To revitalize the local commercial fishery, so integral to Morro Bay and Port San Luis, by uniting and harnessing the resources of fishermen, local jurisdictions, conservation groups, education and research organizations, and local businesses.
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EXECUTIVE SUMMARY

Section 1

While global and national demand for seafood is steadily rising, Morro Bay and Port San Luis have experienced a sharp drop in landings, processor flight, and declining port infrastructure primarily due to:

- Reduced access to fish stocks over the past two decades due to intense and often overlapping regulation of the rockfish fisheries,
- Unpredictable and inconsistent markets,
- The cyclical nature of high-value (salmon, albacore, swordfish) and high-volume species (sardines, squid, makerel), and
- Declines in overall fish stock.

The decline in activity at San Luis Obispo County ports is precipitous. In 1985, approximately 15 million pounds were landed. In 2006, landings had dropped to 1.2 million pounds. Over the same time period, earnings at the dock for fishermen (ex-vessel value) have dropped from a high of $19 million (annually) to approximately $2.9 million in 2006. Drops of this magnitude have caused the City of Morro Bay and the Port San Luis Harbor District to dedicate significant public resources to support commercial fishing.

Local leaders have undertaken several projects to improve landings, support the working waterfront and capitalize on growing consumer interest and demand for local seafood. Some of the most notable include the California Coastal Conservancy funded Morro Bay/Port San Luis Commercial Fisheries Business Plan (this document) and other collaborative efforts among State and Federal agencies, fishermen, local entities, and nonprofit organizations. Through
the Conservation Fishing Agreement (CFA) and Exempted Fishing Permit (EFP), the Morro Bay/Port San Luis fisheries have employed innovation by collaborating with conservation groups to achieve greater access to the resource, as well as, prepare for regional management. Fishery managers in Morro Bay and Port San Luis have been working hard to move past the "us versus them" debate and are focused on creating value and stability.

The Commercial Fisheries Business Plan positions the fishery for further funding and collaboration by shaping a comprehensive strategy with specific goals, recommended actions, priorities, opportunities, human resource needs and responsibilities, cost estimates, and funding options. The Plan also represents consensus among a diverse group of stakeholders (fishermen, harbor administrators, resource agencies, and conservation groups).

The U.S. seafood consumer is increasingly aware of marine environmental issues and appears motivated to participate in a solution. The Morro Bay/Port San Luis fleet represents a model that places a high value on habitat and future fish stocks. The fleet operates in one of the most highly regulated fisheries in the world and has partnered with NGOs and Federal regulators to set aside millions of acres of ocean habitat and to capitalize on using more targeted gear types. The concept of California-caught and Central Coast-caught sustainable seafood could appeal to millions of potential consumers.

This is an opportune time in the Pacific fisheries. Groups and programs like the Ocean Protection Council, California Fisheries Fund, California Coastal Conservancy, Sea Grant, Moore Foundation, Resource Legacy Fishery Fund, and others have made grant money available for fisheries to improve infrastructure, fund management entities, and spur innovation. Today, the Morro Bay/Port San Luis fisheries are in a position to take advantage of this attention and create a more stable and valuable fishery. Recent years have been a time of distress in the fishing business, yet today is a time of opportunity.
The California Coastal Conservancy (CCC) provided a grant to the City of Morro Bay to fund the *Conserving the Working Waterfront and Ocean Habitats: Morro Bay and Port San Luis Harbors* project with the goal of harmonizing ocean conservation with commercial fishing and working waterfronts. The project serves to implement the Ocean Protection Council strategic plan objectives of establishing ecologically and economically sustainable fisheries and supporting the market-based fisheries management approach.

The *Conserving the Working Waterfront and Ocean Habitats* project cites: 1) Business Planning, 2) a Marketing and Communications Plan, and 3) a Conservation-Based Fishing Agreement as its major components. The CCC and project leaders anticipate that a solid business plan will provide a framework and recommendations to enable the fisheries to increase revenue while attaining conservation goals. It is also expected that these activities will help secure investments from other funding sources. The goal is a sustainable fishery that will generate investment for port infrastructure improvements, acquisition of fishing quota, and improved and expanded monitoring and reporting capabilities as well as attract new participants to the industry.

The City of Morro Bay Harbor Department serves as the grant administrator. Rick Algert, the Department’s Director coordinated completion of all tasks in consultation with the Port San Luis Harbor District Director, Steve McGrath, and Interim Director, Kirk Sturm.
Lisa Wise Consulting (LWC) was named as the lead consultant to prepare the business plan. Lisa Wise, the firm’s Principal, has worked with the Coastal Conservancy on numerous projects and in 2004 conducted a feasibility study to assess the creation of a commercial fisheries cooperative in Morro Bay. LWC’s Working Waterfronts/Sustainable Fisheries Project Director, Henry Pontarelli, also a Principal, brings more than 18 years of sales, distribution and business planning experience to the project.

The strategic planning process also capitalizes on previous CCC investments in Morro Bay and Port San Luis, including a state-of-the-art ice facility, a waterfront boardwalk, reconstruction and repair of dock structures, a fire suppression system, Port San Luis Master Plan, improved access, and extensive infrastructure analysis.
The Morro Bay/Port San Luis Commercial Fisheries Business Plan is part of a collaborative effort intended to guide and enable the local fishery to take advantage of increased awareness and demand for locally caught and sustainably caught seafood as well as prepare for community-based, limited access quota management protocol as envisioned in the Magnuson Stevens Act. It is the intention of this exercise to give the fisheries managers and fishermen a comprehensive view of opportunities and barriers and their potential economic impacts on the local industry.

3.1 GOAL

The goal of the Business Plan is to preserve and encourage the economic viability of the commercial fisheries in Morro Bay and Port San Luis by identifying market opportunities and developing and improving facilities and services that support the needs of commercial fisherman in a manner that provides commercial benefit to the region, preserves and enhances the cultural heritage, and focuses on environmental stewardship. As such, the Plan aims to guide local fishery managers to fulfill the tenets of the California Coastal Act by protecting and upgrading facilities related to commercial fishing and recognizing and protecting the economic importance of fishing activities.

3.2 PROCESS

Information for the Business Plan was gathered from: (1) interviews with fishermen, port operations and management personnel, and fisheries dependent business owners; (2) extensive review of California Department of Fish and Game (CDF&G), Pacific States Marine Fisheries
Commission (PSFMC), and Pacific Fisheries Information Network (PacFIN) data; (3) regulations and their impacts; (4) surveys of fish buyers, processors, retailers, chefs and restaurant owners; (5) site visits and careful consideration of value-added services, their costs, and potential benefits; (6) related literature and published documents; (7) evaluation of potential funding sources; (8) evaluation of potential management entities; and (9) meetings and public outreach.

The following are major topics addressed in the Business Plan:

- Overview of the local commercial fishery, history of regulations and their impacts, and market forces and their effect.

- An analysis of landing data by weight, value, and species over time.

- Inventory of existing fishing related infrastructure and estimated operating, upgrade, and improvement costs.

- A market/demand analysis and critical consideration of distribution channels, including a marketing and communications strategy.

- Summary of potential capitalization strategies and appropriate funding sources.

- A brief analysis of borrowing capacity.

- A description of operations and management entities to lead the fisheries.

- Recommendations on marketing, sales, infrastructure improvements and efficiencies, capitalization strategies, and management structure.

### 3.3 Audience

This document’s primary intended audience is Morro Bay and Port San Luis commercial fisheries manager(s) and funding sources such as: California Fisheries Revolving Loan Fund, State Coastal Conservancy, Central Coast Joint Cable/Fisheries Liaison Committee, NGOs, private lenders, and other financial institutions. The document is also targeted at agencies such as the California Department of Fish and Game, Fish and Game Commission, and the Pacific Fisheries Management Council, as well as non-governmental conservation organizations that wish to participate in ocean conservation and sustainable fisheries. Lastly, this document recognizes the Morro Bay and Port San Luis commercial fishermen as a key audience whose approval and acceptance is a prerequisite for the success of the recommendations made herein.
Section 4 provides an overview and economic profile of the Morro Bay and Port San Luis commercial fisheries. This broad perspective provides a primer for the more detailed analysis in following sections and contributes to a “complete” picture from which sound recommendations can be made. The Industry Profile offers an outline of past and current efforts of fishery managers, investors, and legislators aimed to support commercial fishing. Many of these efforts have played a critical role in maintaining the industry despite its recent decline.

Some of the information is offered in timeline form and calls attention to the influences of the trawl fleet and the forces that attracted processors to the area as well as the costs and market influences that caused them to close on the Embarcadero and Harford Pier.

4.1 San Luis Obispo County

Morro Bay and the Avila Valley have been home to fishermen for thousands of years. Huge middens are ubiquitous and shell fragments become exposed above the sand in Los Osos, Morro Bay, and Avila Beach. Recent excavations at the San Luis Bay Inn reveal occupation by early Americans dating back more than 5,000 years.

Today, commercial fishing is an important source of revenue and employment for San Luis Obispo County. San Luis Obispo County has three commercial fishing harbors: Port San Luis, Morro Bay, and San Simeon. Port San Luis and Morro Bay harbors provide docking, mooring, offloading, ice, fuel, and support facilities, while San Simeon functions as a marginal shelter during adverse weather conditions. (As such, San Simeon is not covered in this report.)
However, like other California ports, landings in San Luis Obispo County have dropped from a high of 15 million pounds in 1985 to 1.2 million pounds in 2006. In the early and late 1980s, ex vessel value (EVV)\(^1\) ranged from $12 million to $19 million (adjusted for inflation to 2006 dollars). In 2006, the EVV of County landings was slightly more than $2.9 million. Note: The California Department of Fish and Game will release 2007 landing data in July/August 2008.

The extreme cutbacks in groundfish quotas, gear and spatial closures, catch limits, rising costs, and a network of marine preserves have contributed to a significant downsizing of the fleets and steady declines in fisheries and waterfront-based incomes. While trawler landings have been in decline in SLO County since 1990 (figure 6.8 and 6.9), the 2005 TNC trawler buyback also contributed to the loss of landings and fishery-related waterfront activity. The general downturn in the fishing industry has led to the disuse of dock infrastructure and contributed to the loss of local commercial fish processing.

The City of Morro Bay, Port San Luis, and the fishing community have recently undertaken an innovative and visionary approach to revitalizing the fisheries by teaming with environmental organizations (Environmental Defense and The Nature Conservancy) and the California Department of Fish and Game to gain greater access to fish stocks. Environmental Defense is leading efforts to transition U.S. fisheries to

\(^1\) EVV is calculated on price paid to fishermen at the dock.

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**THE TRAWLER INDUSTRY: IMPACTS AND INFLUENCES**

**1970s.** In the 1970s, trawlers in Morro Bay were an important component of the local fishing industry, selling pink shrimp and groundfish to Meredith Fish Company, a family-owned operation in Sacramento. This buyer/processor sent trucks to Morro Bay to pick up fish on the dock. Around the same time, Gold Nugget and Brebe’s were operating in Morro Bay and buying fish as well. However, the smaller, local processors/distributors were limited in what they bought and might not, for example, take Dover sole (one of the most plentiful trawler species).

Trawlers, by their nature, bring in large quantities of fish, 10,000-30,000 pounds per trip in a variety of species, many of which have a short shelf life and varying degree of marketability. Trawler captains were generally forced to find multiple buyers to sell their entire catch and spent considerable energy getting the best prices and arranging transport.

Trawlers were a year round source of landings that provided steady employment and allowed marine-dependent businesses to maintain employees and invest in their business.

**1980s.** Gold Nugget was supplanted by Morro Bay Seafood in 1985 and operated until November 1991. Morro Bay Seafood produced approximately 3 million pounds per year. Central Coast Seafood established
federally proposed limited dedicated access, privilege management (also known as LAPP’s) as well as creating and managing a public/private fund to support individual ports and communities in the transition process (California Fisheries Fund).

The Nature Conservancy is using considerable private resources to develop environmentally and economically sustainable fisheries models. Innovative efforts on the part of The Nature Conservancy (TNC) to help transition central coast fisheries from trawling to more sustainable, targeted methods (hook and line, longline, traps, etc.) are addressed in Section 8: Private-Public Partnerships - TNC Trawler Buyback Program and the Conservation Fishing Agreement.

San Luis Obispo County recognizes commercial fishing as an important social and cultural feature. The 2001 update of San Luis Obispo County’s Local Coastal Program states:

The economic, commercial, and recreational importance of fishing activities shall be recognized and protected; and facilities serving the commercial fishing and recreational boating industries shall be protected, and where feasible, upgraded.

It goes on to say that coastal-dependent developments shall have priority over other developments on or near the shoreline and the needs of the commercial fishing industry have priority over recreational boating. Recreational boating facilities should be designed and sited so as not to interfere with the needs of the commercial fishing industry.

Trawler Impact and Influences, continued

buying and processing operations in Morro Bay in approximately 1983 and Olde Port was operating on the Harford Pier in Port San Luis.

Additional competition entered the local market in the 1980s when trawlers from Eureka and Northern California began fishing in the area and drew the attention of their buyers to Morro Bay. Port St. George Fisheries and Eureka Fisheries had markets for all trawler species, and would consistently buy all of a boat’s catch and send trucks to the dock to transport the fish to their processing and distribution facilities. While these Northern buyers paid less for rockfish, being able to sell the entire catch to one place was an attractive option for boat owners.

Cordero-Winston also operated a processing/buying facility on the northern end of the Embarcadero from 1986 to 1996, providing another option for trawlers to sell their catch.

This decade marked the beginning of an industry-wide, steep decline in the value of trawler landings, from $100 million in 1987 to $35 million in 2003.

1990s. Going into the ‘90s, the northern buyers played a diminishing role, as Eureka Fisheries was replaced by Pacific Seafood. Central Coast Seafood maintained a large presence in Morro Bay (until their move to Atascadero in 1992). CentralCoastSeafood cited exorbitant utility costs (more than $4,000 a month for potable water),
4.2 Morro Bay Harbor

While under severe pressure, commercial fishing still plays an important role in Morro Bay and continues to provide an economic resource. Because the City of Morro Bay and State agencies recognize the significance of maintaining and improving local commercial fishing, substantial investments have been made in infrastructure and considerable State legislation has been passed that is aimed to enhance the viability of the fleet.

According to California Department of Fish & Game (CDF&G), ex-vessel value (EVV) in Morro Bay dropped from $8.4 million in 1995 to $1.9 million in 2006. (A detailed analysis of this data is presented in Section 6: Commercial Fishing Landings)

Over the past 25 years, several seafood processing/unloading businesses have been located on the Embarcadero in Morro Bay. However, there are presently three offloading facilities in Morro Bay. The Morro Bay Commercial Fisherman’s Organization (MBCFO) took over the City-owned wharf and continues to operate an offloading facility there. The other two facilities are: Morro Bay Fish Company at 715 Embarcadero and DeGarimore’s at 1099 Embarcadero. Each facility provides bait. DeGarimore also dispenses fuel, gasoline, and ice. The MBCFO cut the ribbon on a 35 ton storage capacity/18 ton per day ice processing facility in the summer, 2007. There are presently no commercial fish processing facilities in Morro Bay save Tognazzini’s Dockside Too that has the capacity of about one ton per week, most

Trawler Impact and Influences, continued

high rent, and falling fish prices and inconsistent supply and markets as the reasons for their move. They intended to diversify their company focus and include other (consistent and competitively priced) seafood sources.

Del Mar Seafood in Monterey was able to capitalize on this opportunity and eventually joined efforts with Olde Port Fisheries. In the late ‘90s, Del Mar and Olde Port were the only two buyer/processors in the area. Eventually, Del Mar parted ways with Olde Port and chose to consolidate their facilities in Watsonville. This move increased transportation costs, complicated logistical issues, and lowered the price paid to fisherman.

In the mid ‘90s, federal landing limits played a role in reducing rockfish fisheries on the central coast.

Rockfish were the mainstay of the Morro Bay fisheries. Other local fisheries are inconsistent and/or less valuable. For example, squid landings vary greatly from year to year and salmon and crab are highly cyclical. Albacore fishing takes place miles offshore and is often landed in northern ports and much goes directly to canneries. Flatfish and the sole species are not as valuable as Rockfish and are often sold next to inexpensive imports and farmed fish.

Rockfish trip limits contributed to weakening an important component of the local fisheries regardless of gear types and created
of which ends up in their restaurant, retail establishment and a few local restaurants.

As early as 1984, local voters showed support of the commercial fisheries and working waterfront by approving Measure D, which required the City to rezone its northern waterfront for coastal dependent uses. The current zoning designation for this area is Commercial/Recreational Fishing (CF). The purpose of the CF District is to promote and accommodate the commercial fishing industry and non-commercial recreational fishing activities in appropriate waterfront areas.

The Morro Bay City Council, through a series of resolutions, has consistently supported commercial fishing by protecting access, providing a generous lease agreement with the MBCFO, urging disaster relief funding to mitigate for closures, supporting “Harbors of Safe Refuge” to assure that dredging is continued, providing access to fishing vessels, and opposing legislation that imposes additional restrictions and regulations on the local commercial fishing fleet.

In addition, considerable public and private funds have been made available to Morro Bay to help support the working waterfront. The California Coastal Conservancy funded the preparation of a waterfront restoration plan as well as provided $1.2 million for a variety of waterfront projects including: pier and dock reconstruction, urban parkland acquisition, floating slip construction, a waterfront park, public access facility planning and construction, and commercial fishing gear storage. In a collaborative effort, the CCJCFLC and the

Trawler Impact and Influences, continued

an instability that left the industry more vulnerable to negative market influences.

Reductions in the rockfish fishery also stifled investment and reduced dock side employment. Many dock workers and skilled filleters left the area to find work elsewhere.

In 1996, Cordero-Winston closed partly due to reduced landings in rockfish, under capitalization exacerbated by rent of $2,400 per month, increasing potable water prices on the Embarcadero, and falling salmon prices.

Salmon prices plummeted in the early 1990s due to competition from farmed fish from Norway and Chile. Both governments subsidized their fledgling industries enabling them to maintain a consistent supply, low prices, and retail and restaurant ready fillets with pin bones removed.

The California Salmon Council worked hard in the U.S. to improve handling and quality of wild caught fish but prices continued to drop.

To counteract the effects of negative impacts, on April 12, 1991, the Department of Commerce issued antidumping and countervailing duty orders on imports of fresh and chilled Atlantic salmon from Norway. (http://hotdocs.usitc.gov/docs/pubs/701_731/pub3835.pdf)

Salmon prices have rebounded to some extent. EVV for salmon in 1995 was approximately
CCC provided significant funds for the high-capacity ice processing facility.

The City and the MBCFO were sponsors, among others, of an exempted fishing permit (EFP) that petitioned the Pacific Fisheries Management Council (PFMC) to allow the community to test the feasibility and impacts of transitioning from bottom trawling to more targeted methods. The City and the MBCFO, along with additional EFP cosponsors (Port San Luis Harbor District, Port San Luis Commercial Fisherman’s Association (PSLCFA), Environmental Defense, The Nature Conservancy and CDF&G) have formed a Community-Based Fishing Association (CBFA). The CBFA is an essential tool to manage the EFP program and inform the PFMC on the data collected. These efforts put Morro Bay on the forefront of preparing for regional management and individual fishing/transferable quotas (IFQ/ITQ)\(^2\) as envisioned in the Magnuson Stevens Act. (See also Section 7: Fishery Management Efforts)

\(^2\) IFQ/ITQ protocol gives individual fisherman possession of fish stocks, creating incentives to preserve and protect the resource as well as capitalize on a more marketable, valuable product. IFQ or ITQ fisheries tend to have higher individual boat yields, more stabilized employment, improved science and monitoring, reduced bycatch, reduced impact on habitat, operate more safely. In addition, through a community-based decision process ITQs can address equity issues by placing decision-making in the hands of local fishermen, waterfront municipalities, and community groups.

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\textit{Trawler Impact and Influences, continued}

$2-2.35$ per pound (adjusted to 2006 dollars is approximately $3 per pound). This season (2007) salmon EVV ranged from $4.50 to $6.50 per pound.

\textbf{2000s.} By the third quarter of 2000, pre-tax marine fuel prices were twice the Q1 1999 levels. By 2005, prices were four times 1999 levels (See graph on page 19).

Today, marine fuel prices are 3.5 times their pre-turn-of-the-century level (Pacific States Marine Fisheries Commission, Fisheries Economic Data Program, Marine Diesel Fuel Prices). Trawlers are the largest users of fuel in the fleet and were the hardest hit. A typical trawler uses approximately 250 gallons per day in an average 2-5 day trip. Rising fuel costs increased fuel expenses from $200 to approximately $675 per day.

Fuel prices also increased transport costs and complicated logistics for the ports, that are up to 15 miles from the largest, nearest North/South truck route (Highway 101) and more than 70 miles from Highway 5.

During this time, average fish prices dropped at the Morro Bay dock from $.03 to $.05 per pound to compensate for transport to Del Mar in Watsonville. Eventually, Del Mar quit purchasing MB/PSL seafood altogether, which left only Old Port in Port San Luis. Additionally, in 2003, thornyhead (a major trawl species) prices went from $.90 per pound to $.40 per pound.
4.3 PORT SAN LUIS HARBOR

The Harford Pier in Port San Luis, where commercial and sport fishing activity takes place (offloading, fuel, dinghy storage, ice facility), was constructed by San Luis Obispo County in 1908, shortly after completion of the breakwater at the point. Originally, the pier contained a large warehouse and several hoists and was an important fishing and passenger wharf. The pier suffered major storm damage in 1953, 1955, 1960, 1969, 1973, and again in March, 1983. Due to its role in commercial and recreational fishing the Harford Pier is an inseparable part of the landscape of Avila Beach and ongoing renovation and repair continue to preserve this local asset.

According to NWFSC/NOAA community profile data, there were at least 37 commercial fishing permits registered to Avila Beach residents in 2000 (holding state permits in the crab, groundfish, highly migratory species, salmon, shellfish and “other species” fisheries). Today, there are approximately 12 commercial boats active. Most of these boats are working in “daytrip” protocol, leaving the harbor in the morning and returning before sunset (Personal communications, Interim Manager Director, Kirk Sturm, and Harbor Commissioner, Drew Brandy).

As stated earlier, the Port San Luis Harbor District and the Port San Luis Commercial Fisherman’s Association (PSLCFA) are sponsors of the exempted fisheries permit (EFP) and are charter members of the Community-Based Fishing Association. These efforts are seen as innovative and strategic for preparing

In 2004, Old Porte Fisheries ceased its operations on the Harford Pier.

In 2005, the Nature Conservancy began discussing a trawler buyout program in Morro Bay. In 2006, TNC purchased 6 type "A" trawler permits and 4 Morro Bay-area trawl vessels in a deal that included the federal government signing 3.8 million acres of Central Coast waters into a "no trawl area".

In the summer of 2007, The Nature Conservancy leased one of its permits to a Morro Bay fisherman to conduct trawling with constraints on area and gear type. In 2007, the South Bay landed several thousand pounds of trawl-caught flatfish, including petrale sole, under this agreement. Central Coast Seafood has committed to buying as much of this catch as possible and has begun marketing it with heightened attention. A few trawlers still operate out of Port San Luis, though their landings have not been significant and some are focusing on fisheries to the south, including halibut, and landing in Santa Barbara and Ventura.

