food. ODA is home to a variety of programs that regulate when seafood (including aquaculture products) can and cannot be consumed, where and how seafood is purchased, how seafood is handled and grown, and provide marketing and resource support.

Oregon Department of Environmental Quality (DEQ) - DEQ's mission is to be a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.⁵⁴ DEQ has an extensive array

⁵² "Who We Are and What We Do." *Pacific Fishery Management Council*, www.pcouncil.org/.

⁵³ "The Marine Resources Program." *Oregon Department of Fish and Wildlife*, www.dfw.state.or.us/mrp/.

⁵⁴ "Department of Environmental Quality." *Oregon.gov*, www.oregon.gov/deq/Pages/index.aspx.

programs that range from loan and grant programs, to mapping programs, to certification and regulatory programs. Some certification and regulatory program areas that affect resources and partners in the seafood value chain include ballast water management, removal and fill certifications for submerged lands, wastewater discharge, non-point source pollution, and water quality monitoring.

Department of State Lands (DSL) - The mission of the Department of State Lands is to ensure a legacy for Oregonians and their public schools through sound stewardship of lands, wetlands, waterways, unclaimed property, estates, the Common School Fund⁵⁵, and publicly owned submerged and submersible land (rivers beds, lake bed, and seafloor of territorial sea). DSL works with the public, ODA, ODFW, and other entities regarding projects such as sediment Removal-Fill, leasing of lands for aquaculture activities, and much more.

Pacific States Marine Fisheries Commission (PSMFC) - PSMFC's primary goal is to promote and support policies and actions to conserve, develop, and manage our fishery resources in California, Oregon, Washington, Idaho and Alaska. We accomplish this through coordinating research activities, monitoring fishing activities, and facilitating a wide variety of projects. They collect data and maintain databases on salmon, steelhead, and other marine fish for fishery managers and the fishing industry.

Oregon Coastal Zone Management Association (OCZMA) - OCZMA unites local government and elected and appointed officials on the Oregon Coast. Through OCZMA, local government officials: advocate with a collective voice on coastal policy, exchange ideas and build new leadership skills, pursue transformational and cost-effective solutions, enrich the public's understanding of local government, and exercise exemplary leadership in public service. The Garibaldi fishing fleet has representation in this association.

American Albacore Fishing Association (AAFA) - AAFA is a non-profit organization representing commercial pole & line vessels. AAFA seeks to ensure responsible fishery management practices and the participation of vital fishing communities. They support education regarding responsible fishing methods and promote the health benefits of tuna consumption along with environmental benefits of sustainable fishery practices. AAFA strives to ensure the economic viability of pole & line fisheries now and into the future. Garibaldi is one of their 9 unloading stations, supported by both Tillamook Bay Seafoods and Fish People. AAFA secures prices of Tuna with its buyers, before the season has started, thereby creating a sort of grantee for its fishermen and making them less susceptible to shifts in pricing over the season. Members of the Garibaldi fleet serve as members of AAFA and on its board of directors.

Oregon Salmon Commission – The Oregon Salmon Commission was established by an act of the Oregon Legislature in 1983. It is an industry-funded agency that operates under the umbrella of the Oregon Department of Agriculture's Commodity Commission Program. This commission focuses most of its resources on engaging with policies that affect the fishery.

Pacific City Dorymen's Association (PCDA) – PCDA is a trade association serving dory fishermen of Pacific City to ensure the continued existence of dory activity from Cape Kiwanda.

⁵⁵ "About the Agency." *Oregon.gov*, www.oregon.gov/dsl/About/Pages/AboutAgency.aspx.

West Coast Seafood Processors Association (WCSPA) – WCSPA is a trade association serving mostly large-scale processors in Oregon, Washington and California focusing its work on fisheries policy and regulations.

Fisherman's Advisory Committee of Tillamook (FACT) - They are a 26-member committee designed to advise county commissioners on all matters affecting the ocean industry. It is composed of commercial, charter, and sport fishermen, processors, and two public at large committee members.