The TNC trawler buyout program started the mechanism (Experimental Fishing Permit, EFP) to switch the trawl landing limits to more targeted and marketable fishing gear, including longline, hook and line, and traps. In June, 2007 the PFMC (Pacific Fisheries Management Council) approved the EFP for gear switching, a community-based fishing association to create
for the future of the U.S. fisheries as fisheries management gains a more regional perspective and protocols move from open access to individual fishing transferable quotas (IFQ/ITQ).

Trawler Impact and Influences, continued

and manage a harvest plan and to report back to the Council. The EFP was sponsored by TNC, the MBCFO, PSLCFA, the City of Morro Bay, Port San Luis Harbor District, Environmental Defense and the California Department of Fish and Game. In September 2007, a Community-Based Fishing Association (CBFA) was formed in Morro Bay/Port San Luis. The group consists of the sponsors of the EFP and hopes to oversee the one-year experiment, provide interface with the Council, and help prepare the community for proposed limited access privilege protocols (LAPP).
Port infrastructure is a key component of the Morro Bay and Port San Luis fishing industry. Port infrastructure also provides the physical connection between fishing and the community. The working waterfront, its draw on tourism, and fishing-related employment are critical features of a healthy, sustainable fishery.

This Section provides an inventory of existing port infrastructure in Morro Bay and Port San Luis. (See also Section 13: Value Added Services/Value Chain). This inventory provides an understanding of how existing infrastructure resources can be best utilized and what additional improvements would best serve the industry, given changing regulatory and resource constraints in the region.

The infrastructure analysis is broken down into the following categories for each of the ports:

- Port Overview and Condition
- General Port Features and Condition
- Vessel Related Services
- Fuel Dock, Diesel Services, and Fuel Services
- Ice Production and Distribution
- Commercial Fishing-related Services

MBCFO wharf
5.1 SUMMARY OF FINDINGS

Morro Bay and Port San Luis have the key infrastructure to support an active fishery. Both have sufficient freshwater and waste disposal facilities. Morro Bay has three hoists/offloading facilities, a brand-new, state-of-the-art ice machine (capacity: 18 tons per day, 35 tons of storage, 20°F storage temperature), live fish tanks, limited cold storage, sufficient slips and moorings, parking, a frequently dredged harbor, sufficient truck access, and marine diesel facilities. However, the single fuel distribution facility in Morro Bay is experiencing greatly diminished sales due to the reduction of the fleet and is relying, partially, on grants to continue operations.

Port San Luis has an ice machine, an offloading hoist, sufficient moorings, ice facility, and adequate truck access (limited by the intrinsic nature of the pier), and a temporary 1,000-gallon marine diesel tank/distribution facility that can service all but one of the boats moored there. A feasibility study has found the costs of repairing the fuel distribution services at the end of the pier to be between $300,000 and $385,000.

While some infrastructure improvements would bring efficiencies to the fishery, as would a larger, more diverse group of local buyers and processors, existing infrastructure should not be identified as a major limiting factor to landings and earnings in the short term. Some of the infrastructure improvements necessary in the short to mid-term include: increased fuel capacity and fuel distribution facility improvements, freshwater lines, improvements to the Harford Pier in Port San Luis, and expanded refrigerated and deep-cold storage facilities in Morro Bay, as well as expanded live fish storage capacity with chillers and filters in both ports.

Increased processing and packaging and more efficient truck access may be appropriate eventual goals for both ports to provide greater profit and access to more diverse markets. However, considering the current trend in landings and fish buying, these may be better as mid-term objectives to pursue over the next three to five years.

Increased proximity to interstate arteries would bring greater efficiency, but should not be cited as a cause of reduced landings and earnings. Fort Bragg is significantly farther from both interstate highways and has maintained viable port economics due to more consistent access to rockfish, salmon, and albacore.
5.2 Morro Bay Harbor Infrastructure

Port Overview and Condition

The physical condition of the MBCFO dock is considered good/adequate and is not presently an impediment to offloading or transportation at the wharf level. The State Coastal Conservancy, CCJCFLC, and the City of Morro Bay provided funds for repairs and retrofits to the dock and for the purchase and installation of a new ice machine, a $910,000 project.

In 1992, the California Department of Boating and Waterways provided a $2 million loan for the reconstruction of the South T-Pier, that includes slips for commercial fishing vessels. Construction took place between 1992 and 1995.

The State Coastal Conservancy also provided $750,000 for a waterfront boardwalk, which will run from the southern end of the embarcadero near Beach Street to Morro Rock. The boardwalk will improve access to visitor-serving facilities, including retail establishments, the harbor’s fish dock off-loading, and the potential direct-to-consumer fish sales.

See Appendix A: Morro Bay/Port San Luis Maps for maps of Morro Bay Port.

There are three active offloading facilities in Morro Bay:

- The MBCFO facility at 1231 Embarcadero;
- DeGarimore’s Central Coast Marine Fuel & Ice Company at 1099 Embarcadero; and
- Morro Bay Fish Company at 715 Embarcadero.

General Port Features and Services

Access and Parking: Vehicular access to the MBCFO wharf, DeGarimore’s, and Morro Bay Fish Company is considered adequate. In addition, the number and size of parking spaces on the Morro Bay waterfront and particularly, the launch and unloading areas is considered good/sufficient.

Safety: The Morro Bay waterfront and Harbor are considered safe. The area is well served by the U.S. Coast Guard, Harbor Patrol, and local police. Fire Captain Jeff Olson, Morro Bay Fire Department confirms that most buildings on the Embarcadero are fitted with sprinklers as are the T-Piers. Cantilevered overhangs are fitted with sprinklers to protect floating docks. The Fire Department also insists that the highest level of fire protection is included in new buildings on the Embarcadero. The Morro Bay Harbor Department participates in periodic training for fire, rescue and medical aid with the Coast Guard and Harbor Patrol. Both Coast Guard and Harbor Patrol have salt water pumps on their boats that can be used for spraying water and fire suppression.
**Water and Waste:** Freshwater and wastewater disposal for commercial fishing vessels is available at the piers and is considered sufficient and convenient. However, fresh water costs are widely considered “prohibitive” for commercial fish processing on the Embarcadero (see description of Cordero-Winston and Central Coast Seafood operations in Section 4).

**Vessel Related Services**

**Slips and Moorings:** While tying up at one of the piers is “hard” on a boat and untying from the inside of a number of boats can be inconvenient, there are an adequate number of moorings in the harbor and they are considered in good/adequate condition. There are numerous slips that can accommodate larger boats, over 65 feet, at the “T-Piers”.

**Chandlery:** Jerry’s Marine Service, a small chandlery opened this year. He is providing some commercial fishing hardware from his store as well as mail order service.

**Shipyards/Dry Dock:** There is a small (15 ton) hoist and limited workspace/capacity (one or two vessels at a time).

**Floating repair dock:** Because of the number of piers and slips available, there is no need for a floating work dock in Morro Bay.

**Hoists:** MBCFO hoist is in good repair. DeGarimore and Morro Bay Fish Company hoists may be in need of repair and/or replacement.

**Fuel Dock, Diesel Services, and Fuel Services**

**Overview:** Diesel services are an essential part of a viable fishing industry. DeGarimore Central Coast Marine Fuel & Ice is the only diesel and gasoline distribution facility in Morro Bay. The next closest diesel and gasoline distribution facilities are in Port San Luis, more than 20 miles away. The next facility to the south, Santa Barbara, is more than 120 miles away and to the north, Monterey is approximately 110 miles.

**Operations:** The DeGarimore facility is open from 8 a.m. to 5 p.m., 362 days per year and is available 24 hours a day, 365 days a year for emergency fueling. DeGarimore employs an individual (for the ice, offloading and fuel facility) at approximately $10 per hour, $25 per hour with workman’s compensation and other benefits included.
Dispensing stations rely heavily on sales volume for viability, and thus, operate on very small margins. Due to dramatic increases in the cost of fuel, reductions in the trawl fleet, and dramatic decreases in fishing trips emanating in Morro Bay, the fuel dock is operating at a loss. Sales to commercial fishermen have dropped from approximately 90% to 60% of this facility’s business.

In 1998, DeGarimore posted sales of 435,000 gallons of diesel. By 2005, that number had fallen to approximately 200,000 gallons. The City of Morro Bay has reduced the rent of the fuel dock facility from $10,000 to approximately $8,000 per year plus a $.02 per gallon fee. DeGarimore estimates yearly fees and taxes at approximately $19,000, or about 18 percent of his $130,000 revenue. Costs and expenses currently exceed revenue at this facility.

**Regulatory Compliance:** The facility complies with requirements of SB989 due to $250,000 in upgrades completed in 1998. All underground tanks and piping systems are

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**Rising Costs, Marine Fuel**

Marine Fuel Costs have increased dramatically since 1999. Within the first three months of 2000, pretax marine fuel prices nearly doubled and by the end of the third quarter were more than twice 1999 levels. By September 2005, prices were 4 times 1999 levels and remain, today, at about 3.5 times that. Prices paid for landings have not risen comparably, thus diminishing net profits and ultimately disincentivizing local fishing as a profitable industry.

**Figure 5.1 Santa Barbara Marine Diesel Fuel Pre-tax Prices 1999-2007**

*Source: Pacific States Marine Fisheries Commission (PSMFC) - The Fisheries Economics Data Program Marine Diesel Fuel Prices 1999-2007*
housed in secondary closures and tested periodically to ensure prevention of leaks. It is estimated that at least $500,000 in equipment would be needed to duplicate this facility, not including real estate costs.

**Ice production and distribution**

There are two ice distribution facilities in Morro Bay: DeGarimore’s Central Coast Marine Fuel & Ice Company and the MBCFO. The MBCFO facility has high capacity, on-site production capability.

**Morro Bay Commercial Fishermen’s Organization (MBCFO) Ice Facility**

In May 2007, the facility at the MBCFO dock began producing ice. The funding for this project came from the Central California Joint Cable Fisheries Liaison Committee, the State Coastal Conservancy, a CDBG Planning and Technical Assistance Grant, and the City of Morro Bay.

The machine is capable of producing 18 tons of ice per day and storing up to 35 tons. The facility is designed to create a light, “fluffy” product, with a high air content which poses less damage to fish during storage and transport. The ice is also produced and stored at a low temperature (22°) which creates a longer lasting product as well as more effective for seafood storage.

The machine is conveniently located in a dockside position and has a conveyor/chute delivery system that can deliver ice directly into the hold of a ship. The MBCFO is selling a few tons of ice per week at $90 per ton. Utility costs are approximately $250-$300 per month for electricity. Water expenses are presently negligible and commensurate with ice production. Upkeep and maintenance requirements are approximately 4-5 hours per week.

**DeGarimore’s Central Coast Marine Fuel & Ice Company**

DeGarimore does not produce ice at his facility, but stores and distributes. Like marine diesel, ice sales have followed similar sales trends as diesel fuel since they are purchased by the same user groups.

Average monthly sales have continually dropped over the last decade. 1998 averaged 600 blocks per month, 1999 averaged 300 per month, 2000 averaged 250 blocks per month,
and 2006 averaged 200 blocks per month (annual sales totaled 2,395 blocks, of which most was sold to sword fishermen). March 2007 sales totaled $698, or 43 blocks of ice. DeGarimore is presently averaging total sales of about one block per day.

DeGarimore’s ice storage facility, 2 refrigerated containers, is approximately 20’ x 40’. Rent for this facility is included in the $8,000 a year paid to the City. DeGarimore has one employee that works the fuel dock, unloading, and the ice facility. DeGarimore estimates 50% of his total utility costs are the from the ice facility.

Historically, the largest buyers were trawlers that can use 30 to 60 blocks per trip. The next biggest market was salmon and tuna fishermen followed by swordfish. However, new boats now often include refrigeration onboard, which obviates the need for ice.

The live fish market does not use ice. However, shrimpers are big buyers and may purchase 100 blocks for three days. There is currently only one shrimp boat unloading in Morro Bay about three months a year. DeGarimore’s biggest ice user right now is its own restaurant.

**Commercial Fishing Related Services**

**Fishing Gear Storage:** The MBCFO leases a gear storage facility from the City and makes the covered, secure spaces available to commercial fishermen for a small monthly fee.

**Bait:** Bait is presently being provided by Morro Bay Fish Company and DeGarimore’s. Fish buyers usually provide the service.

**Refrigerated Storage:** The present cold storage facilities in Morro Bay and Port San Luis are considered insufficient if either the fisheries hopes to process or hold fish for much longer than a few hours. Freezer facilities are required for bait.

Currently, the MBCFO has two 40-foot refrigerated (approximately 32°) containers. One of these containers has not been used recently for cooling (storage only) and may require maintenance and repair. The second container has been used consistently to store and consolidate oysters and is functional. The electricity cost to run this type of facility is estimated at $500 per month. Refrigerated containers do not require water. As noted above, Degarimore has two, operational 20-
foot containers, presently being used to store ice. Morro Bay Fish Company has a small cooler (15’ X 8’) that is considered too small for the operation and requires considerable renovation and expansion to make it more efficient and effective. Tognazzini has a small, relatively new 2’ X 10’ refrigeration facility that serves the current needs of his restaurant and retail businesses.

**Deep Cold Storage:** There are presently no deep cold storage facilities in Morro Bay.

**Processing:** There is one small commercial processing facility in Morro Bay. The next closest processing facilities are at Central Coast Seafood in Atascadero, approximately 15 miles away. Tognazzini currently processes approximately one ton per week at his Dockside Too facility.

**Live Fish Holding Facilities:** Both the Morro Bay Fish Company and the MBCFO have storage facilities for live fish, including tanks and water circulation-aerating pumps. Both facilities have the capacity to hold approximately 150-200 fish at a time (between 500 pounds and 2,000 pounds). While live fish have a limited and specialized distribution, they can fetch up to $7-$9 per pound. The same fish expired, may attract less than $2 per pound. Most rockfish and hagfish can be stored at harbor-water temperature for over 24 hours. However, chilling and filtering provides a better storage option as fish stored at cooler temperatures tend to live longer at the dock and once they are in the buyers possession. Fish that last longer are worth more.

Black cod, spot prawns and some other species require water to be refrigerated at approximately 40°F.

There are no chilled/filtered facilities in Morro Bay.

**Infrastructure, special note:** Morro Bay Fish Company, in two seasons, has outgrown its unloading, storage and refrigeration capacity at its present location. The owners feel that they could greatly increase their landings with a larger dock facility, greater capacity for storing live fish, a more efficient and larger refrigeration and deep cold store facility, a larger refrigerated truck, and improved truck access, and hoist.
5.3 PORT SAN LUIS INFRASTRUCTURE

Port Overview and Condition
The Port San Luis Harbor District (PSL) owns and operates the Harford Pier (see Appendix A Morro Bay/Port San Luis Maps). While much of the infrastructure in PSL is intact and has generally been well maintained, certain components require repair and replacement.

The Harford Pier is 1,456 feet in length. Its primary use is loading and unloading of commercial fishing, sport fishing, and recreational vessels. The area for commercial fishing occupies about 360 linear feet near the end of the pier. The diesel dock area, primarily used by the fishing fleet and other resident and transient boats, utilizes another 140 linear feet. Public landings exist in three locations, and occupy approximately 470 linear feet of pier. There are two public hoists on the pier.

A two-ton hoist is situated near the end of the pier. Bilge pump-out, diesel services, ice plant, small retail fish sales, cold storage and various retail/restaurants are located on this dock. In addition, the Harford Pier provides attractive and unique foot and car access to restaurants, fish markets and commercial and recreational fishing operations.

Figure 5.2 Harford Pier, Port San Luis Harbor District

Source: Port San Luis Harbor District, www.portsanluis.com
Reconstruction, maintenance, and repair of the pier is ongoing with five full-time PSL employees dedicated to the project. It is estimated that $350,000 per year (including personnel) is spent to maintain the pier. Several million dollars will be required to complete the remaining repair work.

The Port San Luis Harbor District has been very successful in acquiring grants for capital improvements and maintenance of commercial fishing infrastructure. The Central Coast Joint Cable Fisheries Liaison Committee has provided a $25,000 grant for a boat hoist and $6,000 for lighting. The CDF&G has made $18,000 available for skiff racks. Such efforts are intended to improve dinghy and skiff put in for transport from the pier to moored vessels. The State Coastal Conservancy funded preparation of the new Port Master Plan approved by the County and Coastal Commission in October 2007. The Plan contains several sections that address commercial fishing issues. Also, the California Department of Boating and Waterways provided $300,000 for a hoist at the Portside Marine facility. That project is expected to break ground in February or early March 2008.

General Port Features and Services

Access and Parking: Trucks have access to the end of the pier, however ingress and egress is limited to a few vehicles at a time and smaller commercial trucks of approximately 24 feet or less. In approximately 2004, Olde Port Fisheries ceased operating on the Harford Pier. Some small-scale buying and transportation still occurs but small vehicles are not appropriate for moving large quantities of fish that trawlers typically land.

The entry to the port (from Highway 101) is a two-lane road with ample parking at its terminus. There are 220 parking spaces in the main lot. Maintenance and upgrades will cost $35,000 for sealing and striping, and approximately $150,000 for re-grading and paving.

Safety: PSL and Harbor Patrol provide 24-hour security. To date, security has not been a significant issue in PSL.

Water and Waste: Freshwater facilities are provided to the end of the pier. Short-term maintenance costs, replacing aging lines are estimated at $150,000. PSL operates and owns sewage and bilge pump-out services. Short-term costs in the #2 lift station of the sewer system are estimated at $25,000.

Vessel Related Services

Slips and Moorings: There are no slips in PSL. There are 280 moorings, of which 75 to 100 are reserved for commercial fishing occupancy.
Chandlery: Port Side Marine is leased from PSL by Dell and Anita Kyle. This facility is approximately 30’ x 8’ and offers bait, tackle and hardware for commercial and recreational boats. They have suffered a steady decline in boat hoist fees and general sales since the mid-’90s. Their rent is based on a minimum fee and percentage of sales.

Shipyard/Drydock: These facilities are leased from PSL by Marty Cordoniz. They provide limited services and also allow for boat owners to work on their own vessels. These facilities are constrained by physical space and by the present haul out facility which is exposed to adverse wave, tide, and swell; restricting the size of boats and limiting the timing and conditions when boats can be hauled out and returned to the water. PSL has conducted a $12,000 study to address this problem. The solution may include extending the hoist-dock an additional 60 feet into the water. Funds for the study were provided by the CCJCFLC. Based on the study, costs to extend the mobile hoist dock were estimated at $700,000. Revetment repairs are estimated at $200,000.

Floating Repair Dock: PSL owns and runs a floating repair dock that gives boat owners access to the sides of their boat while in the water. Due to sea lion haul out issues, a chain-link fence surrounds this facility. This is not a service that the commercial fishermen depend on. Anticipated future repairs/costs, $15,000.

Hoist: PSL has recently conducted a CCJCFLC funded $23,000 renovation of the two-ton commercial fishing hoist at the end of the pier.

Fuel Dock, Diesel Services, and Fuel Services

Overview: PSL owns and manages the fuel dock facilities. Major repairs (line replacement, tanks to end the dock) are needed at an estimated cost of between $300,000 and $385,000.

In 2006, PSL purchased 51,000 gallons of diesel fuel, markup was approximately $.35 per gallon, yielding approximately $18,000 in gross profit. To finance the repairs to the diesel facility with no interest expense factored in, it would take more than 16 years (at the current sales and profit levels).

In July, a leak was detected in the singlewall fuel line. While no fuel came in contact with ocean waters, County Environmental Health Services advised PSL to shut the system down and purge the line. A 1,000 gallon dual-wall tank was leased and installed by PSL staff and services resumed in a few short days. Due to the smaller tank and smaller purchases, that lack bulk discounts, the retail price of diesel has increased to $3.26 per gallon. This does not include any additional charges for expenses to compensate for the shutdown and installation of the new tank.
Ice Production and Distribution
PSL owns and operates an ice plant. Monthly costs are estimated at $3,500 (approximately $38,000 per year). Near-term improvements include an evaporative cooler, with an approximate cost of $75,000. Flaked ice is sold at $65/ton. Local restaurants and a local golf course purchase a significant portion of ice produced. Water supply is from Lopez Lake. Ice sales for the 2006-2007 season were $7,905.

Commercial Fishing Related Services
Fishing Gear Storage: PSL owns and maintains storage for commercial fishing gear. The initial cost for cleanup is estimated at $50,000. Grading and fencing is estimated at an additional $150,000. PSL collects a rent of $30 a month for a 20’ x 20’ space.

Bait: Two sources, Deke, fishing vessel Mello Boy, and Portside Marine provides bait for sport and commercial fishermen.

Refrigerated Storage: a cold storage facility at the far end of the pier is leased from PSL by Barry Cohen. It is uncertain whether the facility is in working order or need of repair. From informal investigations, the facility is being used for ambient-temperature storage. (Mr. Cohen was unwilling to share information about this facility.)

Deep Cold Storage: There is currently no deep cold storage facilities in Port San Luis.

Processing: According to available data, there are no commercial seafood processors operating in Avila Beach (personal communication, Kirk Sturm and Steve McGrath).

Live Fish Holding Facilities: The sole live fish buyer in Port San Luis, Archie Ponds, has a couple live tanks on the pier and on his 1 ton, 10 foot truck. Total live fish holding capacity (tanks) in Port San Luis is 120 lb.-300 lb. (depending on the species). Neither the tanks on the pier or in his truck are filtered or chilled. Furthermore, there are no chilled/filtered live fish facilities in Port San Luis. Many fishermen opt to hold their catch in perforated barrels in the harbor (receivers) until they can be loaded on a truck and shipped to market. Archie agreed that filtration and chilling would give him a price and quality advantage with his buyers. He agreed that the Port San Luis live fish business is limited by lack of holding tanks. He pointed out that many live species attract up to $9/lb., while the same fish, dead, may be worth only $1.50/lb.
COMMERCIAL FISHING LANDINGS

From a business perspective commercial fishing landings (weight, EVV) are a good measure of the fisheries performance. Landings are the culmination of fishing efforts, fleet size and composition, impacts of resource regulation, experience and innovation, and capacity of the infrastructure. Landings drive employment, capital improvement projects, valued added service opportunities, and expansion and reinvestment. Residual profit generated from fish coming across the dock (in the form of fees or tax) will eventually fund the procurement of quotas (with the ITQ protocol), assure growth of the fishery, and help secure the decision-making process on the regional level.

Landings are also depicted by species and give fisheries managers and potential funders an understanding of the composition of available resources. Data from the 17 year period from 1990 to 2006 offers a view of trends and relevant significance by species. It is the hope that these analyses will reveal potential opportunities for the future of the fishery and help provide a clearer picture of the MB/PSL product.

6.1 OVERVIEW 1990 TO 2006

Overall, landings in both ports have dropped drastically in the last 17 years. In 1990, both ports recorded landings of more than 14 million pounds, and by 2006, landings dropped to 1.2 million pounds (See Figure 6.1). The value of landings in 1990 was approximately $11 million, and EVV consistently dropped to approximately $2.9 million in 2006 (See Figure 6.2). Landings and income have dropped across the species spectrum and gear type.
Note: Commercial fish landings vary widely from year to year based on a number of factors.

Although landings fell more than 90% from 1990 to 2006, EVV (adjusted for inflation) fell about 74%, indicating that landings are increasingly more valuable. In fact, as Figure 6.3 shows, the value per pound has increased from about $0.76 in 1995 to $2.52 in 2006. The emergence of live-fish landings may be a large contributor.

**Figure 6.1 Commercial Fish Landings (lbs.), Morro Bay and Port San Luis, 1990-2006**

![Bar chart showing commercial fish landings from 1990 to 2006 for Morro Bay and Port San Luis.](chart.png)

*Source: California Department of Fish and Game*

Figures 6.2 and 6.3 were converted into 2006 dollars (adjusted to inflation) using a CPI calculator to compare EVV over the 17 year period between 1990 and 2006. Figure 6.4 shows a table of landings and EVV data for both ports.
Figure 6.2 Value of Landings (2006 Dollars), Morro Bay and Port San Luis, 1990-2006

Source: California Department of Fish and Game

Figure 6.3 Total Value per Pound (2006 Dollars), Morro Bay and Port San Luis, 1990-2006

Source: California Department of Fish and Game
### Figure 6.4 Commercial Fish Landings and EVV, 1990-2006

<table>
<thead>
<tr>
<th>Year</th>
<th>Port</th>
<th>Landings (Pounds)</th>
<th>Ex Vessel Value (EVV)</th>
<th>EVV 2006 Dollars</th>
<th>Average Value/Lb. 2006 Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>Morro Bay</td>
<td>6,393,835</td>
<td>$4,769,912</td>
<td>$7,357,589</td>
<td>$0.76</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>4,839,513</td>
<td>$2,393,408</td>
<td>$3,691,832</td>
<td>$0.76</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14,479,348</td>
<td>$7,163,320</td>
<td>$11,049,421</td>
<td>$0.76</td>
</tr>
<tr>
<td>1991</td>
<td>Morro Bay</td>
<td>6,610,062</td>
<td>$3,792,618</td>
<td>$5,613,833</td>
<td>$0.85</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>3,363,493</td>
<td>$1,891,272</td>
<td>$2,799,461</td>
<td>$0.83</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>9,973,555</td>
<td>$5,683,890</td>
<td>$8,413,294</td>
<td>$0.84</td>
</tr>
<tr>
<td>1992</td>
<td>Morro Bay</td>
<td>8,024,770</td>
<td>$4,116,330</td>
<td>$5,914,755</td>
<td>$0.74</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>3,667,720</td>
<td>$2,060,733</td>
<td>$2,961,067</td>
<td>$0.81</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>11,692,490</td>
<td>$6,177,063</td>
<td>$8,875,822</td>
<td>$0.76</td>
</tr>
<tr>
<td>1993</td>
<td>Morro Bay</td>
<td>10,518,895</td>
<td>$4,384,168</td>
<td>$6,116,791</td>
<td>$0.58</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>3,589,414</td>
<td>$2,018,728</td>
<td>$2,816,529</td>
<td>$0.78</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14,108,309</td>
<td>$6,402,896</td>
<td>$8,933,320</td>
<td>$0.63</td>
</tr>
<tr>
<td>1994</td>
<td>Morro Bay</td>
<td>6,114,677</td>
<td>$4,111,880</td>
<td>$5,593,390</td>
<td>$0.91</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>5,412,939</td>
<td>$2,742,610</td>
<td>$3,730,772</td>
<td>$0.69</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>11,527,616</td>
<td>$6,854,490</td>
<td>$9,324,163</td>
<td>$0.81</td>
</tr>
<tr>
<td>1995</td>
<td>Morro Bay</td>
<td>6,249,712</td>
<td>$6,395,280</td>
<td>$8,459,667</td>
<td>$1.35</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>3,533,176</td>
<td>$2,930,728</td>
<td>$3,876,767</td>
<td>$1.10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>9,782,888</td>
<td>$9,326,008</td>
<td>$12,336,443</td>
<td>$1.26</td>
</tr>
<tr>
<td>1996</td>
<td>Morro Bay</td>
<td>5,345,759</td>
<td>$4,767,279</td>
<td>$6,125,477</td>
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</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>3,361,097</td>
<td>$2,203,249</td>
<td>$2,830,955</td>
<td>$0.84</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>8,706,856</td>
<td>$6,970,528</td>
<td>$8,956,431</td>
<td>$1.03</td>
</tr>
<tr>
<td>1997</td>
<td>Morro Bay</td>
<td>5,993,915</td>
<td>$5,087,758</td>
<td>$6,390,733</td>
<td>$1.07</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>2,020,455</td>
<td>$1,543,521</td>
<td>$1,938,817</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
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<td>$6,631,279</td>
<td>$8,329,550</td>
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</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>2,671,301</td>
<td>$1,958,493</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>6,193,993</td>
<td>$6,367,824</td>
<td>$7,875,725</td>
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</tr>
<tr>
<td>1999</td>
<td>Morro Bay</td>
<td>2,404,637</td>
<td>$3,654,132</td>
<td>$4,421,865</td>
<td>$1.84</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>1,239,452</td>
<td>$996,314</td>
<td>$1,205,640</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>3,644,089</td>
<td>$4,650,446</td>
<td>$5,627,505</td>
<td>$1.54</td>
</tr>
<tr>
<td>2000</td>
<td>Morro Bay</td>
<td>2,479,990</td>
<td>$4,445,948</td>
<td>$5,204,871</td>
<td>$2.10</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>1,129,344</td>
<td>$1,136,967</td>
<td>$1,331,047</td>
<td>$1.18</td>
</tr>
<tr>
<td></td>
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<td>$5,582,915</td>
<td>$6,535,919</td>
<td>$1.81</td>
</tr>
<tr>
<td>2001</td>
<td>Morro Bay</td>
<td>2,629,353</td>
<td>$3,442,779</td>
<td>$3,918,915</td>
<td>$1.49</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>1,405,155</td>
<td>$1,361,221</td>
<td>$1,549,478</td>
<td>$1.10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4,034,508</td>
<td>$4,804,000</td>
<td>$5,468,393</td>
<td>$1.36</td>
</tr>
<tr>
<td>2002</td>
<td>Morro Bay</td>
<td>1,651,568</td>
<td>$2,488,921</td>
<td>$2,789,085</td>
<td>$1.69</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>3,140,495</td>
<td>$1,856,857</td>
<td>$2,080,794</td>
<td>$0.66</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4,792,063</td>
<td>$4,345,778</td>
<td>$4,869,879</td>
<td>$1.02</td>
</tr>
<tr>
<td>2003</td>
<td>Morro Bay</td>
<td>2,223,895</td>
<td>$1,755,101</td>
<td>$1,923,064</td>
<td>$0.86</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>2,889,159</td>
<td>$1,695,294</td>
<td>$1,857,534</td>
<td>$0.64</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5,113,054</td>
<td>$3,450,395</td>
<td>$3,780,598</td>
<td>$0.74</td>
</tr>
<tr>
<td>2004</td>
<td>Morro Bay</td>
<td>3,163,988</td>
<td>$2,196,072</td>
<td>$2,406,238</td>
<td>$0.76</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>1,632,857</td>
<td>$1,258,648</td>
<td>$1,379,101</td>
<td>$0.84</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4,796,845</td>
<td>$3,454,722</td>
<td>$3,754,722</td>
<td>$0.72</td>
</tr>
<tr>
<td>2005</td>
<td>Morro Bay</td>
<td>1,663,085</td>
<td>$2,176,782</td>
<td>$2,247,092</td>
<td>$1.35</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>179,238</td>
<td>$712,804</td>
<td>$735,828</td>
<td>$4.11</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1,842,323</td>
<td>$2,889,586</td>
<td>$2,982,920</td>
<td>$1.62</td>
</tr>
<tr>
<td>2006</td>
<td>Morro Bay</td>
<td>868,353</td>
<td>$1,906,328</td>
<td>$1,906,328</td>
<td>$2.20</td>
</tr>
<tr>
<td></td>
<td>Port San Luis</td>
<td>290,430</td>
<td>$1,017,878</td>
<td>$1,017,878</td>
<td>$3.50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1,158,783</td>
<td>$2,924,206</td>
<td>$2,924,206</td>
<td>$2.52</td>
</tr>
</tbody>
</table>

Source: California Department of Fish and Game
6.2 Top Landed Species

Based on data at both ports, 13 species represented between 88% and 98% of all landings between 1990 and 2006. These included: sole, rockfish, thornyheads, market squid, shrimp, sablefish, tuna, crab, salmon, swordfish, spot prawn, cabezon, and halibut. Figure 6.5 shows the top species landings between 1990 and 2006. The Table also shows the percentage of total landings that the species represented.

**Figure 6.5 Top Landed Species, Morro Bay and Port San Luis, 1990-2006**

<table>
<thead>
<tr>
<th>Species</th>
<th>Pounds Landed (millions)</th>
<th>% of Total Landings</th>
<th>Species</th>
<th>Pounds Landed (millions)</th>
<th>% of Total Landings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Sole, all species</td>
<td>34.5</td>
<td>27.9%</td>
<td>8 Crab, all species</td>
<td>4.6</td>
<td>3.7%</td>
</tr>
<tr>
<td>2 Rockfish, all species</td>
<td>23.2</td>
<td>18.8%</td>
<td>9 Salmon, all species</td>
<td>3.4</td>
<td>2.8%</td>
</tr>
<tr>
<td>3 Thornyheads, all species</td>
<td>15.9</td>
<td>12.9%</td>
<td>10 Swordfish</td>
<td>2.2</td>
<td>1.8%</td>
</tr>
<tr>
<td>4 Market Squid</td>
<td>12.3</td>
<td>10%</td>
<td>11 Spot Prawn</td>
<td>1.3</td>
<td>1.1%</td>
</tr>
<tr>
<td>5 Shrimp, all species</td>
<td>6.9</td>
<td>5.6%</td>
<td>12 Cabezon</td>
<td>1.3</td>
<td>1.1%</td>
</tr>
<tr>
<td>6 Sablefish</td>
<td>5.9</td>
<td>4.8%</td>
<td>13 California Halibut</td>
<td>1.1</td>
<td>0.9%</td>
</tr>
<tr>
<td>7 Tuna, all species</td>
<td>5.3</td>
<td>4.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: California Department of Fish and Game*

Between 1990 and 2006, sole, rockfish, and thornyheads combined represented 60% of all landings at both ports. Combined, these four species represented nearly 70% of all species landed at both ports. Market squid landings represented 10% of total landings in the same period. Like market squid, the remaining top species landings fluctuated greatly.

**Figure 6.6 Top Landed Species, Both Ports Combined, 1990-2006**

*Source: California Department of Fish and Game*
6.3 Trawler Landings

Trawlers played an important role in the history of the Morro Bay and Port San Luis fisheries. Besides being the largest purchaser of fuel, ice, and provisions, trawlers gave the fisheries access to valuable flatfish, increasing the port’s economic value and diversity of product mix. However, trawler landings in Morro Bay and Port San Luis have followed a national, declining trend. As Figure 6.7 shows, until the late 1990’s a significant share of landings were trawl species.

In the future, more sustainable trawling may represent an important component for a viable fishery in Morro Bay and Port San Luis. Typical three to five day trips can yield up to 30,000-50,000 pounds of fish. Modifications in net design and spatial constraints, which reduce bycatch and disruption to benthic habitat, may allow the fishery to market trawl-caught fish as more sustainably harvested. Trawling provides access to a highly profitable, local resource of flatfish, including sole, halibut, turbot, flounder and an array of rockfish not commercially available with other gear\(^3\). A trawler component of the working waterfront can complement other fisheries and provide activity throughout the year. This, in turn, raises offloading income and provides more consistent employment opportunities on the dock as well as more consistent product availability for distributors, processors, and consumers.

![Figure 6.7 Trawl and Non-Trawl Species Landings (Pounds), Morro Bay and Port San Luis, 1990-2006](image)

Source: California Department of Fish and Game

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\(^3\) Rockfish can be caught using trawler gear or hook and line catch methods. To measure landings of specific rockfish species bycatch method, rockfish species have been divided into “trawl dominant rockfish” and “hook and line dominant rockfish”. “Hook and line dominant rockfish” landings data can be found in Section 7: Fishery Management Efforts.
Several species, such as turbot, sole, halibut and flounder have been nearly impossible to catch in traps or hook and line on a commercial basis, and thus, are caught predominately using trawl gear. As Figures 6.9 and 6.10 illustrate, sole and thornyheads, have historically represented significant “trawl” landing activity and economic value. Sole was the top landed (weight) category between 1990 and 2006 at 34.5 million pounds total (28% of total weight landed) for both ports. There were 15.9 million pounds of thornyheads landed (13% of total weight) in the same time period. Sole EVV was $11.5 million (12% of total EVV) at an average of $0.33 per pound. Thornyhead EVV was $9.1 million (10% of total EVV) at an average of $0.72 per pound.
6.4 Other Top Landed Species

Market Squid landings accounted for approximately 1/3 of all landings in 1993. Besides high landings in 1994, and again between 2002 and 2004, landings were virtually non-existent in all other years. Market squid accounted for 10% of all species landed between 1990 and 2006. However, of the 12.3 million pounds of market squid landed in that period, EVV totaled just $1.9 million, or 2% of total EVV at $0.15 per pound.
Shrimp landings totaled 6.9 million pounds, or 5.6% of all species between 1990 and 2006. Landings were highest in 1995 and 2003; however, there were virtually no landings of shrimp in the early 1990s and in 2006. Shrimp EVV accounted for $3.7 million, or 4% of overall EVV between 1990 and 2006 at $0.54 per pound.

Tuna landings in 2001 were nearly 2 million pounds, far higher than any other year. 1990-1996 and 2004-2006 saw practically no landings. Between 1990 and 2006, tuna EVV is approximately $4.4 million at $1.20 per pound. Albacore accounts for 95% of all tuna landed at both ports.

Dungeness crab and “Unspecified Rock Crab” held the highest landings of all crab species at both ports between 1990 and 2006. Crab landings dropped by almost 50% in 1995 from their 1990-1994 levels. Landings in the mid 1990s through 2005 remained a fraction of the 1990-1995 levels. Crab landings totaled 4.6 million between 1990 and 2006, and accounted for $6.3 million in EVV at $1.40 per pound.
Like squid, tuna, and crab, salmon is cyclical, and thus, landings are inconsistent. Salmon landings accounted for 3.4 million pounds, or 2.8% of total landings between 1990 and 2006. Salmon EVV was $7.5 million in the same period, or 8% of overall EVV at $2.20 per pound.

**6.5 2007 LANDINGS**

The current seasons landings at the four MB and PSL offloading facilities were primarily caught in traps and hook and line with very little trawler activity in either port* (See Figure 6.1 and 6.8). A vibrant swordfish run provided some landings in October and November to offset the very quiet season at the MBCFO and DeGarimore facility. The third Morro Bay facility, the Morro Bay Fish Company, is currently landing approximately 5,000 pounds per month and purchasing between 10,000 and 15,000 pounds per month from fishermen in other ports. There is no data available from the fourth offloading facility in Port San Luis (Olde Port Seafood).

The reduction of open access trip limits and other regulations, the recent scarcity of halibut, salmon and albacore in central coast landings, diminished salmon runs, and the cyclical nature of crab and squid all point to continued supply issues.

Since 1990, Morro Bay and Port San Luis have relied on a diversity species for the health of the fisheries. This put the ports in a unique position to be able to support a greater mix of fishermen and take advantage of price increases and decreases as well as fluctuating demand and regulatory changes.

* Note: Through the TNC Conservation Fishing Agreement, Ed Ewing and the South Bay have begun landing a variety of flatfish (including halibut, petrale, and dover), rockfish, and blackcod. This effort represents a significant “complementary” opportunity for the local fishery. This effort has given rise to employment opportunities on the boat, offloading at the pier, and more consistent supply of product for local processors, distributors, and consumers.
Regulations, both Federal and State, have played a large role in affecting the Morro Bay and Port San Luis fishery. Laws aimed at protecting fish stocks have jeopardized many of the fisheries they are meant to regulate. The United States is considered one of the most heavily regulated fisheries in the world and U.S. fishermen are some of the most compliant. As the understanding of fish life cycle, migration patterns, and habitat requirements grows, so hopefully will the sophistication of management tools to protect them. Also, as management moves to a more regional protocol, so will stock assessments. Geographically limited stock assessments will give fishery managers a more precise picture of the resource and set the stage for a viable fishing industry to exist within a more appropriate regulatory framework.

Federal landing limits and area closures helped reduce the rockfish fisheries that once provided economic stability and offset the cyclical nature of salmon, crab, squid, albacore and swordfish. Regulatory closures have also eliminated the halibut and white sea bass fishery. Black cod trip limits have greatly hindered this potentially lucrative fishery and added to the dearth of landings.

Future access to stocks remains uncertain. New Marine Protected Areas go into effect this season (2007) that will greatly limit the present nearshore, live fishery. Trip limits for black cod
increased in 2007 to 350 pounds per day and 1,050 pounds per week, then were reduced in 2008 to 300 pounds per day or 700 pounds per week, assuring this resource will continue to be reduced in landing and income potential.

Government agencies have put into place a variety of methods aimed at managing the commercial fishing industry. These efforts play a role in the reduction of commercial fishing activity at Morro Bay and Port San Luis. Among them are Marine Protected Areas (MPAs) and area and gear closures.

7.1 **MARINE PROTECTED AREAS**

Marine Protected Areas (MPAs) have greatly impacted the Central Coast fisheries. The Marine Life Protection Act (MLPA) recognizes the role of different types of MPAs in achieving objectives of the Marine Life Protection Program. Through the Marine Managed Areas Improvement Act, three types of conservation models are defined:

- **State Marine Reserves (SMR):** Marine reserves are areas that have been legislated to prevent extractive activities such as removal of species, oil, or gas.

- **State Marine Park (SMP):** Marine parks allow some or all types of recreational fishing while prohibiting the injury, damage, taking, or possessing for commercial use any (non) living marine resource.

- **State Marine Conservation Area (SMCA):** Marine conservation areas allow for some level of recreational and/or commercial fishing. Restrictions on fishing may vary with the focal species, habitats, and goals and objectives of the individual MPA and may, for instance, be in the form of restrictions on fishing gear or on the catch of a particular species.

In April 2007, the California Fish and Game Commission approved MPAs along the Central Coast Region, representing 204 square miles (18%) of state waters in the study region with about 85 of those square miles designated as “no-take” state marine reserves.

Much data is available that points to the benefits of marine reserves, such as larger organisms, greater biomass, higher species diversity, and larger populations (Palumbi 2001, Halpern and Warner 2002, Micheli et al. 2004). While there is some question as to the direct benefit to fishermen, the central coast fishing community has repeatedly expressed interest and willingness to work within a modified version of the present framework. The fishing community has also been very active and supportive of collaborative research efforts. The goal, then, is to find a sustainable balance between fishing and conservation.
Figure 7.1 Marine Protected Areas, California Central Coast, April 2007

Source: California Department of Fish and Game

7.2 MPAs and Existing Regulations

In the waters off the western U.S. coast and particularly California, where large-scale MPA networks are being proposed, several fisheries management systems are already in place. These include gear, effort, and often TAC (total allowable catch) limitations. Thus, in practice, MPAs will not be established as alternatives to existing fisheries management, but as additions to them (Hillborn et al. 2006).

MPA implementation and these more traditional regulations may interact in unexpected ways. For example, the allowable harvest set by a regulatory agency on the basis of overall stock (inside and outside an MPA) may be removed from fewer spatial areas after the MPAs are implemented, leading to overexploitation outside the MPA that is not compensated for by the export of individuals from inside the MPA (Hillborn et al. 2006).

7.3 Area and Gear Closures

Both Morro Bay and Port San Luis fisheries have been affected by various, and often overlapping regulatory tools. The following closures have contributed directly to the shrinking of the fleet, loss of infrastructure, and loss of income due to restricted access.
Gillnetting: A legislative ban on coastal gillnetting in Southern California waters was passed in 1990 (Proposition 132) and went into effect in January 1994, creating a “Marine Resource Protection Zone” roughly 3 miles offshore in coastal waters and 1 mile off the Channel Islands south of Port Arguello (Dotson, Charter, 2003). Gillnetting is the primary gear type for halibut.

In April 2002, CDF&G implemented an emergency closure of fishing with gill and trammel nets along the central California coast in waters less than 60 fathoms from Point Reyes to Point Arguello. This gear restriction has curtailed the halibut fishery in Port San Luis and Morro Bay, where in the 1980s, daily catches over a ton were not uncommon.

**WHITE SEA BASS FISHERY OPPORTUNITY?**

The 2002 State Emergency Closure of the central coast set gillnet fishery was apparently aimed at stopping interaction with sea otters in the state-managed halibut fishery in the Monterey Bay area. A halibut gillnet is made of monofilament line and can prove fatal for sea mammals. A number of fishermen claim a white sea bass gillnet made from nylon which presents a much lower (possibly no) risk for entangling sea otters. White sea bass are fished in waters from 5 to 40 fathoms. Good white sea bass fishing grounds exist between Cayucos and Point Buchon and from Avila to Point Arguello in approximately 30 fathoms of water up to 3 miles offshore. The season extends from August to as late as March and 100% of the catch could be landed in Morro Bay or Port San Luis. The market pays an average of $3.50 per pound (EVV). It is estimated by a number of experienced fishermen that 300 to 400 fish could be landed in a day. An average trip lasting 2 to 3 days could net 2,000 to 3,000 pounds of fish. Approximately 150 gallons of fuel would be required for this type of journey. Subtracting fuel costs of ($3/gallon) $450 from the approximately $8,750 gross income, would yield $8,300 in three days. It is estimated that between 10,000 and 15,000 pounds could be harvested by one boat in a season.

Note: ice, depreciation, insurance, maintenance, mooring fees, licenses, permits and skipper’s time would need to be factored into the equation to get a more accurate cost.

**FIGURE 7.2 WHITE SEA BASS LANDINGS, MORRO BAY AND PORT SAN LUIS, 1990-2006**

![Graph showing white sea bass landings from 1990 to 2006.](source: California Department of Fish and Game)
Halibut landings fluctuated downward during the 1990s. Between 2002 and 2006, landings did not exceed their 2001 level of 63,000 lbs. Between 1990 and 2006, 1.1 million lbs. of halibut were landed at both ports with $2.7 million EVV at $2.48 per pound.

**Figure 7.3 Halibut Landings, Morro Bay and Port San Luis, 1990-2006**

**Swordfish:** Legislation effective in 1990 prohibits driftnetting for swordfish or thresher shark within 75 miles of the mainland from February 1 through July 14. The swordfish longline fishery in U.S. waters less than 200 miles offshore was closed in early 2004. More recent regulations have further restricted the West Coast swordfish fishery.

The National Marine Fisheries Service (NMFS) has required a variety of modifications in the drift gillnet fishery to reduce the bycatch rates of marine mammals, including the use of pingers, 36-feet net extenders, and mandatory skipper education workshops. In addition, NMFS has implemented significant time-area closures to reduce the bycatch of sea turtles. While fishermen consider many of these requirements expensive, the moves are generally seen as effective. NMFS has determined that bycatch associated with the drift gillnet fisheries is currently consistent with the requirements of the Endangered Species Act and Marine Mammal Protection Act.