Financing

Economic Development Council, Tillamook County (EDCTC) - EDCTC was formed in 1995 because of an intergovernmental agreement (IGA) between Tillamook County, the cities and ports in Tillamook County (including the Port of Garibaldi), and others with the intent to improve the standard of living in Tillamook County through the development of family wage jobs. EDCTC helps provide, Information on tax incentives that may be available for business expansion, Assistance in locating a variety of available financing options including the EDCTC Revolving Loan Fund, Assistance to businesses interested in relocating to Tillamook County, Assistance with Oregon Enterprise Zone applications

Northwest Farm Credit Services - Often referred to as Northwest FCS, they are a financial cooperative providing financing and related services to farmers, ranchers, agribusinesses, commercial fishermen, timber producers, rural homeowners and crop insurance customers in Montana, Idaho, Oregon, Washington and Alaska. Northwest FCS is a member of the Farm Credit System that supports agriculture and rural communities with reliable, consistent credit and financial services. From their offices in Seattle, they serve all major fisheries of the West Coast and Alaska.

Craft3 – The Craft3 team believes businesses improve the resilience of our region by creating jobs, attracting new revenues, providing essential products and services, and much more. Craft3 provides loans to finance businesses including those in start-up and expansion phases. Our loans range in complexity and size, from \$25,000 to \$5 million. Whatever your goal for financing, Craft3 will work to find you the best loan for your enterprise. Based out of Astoria, craft 3 lends in amounts from \$25,000 to \$5 million at rates 7% to 12% with 2% loan fee + legal and closing costs and terms 3 to 7 years.

Mercy Corps - This non-profit organization does create tailored loan products. Products for fishermen has been discussed in the past. They may be an option for delivering some financial support in the future.

Local Institutions – Often personal relationships built with local lenders and financial institutions can yield positive results and competitive loan options. Columbia Bank, Umpqua Bank, U.S. Bank, Wells Fargo Bank, TLC (a division of Fiber Federal Credit Union) are all local institutions, with branch stores found in the City of Tillamook.

Technical Assistance

Tillamook Small Business Development Center - Tillamook SBDC, hosted in Tillamook Bay Community College, serves all variety of businesses, from small commercial anglers to restaurateurs to convenience store operators. They offer free, confidential, one-on-one advising for businesses in any phase of development. Their business development workshops allow clients to interact with each other and explore common areas of need. They are currently working with fish buyers, fishermen, and charter fishing businesses working at the Port of Garibaldi.

Oregon Sea Grant (OSG) – OSG applies science to important ocean and coastal issues and engages with coastal stakeholders to help them reach informed decisions. They support scientific innovation, encourage ocean science literacy among people of all ages. Programs to study the effect of forest pesticides on shellfish, develop aquaculture techniques, and implement programs such as “Shop the Docks” (piloted at the Port of Garibaldi in 2018), are a just a few examples of the way Oregon Sea Grant supports coastal communities and the natural resources they depend on.

Food Roots - Food Roots exists to grow a more robust food system on the north Oregon coast by engaging the community, supporting farmers and entrepreneurs, and improving access to local food. They provide north coast food system entrepreneurs with training, technical assistance, asset building opportunities and referral/connection services. Food Roots focuses on connecting kids and the community to local healthy food through a variety of programs and acting as the Oregon Farm to School Regional Hub in Tillamook County.

Tillamook Food Bank - One of Oregon Food Bank’s place-based locations, Tillamook County Services distributes food to 30 hunger-relief agencies and programs throughout the county. In addition to providing food, Oregon Food Bank – Tillamook County Services offers partner agencies technical and financial support and provides SNAP (food stamp) and nutrition outreach.

Rural Development Initiatives (RDI) - **RDI** strengthens rural people, places, and economies in the Pacific Northwest through a variety of project areas. Areas of focus for RDI include, rural economic vitality, leadership development, and community development. RDI serves as a “Wealth Works Hub” for the Pacific Northwest and California and is currently active in Garibaldi through this program.

Columbia-Pacific Economic Development Council (Col-Pac) - Col-Pac is a private non-profit organization established to assist in diversifying and strengthening the economy and livability of Northwest Oregon. The District covers all of Clatsop, Columbia, and Tillamook counties and the western part of Washington County. Col-Pac provides capacity building, coordination and establishment of basic economic development foundation building tools for NW Oregon through services such as regional planning, capacity building through technical assistance, infrastructure assistance, capital access, industrial and commercial site development, intergovernmental coordination, economic development advocacy, and more. Col-Pac is active in supporting the Port of Garibaldi and others on several local initiatives.

Market Development

Visit Tillamook Coast - Also known as “Visit Tillamook”, they’re a destination marketing organization that focuses on curating visitor experiences and promoting sustainable tourism opportunities throughout the county. Visit Tillamook engages the local seafood industry through creating awareness of local seafood businesses along the value chain. Activities include throwing events, such as “Crave the Coast”, developing the North Coast Food Trail, writing numerous pieces through blogs and online articles that highlight the local bounty of the sea and how/where people can enjoy it, recipe to market programs, trainings on marketing through social media, and more. Other initiatives include assessing the possibilities and utility of a Tillamook food hub and regional branding for food products.

Oregon Albacore Commission (OAC) – OAC was formed by an act of the Oregon Legislature in October 1999 and is a part of the ODA’s Commodity Commission Program. The focus on marketing and education. Some initiatives of the commission include a fresh-frozen sensory testing study, piloting a “boat to school” program, brochures, videos, and scholarships for students. Currently, a member of the garibaldi fishing fleet is seated as a commissioner.

Oregon Coast Visitors Association (OCVA) – OCVA is a recognized Regional Destination Marketing Association providing marketing and tourism industry support for all 363 miles of the Oregon Coast. They actively support the development of tourism support resources and programs. OCVA is actively supporting shop the docks through grant funding.

Food Innovation Center, OSU (FIC) – The FIC is a unique urban Agricultural Experiment Station located in Portland, Oregon. As part of Oregon State University, the FIC serves the Northwest food industry and communities. The FIC has three areas of focus: a product and process development team to help new and established entrepreneurs bring products to market; a full-service consumer sensory testing laboratory; and a food safety hub for education and testing.

Astoria Seafood Lab, OSU - The mission of the OSU Seafood Lab is to improve seafood through: Research and Development, Extension Service to both the Fishing and Seafood Processing Industry, Graduate Student Research, Training and Instruction. Offerings include workshops such as, “The Better Seafood Processing School” and the “Seafood Wastewater Workshop”, pilot facilities for research projects, product development, shelf-life studies and more.

Oregon Tourism Commission (DBA, Travel Oregon) – Travel Oregon serves a public facing international marketing organization, as well as an industry support provider to help develop the capacity of destination marketing organizations, business, and individuals engaged with visitors to the State of Oregon. Travel Oregon provides regular grants to the travel industry through its competitive grant programs, and regional capacity building through its tourism studio offerings. In 2018 -19, Travel Oregon is conducting a series of workshops in the Tillamook and Clatsop County area for its “North Coast Tourism Studio”. they have interest in supporting development of food systems infrastructure, like a food hub, processing center, or other facility with some limited funding. They would be interested in acting as a co-founder, as they have limited resources for supporting this type of project. The project would need to demonstrate a strong connection to enhancing visitor experience and connection to local food systems. This type of project would be outside of the competitive grants programs and require a separate side conversation.

Transactional Partners

Suppliers

Whiskey Creek Oyster Farm - Netarts Bay, OR is home to the Whiskey Creek shellfish hatchery, the largest shellfish hatchery in the U.S. Whiskey Creek provides oyster, clam, and mussel seed for commercial as well as restoration efforts. They have also been at the forefront of ocean acidification research and adaptation.⁵⁶

Crab Bait Suppliers – Locally, crab bait comes from a variety of locations and is exchanged through many of the local businesses. Fish carcasses become available as a byproduct from commercial and charter fishing operations. These carcasses are exchanged among businesses on the dock and then provided to

⁵⁶ Pacific Shellfish Institute. “Oregon.” *The Pacific Shellfish Institute | Oregon*, www.pacshell.org/oregon.asp.

fishermen or supplied directly to the fishermen themselves. This resource supports both commercial and recreational fishing. The second locally available source come from the wild clam fishermen who dive in Tillamook and Netarts bays to harvest this abundant resource. During the height of the crabbing season, usually December – February, local sources of bait cannot meet the demand. Fishermen source from around the Pacific Northwest and often, they must go pick up the bait and drive it back to Garibaldi. Through interviews and informal conversations, fishermen have expressed that “good” crab bait (clams), is becoming more expensive, while altogether finding crab bait has become more challenging. Fishermen have also shown a desire to have cold storage to hold bait to reduce the logistical challenges of finding bait during the busiest months of crabbing. Typical types of crab bait, the most widely used, include fish carcasses, clams, and mink. Other crab bait includes things like chicken, turkey, and other fleshy meat products.