California’s swordfish fishery has a small impact on Pacific swordfish stocks, yet California fishermen are the most strictly regulated of all Pacific Rim fleets and require 20% human observer coverage.

Swordfish landings totaled 2.2 million pounds between 1990 and 2006 and EVV was $5.7 million ($2.61 per pound). Between 2001 and 2006 swordfish landings totaled 366,000 pounds, approximately the same weight landed in 1990 alone.
Spot prawn: CDF&G banned the use of trawl gear in 2002 for the take of spot prawn. There are presently 29 spot trap prawn permits on 1,100 miles of California coastline (17 Tier 1 transferable permits and 12 non-transferable permits). A non-transferable permit is retired when the permit holder retires.

Between 1990 and 2006, approximately 1.3 million pounds of spot prawn were landed with a total EVV at $9.6 million. Spot prawn is a high valued catch. Spot prawn represented just one percent of landing weight between 1990 and 2006, but more than 10 percent of total EVV. On average, spot prawn yielded $7.41 per pound.
Rockfish: Large-scale federally mandated closures were implemented along the entire West Coast by NOAA Fisheries in 2003 and 2005 creating the Rockfish Conservation Area (RCA). The closures are in compliance with the Pacific Fisheries Management Council’s Groundfish Fishery Management Plan (FMP), which includes 80 species of bottom dwelling finfish, including rockfish, halibut and other flatfish and lingcod. Boundaries vary with time of year and gear type and are based on depth contour lines.

Rockfish species represented the second highest landings at both ports between 1990 and 2006 totaling 23.2 million pounds, nearly 19 percent of all landings. Rockfish EVV during the same period yielded $18.8 million, approximately 20 percent of total EVV. However, as Figure 7.6 shows, rockfish landings have dropped in recent years. Between 1999 and 2006, rockfish landings totaled about 2.5 million, just more than 10 percent of the total landed in the previous 10 years. Rockfish EVV totaled $5.2 million between 1999 and 2006, or 28% of total EVV.

Trawl dominant rockfish has steadily declined since 1990 (See Figure 7.6). In 1999, trawl dominant rockfish landings dropped dramatically and, besides a small recovery in 2002, landings continue to fall. From 1990 to the present, hook & line dominant rockfish landings have remained relatively constant. In 2005 and 2006, hook & line landings exceeded trawl landings.

**Figure 7.6 Rockfish (all species) Landings, Morro Bay and Port San Luis, 1990-2006**

![Graph showing rockfish landings and EVV from 1990 to 2006]

*Source: California Department of Fish and Game*
As illustrated in Figure 7.7, trawl dominant rockfish EVV has continually fallen due to decreased landing since 1990. Hook & line dominant rockfish, however, has remained relatively steady. Hook & line dominant rockfish EVV exceeded trawl dominant rockfish in 1996, and continually did so between 1999 and 2006.

**Figure 7.7 Rockfish EVV (2006 Dollars), Morro Bay and Port San Luis, 1990-2006**

As illustrated in Figure 7.8, trawl dominant rockfish average price paid pound ($0.70) has remained relatively constant since 1990 (adjusted for inflation). Hook & line dominant rockfish, however, has steadily risen since 1990. Hook & line dominant rockfish averaged $1.39 (2006 dollars) per pound in 1990, and more than quadrupled by 2006 to $6.83 per pound.

**Figure 7.8 Rockfish Average Price per Pound (2006 Dollars), Morro Bay and Port San Luis, 1990-2006**
**Quotas/Nearshore Fisheries:** In December 2000, the Fish and Game Commission adopted interim catch limits and allocations for cabezon, greenlings, and California sheephead based on a precautionary approach. Catch limits were set at 50% of recent combined recreational and commercial landings. The Nearshore Fisheries Management Plan (NFMP) includes regulations for more than 60 species of rockfish, finfish, groundfish, flatfish, sharks and rays. These regulations have restricted the number of fishing days and the amount of fish that can be landed daily and annually.

Nearshore species are predominately caught using hook and line catch methods. The following data depicts the nearshore species landed at MB/PSL which includes: cabezon, kelp greenlings, California scorpionfish, shallow nearshore rockfish (black and yellow rockfish, China rockfish, gopher and group gopher rockfish, grass rockfish, and kelp rockfish), and deeper nearshore rockfish (group bolina rockfish (brown rockfish, copper rockfish), olive rockfish, black rockfish, blue rockfish, and treefish).

**Figure 7.9 Nearshore Species Landings, Morro Bay and Port San Luis, 1990-2006**

Nearshore species are very valuable, and yielded nearly five times the value of trawl caught species in 2006. Nearshore species are often sold “live” which yield higher prices per pound. In 2006 nearshore species represented 10% of all landings and 25% of total EVV for both ports combined.
**Black Cod Trip Limits:** The black cod (sablefish) fisheries off the coast of Washington, Oregon, and California are managed through the Pacific Fishery Management Council’s (PFMC) Pacific Coast Groundfish Fishery Management Plan. Under this plan, trip limits were implemented in October 1982. Since then, the sablefish fishery has been managed intensively to limit catches with limited-entry and open-access programs. Formal stock assessments have been coordinated through the Pacific Fishery Management Council (PFMC) since 1984. While open access limits have recently increased from 300 pounds per day to 350 pounds per day and 1,050 pounds per week, considering fuel costs, they have created an economic disincentive for fishermen who are forced to travel further due to area closures. Further open access reductions were adopted in November of 2007.

As Figure 7.11 illustrates, black cod landings at Morro Bay and Port San Luis have continually dropped between 1990 and 2001. Only a small rebound in landings is noticeable between 2002 and 2006. With nearly 5.9 million pounds landed between 1990 and 2006, black cod represents 4.8% of total landings. EVV for the same time period was $3.6 million, about 3% of total EVV at $0.60 on average per pound.
PRIVATE-PUBLIC PARTNERSHIPS

Section 8

The Morro Bay and Port San Luis Commercial fishery has shown great insight and innovation by partnering with stakeholders outside traditional fishery models such as The Nature Conservancy (TNC) and Environmental Defense. TNC brings capital from donors who support ocean conservation programs that engage fishermen and measures as part of its success an economically sustainable industry. Environmental Defense brings policy experience and the capacity to implement novel fishery management systems. These NGOs also bring a vision of a viable, sustainable fishery within a network of protected areas. They support programs that promote the use of innovative gear that reduces bycatch and environmental impacts and creates economic viability that in turn drives improvements, marketability and growth within the local industry.

Environmental Defense is supporting the development of new markets for MB/PSL sustainable seafood, longer-term policy recommendations such as a community development program for the emerging West Coast IFQ program, and financing tools such as the California Fishery Fund. TNC has worked closely with the community and the trawler fleet in Morro Bay and Port San Luis through a trawler buyout program, establishment of Essential Fish Habitat (No Trawl Zones), and a Conservation Fishing Agreement. The Conservation Fishing Agreement Partnership is one of the tools the local fishery has employed to get back on its feet and create value. Another key TNC-Community program is the Exempted Fishing Permit (EFP) that aims to increase fishing opportunities and provide data on feasibility to Federal fisheries managers. The PFMC recently recommended this EFP for approval.
8.1 TNC Trawler Buyout Program

In 2006, as a result of The Nature Conservancy’s (TNC) and Environmental Defense’s trawler buyout program (“Conserving the Working Waterfront an Ocean Habitats Project”), the U.S. Secretary of Commerce signed into regulation 3.8 million acres of closed trawl areas between Point Conception and Point Sur. The TNC buyout program is the nation’s first private buyout of Pacific fishing vessels and permits for conservation purposes. The move further reduced bottom trawling off the central California coast by 83%. The hope is that degraded sea floor communities and critical spawning and rearing areas for several depleted fish species will eventually recover.

Under the buyout program, TNC purchased seven trawler permits and four trawling vessels, paying the boat owners and permit holders directly. Value of the permits was determined using 14 years of fishing industry records on tonnage and EVV, adding up to several thousand dollars per permit. The overall goal of the program is to help create a fishery that can sustain fishermen, revitalize communities, and protect resources.

The program comes at a crucial time in the Pacific trawl fishery. NMFS has declared six species (of the 80 commercially caught) of groundfish depleted. Moreover, trawl fishing revenues fell from $110 million in 1987 to $35 million in 2003. The program helps the Pacific Fisheries Management Council (PFMC, NOAA’s oversight body) achieve its mandate to rebuild weak groundfish stocks and reduce the impacts of fishing.

Due to the decline in trawler landings and the impacts on the working waterfront as a result of tighter regulations and the buyout, TNC negotiated a three-year grant program with the MBCFO for a total of $150,000 to help support the MBCFO dock. The two parties agreed that this would provide sufficient time and financial assistance for the Morro Bay dock operation to return to an economically self-sufficient operation.

The buyout program also includes TNC and Environmental Defense leading the efforts of local stakeholders to petition the PFMC for an Exempted Fishing Permit (EFP) to switch the trawler landing limits to more sustainable, targeted gear (trap, hook and line, and long line) and leasing the opportunities to local fishermen willing to use the more selective gear and observe spatial constraints. As awareness of sustainable fisheries increases, fish caught with low-impact gear will continue to be more attractive from a marketing and sales perspective. This message will play a large role in the marketing program.
8.2 CONSERVATION FISHING AGREEMENT

In another component of the Conserving the Working Waterfront and Ocean Habitats project, TNC has leased one of seven permits to an experienced fisherman to test and improve a low-impact trawl net. The program will limit fishing to previously-trawled sand and mud bottoms. The new gear, specifically the lighter foot rope, and smaller surface area, will reduce impact on bottom habitats. The smaller and lighter net will also reduce bycatch while giving fishermen access to halibut, Dover sole, petrale sole, flounder, thorny heads, black gill rockfish, bank Rockfish and other species of economic significance that can only be caught in commercial volumes with the use of trawl gear.

The effort is aimed at creating a pilot project on the central coast that can provide information on catch rates of target species and bycatch while considering socioeconomic needs of working waterfront communities. The Conservation Fishing Agreement includes onboard observers as well as scientific and economic analysis and assessment of harvest and peer review of results.

The Conservation Fishing Agreement is significant because:

- From a supply perspective, even though initially proposed as a one-year program, the agreement will provide increased landings and access to economically significant species and, if successful, may be adopted for a longer period.

- From a marketing perspective, it promotes the efforts that Morro Bay and Port San Luis fishermen have made to create a more sustainable harvest. This is a very clear example of a new paradigm in solving problems as a collaborative effort between diverse stakeholders: environmental groups, the fishing community, harbor departments, and the federal and state governments (PFMC and CDF&G).
The goal of the market analysis is to create a profile of the needs of potential buyers, quantify demand, estimate potential demand, and catalog the desirable and unique characteristics of MB/PSL seafood. This analysis also seeks to provide guidance and feedback from the marketplace from which to calibrate the MB/PSL marketing message to obtain full value for its premium, environmentally-sustainable product.

This section expands on existing conditions and explores potential relationships between MB/PSL fishermen (and their catch) and fish buyers, processors, distributors, restaurants, and direct-to-consumer sales. Conclusions and recommendations are based on responses to an extensive survey conducted with participants at each level of the distribution chain. This analysis provides a broad view of the distribution and consumption chain, examines alternatives to traditional practices, and focuses on maximizing value versus maximizing catch. It considers demand at the consumer, restaurant, and retail level and suggests a broader mix of buyers and distributors to capitalize on “new” potential. The market analysis makes the connection between landings and buyers/end users - thus providing direction for the marketing and sales effort. This information will assist the local fishing community in capitalizing on supply, identifying potential buyers, and maximizing profits.

Potential MB/PSL commercial fisheries sales, distribution and subsequent marketing targets include: producers/distributors, restaurant/food service, retail/supermarket, and direct-to-consumer. Each option requires a different focus and different set of tasks and objectives. The following figure illustrates the key players and a traditional product flow.
9.1 Market Survey

In order to assess demand and identify key attributes and shortcomings of the MB/PSL product, a survey of key market players was conducted. Targets of the survey were chosen due to their representative nature in the market and included: five local restaurants, two retailers, four distributor/processors and four direct-to-consumer establishments. All of the interviews but two were conducted in person. The other two were conducted via telephone and e-mail. Several follow up telephone conversations and e-mail messages were also employed to clarify and/or obtain additional information. The duration of the interviews reflected the extensive nature of the survey and ranged from approximately 45 minutes to 1 hour and 20 minutes. A summary of each interview is contained in Appendix B.

Figure 9.2 List of Interviews Conducted

<table>
<thead>
<tr>
<th>Restaurant/Food Service*</th>
<th>Retail: Grocery/Supermarket</th>
<th>Wholesale: Producers/Processors/Distributors</th>
<th>Retail: Direct-to-Consumer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inn at Morro Bay</td>
<td>Spencer’s Fresh Market</td>
<td>Central Coast Seafood</td>
<td>Santa Barbara</td>
</tr>
<tr>
<td>Tsurugi</td>
<td>Whole Foods</td>
<td>Monterey Fish Market</td>
<td>Fisherman’s Market</td>
</tr>
<tr>
<td>Café Roma</td>
<td></td>
<td>Costarella Seafood/Whole Foods (operates</td>
<td>Ventura Fish Market</td>
</tr>
<tr>
<td>The Park</td>
<td></td>
<td>processing facility)</td>
<td>Pillar Point (HMB)</td>
</tr>
<tr>
<td>Big Sky Café</td>
<td></td>
<td>Facciola (Sysco)</td>
<td>Academia Barilla</td>
</tr>
</tbody>
</table>

*Additional potential local targets (not interviewed) include 25-30 restaurants in San Luis Obispo, Morro Bay, Los Osos, and Cayucos.
The results of the interviews for each key market channel (i.e. Restaurant/Food Service, Retail: Grocery/Supermarket, Wholesale, and Retail: Direct-to-Consumer) are summarized in Sections 9.3 to 9.6 by the following categories:

- Channel Description
- Demand Characteristics
- Level of Interest/Knowledge of Local, Sustainable Seafood
- Barriers to Buying/Selling Local Seafood
- Marketing Opportunities
- Additional Marketing Opportunities (if any)
- Relationship Requirements/Potential

**Note:** To facilitate additional survey work, several versions of the survey instrument were created: Tier 1 (Appendix C), a more extensive Tier 2 (Appendix D), and a streamlined version of the survey for fax/e-mail interviews (Appendix E).

### 9.2 Summary of Findings

Demand significantly exceeds current supply. All the processor/distributors interviewed claimed that they would buy all of the seafood that the ports were able to produce. Each cited intermittent and/or limited supply as the most obvious and immediate obstacle (as well as lack of consistent communication with skippers and dock operations). Target restaurants purchased between 10 and 20 pounds of seafood per day and were overwhelmingly interested in providing more sustainable, wild caught, local seafood. Like processor/distributors, each cited more consistent supply as the obstacle to spending greater effort seeking out and purchasing MB/PSL product. Retail establishments also universally seek greater supply and cited lack of availability as a major obstacle.

*Tognazzini’s Dockside Too*
Some marketing connections are currently being made for MB/PSL seafood. Rose’s Landing, Dorn’s, The Chart House, Cafe Roma the Park, Tsurugi, and Harada, to name a few, were able to serve local fish this season, while Andronico in San Francisco had access to a limited quantity through Facciola’s. Tognazzini’s Dockside restaurant, directly across from the MBCFO offloading facility, actively promotes locally caught seafood on its menu, and offers locally caught seafood in the fish market. Giovanni’s has locally trapped crabs in an aerating tank in front of its retail establishment at 1099 Embarcadero and also offers locally caught seafood in its display case. Central Coast Seafood had access to wild caught salmon, landed at the MBCFO dock early this summer. However, none of these businesses are able to offer more than 10% to 30% locally caught fish.

There are frustrations on both sides of the issue. Fishermen have voiced frustration over an apparent lack of local demand for their unique product, and restaurants, distributors and wholesalers are frustrated at not being able to access plentiful and consistent, locally caught fish.

9.3 Restaurants/Food Service

Channel description: Targets of the survey were locally owned and operated, single location restaurants in San Luis Obispo County. Fish entrées ranged from $12-$47, and seafood purchases ranged from 10 pounds to 20 pounds per day. In general, they offered salmon, shrimp, calamari and shellfish as consistent menu items and, as “upscale” venues, sought to provide fresh, high quality seafood.

Demand characteristics: Seafood acquisitions were typically made from one, large distributor and they all cited other, smaller sources for occasional, limited seafood purchases. Restaurants measured quality by appearance and sensory (odor) indicators and relied heavily on perceived handling procedures of their distributors. Locally caught, sustainable and wild caught versus farm raised were subordinate characteristics to freshness. To deal with seasonality and unsteady supply, the majority of restaurant owners and chefs substituted farm raised and previously frozen fish to maintain a constant offering of their “target” species. They also generally offered a fish special that included ono, a Hawaiian species of tuna. In buying local seafood, restaurants relied heavily on their distributor’s sales staff and exhibited fairly low price sensitivity. They were unanimously accustomed to frequent deliveries during the week and highly responsive customer service that would, for example, accept a phone order at 6:30 a.m. and make a delivery later that day or the next. Universally, restaurants preferred fish in an intermediate form; flanks or quarters that they would cut and prepare in their kitchen. All restaurants cited the ability to process fish on a very limited basis.
Level of interest/knowledge of local, sustainable seafood: All respondents voiced strong support and identification with the local fishing community and expressed a desire to support it. Each restaurant respondent expressed interest in educating wait staff and customers and agreed that “local” and “sustainable” monikers and Marine Stewardship Council (MSC) certification could bring higher demand and higher prices. All respondents indicated they would like to learn more about this opportunity.

Barriers: Restaurants, in general, require high-level effort for low-volume sales. They expect and require constant contact and communication, timely and frequent deliveries, consistent supply and variety and attention in collecting payment. Respondents cited the potential additional burden associated with having to contact numerous suppliers to keep in tune with local offerings. Therefore, focusing on existing distributors relationships would perhaps provide the most efficient and successful tactic in increasing local seafood sales into this channel.

Marketing opportunities: Chefs and restaurant owners were somewhat familiar with local species, harvest methods and efforts to maintain viable local fisheries and working waterfronts, but they felt that additional education would be beneficial. Each respondent agreed that they would like to learn more. The majority of restaurants also relied on staple, non-local products. An education campaign, point-of-sale material, wait staff training, opportunities to participate in local food events, and public service announcements could convince restaurant owners to replace these items with local, wild caught, smarter choices that could be marketed as such, garnering higher prices and taking advantage of heightened consumer awareness.

Recommendations include developing consistent relationships with distributors that have existing relationships with target restaurants and promote locally caught fish as well as helping distributors advise restaurants on which species are currently available and why consumers should choose “local” over all else.

Additional Marketing Opportunities: San Francisco, Los Angeles, and Las Vegas’ upscale restaurants also represent attractive, regional potential markets for premium, sustainable seafood. A list of potential additional marketing targets in those markets is located in Appendix G.

Relationship Requirements/Potential: Taking advantage of the direct to restaurant sales channel will require a relatively high investment in infrastructure, processing, cold storage, transportation, inventory management, accounts receivable, computer equipment, and well-managed, and well-trained staff. Universally, restaurants have expressed interest in locally-caught fish, but they lack the ability to process a whole fish into manageable portions and store the product for future use. To access the restaurant market, the providers will be required to
Restaurants/Food Service continued

gut, scale, behead, and cut fish into serving-size portions. While a processing facility will enable the fisheries to access the higher price of kitchen-ready fish, real estate and building costs, utilities, wages, worker’s compensation, cost of money, resources necessary for collecting bills and insurance must be considered against potentially higher income. Deep-freeze capabilities will also expand the range of products that the local fisheries can offer.

Many, if not all restaurants in San Luis Obispo County have existing relationships with seafood distributors and buying direct may interfere with those relationships. Potential restaurant customers may also be accustomed to receiving seafood shipments at their location as often as six days per week. This type of model will require the MB/PSL commercial fisheries to own, lease, or contract management and operations of a refrigerated vehicle. Increased demand may very quickly warrant the need for more than one vehicle as restaurants often rely on multiple deliveries per week.

Direct selling will also require a dedicated sales function, management, and technology that records and can recall past purchase history and preferences. Restaurants traditionally pay their bills on a 30 day or greater basis.

9.4 RETAIL: GROCERY/SUPERMARKET

Channel description: Respondents in this channel were made up of regional and national chain supermarkets with regional buying protocol. Uncooked seafood accounted for approximately 1%-5% of store sales. Like restaurants, retailers require intensive account management, frequent delivery, frequent contact, and assistance with point-of-purchase material and marketing efforts.

Demand characteristics: Retailers agree that there is a growing focus on fresh, local, seasonal product but most establishments substitute frozen, farmed or imported product to smooth inconsistent supply. Retailers have been forced to display the country of origin on their fresh product and are increasingly aware that this can provide an advantage. In general, retailers are more price sensitive than restaurants and spend considerable time and effort negotiating store-wide prices. This channel is generally marked by high volume and low profit.
Section 9: Market Channels and Opportunities

Retail: Grocery/Supermarket continued

Level of interest/Knowledge of Local, Sustainable Seafood: While level of interest and knowledge in locally caught and sustainably caught seafood varies, there is a general desire to increase the percentage of offerings. Higher-end retailers exhibited a more assertive demand and lower price sensitivity and may represent a good, initial focus of a sales effort (e.g. Whole Foods).

Barriers: All respondents noted lack of supply and unpredictability when questioned about local seafood. Existing relationships and wholesale contracts increase the perceived burden of creating new relationships with small, low-volume suppliers.

Marketing opportunities: Again, working through existing distributor relationships may prove to be the most efficient path for local fisheries to capture more of this market. Like restaurants, retail establishments overwhelmingly believe they could increase sales and enjoy higher pricing with the help of point of sales information, displays, in-store tastings, fish counter staff and butcher education, and Internet and media advertising. Most agreed that leveraging MSC-style certification could help increase consumer awareness and bolster sales as well (and they would like to learn more).

Additional Marketing Opportunities: Once supply increases and stabilizes, San Francisco, Los Angeles, and Las Vegas’ (and beyond) upscale supermarkets also represent thriving potential for premium, sustainable seafood sales.

Relationship Requirements/Potential: Taking advantage of the direct to grocery store sales channel will require a relatively high investment in infrastructure, processing, refrigerated storage, freezing facilities, transportation, inventory management, accounts receivable, marketing, computer equipment, and well-managed, highly trained human resources. All the retail establishments contacted expressed interest in locally caught fish, but they lacked the ability or willingness to process a whole fish on a large scale.

To access the direct retail channel, the fisheries will be required to provide gutted, scaled, beheaded fish in a form appropriate for display in a fresh fish counter. A processing facility would enable the fisheries to access the higher price paid for processed fish. However, real estate and building costs, utilities, wages, refrigerated transport, Worker’s Compensation, and insurance must be considered against a potentially higher income over time (see also Section 13: Value Added Services).

Canning, and vacuum sealing could allow the fisheries to gain direct access to the specialty retail and grocery market and reduce many of the uncertainties and seasonality of harvest and maximize pricing.
Retail: Grocery/Supermarket continued

All grocers interviewed have existing relationships and buying contracts with seafood distributors. Soliciting these retailers directly potentially interferes with those well-established relationships. In addition, retailers are accustomed to receiving seafood shipments at their location more than once per week. This type of model will require the MB/PSL commercial fisheries to own, manage and operate a refrigerated vehicle.

Direct selling will also require a dedicated sales function, management, account administration and information technology. Retailers traditionally pay their bills every 30 days.

9.5 Wholesale: Producers and Distributors

Channel Description: Interviewees of this channel have local and regional focus, purchase fish directly from fishermen and fish buyers, and process whole and partially processed fish into salable products based on customer needs. Capacity ranged from 100,000 pounds per month to several million pounds per month and relied on between 12 and 25 skilled cutters with little automation. Sales ranged from $10 million a year to approximately $20 million a year. Each respondent is in a fairly positive growth mode.

Respondents processed seafood at their facility and delivered directly to retail and restaurant customers. While each possessed extensive cold store and refrigeration facilities, they focused on moving product quickly from the processing floor to market. With respect to local seafood, all respondents had overcapacity.

This channel is marked by high barriers to entry. It requires large amounts of capital to procure product, build processing facilities with cold storage and deep-freeze capabilities, purchase refrigerated transportation, and human resource management and training. Wholesalers are also subject to USDA food regulations and inspections at each step of the processing and distribution function. They must be highly responsive to customer needs and continually focus on cost and cost reduction, as well as maintain relationships with multiple suppliers.

Demand Characteristics: Each of the distributors interviewed bought and sold a wide variety of fresh, frozen, wild, farmed and imported products at various price points. Each worked under extreme pressure to move product quickly, amplified by large volumes. Like their customers, they strive for consistency and sourced seafood from various suppliers to maintain a steady
supply of target species at competitive prices. Each agreed that they were able to pay and charge more for a premium product, up to an additional $.40-$0.50 per pound.

**Level of Interest/Knowledge of Local, Sustainable Seafood:** Level of knowledge and interest in local sustainable seafood is extremely high and all agreed that demand goes unfulfilled.

**Barriers:** Universally, lack of consistent supply and commitment from the fishing community fueled by regulatory uncertainty undermines distributor’s efforts to showcase locally caught seafood. Fisherman’s propensity to switch buyers was cited as one of the causes. Competition from consistent, high volume, low price sources (largely) from overseas exacerbated supply difficulties.

**Marketing Opportunities:** Interviewees also agreed that increased awareness (consumer, distributors sales staff, meat and seafood counter staff, and waitstaff) through education and training would drive sales and increase demand. Facciola Seafood is successfully working with Santa Cruz-based FishWise (not-for-profit organization dedicated to promoting sustainably-caught seafood and economically viable fisheries) to take advantage of their expertise and efforts to raise consumer awareness at the retail level. Their concerted efforts produced MB/PSL seafood sales at Andronico’s and Molly Stone in San Francisco. Wholesalers represented in the survey had strong existing customer relationships and regular access to retail and restaurant decision-makers. They also exhibited a growing capacity and interest to develop and communicate the message about sustainable, local seafood. Many opportunities exist in this channel for collaborative marketing, outreach and educational efforts. Distributors are in a position to take advantage of and promote branding and certification. This channel may also be more receptive to formal relationships with regional co-ops, and associations.

**Additional Marketing Opportunities:** Once supply is increased and stabilized, there is significant potential to expand existing relationships and develop previously untapped market(s). California’s central coast is home to dozens of individual seafood wholesalers and distributors, many of which are unaware of Morro Bay/Port San Luis production potential. While MB/PSL fishermen have worked these markets extensively, San Francisco and Los Angeles also represent huge potential markets for premium, California-caught, sustainable seafood as well.

**Relationship Requirements/Potential:** Forming relationships with entities that can buy, process and distribute seafood requires the least amount of infrastructure and investment from the local fishing community. It will also most likely produce the lowest cost per pound for MB/PSL landed fish. However, this type of relationship will maximize the amount of fish that can be moved across the docks and provide a more consistent, secure cash flow over other methods. Distributors/processors traditionally pay their bills in two weeks or less.
Wholesale: Producers and Consumers continued

Careful and discerning selection of partners for this distribution protocol is critical. The most attractive candidates will exhibit a high priority for attaining, selling and promoting an economically and environmentally sustainable product. Potential candidates will have systems in place to educate their retail buyers, restaurant servers, and seafood department personnel on programs that are providing solutions for the world’s oceans. Attractive candidates will also participate in the promotion of viable working waterfronts, and family-owned fishing businesses as well as the reduced environmental impacts of targeted fishing gear versus traditional methods. Potential partners will accomplish these tasks through their websites, collaboration with media, point of purchase advertising material, and printed material for their sales team, as well as relationships with groups like FishWise and Seafood Choices Alliance (identifies and certifies restaurants moving towards serving sustainably caught fish, acts as a mouthpiece for the sustainable seafood movement in the restaurant industry).

Under this protocol, the MB/PSL fisheries can seek and introduce potential customers to appropriate distributors.

9.6 DIRECT-TO-CONSUMER

Channel description and Demand Characteristics: In direct-to-consumer sales, fisherman sell whole or partially processed fish to the public from their boats or through a market or storefront (e.g. Ventura, Santa Barbara, Pillar Point). Waterfront based markets emphasize product origin, freshness, and, usually, lower-than-market price. Consumers not only look for seafood, but also the experience of being on the waterfront and interacting with fishermen. Internet and phone sales stress convenience, variety, and very specific product information and rely on consumer’s product knowledge. These types of sales requires that fishermen have access to fish close enough to return to port frequently and consistently.

Closures and restrictions have affected this type of selling. Into the late ‘90s, up to 15 fishermen participated in the City of Ventura Local Fisherman’s Association Fish Market. On August 18, 2007, only two or three boats participated and the market was vacant by 10:00 a.m. The manager of the adjacent seafood restaurant stated, that it was a typical Saturday. Early that afternoon, in Santa Barbara, one fisherman remained with approximately a dozen boccaccio and vermilion rockfish (See Appendix H: Direct-to-Consumer Targets.)
Pillar Point Harbor in Half Moon Bay sells direct to consumers via the “Fishfone” that informs callers of seafood availability. The Fishfone is updated by the County Harbor District Staff and depends entirely on fisherman’s participation and catch. On Sunday, August 22, 2007, there were two boats selling rockfish and one selling (farm raised) abalone, and on Monday, August 27, 2007, there was one boat selling rockfish. Crab in the fall/winter is also sold direct.

**Level of interest/Knowledge of Local, Sustainable Seafood:** While some incidental purchases occur, direct to consumer customers typically have some knowledge of species, quality, capture methods, and the advantages of locally caught seafood.

**Barriers:** All variations in this channel require some processing, packaging, and/or advertising. Internet sales require perhaps the lowest overhead but packing, shipping, processing, charge/debit card processing, and website maintenance are essential. Physical market sales require staff, processing, adherence to USDA regulations, cold storage and advertising. Restrictions in the nearshore fishery, rock cod regulations, gillnet closures, and fluctuations in the resource (salmon runs moving farther north) have reduced the attractiveness of direct selling. Fishermen are forced to go further for less fish and are spending less time in their home ports, particularly Morro Bay and Port San Luis.

**Marketing Opportunities:** Potentially, the direct-to-consumer model eliminates intermediaries and takes advantage of vertical integration, keeping fish sales, processing, and distribution money in the community. Initially, the MB/PSL fisheries could avoid capital requirements and take advantage of selling through existing retail establishments on the Embarcadero and the Harford Pier (e.g. Tognazzini’s, Giovanni’s, and Olde Port Fish, Pete’s Pierside). All of these establishments have cold storage, processing capabilities, credit/debit card processing, and human resources. Dockside storefront sales creates a unique opportunity for increasing

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**THE BONNIE MARIETTA:**

**LOCAL DIRECT CONSUMER SUCCESS STORY**

For almost 10 years Mark Tognazzini and the Bonnie Marietta (Moro Bay) sold more direct consumer salmon than any operation in the State. He also had a thriving direct to consumer albacore business. Mark began direct consumer sales in 1996 when salmon prices dropped while he was at sea. He has built a loyal following of 2000-2500 people through his Internet newsletter (http://www.bonniemarietta.com/fish-sales.htm). Mark attributes his success to providing an amazingly fresh, professionally handled product consistently, and maintaining close communication with his customers during the salmon and albacore season and throughout the year. Hard work and perseverance have a lot to do with it as well. Sales dropped in 2005 and 2006 due to poor salmon seasons. 2007 was a poor year as well. The direct to consumer salmon and albacore direct opportunities will remain weak as long as fishing opportunities are limited. If fishery management considers direct to consumer options, Mark Tognazzini should play an important role in advising.
Direct-to-Consumers continued

awareness and reinforces the value of the working waterfront. Direct-to-consumer sales stress the local nature of the fisheries and could take advantage of incidental tourist sales. Shifting demographics have made the sale of whole fish a viable alternative. These scenarios provides the opportunity to involve fishing families and retired fishermen.

Relationship Requirements/Potential: Off the boat sales will require a strong marketing and advertising effort to inform customers of the logistics, availability, and advantages of buying directly from fishermen. These efforts should enlist the help and cooperation of local Chambers of Commerce, Visitor & Convention Bureaus, Central Coast Tourism Council, and San Luis Obispo Online Visitors Guide, as well as a joint effort between local (print, radio and television) media and the marketing function of the MB/PSL fisheries. Direct to consumer sales could yield the highest price per pound to fishermen, but it will be limited in quantity and may be unwieldy when fishermen are focused on being at sea. A central, cooperative sales outlet may minimize the burden to fishermen and provide an easy-to-access retail point for consumers. However, it will compete with existing fish sales on the waterfronts and in local grocery stores. Rent or construction costs, utilities, adherence to USDA regulations, staff, communication with fishermen, advertising, accounting, and credit/debit card processing must be considered with such a sales outlet.
MARKETING STRATEGY

Section 10

The goal of the marketing strategy is to define and differentiate MB/PSL seafood as a safe, valuable food source and a solution to existing environmental and economic problems. This Section provides a discussion of the global and local/market; a strategy for the marketing and sales effort; an analysis of competitors; and a discussion of product pricing. While fish as a product are not necessarily unique, how they are caught, and how scientists, regulators, environmental groups, and fishermen cooperate to manage the fishery is a defining feature. It is this collaboration that makes MB/PSL uniquely different and desirable. (Note: Section 11: Marketing Strategy: Marketing Sustainable Product discusses marketing sustainability and conservation in more detail.)

10.1 DEMAND

As world population grows, so does demand for seafood. In the past 30 years, the global appetite for fish has doubled from 45 million metric tons in 1973 to more than 91 million metric tons. Based on current trends, these numbers will continue to move upward.

In the United States, seafood sales/consumption grew from 3.9 billion pounds in 1996 to 4.8 billion pounds in 2005. NOAA estimates that Americans consumed a total of 4.9 billion pounds of seafood in 2006. The average American eats about 17 pounds of seafood per year, up from 12.5...
pounds in 1980. Demand will continue to increase as population rises and Americans continue to seek a healthy, palatable protein source.

On the Central Coast, the demand for local species is high. Rockfish are sold at live markets in Southern California. In addition, demand for black cod is growing domestically and remains strong in Japan; salmon remains a ubiquitously sought species; and white sea bass and halibut (from Santa Barbara and Ventura) enjoy strong demand from restaurants, retail, and consumers. Trawler species may not enjoy as universally robust a demand, but Central Coast Seafood is initially committed to buying the entire catch of the fleet fishing under the Conservation Fishing Agreement (see Section 8), and as much trawler catch landed in Morro Bay as they can.

10.2 GLOBAL CONTEXT

Food production has become a huge, corporate-controlled, multibillion-dollar industry. Factory trawler/processors flying flags of convenience spend months at sea, discarding millions of tons of non-targeted fish, and producing inexpensive, frozen, packaged, seafood that ends up as processed fish products, feed, grocery store freezer items, and fish and chips. In many ways, a “local” fishery is bucking an enormous trend. Yet, locally produced and sustainably raised and harvested food is gaining attention across a broad demographic.

Upward spiraling population, subsequent seafood demand and increasing dependence on imports and farm raised fish are also part of the fabric in which we operate. Acknowledging these issues is critical to understanding the position and advantages of MB/PSL seafood.

More Humans, Eating More Fish: Global population increases by approximately 10,000 people every hour, and demand for fish rises with it. Americans eat almost 17 pounds of seafood per capita each year, while the average consumer in Britain eats 44 pounds, compared to 52 pounds in Canada, almost 100 pounds in Spain, and 128 pounds in Japan. Putting U.S. fishermen out of business due to strict regulation will not halt the global fishing effort, but instead transfer demand onto the boats of other nations with little or no regulations.

Think Globally, Eat Locally: America has transformed from being a net exporter of fish to a “seafood beggar” nation, importing as much as 60% of our seafood at an annual cost of about $8 billion (New York Times Magazine, May 13, 2007, Ocean Blues, Paul Greenberg).
**Wild at Heart:** Fish are one of the last food items for most of us that comes straight from the wild. Fish range extensively, and this partly explains the flavor, the firm texture, and the healthful properties of a king salmon or vermilion rockfish. If a sustained attempt is not made to save the most popular species of wild fish, we are going to be left mostly with farmed ones. Farmed fish have the same problems of natural confinement that intensively bred livestock do. They require veterinary drugs to treat illnesses and pesticides to kill parasites. They lead brief, sedentary lives like other domesticated creatures. They are fed with ground-up smaller fish, which are often themselves over fished. This creates a buildup of PCBs and heavy metals from concentrating the flesh of smaller fish in the fish meal. Generation after generation of farm raised fish will lead to genetic modification and the potential for creating diseases that can cross species barriers, infecting wild populations and even humans.

In short, farmed fish have all the problems that have led people to move away from intensively farmed meat and toward locally grown, organically produced livestock. For this reason the conservation of wild fish is a human health issue as well as an environmental one. In the last 25 years, farmed salmon has grown from 2% of the world supply to more than 65%, according to the World Wildlife Fund. In the United States, 80% of the salmon consumed is farmed. Recent federal legislation requires grocery stores to label fish as either farmed or wild caught.

### 10.3 Local Context and Tactics

In light of current supply limitations, focusing on the local marketplace (San Luis Obispo County) is appropriate and will allow for flexibility in the initial stages of developing marketing and sales tactics.

**Local Community Involvement:** Morro Bay is visited by approximately a million tourists per year. The California Trade and Commerce Agency Division of Tourism rates “beach and waterfront” tourism only second to “general touring”. In a 2000-2002 study, William Hendricks of Cal Poly’s Natural Resources Management Department estimated that during this two-year period, tourists added approximately $14 million to the local economy. Port San Luis also relies heavily on tourism drawn by the pier and waterfront.
If 25 to 30 “target” restaurants in San Luis Obispo County order 10 to 20 pounds of fish per day, demand for processed fish would be at least 10,000 pounds per month (30,000 pounds of unprocessed fish). Retail establishments, resorts and catering opportunities will increase and potentially double this estimated demand.

Presently, the South Bay, the sole trawler working out of Morro Bay is landing 30,000-50,000 pounds (fish in the round) per month. Certainly, this boat’s capacity is greater but is managing under the current environmental constraints of the Conservation Fishing Agreement.

As stated earlier, local restaurant owners have voiced frustration at the inability to provide locally caught seafood. With more confidence in a stable, if not growing supply, and a concise marketing message, local establishments can be presented with a description of local products, when they are available, from whom (distributor), and the merits of targeted gear, a heavily regulated resource, and a deliberate focus on sustainable stocks. In initial investigations, there is a tremendous demand for locally caught seafood, but restaurants and retailers don’t know how or have not made the effort to acquire it. An aggressive communication program directed at local restaurants, retailers, and resorts will provide positive feedback by increasing demand at the distributor level.

As the support of the local community is critical to the success of this effort, increasing awareness at the community level through local media, increased advertising and signage at the harbors, and collaboration with local conservation groups, wineries, restaurant owners, universities, chambers of commerce, business owners, and philanthropic organizations is key to success. A roundtable meeting with local restaurant owners and the fishermen should also be a marketing priority.

**Market Segmentation and Messaging Tactics:** Different species of fish may call for slight modification of the message. Dozens of species of seafood are landed in Morro Bay and Port San Luis: rock crab, Dungeness crab, spot prawn, “deep” rockfish, albacore, black cod, opah, swordfish, mako shark, salmon, “bottom” fish, shallow rockfish/live, sardines, and squid. Brand may be held constant, while the message for each individual species may be modified to address particular conservation status, lifecycle traits, gear types, and the efforts that our fleet has made to increase the sustainability and lessen impacts on the stock, habitat, marine mammals, turtles and reduce bycatch. For example:

**Spot Prawn:** There are only 17 (soon to be 16) Tier 1 “spot prawn” permits in the entire state of California (and three Tier 2 permits and nine Tier 3 permits). The message for local spot prawns should stress: fewer than 30 boats in 1,100 miles of coastline, lots of intact habitat, small-scale harvesting, and the common themes of long-term sustainability and a healthy, delicious, extremely well-regulated resource including MPAs.
Salmon: There are currently about 12 commercial fishing vessels from Morro Bay and Port San Luis fishing salmon. All of these are smaller than 60 feet and carry crew of two or less. Per regulations, they use barbless hooks, each fish is handled with painstaking care (dipped in a brine bath, individually iced, and packed) to assure freshness and integrity. All MB/PSL salmon are wild, a species that undertakes the longest migration on the planet. They begin their lives at the Continental divide and range as far as the South Pacific and return to their natal streams to breed. No farm-raised products carry the MB/PSL brand.

Black cod: Black cod is one of the most heavily regulated fisheries on the coast. Black cod are caught predominantly in traps and returned live if they do not meet the strict size limits. Other species can also be returned live, if trapped unintentionally. There is no bycatch in this fishery. The black cod fishery is subject to strict weekly and daily landing and weight restrictions. Black cod is extremely high in Omega 3 and abundant in the waters off MB/PSL.

Rockfish: Like black cod, rockfish are an extremely heavily regulated species and carry temporal and weight restrictions, as well as, gear, area and depth restrictions and limitations. Rockfish landed in Morro Bay and Port San Luis are caught on hook and line and fished in shallow waters from small boats by individual fishermen. Nontarget species and those below the size limit can often be released live.

Vermillion Rockfish

10.4 MB/PSL Competition

The MB/PSL fisheries greatest competition comes from suppliers that can provide consistent, competitively priced, high-profile species whether it is Vietnamese ahi or Scottish farm raised salmon.

Strengths: Many of these providers have existing relationships with distributors, restaurants, and retailers. They provide a large pool to choose from, great variety of species, consistency and often, very competitive pricing.

Weaknesses: They are diverse and require more time and resources to locate and to establish buying relationships with. They are also potentially subject to trade regulations and fluctuating currencies, as well as, negative press on feed, handling, catch methods, and rising transportation costs. Fishing and rearing methods and regulatory climate are often unknown and untraceable in foreign nations, especially in developing countries.
**Market share:** Foreign fleets as a whole have a large portion of the market, but each individual player has little market share. With a consistent supply and a strong marketing and communications effort, the Morro Bay/Port San Luis fisheries will have a distinct advantage over its competition.

Many U.S. and some foreign fisheries operate under strict regulations, conduct collaborative research and stock assessments, and have devised programs that smooth supply, increase prices, and focus on healthy fish stocks. The British Columbia groundfish fishery and the Alaskan halibut and salmon fisheries are such examples, and these programs are worthy of support. But the further away the fish is caught, the greater concern the consumer may have with both its origin and the energy it costs to deliver it (i.e. larger carbon footprint).

Promoting central coast caught fish in California elicits immediate recognition. The “home team” effect will allow us to capitalize on a consumer’s desire for healthy, safe, locally caught fish. The concept of local can be extended to the state of California and its 36 million consumers.

**10.5 Product Pricing**

Price is driven largely by the market. Retailers and distributors realize the greater price potential of locally caught fish, $0.40 to $0.50 more a pound. Target restaurants are considered upscale and understand that locally caught product, perhaps with an adjoining “message”, is worth considerably more than the foreign, previously frozen, or farm-raised product.
MARKETING STRATEGY: MARKETING THE SUSTAINABLE PRODUCT

In defining and describing the product and formulating a concise message, the opportunity arises to present inarguable facts about the MB/PSL product that are considered long-term solutions to ocean conservation while allowing for and calling upon participation from potential buyers and consumers.

Through targeted fishing methods, collaboration with scientists, and adherence to the strictest regulations in the world, the MB/PSL product is safe - safe from excessive bycatch (waste), safe from habitat destruction, safe from overfishing, safe from hormones and antibiotics, and safe from harming other marine species. Morro Bay/Port San Luis seafood gives consumers the chance to become part of the “solution” of ocean conservation and the lagging economies of working water fronts.

The MB/PSL fleet helped to create and is working within an environment that runs contrary to the causes of overfishing cited by the UN’s Food and Agriculture Organization (FAO) and the World Wildlife Fund (WWF):

- Technological creep
- Increasing fleet sizes
- Inadequate knowledge of fish stocks and life cycles
- Poorly regulated resources
- Fishing in poorly regulated waters of distant nations and flying flags of convenience
- Destruction of habitat
- Subsidies (FAO estimates $20 billion-$50 billion/year).
11.1 MARKETING SUSTAINABILITY

The Morro Bay/Port San Luis product is a solution to declining fish stocks in the face of rising demand and is incredibly marketable, based on the following attributes:

**Technology:** Local fleets do not typically use spotter planes, helicopters, 3-D sea floor mapping, satellite-linked FADs (fish aggregation device), plotters that integrate sea temperature contours from satellite data, or sophisticated sonar. They locate fish based on weather reports, anecdotal knowledge, and experience and information provided by other members of the fishing community. Fish are handled with care by hand.

**Small Fleet, Small Boats, Small Crews:** There are less than 50 working fishing vessels between Morro Bay and Port San Luis. Most of the fleet is comprised of boats under 50 feet and operate with a skipper and one or two deckhands. The Preamble, the AguerO, the Dancing Bear, and the Bonnie Marietta operate with a single crewmember or without crew.

**Research, Collaboration:** The local fleet has a long history of participating in State and federally funded collaborative research projects to assess fish stocks, understand migration patterns, and lifecycles.

**A Well Regulated Fishery, Well Protected Resources:** The waters off California and, particularly, the central coast are dotted with Marine Protection Areas and no-take zones which allow no commercial take, gillnet closures, Rockfish Conservation Areas, Cow Cod Conservation Areas, trawl exclusion zones, and other restrictions. In May 2006, an additional 3.8 million acres was closed to trawling, further reducing bottom trawling off the central coast by 83%. In April 2007, 29 marine reserves were approved along the central coast, creating 204 square miles of ocean parks from San Mateo County to Vandenberg Air Force Base (Pigeon Point to Pint Conception) and protecting 18 percent of the coastline. Fishing of all kinds is banned in 94 square miles of these marine reserves and limited in the remainder. U.S. fishermen are considered the most “regulation compliant” in the world.

**Close to Home:** Local fishermen live in San Luis Obispo County, catch most of their fish in California, own their boats, and have family members involved in the business.
**Sustainable Gear:** The MB/PSL fleet focuses on using gear (traps and hook & line) that does not damage valuable habitat. Hook & line, “light” trawl gear, and traps do no damage to rocky habitat, coral, and kelp that are considered breeding and “critical juvenile growth” habitat.