Tuna Bait Suppliers – Tuna bait comes as a live or dead product. Forage fish, usually anchovies, are used to “chum” the water and attract the tuna to fishermen’s waiting hooks. No live bait is available in Garibaldi or other Oregon ports. The nearest location for commercial live bait is in Westport, WA. Frozen anchovies and other frozen bait products can be purchased from a wide variety of grocery stores, tackle shops, sporting goods stores, and marine suppliers. However, interviews with local garibaldi fishermen and conversations with other tuna fishermen have revealed the live bait is a much superior product and is a necessity for many commercial fishermen. A walk on the docks in garibaldi revealed that there were at least 3 fishing vessels moored in local slips designed to hold live bait. During interviews, one commercial fisherman suggested that if Garibaldi were to have a live bait operation that it would be very helpful and bring in fishermen from other ports.

Marine Fishing Suppliers – There are no actual marine suppliers in Garibaldi or elsewhere in Tillamook County. Fishermen must travel to Astoria, Portland, Newport to find a marine supply store, such as Englund Marine (Portland and Newport). Fishermen can ship and order some supplied through a variety of sources online or over the phone.

Fuel - Fuel is available at Garibaldi Landing and delivered by truck upon request. The stationary fuel pump is located on a floating dock on north side of the harbor at the Port of Garibaldi. While the pump does provide needed fuel on a regular basis, through observations, interviews and conversations, it has become apparent this fuel source does have issues going out of commission from time to time due to various mechanical issues. As well, the north side of the harbor is the shallow side of the harbor. At lower tides, some boats cannot access the pump, while boats with deeper a draft may not be accessing the pump at all, regardless of the tide. Fuel is also delivered to Garibaldi and trucked in upon request of the fishermen. While this does provide a nice alternative should boats not have access to fuel provided at Garibaldi Landing, issues arise with scheduling deliveries. Fishermen will collaborate and request the truck to make a delivery to fuel-up their boats. However, at times not all boat captains are aware a delivery has been scheduled or they may not be available at the time of fuel delivery. This can leave some captains in pinch when planning their next trip at sea. During interviews, it was suggested that maybe a pump be put somewhere along the south end of the dock, where the water is deeper, so all boats have fair and more reliable access to fuel.

Ice – Ice is supplied by both Deepwater Seafoods and Garibaldi Landing. Deepwater Seafoods orders totes of ice from Pacific Coast Seafoods in Astoria, Or. Some ice is provided to the fishermen, the rest of ice is reserved for use at the dock after product is landed and transferred from the boat. Ice is limited to cold storage availability, truck size, and frequency of deliveries. Garibaldi Landing has an ice machine at the dock. From interviews with local stakeholders it was revealed that this ice machine does not always

work, quality of the ice can be below expectations, and the ice cannot be easily transferred from the machine to a boat, as it must be dug out by shovel and loaded into containers to be hoisted down to awaiting vessels. The general consensus amongst stakeholders was that accessing ice is cumbersome and not always reliable. Looking at survey results from a survey conducted during a “Commercial Fisherman Appreciation BBQ” on Nov. 3, 2018, out of 20 fishing industry respondents, 12 listed access to ice as a priority. Some fishing vessels have been outfitted with cold storage or freezer storage on their boat, thereby foregoing the need to rely on ice for each trip at sea.

Producers

Garibaldi Fishing Fleet - The Garibaldi fishing fleet is made up of 50+ fishing vessels in various states of activity from fishing a variety of fisheries around the year to being completely inactive. Boats range in size from smaller dory boats of about 20 ft. in length to larger tuna fishing vessels reaching up to 60 – 70 ft. long. Garibaldi residents own 27 boats with commercial fishing licenses, 6 of which include Albacore Tuna Landing Licenses. In Tillamook County, 67 residents own fishing licenses, 12 include Albacore Tuna Landing Licenses.⁵⁷

CS Fishery – This is a vertically integrated fishing business with a variety of market options. The business catches some products and purchases others. Crab, tuna, and rockfish are the businesses main staples. While the business has morphed and changed over the years, currently they sell direct to consumers via a cafe/restaurant “Sourced” and through food trucks servicing local farmers markets and at the Oregon Zoo. Product is also sold through wholesale channels with local and regional restaurants and markets, such as New Seasons. Canned tuna is a value-add product of the company.