**Informed Decision Making:** Supporting U.S. fishermen promotes sustainable harvest and helps to provide critical data on how to build more advanced and effective fishing conservation programs.

Failure to support this effort is in effect, pushing demand onto boats of nations with little or no regulation, fleets that fish far from their national boundaries in waters of cash-strapped, developing nations with little or no capacity for oversight, with boats in waters far from human habitation (i.e. Antarctica and Patagonian) making regulation difficult to enforce.

### 11.2 Marketing Message

**The consumer market** will take a media-based, broadly cast, general message. Print ads, radio ads, and other media, including Internet, will help educate the public on how and why supporting California-caught fish is good for them, good for the ocean, and good for local fishermen. The message should drive the demand from the consumer level.

**The distributor market** exhibits a strong demand for local, sustainably caught fish and understands it is worth more and can attract a higher price. Distributors universally seek tools with which to convince their customers to buy local fish - print material, wait staff training, and fish counter/butcher training. This is a time intensive, hands-on undertaking and will be much easier to accomplish starting on a local level with a limited number of distributors.

**The restaurant/retail market** will feed off the “end-user” message and require a more refined delivery method (sales team). This work can be most effectively accomplished by site visits, associated print and visual materials and roundtable meetings. In-store training, wait staff training, training videos, DVDs, print media, and point-of-purchase and menu cards will help create a synergy between an enlightened consumer or a potentially enlightened consumer and restaurant or retail staff. The goals for these efforts should be to make connections between
local restaurants/retailers and distributors that carry MB/PSL products. Thus, driving demand from the store/restaurant level.

**Direct-to-consumer** success will rely on marketing and advertising efforts in local print media, radio, and television. Signage at the ports and in town and cooperation with local businesses, chambers of commerce, and tourism and visitor bureaus to promote a direct-to-consumer establishment. This will, again, drive demand from the consumer level.
MEDIA GUIDELINES AND MESSAGE

The communication component is a collaborative effort between Lisa Wise Consulting, Environmental Defense, GreenFish Communications, and various stakeholders. The communications plan synthesizes a message that will appeal to the greatest audience based on the unique characteristics of the MB/PSL product. This Section also suggests guidelines to help shepherd communication about the project in consistent advantageous terms. The general communication goals are to (1) create demand in strategic markets and (2) help promote and garner support from all the stakeholders in the MB/PSL fisheries. The Communications Plan (based on information and findings in this business plan) should establish the most appropriate markets to broadcast the message, identify the most effective media type, and create a logo and a defining phrase(s) or slogan.

12.1 MEDIA MESSAGING POINTS

The following are the top messages to be used as a guideline for media contact.

- Fishing heritage is key to the identity of Morro Bay/Port San Luis – the community supports the preservation of this important heritage and the creation of fishing opportunities into the future.

- California fishing communities are struggling to remain viable. Stringent regulations and the inability of the regulatory process and scientific analysis to consider the economics of family-owned fishing businesses have made local supplies of seafood inconsistent and unreliable. There are solutions. New innovative programs can revive the fisheries economically and environmentally.
• In 2005, Morro Bay/Port San Luis commercial fishermen, Environmental Defense, and The Nature Conservancy teamed up to develop a program that protects the ocean habitat while encouraging economic growth for local fisheries. Conservation groups agreed to buy vessels and permits from trawlers that were willing to sell and to help fishermen market sustainably caught fish at a premium price, if they agreed to support large no-trawl zones off the coast of Central California.

• Projects funded by the state and local agencies and NGOs have several positive components:

  Conservation benefits. Create a tool for marine conservation, based on the principles of a conservation easement. The idea is to lease a trawl permit to a local fisherman through a private agreement that will include gear design standards, geographic restrictions, and reduced bycatch. The goal is to give fishermen access to fish that can only be accessed by trawling, while limiting the environmental impacts and promoting experimentation of new gear types.

  Test marketing of Morro Bay sustainable seafood. Identify higher value consumer markets for black cod (sablefish), albacore, Dungeness crab, salmon, dover sole, English sole and other types of seafood landed in Morro Bay and Port San Luis. It is anticipated that consumers and retailers will pay a premium for high quality seafood that is harvested using sustainable methods and supports revitalization of commercial fisheries and working water fronts.

  Business planning. Traditionally, fishermen caught and sold fish to processors at low prices. One of the goals is to increase landings, explore ways to add value to an already unique product, and make it available to consumers.

• Several California State legislators have expressed interest in sponsoring legislation that would promote more sustainable fishing and the protection of California’s fishing heritage and culture.

• MB/PSL’s unique partnership between fisherman and other organizations is sometimes controversial in both the broader fishing and conservation communities. This alliance is unique to the west coast, and is forging a path through a very difficult time in commercial fishing. The local fishing community is taking proactive economic and conservation measures before it is too late to preserve our local fishing businesses and working water fronts.
• Fishermen, conservation groups, and communities are working together to develop new kinds of fisheries that can target healthy fish stocks and deliver high quality seafood.

• If local fisheries are shut down, consumers will be forced to buy more of their seafood from unregulated, foreign sources that most likely are not harvested in a sustainable manner. This not only results in unreliable quality but also directly impacts the local and national economy.

• Buying locally caught wild seafood supports the efforts of the conservation, scientific, and fishing communities working together to maintain healthy fish stocks and supplies of wild caught, nutritious fish for Californian consumers (e.g. “Buy California” produce campaigns).
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VALUE-ADDED SERVICES / VALUE CHAIN

The local fishery's position in the distribution chain will yield different levels of potential income and require different levels of infrastructure and investment. This section evaluates the following value-added services and itinerant infrastructure: refrigerated transportation, refrigeration deep cold storage, blast freezing, processing, packaging, and filtration-chiller systems for live fish storage.

Many factors will need to be considered in capital improvements and the addition of value-added services and capacity. For example, proximity to the landing docks should hold a high-priority when considering a physical site for the storage, refrigeration, and/or processing facilities. In addition, if located on the Embarcadero, a priority should be placed on visual appeal, consistency with other buildings, and public access.

13.1 REFRIGERATED TRANSPORTATION

In many distribution chain scenarios, the fishery will be required to deliver fish to a restaurant, retail establishment, directly to a processor’s facility, or to a drop-off location at a point along a buyer or distributor’s truck route. Moving fish in a pickup truck in a wetlok box full of ice should be considered a temporary option. Therefore, the costs of buying and operating a refrigerated truck are explored.

Refrigerated trucks range in price from $28,000 (used) to $50,000 (new) for models in the 12-foot to 24-foot range. Annual insurance cost for such a vehicle is approximately $2,000 to $3,000. In addition, preventive maintenance is estimated at $400 to $500 per year.
Morro Bay Fish Company has a 12-foot refrigerated truck and considers it too small for their current operation. Neither the MBCFO nor DeGarimore own a refrigerated truck. In Port San Luis, Archie Ponds, a live fish buyer, has a 1 ton, 10-foot truck with refrigerated, live fish holding tanks. He considers this size and capacity to be prohibitive to the growth of his business. (See Appendix I for a more detailed discussion of the costs of refrigerated transportation).

13.2 Refrigeration, Deep Cold Storage, and Blast Freezing

The following documents refrigerated storage, deep cold storage, and blast freezing facilities in Port San Luis and Morro Bay. This section also explores pricing for (1) a permanent cold storage, blast freeze, and deep freeze facility and (2) a modular cold storage and freezer unit.

Existing Refrigerated Storage: There are only small, modular cold storage facilities with varying levels of functionality in Morro Bay.

Existing Deep Cold Storage: Currently, there are no deep cold storage (below zero) facilities in Morro Bay or in Port San Luis.

Storage facilities capable of -20°F to -30°F temperatures can maintain certain fish, whole or processed, for more than a year and help provide consistent inventory. Deep cold storage facilities are also essential for storing baits. The ability to provide key species such as salmon, swordfish, and albacore throughout the year could benefit the fisheries at all levels of the distribution chain. While swordfish, albacore, and salmon require special attention in the initial freezing process, black cod and thornyhead (longspine, shortspine) can also be blast frozen to facilitate storage, transport and distribution. Bait, squid, mackerel, and sardines can also be frozen to facilitate sales, transport, storage and provide more consistent availability.

Existing Blast Freezing: There is currently no blast freeze facility in Morro Bay or Port San Luis.

Blast freezing is a process by which super chilled air is passed over an evaporator and around the surface of the fish until the desired temperature is attained throughout (approximately -20°F to -30°F). At this temperature bacterial spoilage is halted, and rapid handling of large quantities of product is facilitated. Once these low temperatures are attained, seafood can be maintained as “fresh frozen” for long periods.

A trolley system is an efficient and economical method to quickly deep freeze seafood. A system that can blast freeze up to 180 fish (of 15 pounds) per day is priced below.
Section 13: Value Added Services / Value Chain

Blast freezing, coupled with processing capabilities could give the fisheries the ability to provide deep frozen whole fish, sections, steaks, loins and fillets more consistently to any point in the distribution chain.

**Estimated Costs of a Permanent Facility:** The cost for refrigeration equipment with a 20’ x 40’ refrigerated storage area capable of maintaining a 32°F to 30°F temperature, a blast freezer/trolley mechanism with a capacity of 180 fish (of 15 pounds) per day, and a 10’ x 20’ deep freeze unit capable of -20°F to -30°F is estimated at approximately $370,000. (See Appendix J)

The refrigeration manufacturer/installer, TRJ, recommended a 22,500 square-foot (150’ x 150’ x 24’) building with a concrete slab foundation/floor, steel frame, and tilt up concrete panels to house the facility. Refrigeration machinery can be designed and built to be exposed to the elements, but it is significantly more costly. Refrigeration and freezing machinery will last longer if it is indoors, particularly considering the proximity to salt sea air and high winds. Building costs for this size structure range from approximately $1.8 million to $2.5 million ($80 to $111 per square foot). This estimate includes architectural fees of approximately $90,000, contractor’s fees of approximately $377,000, and $1.5 million in construction material costs. (See Appendix K)

Electrical requirements for the building are: 460 V, 3 ph, 60 Hz power supply of 500 amps (minimum). Installation and material (switching gear, power meter units, fans, piping) for electrical improvements are estimated to be $20,000-$25,000. (Quotation received by phone), August 28, 2007, Travis Electric, Los Osos, California, 805-528-1507.)

It is estimated that the facility would have sufficient storage for refrigeration racks, fish transport boxes, and other miscellaneous equipment associated with freezing, processing and storage. Additional storage space could be added for approximately $100 per square foot (storage space does not require water, drainage and/or electricity for equipment).

**Figure 13.1 Refrigeration Facility Cost Summary**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigeration Facility (20’ x 40’), blast freezer, and deep freeze (10’ x 20’)</td>
<td>$ 370,000</td>
</tr>
<tr>
<td>Building</td>
<td>2,500,000</td>
</tr>
<tr>
<td>Electrical</td>
<td>25,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 2,895,000</strong></td>
</tr>
</tbody>
</table>
The total estimated cost for a permanent freezer/cold store facility with blast freezer capability is approximately $2.9 million.

**Estimated Costs of a Modular Facility:** Kelvin Cold Technologies offers a modular combination cooler (10’W x 20’D x 8’6”H)/freezer (10’W x 20’D x 8’6”H) unit for $86,383. This quote also includes installation and freight costs from the manufacturer. (See Appendix L)

### 13.3 PROCESSING

A small processing facility could be integrated into the permanent refrigerator/freezer facility described above. Water, drainage and electricity/lighting will increase square-foot costs.

A separate 10’ x 20’ space with water supply, drainage and electricity could support approximately 4 cutters. Construction costs for such a facility range from $150 per square foot to $250 per square foot depending on the placement, design requirements of the building, and intricacy. Any processing function would require some refrigerated storage.

**Processing Considerations:** In assessing the costs of a processing facility and whether it is economically advantageous, many issues must be addressed, including: Costs of architectural drawings and plans, cost of equipment including, waste disposal, new species that might be added or targeted by the MB/PSL fisheries if they owned and operated a processing facility, licensing and applications, ownership, management and oversight of plant, labor costs and insurance, will the plant attract harvest from non-MB/PSL fishermen, impacts in the community, will the plant create new jobs or longer periods of work for existing workforce, what kind of jobs will the plant create (cutters, office, management), is there sufficient labor supply and skills in the area, will training be a necessary, consider fish in the round price versus processed fish prices, consider fish in the round weight versus processed fish weight, estimated capacity, history of landings, projected landings, will the plant be able to process squid and/or mackerel, estimated percentage of raw material to be trucked from other areas, other principal landing sites, harbor/landing facilities proximity to the plant, approved water source, cost of water, appropriate power source and costs, other commercial services in the area, source of funding, risk of overproduction capacity, target markets, costs of opening new markets and attracting new customers (personnel, media), potential conflicts with current distribution and processing services, breakeven analysis and cash flow analysis.
13.4 Packaging

Much of the small-scale, custom packaging is done by hand on small production lines. Canning and vacuum packaging enables fishermen to increase the price per pound and shelf life of certain fish, facilitate transport, and offer a final product for retail or food service.

Canning: Canning enables fishermen to increase the price per pound and shelf life of certain fish, facilitate transport, and store for future sale. Canning requires compliance with Federal and State regulations for public health, sanitation, and quality control. Canning also requires personnel and facilities for processing and equipment operation.

Cannery equipment, and resources devoted to bringing the facility in line with California and federal regulations, and property and construction costs need to be considered.

The Dixie Canning Company offers two commercial canning machines that are able to process a variety of different sized cans and up to 20-30 cans per minute. The machines are easy to use and require an operator to position the can, press a switch, remove and repeat. The Heavy Duty Seamer (20 cans per minute) and Double Seamer (30 cans per minute) sell for $11,000 and $13,500 respectively. (See Appendix M for details.)

A 10’ x 20’ space with water, drainage and electricity could support a small canning facility. Construction costs for such a structure range from $150 per square foot to $250 per square foot depending on the placement, design

Seafood canning facilities in California are subject to the most stringent regulations in the US. California regulations include:

1) written and practical examinations on equipment operation,

2) University of California Laboratory Research Food Preservation (UCLRFP) scientist site visits to conduct thermal heat penetration studies and evaluate equipment and process, and

3) plant specific lot coding systems that must accommodate a change of batch numbers every two hours, each lot must be inspected before distribution and licensed candidates must pay for the cost of inspection, including in-plant inspection and travel time to the facility by the investigator, as well as laboratory fees and services. All California license canners trading in interstate commerce must be approved by and registered with the U.S. Food and Drug Administration (FDA).

http://www.dhs.ca.gov/fdb/HTML/food/cannerylicenseprocedure.htm
requirements of the building and intricacy. A canning operation would require refrigerated storage and cooking/kitchen facilities.

**Vacuum Packing:** Vacuum packing processed or whole fish affords fishermen an advantage in storing seafood as well as offering a final product for retail or food service. Vacuum packing prevents moisture loss, eliminates oxidation and freezer burn, and maintains product quality. Vacuum packed product can be refrigerated up to seven times longer and frozen up to ten times longer (than non-vacuum packed seafood).

The VacMaster is a versatile commercial vacuum packing system and offers options in varying size and capacity. Kodiakhealth.com lists five models that are appropriate for MB/PSL applications (packaging chamber size 10” x 13” x 5” through 21” x 21” x 7”). Prices range from $1,500 to $6,000.

Vacuum packaging bags “pouches” are made of 100% food grade nylon poly and range in type, size, quantity, and price. Most are sold in quantities of 1,000 per box. Prices range from $30 to $300 per box depending on size and thickness.

(For details on vacuum packaging equipment see Appendix N.)

**Labeling:** Preparing seafood for retail sales (canning, vacuum packing) requires proper labeling. Cost considerations should include graphic design. Production could be accomplished onsite or outsourced to a printer service.

Design of labels should include: brand name, logo, address, contents, nutrition facts, net weight, and individual package identification number or UPC (Universal Product Code). Label information should be stored and manipulated digitally for easiest reproduction and transfer.

Onsite label production would require a computer, printer (laser or inkjet), and paper. Appropriate computer and printer systems range from $500 to $2,000 each depending on quality and capacity. Toner cartridges for such systems sell for approximately $100 to $200 each.

(See Appendix O for more information on computer and printer systems.)

Worldlabel.com sells labels and sheets (8.5” X 11”) of varying paper types and label sizes. Prices vary depending on size of label, paper quality, and quantity. For example, product number WL-OL575 has eight 3.75” X “2.438” labels per sheet, and on basic white paper, cost $104.95 for 1,000 sheets (8,000 labels).
Service Providers such as FedEx Kinko’s, Hay Printing, Café Press and a host of others offer label printing and production services for small businesses. Prices vary depending on the service requested.

**13.5 Chillers, Filter Units, and Holding Systems**

Chillers, filter units, and holding tanks are used to store live fish until transport. Each of these is discussed below.

**Chillers:** Chillers are used to maintain water temperatures in live fish holding tanks until transport. Aquatic Ecosystems Inc. offers a variety of Multi-Temp Water Chillers by Aqua Logic. The nine available chillers range from $4,500 to $12,000 depending on size and capabilities. The units can be stored outdoor, operate within a range of 40°F to 80°F (4.5-27°C), and handle between 20 and 120 gallons of water per minute. (See Appendix P for more information on chillers.)

**Filters:** Filters are used to maintain inhabitable water quality in holding tanks to store live fish until transport. Aquatic Ecosystems Inc. offers three prepackaged filtration systems that provide mechanical and biological filtration and UV sterilization. The units are salt water compatible and boast easy installation. The three Aquatic Ecosystem Inc. filters range from $2,800 to $5,000 based capacity (30 gallon per minute, 60 gallon per minute, 90 gallon per minute). (See Appendix Q for more information on filters.)

**Holding Systems:** Aquatic Ecosystems Inc. also offers a Complete Holding System which includes three 500-gal tanks, bead filter, biofilter, air and water pumps, UV sterilizer, sump, plumbing, feeders and mesh tank covers. Each tank has a feeder that holds 2.5 liters of food and operates on a separate timer, feeding up to six times per day. The entire package sells for $10,000. Larger and smaller turnkey systems are available. (See Appendix R for more information on holding tanks.)
Solid financing is a key factor in implementing the Business Plan. A number of different funding sources will be required to ensure success. Funding needs may include: infrastructure improvements, costs associated with fishery management and the comanagement entity, sales and marketing campaigns, sustainable certification programs, refrigerated transport, purchase of quota, costs surrounding the creation and use of innovative gear, collaborative research, and a regional stock assessment. Project sponsors will have to be creative and match each project with the appropriate funding source. The following is a list of potential capital and operating funding sources (debt, grants, and other mechanisms).

### 14.1 Debt

Debt is one of the main sources of funds for real estate projects. Banks and private lenders will require a stable revenue stream to service the debt and will typically finance 75 to 90 percent of project costs. The following list documents several other sources of debt available to nonprofit organizations and local governments.
• **California Fisheries Fund**: The California Fisheries Fund is a revolving loan tool committed to financing sustainable fisheries and provides Fishery Foundation Loans, Infrastructure Loans, and Business Loans. Fishery Foundation Loans can be used to support development of detailed reform plans for a fishery, including fishery research, business planning, and implementation planning. Infrastructure Loans are available to ports, communities, and other organizations and can be used for port improvements, such as off-loading capacity, cold storage, or processing. Business loans are available to individual businesses for business development activities, such as equipment, market development, or product innovations. The CFF is scheduled to launch in the summer of 2008.

• **California Infrastructure and Economic Development Bank (ibank.ca.gov)**: The California Infrastructure and Economic Development Bank (I-Bank) is a State of California financing authority that promotes economic growth and revitalization of California communities through low-cost financing of infrastructure and economic development projects. The I-Bank requires a defined public benefit before it is willing to act as a conduit for tax-exempt or taxable bonds. The I-Bank has several financing programs. However, the 501(c)(3) Revenue Bond Program and the Governmental Bond Program are available for projects that promote additional community services, social or cultural resources, or the creation or retention of jobs. The I-Bank does not require leveraging or matching.

The I-Bank accepts several sources of financing repayment, including general fund revenues, tax increment revenues, enterprise revenues, and property assessments. While rental income is not one of their preferred repayment options, other recurring revenues, such as landing fees, may be acceptable.

• **Community Lending**: Under the federal Community Reinvestment Act (1977), depository institutions are required to help meet the credits needs of the community in which they operate. Many banks have community-lending programs. For example, under this program the First Bank of San Luis Obispo strongly supports giving back to the community. In addition, Wells Fargo has a Community Lending division that provides interim construction financing for community development commercial real estate projects. Wells Fargo offers construction loans, permanent loans, bond financing, and letters of credit to developers and public agencies.

• **Community Loan Funds**: Community Loan Funds make interest-bearing loans to organizations that are either underserved by conventional lenders or are strengthening the economic base of struggling communities. Organizations such as the Nonprofit Finance Fund and The Northern California Community Loan Fund provide economic development loans as well as technical assistance. These funds use federal resources
provided by the U.S. Department of the Treasury Community Development Financial Institutions (CDFI) Program.

- **General Obligation Bonds:** General Obligation Bonds may be sold by a public entity that has the authority to impose ad valorem taxes. Ad valorem taxes are based on an assessed value of real property and must be approved by a two-thirds majority vote of the people. Primary use of this tax is to acquire and improve public property.

### 14.2 Grants

Below is a list of grant funding that may be available for infrastructure and other value-added improvements.

- **California Coastal Conservancy (CCC):** The Coastal Conservancy programs focus on public access, resource enhancement, working waterfronts, resource enhancement, land acquisition, nonprofit assistance, and agricultural enhancement. The CCC oversees the Ocean Program and provides staff to the Ocean Protection Council OPC. MB/PSL has actively worked with the CCC in the past and will continue to build this relationship.

- **California Sea Grant:** California Sea Grant programs are structured around healthy marine ecosystems, sustainable resource use, coastal community development, new technology, and education, training and public information. Strategic goals include working with stakeholders to resolve conflicts over resource use, creating social and economic incentives to encourage the preservation and sustainable use of marine resources, and promoting vibrant coastal economies. Sea Grant has funded projects on fisheries habitat and, more specifically, marine reserves and the groundfish trawl fishery.

- **Central California Joint Cable/Fisheries Liaison Committee (CCJCFLC):** The CCJCFLC funds commercial fishing industry improvement projects. Examples of recently funded projects include, Port San Luis Harford Pier diesel line replacement, financial support for a Community-Based Fishing Organization (part of the Central Coast EFP), and the Morro Bay ice plant.

- **Community Development Block Grant (CDBG):** Operated by the California Department of Housing and Community Development, the purpose of the CDBG program is to create or retain jobs for low-income workers. This program provides funding for economic development projects, public infrastructure improvements, as well as housing and community related projects and activities.
• **Moore Foundation (moore.org):** The Moore Foundation is dedicated to advancing environmental conservation and cutting-edge scientific research. The Marine Conservation Initiative focuses on area-based management and fisheries management reform. The Foundation has made significant contributions to the California Fisheries Fund, Cape Cod Commercial Hook Fisherman’s Association, and the Tides Foundation for strategic planning, capacity building, and regulatory reform, among other objectives.

• **Ocean Protection Council (OPC):** The California Ocean Protection Act recommends state funding to foster sustainable fisheries, including the development of more selective fishing gear, promotion of value-added wild fisheries to offset economic losses attributable to reduced fishing opportunities, and the creation of revolving loan programs for the purpose of implementing sustainable fishery projects. The OPC Five-Year Strategic Plan recommends that funding be directed to support market-based approaches to fishery management and to fishing activities that provide new economic opportunities that can be conducted in a sustainable manner. The OPC has adopted a resolution calling for state funding for innovative approaches to sustainable fisheries management, including expansion of direct-to-consumer seafood markets, local fishing harbor revitalization, funding mechanisms such as the California Fisheries Fund, quota systems and limited entry programs, vessel and permit buybacks, and other projects.

• **Resources Legacy Fund (resourceslegacyfund.org):** The Resources Legacy Fund operates several programs aimed at protecting marine resources. The Sustainable Fisheries Fund (SFF) provides financial support to fishing interests, government agencies, and non-government conservation organizations that are committed to ecologically sustainable seafood. The SFF draws upon the Marine Stewardship Council certification program to harness the power of the marketplace and consumer demand. The SFF makes grants in several categories: pre-assessment, full assessment, stakeholder participation, and strategic planning and capacity building. The California Coastal and Marine Initiative seeks ecosystem-based conservation of coastal and marine resources. This program provides grants and low interest loans for research, monitoring, advocacy, education, and capacity building.
14.3 Other Funding Mechanisms

- **Certificates of Participation**: A Certificate of Participation (COP) is a funding mechanism used by government agencies for construction or improvement of public facilities. This financing technique provides long-term financing through a lease-type repayment structure, such as an option to purchase or a conditional sales agreement. They do not constitute debt under California State law, and, therefore, they do not require voter approval. However, Federal laws do treat these transactions as debt, which allows federal tax-exempt interest to the underwriter or holder of the security.

- **Mitigation Fees (Government Code Section 66000 et seq.):** A local government can levy impact fees on new development for public facilities and improvements identified in the capital improvement plan. Public facilities include public improvements, public services, and community amenities. In order to impose the mitigation fee, the City must conduct a nexus study that documents (1) the purpose of the fee, (2) the use to which the fee is to be put, (3) that there is a reasonable relationship between the fee’s use and the type of development project on which the fee is imposed, and (4) how there is a reasonable relationship between the need for the public facility and the type of development on which the fee is imposed.

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**Parties to Certificates of Participation (COP):**

- **Lessee (Issuer)** – A government agency that enters into a tax-exempt lease with a lessor.
- **Lessor** – A nonprofit corporation, joint powers authority, leasing company, bank or other entity. The lessor holds title to the asset during the lease period.
- **Trustee** – A commercial bank, or trust company. The trustee receives the proceeds, collects the lease payments on behalf of the lessor, and/or repays the note. The trustee is required to adhere to the standards in the trust agreement and maintain the trust fund accounts.
- **Underwriter** – A municipal securities dealer. The underwriter commits to the purchase of the COPs and remarkets them to investors. The underwriter will charge a fee, known as the underwriter’s discount, to assume the underwriting risk of the COPs.
As discussed in Section 14 (Potential Funding Sources), the California Fisheries Fund has been established by the State of California to improve the conservation and financial performance of coastal fisheries. The Fund provides a source of capital for funding research, governance reform, infrastructure improvements, and individual businesses.

This section develops a model that illustrates a conservative estimate of potential borrowing capacity of the fishery. Because recent landings are in a state of decline and current profit margins are slim, the model is based on the landings and ex-vessel value that may be realized through the Exempted Fishing Permit (EFP). However, at this time, the duration of the EFP is only one year. (See Section 4.2 and 8.1 for more information on the EFP.) As the fishery grows, this model can be expanded to include additional landings. The model could also be expanded to include the Conservation Fishing Agreement (see Section 8.2) and future EFPs.

One of the products offered by the California Fisheries Fund (CFF) is a Fishery Foundation Loan. Once established at the local level, Fisheries Foundations will use capital for fishery research, business planning, and implementation planning. The CFF lays out the following loan terms for a Fishery Foundation Loan:

- Repayment is from self-taxed landing fees or other mechanisms developed by the fishery.
- Terms are for a maximum of ten years and may include deferred or interest only payments.
- The average interest rate is anticipated to be below market and estimated to run about 3%.
- There is a 1% origination fee.
Based on these assumptions the model in Figure 15.1 was developed. The hard caps are listed in the EFP. The average estimated $0.04 per pound landing fee is based on landing fees at the MBCFO wharf. Market prices are used to illustrate potential ex-vessel value and will vary.

Under this scenario and based on the estimated catch of the EFP participants, a management entity or foundation could apply for approximately $225,000 from the California Fisheries Fund.

**Figure 15.1 Potential Borrowing Capacity Based on EFP Landings**

<table>
<thead>
<tr>
<th>Species</th>
<th>Hard cap (metric tons)</th>
<th>Hard cap (lbs)</th>
<th>Approximate Ex Vessel Value</th>
<th>Approximate Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sablefish</td>
<td>50</td>
<td>110,230</td>
<td>$1.30</td>
<td>$143,299</td>
</tr>
<tr>
<td>Southern Slope Rockfish</td>
<td>50</td>
<td>110,230</td>
<td>$0.82</td>
<td>$90,389</td>
</tr>
<tr>
<td>Blackgill Rockfish</td>
<td>20</td>
<td>44,092</td>
<td>$1.36</td>
<td>$59,965</td>
</tr>
<tr>
<td>Longspine thornyhead</td>
<td>60</td>
<td>132,276</td>
<td>$0.33</td>
<td>$43,651</td>
</tr>
<tr>
<td>Shortspine thornyhead</td>
<td>60</td>
<td>132,276</td>
<td>$1.09</td>
<td>$144,181</td>
</tr>
<tr>
<td>Lingcod</td>
<td>15</td>
<td>33,069</td>
<td>$2.08</td>
<td>$68,784</td>
</tr>
<tr>
<td>Chilipepper rockfish</td>
<td>N/A</td>
<td>150</td>
<td>$1.25</td>
<td>$188</td>
</tr>
<tr>
<td>Spiny dogfish</td>
<td>10</td>
<td>22,046</td>
<td>$0.85</td>
<td>$18,739</td>
</tr>
<tr>
<td>Splitnose Rockfish</td>
<td>N/A</td>
<td>1,000</td>
<td>$1.00</td>
<td>$1,000</td>
</tr>
<tr>
<td>Dover sole</td>
<td>10</td>
<td>22,046</td>
<td>$0.35</td>
<td>$7,716</td>
</tr>
<tr>
<td>Petrale sole</td>
<td>10</td>
<td>22,046</td>
<td>$1.40</td>
<td>$30,864</td>
</tr>
<tr>
<td>Other flatfish</td>
<td>10</td>
<td>22,046</td>
<td>$1.50</td>
<td>$33,069</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>651,507</strong></td>
<td></td>
<td><strong>$641,844</strong></td>
</tr>
<tr>
<td>Landing Fee per Pound</td>
<td></td>
<td>0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Annual Revenue</strong></td>
<td></td>
<td><strong>$26,060</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Estimated Borrowing Capacity</strong></td>
<td></td>
<td><strong>$224,904</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Estimated borrowing capacity based on a 10-year loan with a 3% interest rate compounded monthly. No deferred payments or interest only payments are included.*
The goal of the management entity alternative analysis is to investigate and describe potential oversight options for the local fishery. The management entity will be responsible for facilitating cooperation among stakeholders, increasing the visibility and value of the fishery, and procuring and overseeing the administration of grants and loans. Many topics discussed in this document such as Market Channels and Value-Added-Services identify the need for a management entity for their success. This Section investigates the types and structure of such an entity and discusses the universal functions that any entity will need to perform.

The four following management entities were considered:

- **Public Agency** – A public agency takes the lead role in overseeing ongoing operations and management.

- **Cooperative** – A “group of owners” operate democratically to oversee ongoing operations and management.

- **S Corporation** – A board of directors and a management team oversees ongoing operations and management with special tax provisions.

- **Non-Profit Corporation** – A board of directors and a management team oversees ongoing operations and management without profit to qualify for special tax provisions.
16.1 Public Agency

Since both ports have provided millions of dollars in landings and employment and working waterfronts are key tourists attractions, it may be appropriate for the City of Morro Bay, San Luis Obispo County, and/or Port San Luis to assist with the funding or the development of a funding instrument (e.g. capacity building grant/loan) for a fisheries manager or management team. The manager would be charged with promoting locally-caught seafood, communicating with buyers and distributors, representing the local industry at key meetings and conferences, attracting political support, and identifying and seeking appropriate loans and grants. Under this configuration, fishermen can sell their catch to the buyer of their choice or work with the county fisheries manager to find the best possible option. All local fishermen will benefit from promotional efforts aimed at increasing awareness of the local fleet’s sustainable fishing methods, improved access to information on regulatory and research management issues, and infrastructure improvements.

An eventual goal would be to replace publically assisted funds (grants/loans) with capital generated from increased fisheries revenues. Financial benefits will stem from heightened demand for locally caught fish, increased awareness of the importance of the local working waterfronts, and increased value throughout the distribution chain (fishermen, buyer, processor).

In this model, the manager can initially assume the roles financial management, operations, and sales and distribution. As sales and financial viability increase, additional staff can be hired to unbundle each task. As the entity grows, specialization of tasks should increase, i.e. hiring an accountant/bookkeeper, hiring an outreach and education coordinator, and creating a sales and marketing team.

A critical advantage of the public agency option is its ability to assist and bring value to a cooperative, an individual fishermen, group of fishermen, or a business in either port. One of the primary goals would be to create an environment where businesses like the Morro Bay Fish Company and Archie Ponds can thrive and attract fishermen to land in SLO County, reversing the "processor-buyer flight" trend that started in the late 1980s.

An unbiased party that develops sales for local buyers and offloading facilities will fulfill unmet needs. Existing fishery-related businesses in MB/PSL are undertaking multiple and disparate tasks. It is difficult for a small operation that is buying, selling, offloading, storing live fish, and transporting fish to develop new markets, especially previously unexplored markets. However, considering current landings, and local industry revenues, it is unlikely that the local fishery alone could support a qualified individual. Presently there is little residual income for fishermen to invest in this type of oversight management service.
The fishing community must be convinced that this type of service is creating value and that future investment will bring greater value. The County, City of Morro Bay and Port San Luis must also be convinced that this management entity is creating greater profit for portside services, increasing employment opportunities, and strengthening the concept of working water fronts.

16.2 COOPERATIVE

A cooperative is a user-owned, democratically-controlled business where members pay a fee to take advantage of services the cooperative has to offer as well as participate in governance through a vote. The geographic area may be very focused or the cooperative may attract fishermen from geographically disparate ports to maintain a more steady supply, more consistent income, and greater opportunity for profit.

Membership fees and earnings are used to support human resources for management, sales, administration of receivables and payables, and provide capital for acquisition of equipment and real estate, if necessary. A cooperative may own assets and act as a buying and sales entity. Typically, the cooperative purchases seafood at the dock at market value and, in the best case scenario, provides a dividend (patronage fund) for its members from profit generated through a value-added services and/or sales.

Cooperatives, because of the nature of their membership structure, benefit from the same federal tax structure as Sub Chapter S corporations, whereby the cooperative is not responsible for federal taxes.

Co-ops are a known entity in the fishing industry, many of the members of the local fleet have long been involved with cooperatives. Seafood Producers Co-Op (SPC, 2875 Roeder Avenue, Suite 2, Bellingham, WA, 98225, 360-733-0120) harvests, processes, and markets hook and line caught halibut, sablefish, salmon, and rockfish. Headquartered in Bellingham, Washington, the Co-Op has more than 500 members. SPC also offers a familiar and reliable buying and pickup service for co-op members landing in other ports (e.g Morro Bay, Moss Landing or Fort Bragg). SPC Alaska-caught salmon, sablefish and halibut have been recognized by the Marine Stewardship Council (MSC) as sustainable fisheries.

Co-ops can effectively keep control within the community by defining and restricting the profile of its members. For example, potential members may be required to earn a certain percentage of their income from fishing or a fishing related industry.
A disadvantage in the eyes of our local fishermen is creating another entity over and above the two commercial fishing organizations. From our initial investigations, fishermen are reluctant to commit the time and effort it may take to plan, execute, and manage a cooperative.

However, as landings stabilize, income increases, and fishermen are able to take advantage of increased demand and awareness of sustainably harvested seafood, they may become more amenable to cooperating to achieve mutual goals. The first step may be focusing on one opportunity, such as refrigerated transport. Fishermen may be less reluctant to pool their efforts to acquire a refrigerated truck that could be shared by the members.

16.3 S CORPORATION

Corporations are very attractive because they allow for limited liability. A corporation's life is not dependent upon its owners, but rather, a corporation possesses the feature of unlimited life. If an owner dies or wishes to sell their interest, the corporation can continue to exist and do business. The primary goal of a for-profit corporation (i.e. an investor owned firm) is to maximize shareholder value. An S Corporation is a specific type of corporation.

S Corporations were created by a federal tax provision that benefits small corporations (Sub Chapter S of the Internal Revenue Code). The tax code allows S Corporations to be taxed in the same way partnerships are, so the corporation itself pays no federal income tax. The stockholders as individuals pay the business-related income taxes on their personal tax returns. As an S Corp., a small business can also take advantage of the limited liability without permitting free trading of shares of stock. Ownership can be limited to the few people directly involved in the business operations.

It is unclear how a new corporation would play out in MB/PSL as a "fishery" solution. Morro Bay Fish Company is already operating as a corporation, buying fish, storing fish, selling fish, transporting, offloading, packaging, etc. DeGarimore’s, another corporate entity, is buying and offloading on a limited basis as well. Archie Ponds in Port San Luis is doing the same in the live market. BJ Johnson in PSL buys for his direct-to-consumer establishment on the Harford Pier on a very small scale. Certainly, these businesses are benefiting a number of fishermen, their employees, and bringing dollars to the local economy. However, their sphere of influence is viewed as limited, and profits are minimal.

Also, it should not be expected that existing businesses interface with politicians to promote the local fishery, create and fund public awareness and advertising programs, and represent the local industry at fishery management and other public meetings.
Thus far, no interest in taking on investors has been expressed by the fishermen. While an investor owned firm or corporation offers greater potential for return on equity, it may not be a suitable formation for operating the dock or leasing property from the City of Morro Bay.

16.4 NON-PROFIT CORPORATIONS

California defines a non-profit corporation as one that will not distribute gains, profits, or dividends to its members during the life of the corporation. The California Secretary of State must officially recognize all California nonprofit corporations. Articles of Incorporation must be filed with the Secretary of State’s office, indicating that the organization is entitled to receive nonprofit corporate status.

Non-Profit corporations receive the same limited liability protection as for-profit corporations. This means that directors or trustees, officers, and members are typically not personally responsible for the debts and liabilities of the corporation.

The MBCFO is structured as a 501c(3) nonprofit corporation and enjoys federal tax exemptions as a charitable organization. However, if the dock earns profits as a business, the MBCFO dock would need to organize as a separate entity.

Not for-profit status puts entities like the MBCFO and the PSLCFA in excellent positions to receive grant funding that for-profit enterprises are unable to consider. This type of organizational structure also shields the organizations from tax burdens. Nonetheless, a nonprofit requires heightened attention to the precepts set forth by the Secretary of State. For example, they may not support a political candidate and require unanimous vote to change bylaws.
16.5 Universal Functions

Regardless of the management entity implemented at MB/PSL, there are three positions that should be considered: management, sales and marketing, and operations. Each position is listed below together with the potential functions of each position.

Fisheries Manager ($60,000-$80,000/year)

- Oversee all of the following functions: sales/marketing, operations, and fishing.
- Will oversee all financial transactions and assure all regulatory/accounting requirements, such as audits and other filings, are complete and on time.
- Will seek appropriate loans after determining repayment feasibility and assure that the stipulations of the loans are being met and payments are being made on time.
- Will seek appropriate grants and assure that the stipulations of those grants are met in a timely manner.
- Maintain relationships with City, County, State, National and local policymakers and be aware of and prepare a plan of action on any regulation changes that may affect the local (and nearby) fishing industry.
- Will keep abreast of all fisheries management requirements, permits, closures, gear restrictions, limits, and assist/represent the fishing fleet to assure compliance is being met. The manager will also make regulatory information available to local politicians and consumers to further illustrate the pressures that the local fishery faces and accentuate the fleet's compliance.
- Assist and interface with Community-Based Fishing Association and management of permit bank (if applicable).
- Maintain familiarity of all current and future collaborative research opportunities and make them available to the fleet in a timely manner.
- Improve and maintain community awareness through various media, advertising, and outreach programs.
- Educate and work closely with local politicians (county, state, national) on the value of the fisheries. Show that support of the local fishery and working waterfront rings true with constituents and will strengthen platform. Call on their support when necessary.
• Manager shall be responsible for hiring appropriate staff after concluding that sufficient funds are available.

Sales/Marketing ($50,000-$70,000/year)

• A strong sales entity is needed to help drive the business. Willingness to spend entire days on the phone and multiple days on the road visiting potential buyers is required. Must possess an unshakable understanding of the brand, as well as, the state, national and global fishing industry.

• Will maintain constant contact with current and potential buyers while considering supply (landings, seasons, closures, fishing schedules).

• Will attempt to close as many sales as possible at the highest price based on available supply. Incentives can be made available based on the sales.

• Marketing entity (may be one and the same) will identify new/potential markets, and buyers.

• Reinvigorate existing markets.

• Find most efficient method for broadcasting message.

• Help set pricing based on market conditions.

• Possess tacit understanding of "product" and how best to take advantage of the unique nature of MB/PSL fleet (small boats, small crew, small, community-run port facilities, history of compliance, participation in scientific research, cutting edge of science/conservation/fisheries, healthy stocks, and global implications of supporting local fishermen).

• Provide training and education for restaurant waitstaff, retail fish counter staff, and retail/restaurant buyers and managers through print media, site visits and seminars, digital media, and portside conferences.

Operations ($40,000-$48,000/year)

• Will oversee and be responsible for all dock operations, record and/or assist fishermen to record all landings, maintain ice facilities, hoists, forklifts, cold storage, and gear storage facilities.

• Play a significant role in electronic recording of landings and EVV. Research and consider electronic fish ticket system.
• Anticipate and communicate future landings to management entity in order to take greatest advantage of species and timing.

• Anticipate and communicate to management on storage, offloading, and infrastructure maintenance and expansion needs, costs, and opportunities.

• Continually assess the needs of the fishing fleet and report to manager when needs exceed infrastructure capabilities.
RECOMMENDATIONS

Section 17

The following recommendations are based on research documented in Section 1 through 16 and represents the culmination of hundreds of hours of interviews, site visits, infrastructure inventory, public meetings, data review and manipulation, and analysis of potential funding sources and comanagement alternatives. The recommendations are intended as solutions to issues that face the fishery. The recommendations are also intended to help capitalize on existing opportunities and to create new opportunities that bring value and stability to the fishery. Specific “Action Items” are assigned to each recommendation and a "Priority" for implementation is established (high, medium, low).

The recommendations call for the establishment of a comanagement entity to oversee/manage the fishery (See Section 16: Management Entity Alternatives and Section 17.1 Find Effective Leadership). It is anticipated that this entity would hire a manager/director. Reference to “Fisheries Managers” refers to this comanagement entity and/or the manager/director. If the comanagement entity is not established or not established quickly, the reference to “Fishery Manager(s)” means the Morro Bay Harbor Department, the Port San Luis Harbor District, the MBCFO, and the PSLCFA, collectively.

Recommendations were made in seven categories:

• Find Effective Leadership
• Promote the Fisheries
• Create Value
• Take Advantage of Infrastructure Opportunities
• Seek Regional Focus in Quota Management and Regulation
• Develop Effective Partnerships
• Encourage Innovation
17.1 FIND EFFECTIVE LEADERSHIP

Comanagement Entity: The San Luis Obispo County commercial fisheries should consider creating a formal comanagement entity (Not-For-Profit, Co-Op or S Corp.). A formal, legal entity will be able to apply for and receive loans and grant funding, enter into contracts, and hire employees. An entity that represents both ports and all offloading facilities will be in the best position to serve the entire fishery, benefit the County fishery-related economy, and receive funding from sources such as the California Fisheries Fund and the Ocean Protection Council.

Both commercial fishing organizations (MBCFO and PSLCFA) have been effective at pooling resources and providing a voice for the local industry. Both organizations must have a stake in the comanagement entity structure. The Port San Luis Commercial Fishing Association effectively represents all PSL fishermen, since there is only one, district-owned offloading facility. In Morro Bay, however, there are three offloading facilities of separate ownership. If one facility gains, it is not necessarily seen as an advantage for the "industry". The comanagement entity must representative both ports, all fishermen, all offloading facilities and businesses, and all commercial fishing infrastructure in the County.

The nascent Community-Based Fishing Association (CBFA) may be in a position to fill this role. A representative from a University (research collaborator) and at least one from the business community will round out and complete the CBFA board if it intends to undertake a larger role and manage the regional fishery. If so, the CBFA could hire a manager/director to implement recommendations made in the Business Plan and begin moving the fishery into a profitable, cohesive and more stable future.

The management entity should take cues from the California Fisheries Fund Business Framework in creating a charter, goals and objectives.

**Action Item 1 (Both Ports):** Form a comanagement entity. A comanagement entity will be able to begin implementing suggestions made in the Business Plan and advance the fishery toward greater stability, sustainability, and profitability.

**Priority:** High.

**Action Item 2 (Both Ports):** Apply for planning grant to cover initial costs of organizing and planning.

**Priority:** High.
17.2 PROMOTE THE FISHERIES

Promotion: The MB/PSL fisheries should through a consultant or direct employee, invest time and resources to increase (local) awareness of the benefits of locally caught fish, sustainable practices of the fleet, regulatory climate, and species and availability. Demand for MB/PSL caught seafood can be driven on the local level by raising awareness of consumers, retail buyers, restaurant buyers, fish counter employees, and wait staff, as well as, distributors/processor buyers and their sales team.

A potential partner for this type of campaign is the County's Economic Vitality Corporation (EVC). The EVC's charter is to support the economic vitality of the area by generating jobs and increasing investment in the community. Grant funding and/or communications plan support may also be available for such programs through the CCJCFLC or the OPC. The CCJCFLC has funded the Faces of California Fishing to promote California fishing communities.

An extensive promotional program should create a brand and logo and employ print, radio, internet, and television ads to reach the greatest consumer audience. More targeted printed material and DVDs could easily be distributed at retail locations and restaurants. In-house training and workshops could also benefit local retailers and restaurants and inform staff and clients of the benefits of locally caught seafood. The same restaurants and retailers could have "first" access through local distributors and relationships with the fishery. "First access" could simply mean informing retailers and restaurants what is being landed, making introductions, and developing relationships among distributors that handle locally caught fish, grocers and restaurants. A series of roundtable meetings with fishery managers, fishermen, local restaurant owners, retailers and processors should be considered as part of the promotion campaign.

When discussion of price arises, efforts by the Morro Bay/Port San Luis fishery to place value on the resource and bring value to the community should be emphasized, including: compliance with strict regulations, innovative programs aimed at reducing discard and habitat disruption, collaborative scientific research, programs that create cooperation among Federal and State agencies, fishermen, municipalities and NGOs, as well as efforts on the part of the City and the Harbor District to maintain commercial fishing infrastructure through decades of reduced vitality. Morro Bay/Port San Luis seafood is valuable and worth more.