Blue Siren Fisheries – They are a single boat operation that supplies clams, crab, and lingcod directly to local and regional restaurants, as well as through wholesale channels with TwoXSea. They currently do not process product.

Pacific Oyster & The Bay City Fish Peddler (Pacific Seafood) - This an oyster farm operation and seafood retail location in Bay City, Or. Pacific Seafoods Company owner of this business and it a part of the shellfish holdings portfolio. Pacific Seafoods owns 3 other oyster and shellfish operations in WA, CA, and HI. and Oysters are grown and harvested in Tillamook Bay and processed at this location. Visitors can order and enjoy a hot meal of Pacific Seafood products or order product form the cold case. This facility enables visitors to watch workers process oyster through observation windows, while they dine. The Oregon Department of Agriculture has suggested that this is one of the largest oyster farming operations on the west coast of the United States.

Nevor Shellfish Farm, Netarts Bay Kumamoto Farm, JAndy Oyster Company – These are three oyster farms located on Netarts Bay. Their oysters can be found at local and regional restaurants. The Spot in Garibaldi, Cape Kiwanda Marketplace in Pacific City, and Olympia Oyster Bar in Portland are a few examples. Nevor Shellfish Farm and JAndy Oyster Company have local storefront locations where raw product can be purchased and taken home.

⁵⁷ “Commercial boat licenses.” Oregon Department of Fish and Wildlife , 2018.

Processors

Pacific Seafood – They are one of the largest vertically integrated seafood processors and distributors in North America. They own Pacific Oyster/The Fish Peddler and have Deepwater Seafood in Garibaldi as their own personal buyer on the dock. Product is shipped regionally, nationally, and internationally through a variety of wholesale channels such as Kroger and its subsidiary stores.

Garibaldi Landing – Garibaldi Landing is a buyer/processor that has recently merged with Fish People. It has an affiliate buyer station in Ilwaco, WA, “Ilwaco Landing”. Fish People is a relative newcomer to the fish buyer/processor/distributor scene. Fish people is a certified B-corporation and purchases product from locations in Oregon, Washington, and Alaska. They bring sustainability values and traceable fish technology to the consumer. Products include whole fish, fish fillets, and value-added seafood soup pouches. Garibaldi landing hosts a store front for consumers to buy directly from the docks.

The Spot/The Blade – This is a local fish retail store where customers can buy fish fillets, shrimp, oysters, crab and more, off the dock. They provide process/filleting services for charter businesses and others. The store is owned by a local fisherman.

Co-Packing Facilities – They do not exist in Garibaldi; however, Oregon Seafoods/Sea Fare Pacific in Coos Bay will provide co packing services for canning and retort pouch processing of salmon, tuna, and other species. Otto’s Smokehouse in Portland will smoke fish for other fishing businesses.

Aggregators

Tillamook Bay Seafoods - This is a new startup company with newly established facilities at the Port of Tillamook. One of the company's primary motivations is to allow for freer flow of product across the docks. The company provides solutions for fishermen and buyers through providing warehousing and storage. They are also active in commercial clam harvesting and are interested in getting more product moved to human consumption markets.

The Redd on Salmon Street (Portland) - The Redd is a last-mile food hub in Central Eastside of Portland. This facility provides critical infrastructure—helping food entrepreneurs grow their business through scale-appropriate solutions for warehousing, storage, distribution, logistics, processing, and business development support.

Distributors

TwoXSea - Is a boat to restaurant distributor. They purchase directly from the fisherman, or as close as they can get, and distribute to restaurants in Portland and San Francisco. They are leaders for sustainability in the seafood distribution world. TwoXSea does purchase from at least one fishing business in Garibaldi, however there are opportunities to grow connections should more interest develop.

Wilder Land and Sea - Wilder is a direct competitor with TwoXSea, in that they also purchase directly from fishermen, as well as a variety of other sources, and sell to restaurants in Portland. Wilder Land and Sea is also purchasing from at least one fishing business in Garibaldi. Again, opportunities exist to grow connections between fishermen and Wilder Land and Sea.

Other distributor/buyers - These are buyers who arrive by truck purchasing directly from fishermen in Tillamook, sometimes working with Tillamook Bay Seafood to aggregate and hold product, and they include Oregon Fish Co., Oceanic Logistics, Ocean Gate International.

Tillamook Creamery and Jacobsen Sea Salt - Though they do not currently distribute any seafood products, opportunities may exist to collaborate with one or both companies on the distribution of products to Portland and beyond, should more producers be inclined to create their own customer base and take on the logistical challenge of distribution.

Demand Partners

Restaurants

Seafood landed in Garibaldi is in demand by local and regional restaurants.

Local Restaurants – Locally there is a contingent of restaurants that are known to serve oysters, crab, tuna, rockfish, Lingcod and salmon and more. Some local restaurants serving local seafood include Schooners, CS Fishery (Fish Taco Truck & Source), Sea Baron (Seafood Truck), Salmonberry Saloon, Offshore Grill, and the Portside Bistro.

Regional Restaurants – Mostly located in the Portland Metropolitan area, the restaurants are known to serve clams, crab, oysters, tuna, rockfish, salmon, and lingcod. Some restaurants serving Tillamook products include Olympic Provisions, Toro Bravo (and their sister stores), Renata, Zilla Sake House, St. Jack, and Bar Casa Vale.

Retail - Retail outlets such as seafood markets and grocery stores serve a large variety of fresh, frozen, farmed, wild caught, foreign and domestic species of seafood. Seafood sourced from Garibaldi is known to be sold through New Seasons (Green Wheels Program), Flying Fish Co., and the Portland Fish Market. Other known markets that may be selling seafood landed in Tillamook, or will be likely to do so, are Newman's Fish Company, and ABC Seafood Market.

Consumers - Consumers may purchase food directly from the docs and bays in Tillamook through Farmers Markets. It is not known that any local businesses sell product through a community supported fishery or buyer club format.

Other Areas of Demand include:

Farm to School - The 4 school districts in Garibaldi all qualify as “high need” (generally considered over 40% of students on free and reduced lunches.⁵⁸ While two schools are currently enrolled in Farm to School programming. Food Roots is the Regional Procurement Hub for Tillamook area school districts engaged in Farm to School. Current uses for farm to school funding is used for breakfast, lunch, and snack items. Milk, vegetables, and apples were the most commonly purchased items.⁵⁹ Successful “Bay

⁵⁸ *Students Eligible for Free/Reduced Lunch.*

<https://www.ode.state.or.us/sfda/reports/r0061Select2.asp>.

⁵⁹ "TILLAMOOK SD." The Farm to School Census. Accessed December 10, 2018.

<https://farmtoschoolcensus.fns.usda.gov/find-your-school-district/oregon/tillamook-sd>.

to Trey” programs have been implemented in the past with by the Tuna Albacore Commission and could be replicated.

Institutional Buyers - While institutional buyers (school districts, universities, assisted living facilities, juvenile detention centers, hospitals, corporate cafeterias, etc.) do have interest in purchasing local seafood products, the major challenges come from meeting demand volumes and price points. Often these buyers need high volume, reliable supply, with lower price points, which do not currently meet the needs or business models of local fishers looking to develop their businesses. Should this become of interest, connecting with the NW Food Buyers Alliance, and Health Care Without Harm will be important places to start.

7.2 Potential Funding Sources:

Potential funding sources to support project initiatives along the seafood value chain, include:

- USDA Rural Business Development Grants
- USDA Local Foods Promotion Program
- USDA Value Added Producer Grant
- USDA REAP Program
- National Fish and Wildlife Foundation, Fisheries Innovation Fund
- Mayor’s Community WINS grant
- Meyer Memorial Trust
- [Oregon Department of Environmental Quality’s Materials Management Program](#)
- Travel Oregon
- Visit Tillamook Coast
- Oregon Coast Visitors Association
- Ben and Jerry’s
- Cliff Bar

7.3 Tillamook Bay Oyster Plats



7.5 WealthWorks Recommended Tool for Comparing Opportunities

Comparing Opportunities				
	Criteria	High	Medium	Low
Relevance to Target Group	Number of people in the target group with the potential to be active in the sector/ value chain			
	Potential for target group to own business			
Wealth Building Potential	Market demand with potential for growth			
	# of new jobs or businesses that can be created			
	Potential to increase ownership or control over local assets			
	Potential to build multiple forms of community wealth			
Feasibility	Demand partners identified			
	Willingness of market players to adopt new practices			
	Prospects for attracting new investment			