Action Item 3 (Both Ports): Create a promotion campaign.

Priority: High. This is a high priority issue for both ports and should be on the top of the list of tasks to be accomplished by a Fishery Manager or comanagement entity.
17.3 CREATE VALUE

Asset Building Model: Fisheries Managers should lead the shift in mindset from an "income" approach to an "asset accumulation" approach and focus on building net worth through asset accumulation. As part of a long-term strategy, plans should begin immediately to create a fixed asset or foundation for the local fishery. An endowment or foundation will give the fishery a steady and predictable income stream to support loan payments, human resources, growth, infrastructure improvements, and lobbying efforts. A predictable income flow will reduce the amount of time and attention used to create stopgap measures of isolated grants to solve isolated problems. A capital campaign coupled with input and synergy from traditional grant sources and income from a small landing fee will begin the multiyear process of achieving a $500,000 or $1 million endowment. The community is very supportive of the commercial fishing industry and will welcome an opportunity to contribute.

Action Item 4 (Both Ports): Work with nonprofits and/or local financial institutions to gain an understanding of what is needed to create a foundation. Creating a foundation is a complex process that requires drafting bylaws, incorporating as a nonprofit corporation, obtaining tax-exempt status, and completing other documents relating to State compliance, annual reporting, and sound record keeping. The foundation could be capitalized by a California Fisheries Fund Loan.

Priority: High. While raising substantial capital may take years, laying the groundwork for a foundation program should start quickly. Many potential contributors look for matching funds.

Action Item 5 (Both Ports): Determine investment needed to establish permanent fishery foundation. Efforts should be spent discussing endowment goals with the State Coastal Conservancy, Central Coast Joint Cable Fisheries Liaison Committee, California Fisheries Fund managers, the Economic Vitality Corporation, and other potential financial resources and advisers. Goals and a work plan for a capital campaign should be drawn up as soon as managers have gathered enough information.

Priority: High.
17.4 **Take Advantage of Infrastructure Opportunities**

Capital investment is required to remain competitive, create jobs, improve profits, and revitalize the working waterfront. The following recommendations summarize the top infrastructure improvement priorities.

**Pedestrian Coastal Access:** In considering any site planning or capital improvements on the waterfront or pier, special attention should be given to safe and attractive pedestrian access. Any site plans or site designs should include a pedestrian access component and capitalize on synergies with the California Coastal Trail. The public is a strong supporter of the commercial fishery and should be viewed as such and made to feel welcome on the working waterfront. Tourism helps drive the waterfront economy, therefore, providing safe and attractive access should be held as a priority in any design alternatives.

**Action Item 6 (Both Ports):** Include a pedestrian access component and capitalize on synergies with the California Coastal Trail in site planning and capital improvements.

**Priority:** High/Medium.

**Traffic and Circulation:** Any site plans or capital improvements on the waterfront or pier should consider traffic and relevant circulation and include a traffic and circulation plan with a description of the existing street network, parking, public access opportunities and constraints, and pedestrian safety. Circulation improvements or construction should focus on improving, parking, ingress and egress, loading and offloading of commercial fishery related vehicles, and facilitating public access to the working waterfront.

**Action Item 7 (Both Ports):** Include traffic and circulation improvements in site planning and capital improvements.

**Priority:** High/Medium.

**Refrigerated Storage:** The MBCFO should focus on repairing and exploiting the existing refrigeration facilities, if possible. If the facilities are beyond repair, the MBCFO and the City should consider the feasibility of replacing one or both units. Brett Cunningham (Morro Bay Fish Company) is limited by his refrigeration space, the *South Bay* could take advantage of short term refrigerated storage, and during the swordfish run this season, DeGarimore was limited by his ability to off-load and hold fish in a refrigerated facility.

The MBCFO has 2 relatively idle, 40-foot refrigerated containers. The MBCFO should consider renting this refrigerated space or new or renovated refrigeration/deep cold facilities to Morro
Bay Fish Company and others at a reasonable fee or exchange some service (i.e. refrigerated transportation, offloading, live fish storage).

Port San Luis should consider a grant (CCJFLC, CCC) to purchase a modular or mobile refrigeration unit and/or negotiate with lessee, Barry Cohen to regain access to the refrigeration unit on the Harford Pier and use grant funds to repair and renovate the facility. Space in the refrigerated storage unit should be rented at reasonable fee and made available to all fishermen. The Harbor District could manage this opportunity and collect rent. A modular or mobile unit can be turned off when not in use to reduce expenses and maintenance oversight.

**Action Item 8 (MB):** Explore costs and appropriate funding sources for repair or replacement of refrigeration and/or cold store facilities on the MBCFO wharf. The analysis should include the costs of repair/replacement, a list of potential renters (fish buyers, processors, distributors, retailers, restaurants, fishermen), projected income stream from rental fees, and a plan to market the facility.

**Priority:** High. This is a top priority and should be included in the top five action items.

**Action Item 9 (PSL):** Explore costs and appropriate funding sources for repair or replacement of refrigeration and/or cold store facilities on the Harford Pier (or adjacent parking lot). The analysis should include the costs of repair/replacement, a list of potential renters (fish buyers, processors, distributors, retailers, restaurants, fishermen), projected income stream from rental fees, and a plan to market the facility. Also, see Action Item 18 on possible conversion of ice facility.

**Priority:** High/medium. Refrigerated storage falls behind the diesel fuel issue and ahead of haul out facility improvement.

**Refrigerated Transportation:** Both Morro Bay Fish Company and DeGarimore expressed they are limited by the size of vehicle and lack of vehicle, respectively. Tognazzini’s has also confirmed that access to a refrigerated vehicle would improve its local distribution capabilities. While the MBCFO is not a fish buyer, the organization may benefit from access to refrigerated transportation. A refrigerated vehicle could also be used as a (mobile) storage unit at any of the three offloading facilities.

A comanagement entity could secure a loan through the California Fisheries Fund for the purchase of a refrigerated vehicle that could be available for lease. Considering a relatively large truck of $50,000, a 10-year loan at 6% would generate a payment of approximately $555 per month, if the term were reduced to five years, the payment would be approximately $970 per month.
Funds to repay the loan could be generated through landing fees and/or rental/lease payments. Grant funding may also be available for this purchase and should be considered. Participants, or those paying the additional landing fees, could have access to the vehicle(s) at a lower rental rate. Those not participating or contributing additional landing fees, may have access to the vehicle(s) but at a higher rate. Depending on the amount of revenue available from landing fees and grant funding, money generated from leasing the vehicle could be used to repay the loan, added to the foundation, or used to purchase and or maintain additional infrastructure or another vehicle, if necessary and feasible.

The truck could be stored behind the DeGarimore facility when not in use. A small fee could be offered to pay for the storage or in kind contribution could be considered when DeGarimore rented the truck.

A potentially bigger live fish market exists in PSL. Its main proponent, Archie Ponds, claims to be able to increase his business if he had a larger truck (and more extensive live fish holding tanks on the pier). Some analysis would be required to determine if additional landing fees could be collected from Archie's suppliers (fishermen), and if a larger refrigerated truck could generate significant additional landings. Because the live fish market is intrinsically more lucrative per pound, it is possible that this business could eventually generate enough capital to support a long-term loan. Archie could also assist Morro Bay fishermen and buyers in moving live fish. This would bring more value to his efforts and additional leverage to secure the loan. Similar figures should be considered as the vehicle purchase calculations above. Also note, a vehicle used to transport live fish requires live fish tanks, chillers and filters. The Harbor District will work to ensure the availability of vehicle storage.

**Action Item 10 (MB):** Conduct a feasibility study on the costs and benefits and appropriate funding sources for the purchase of a refrigerated truck. The truck size and capacity should be chosen based on the collective needs of the fishery and available funding/revenue. Grant funding may also be available for this purchase and should be considered. This may be an appropriate opportunity for the California Fisheries Fund, to that end, the analysis should include potential income stream from additional landing fees generated due to access to refrigerated transport.

**Priority:** High. This is a top-pier priority. Funding for the study should be sought and a detailed work plan created immediately. Potential funding sources for the feasibility study include the California Coastal Conservancy and the CCJCFLC.

**Action Item 11 (PSL):** Gather detailed information on the impacts of the live fish fishery from the purchase of a larger-capacity refrigerated truck. The truck size and capacity...
should be chosen based on Mr. Ponds’ needs. Grant funding may also be available for this purchase and should be considered. This may be an appropriate opportunity for the California Fisheries Fund, to that end, the analysis should include potential income stream from additional landing fees and income generated due to access to a larger truck with holding tanks, chillers and filters.

**Priority:** High. Because this opportunity represents potential growth in the live fish component of the Port San Luis commercial fishery, it should be considered a top-tier priority. Funding for the study should be sought and a detailed work plan created immediately. Potential funding sources for the feasibility study include the California Coastal Conservancy and the CCJCFLC.

**Deep Cold Storage/Blast Freezing:** There are currently no deep cold storage or blast freezing facilities in Morro Bay. Deep cold storage facilities are available in modular and permanent options. Size and price ranges from a large commercial freezer to a facility that can hold tens of thousands of pounds of fish. Deep cold storage serves the fishery, first, for the creation and storage of bait, then to store and facilitate the handling of various seafood. Once processing facilities are established, the fishery can consider more extensive blast freezing.

Port San Luis, if the providers of bait have sufficient deep cold storage, no investment or resources should be considered. However, when considering a refrigerated storage option, the Port should keep in mind the integration of deep cold storage for bait and an expanding live fishery.

**Action Item 12 (MB):** Investigate costs and benefits of a deep cold storage facility in Morro Bay for the creation and maintenance of bait as well as limited storage. The facility may be integrated into a refrigerated storage unit as described in Section 13 Value-Added Services.

**Priority:** High (deep cold storage). No blast freeze facility should be considered at this time.

**Action Item 13 (PSL):** Assess current deep-freeze requirements by bait providers (Deke/Mello Boy and Portside Marine). Spend no further effort or resources if they are considered sufficient. If they are not, efforts in analyzing costs and benefits of procuring deep cold storage facilities should be included in the refrigerated storage assessment and acquisition process.

**Priority:** Medium. Some priority should be placed on securing sufficient deep cold storage, especially in light of the (bait needs) live fish market.
Offloading Facilities: Due to its state of disrepair, the Morro Bay Fish Company facility should be improved or abandoned. Considering the limited activity on the MBCFO/City wharf, the MBCFO should consider leasing the use of the facility to Morro Bay Fish Company at a reasonable rate.

Fisheries Managers should gain an understanding of the current condition of and needs for the hoist at the DeGarimore facility. While not urgent, this task can be accomplished quickly and will put the fishery in a better position and foster goodwill. Keeping all offloading facilities operational and safe should be a top priority.

In Port San Luis, the CCJCFLC just funded a $23,762 refurbishing of the 4,000 pound, commercial fishery hoist on the Harford Pier. While the pier might not be the optimal structure for offloading large quantities of fish, it will serve most of the needs of the commercial fleet, especially the live fish fishery. Comprehensive plans and funding for maintenance and repairs are in place.

Action Item 14 (MB): Facilitate dialogue between the MBCFO and Morro Bay Fish Company, include the City of Morro Bay. Document efficiencies in pooling the Port's resources and the overall gains that can be achieved without seeking funding from external sources.

If the parties cannot reach an accord, begin assessing the costs of repairing the facility at 715 Embarcadero (Morro Bay Fish Company). Calculate the additional landings and fees that could be achieved with a new, larger facility. Include in the analysis additional/new fishermen that can be supported and additional landings from fishermen that currently participate in the fishery. Consider funding sources including, OPC, CFF, and CCJCFLC.

Priority: High. Because the Morro Bay Fish Company represents a growing fish buying, offloading, and distribution business, supports a number of fishermen, and provides fishery-related employment, this item should be given top priority. While reconstruction of the dock facility may be expensive and funding may be difficult and lengthy, the process should begin (if necessary) as soon as possible.

Action Item 15 (PSL): Continue ongoing repairs on the Harford Pier, and consider, in particular, the needs of the live fish business.

Priority: Medium/Low. As considerable resources, time and attention are being paid to repair and maintenance of the offloading facility in Port San Luis, this will not be considered a priority item.
**Ice:** Fishery Managers should focus on taking advantage of the Morro Bay ice facility, whether it is exploring ice sales outside of the fishing industry or using ice to compensate fishermen for additional landing fees to support infrastructure and value-added improvements.

In Port San Luis, annual costs for ice production and facility maintenance are approximately $38,000 per year. Necessary upgrades, such as an evaporative cooler cost approximately $75,000. Ice sales for the 2006-2007 season were under $8,000 and show no sign of increasing. Therefore, the Port should consider divesting itself of the facility, converting the facility to cold storage, or maximizing potential profit, if possible.

**Action Item 16 (MB):** Gather information on costs and breakeven point(s) and explore potential sales and optimum pricing. Set pricing as high as possible considering competition and needs. Differentiate MBCFO ice based on quality, availability, and convenience/access. Consider nontraditional customers: resorts, golf courses, hotels, local restaurants, grocers, universities, high schools, local vintners, and farmers.

Explore the feasibility of and propose using ice to compensate fishermen participating in programs that require additional landing fees. While landing fees will drive value, growth and maintenance of the fishery, additional fees may initially take incentives or compensation like free or discounted ice. In the startup phase, the MBCFO could possibly seek compensation/reimbursement for ice used in these programs through grants (CCJFLC).

**Priority:** Medium/Low.

**Action Item 17 (PSL):** Consider gathering information on costs, breakeven point(s), potential sales, and optimum pricing. However, with monthly costs of approximately $3,500 and monthly sales under $1,000, the Port should place high priority on investigating divestiture, conversion, or other options for the ice facility. All options and potential changes should make continuity and availability of ice for the fishing fleet a priority.

**Priority:** High.

**Action Item 18 (PSL):** Consider the costs and feasibility of converting the ice facility to cold storage. TRJ Refrigeration could provide guidance for this analysis.

**Priority:** High. (See Action Item 17.)

**Action Item 19 (PSL):** Consider closing the facility and explore the costs, feasibility and transportation requirements of trucking ice from Morro Bay, as needed. The Port should also consider the cost and feasibility of purchasing ice from a production/distribution
facility in Oceano. The Port may have to consider a refrigerated storage facility. A modular facility or 20 foot refrigerated container may be sufficient.

**Priority:** High. (See Action Item 17.)

**Diesel Fuel:** Both ports face serious issues in their diesel fuel distribution facilities. In Morro Bay, DeGarimore’s Central Coast Marine Fuel & Ice Company is posting a loss due to dramatic increases in the cost of fuel and decreases in fishing trips, as well as the loss of the trawler fleet. Diesel fuel is an essential part of a viable fishery and this facility serves both the Coast Guard and the Harbor Patrol.

Port San Luis is dedicated to providing fuel to the commercial and recreational fleet at reasonable and competitive price levels. The location of the 1,000-gallon tank has hindered some of the fleet from accessing fuel due to the surge and shallow water. This is unacceptable to the Port. In addition, the temporary tank is located on space of a private leaser. CCJCFCLC has committed $150,000 for the replacement of the diesel fuel line to the end of the pier.

**Action Item 20 (MB):** Fisheries Managers should focus on consolidating the efforts of the Coast Guard, Harbor Patrol, and fishing community to support this facility by way of grants. Low interest loans are not appropriate as they ultimately increase the cost of money. DeGarimore is funding this facility and its losses through his business. Fisheries Managers should create a Diesel Fuel Oversight Committee with members from the Coast Guard, Harbor Patrol, two members from the commercial fishing community and two members from the recreational fishing community to address the issues at the fuel dock and create solutions amenable to all parties.

**Priority:** High. Considering fuel is an essential part of the fishery and serves the Coast Guard in its national security efforts as well as the Harbor Patrol, the Diesel Fuel Oversight Committee should be formed immediately and begin exploring appropriate funding sources and potential solutions and report its findings to the City of Morro Bay, Giovanni DeGarimore, and fishery management.

**Action Item 21 (PSL):** Due to the Port’s mission of providing reasonably priced fuel to the commercial and recreational fleet, they should continue investigating solutions for replacing the fuel line to the end of the pier and focus on securing additional funding for the project.

**Priority:** High. For the diesel fuel line replacement to the end of the pier.

**Chandlery:** No action is recommended for either port at this time.
Drydock and Haul Out: Because of the potentially exorbitant costs of building a haul out and drydock storage and repair facility and also considering that appropriate facilities are available in Ventura and in San Francisco (24 hours and 30 hours, respectively), no additional drydock facility should be considered for the commercial fishery in Morro Bay at this time.

Port San Luis considers Drydock and Haul Out facilities key to the nature of the Harbor and hopes to take advantage of the synergy between the commercial and recreational fleet. Because of PSL Harbor District’s commitment, considerable time and resources has been spent seeking to improve these services. Incremental income that will be generated from the present or improved drydock yard should play a role in the final decision. Current synergy between commercial and recreational users will likely increase with upgrades. However, additional capital investment may be necessary for the present PSL drydock facilities to address the needs of the commercial fishing fleet. This is a potential project for the comanagement entity and could be funded by a grant or loan from the CFF, commercial lender, or other appropriate funding source.

Action Item 22 (MB): None
Priority: Not Applicable.

Action Item 23 (PSL): Due to the Port’s commitment to these facilities as “key” to the nature of the harbor, they should continue to study potential upgrades/improvements, and continue to consider feasibility and seek funding sources.
Priority: Low.

Live Fish Storage: The Morro Bay Fish Company has quickly outgrown its capacity to store live fish (and expand the number of tanks). All indications are that the live market will continue to grow. The MBCFO on the other hand, has underutilized live fish holding tanks on its pier.

Archie Ponds, the live fish buyer in Port San Luis, indicated that additional live fish storage capacity (with chillers and filters) on the pier will improve quality, increase the lifespan of the product, improve market value, and attract and support more fishermen.

Action Item 24 (MB): Fishery Managers should help facilitate discussions between the Morro Bay Fish Company and the MBCFO. The MBCFO should consider leasing or renting their tanks to the Morro Bay Fish Company. Some capital may be required to restore the tanks to working order. This may be an appropriate grant opportunity through the CCJFCFLC, Sea Grant, or CCC. If regulation remains conducive and the live fish market continues to grow (or a need for the tanks arises in the MBCFO), the fishery should consider adding live fish holding tanks with aerators, chillers, and filters. Loans can be secured from the CFF or
OPC for this type of infrastructure improvement. Loan repayments should be funded by incremental landing fees and increased income from greater landings and sales of live fish.

**Priority:** High. Because of the importance of the live fish market and profit potential and because few, if any, resources will be required to make this improvement, it should be considered a relatively high priority for Fisheries Managers.

**Action Item 25 (PSL):** Because the live fish market represents an attractive price per pound income opportunity and it is a potential growth segment of the fishery, the Harbor District and/or fishery manager should consider the additional landings that would be generated with the purchase of approximately $10,000 in live fish storage tanks.

**Priority:** High. To move on this opportunity quickly, the District might consider partially funding the project with a grant (CCJFCLC) and the remainder with a traditional loan supported by increased landing fees.

**Processing:** In both ports, because of the resources involved with processing (construction costs, utilities, employees, insurance, creation of an entity to sell the processed fish, accounting, and record transactions), the fishery should, in the short run, focus on working with processor/distributors with this capacity. However, close attention should be paid on choosing processor/distributors that actively promote locally caught and sustainably caught fish or are committed to learning what is necessary to most effectively promote them. Potential partners should also be willing to work with fisheries sales and marketing personnel (or management) to raise awareness on the benefits of locally caught and sustainably caught seafood.

Morro Bay should eventually update and upgrade site plans from the 2004 feasibility study, which evaluated the potential for new processing/fish cutting facilities on the Embarcadero.

**Action Item 26 (Both Ports):** Remain abreast of potential opportunities and income from processing and packaging facilities.

**Priority:** Low. For undertaking local processing.

**Packaging:** Packaging capabilities should be considered in conjunction with processing, a medium term or long term objective.

**Action Item 27 (Both Ports):** None.

**Priority:** Not applicable.

*Special Note: Fisheries managers should devote some time and attention in assessing if an Enterprise Zone is appropriate for either or both ports.*
17.5 ENCOURAGE INNOVATION

Innovative Gear: Many local fishermen have expressed their belief that certain fish can be caught on a commercial basis using nontraditional and more selective methods. Funding sources like Sea Grant and the Moore Foundation are also interested in seeing innovative gear deployed and assessed.

**Action Item 28 (Both Ports):** Fishery Managers should begin gathering information from fishermen interested in participating in experimental gear programs and build a proposal for prospective funding sources. Focus should be placed on accessing flatfish and rockfish previously caught with trawl gear with hook and line, long line, and traps. Proposals should (1) identify species to be targeted, their value, and marketability, (2) how the species was previously caught on a commercial basis, (3) the proposed/new gear and its advantages, (4) include a budget with costs for materials, time, fuel and (5) should allow for fair compensation for the fishermen. The collective goal should not necessarily aim to maximize landings but to quantify the efficacy of each gear type for each species. This is an excellent opportunity for collaboration with a university partner.

**Priority:** High. This is an opportunity to bring capital and attention to the fishery and employ the ingenuity of the local fishermen. If the fishery moves now, it could establish itself as a leader in innovative gear design and experimentation.
17.6 SEEK REGIONAL FOCUS IN QUOTA MANAGEMENT AND REGULATION

Regional Stock Assessments: The local fishery should work diligently at creating and supporting a regional or community-based fishing association to help bring decision-making and quota management to the local level. Particular interest and attention should be paid to creating relationships with a university(ies) for collaborative research, collecting, and publishing biological data for the exempted fishing permit (EFP), the Conservation Fishing Agreement, and other projects with Pacific Fishery Management Council/National Marine Fisheries Service oversight and input.

Focus should be paid to new science that suggests almost all species have local sub stock structures, often with life history variation. These efforts will put the fishery in the best position to petition the Pacific Fishery Management Council for regional attention in stock assessments. Regional assessments will give a more accurate picture of the status of the local resource and hopefully provide the basis for more liberal regulations and increased access. The mechanism for regional stock assessments will most likely grow from a successful regional or community-based fishing association.

The community will most likely be required to fund these efforts. Initial funding may begin with grants, then low interest loans, ultimately, funding will come from an economically viable fishery. All attempts to create funding for regional stock assessments should begin as soon as possible and should be part of the charter of the community-based association. The Ocean Protection Council is presently considering a $3 million collaborative research institute to fund work that could lead to regional/local stock assessments. The new fisheries law, AB1280, directs the OPC to spend money on comanagement, collaborative research, and innovative management (could include localized assessments). This new legislation stands to benefit the MB/PSL fisheries.

Action Item 29 (Both Ports): Work diligently at creating and supporting a regional or community-based fishing association to help bring decision-making and quota management to the local level.

Priority: High.

Regulations: Continue to use the EFP process to petition the Council to make regulatory changes favorable to the MB/PSL fisheries. Use lessons learned from TNC’s efforts on the gear switching proposal (November 2007) to seek access to the Rockfish Conservation Area. Through a collaborative partnership with the Marine Sciences Department at Cal Poly or UCSB, it can be proposed that local fishermen can target healthy stocks while avoiding weak ones.
Action Item 30 (Both Ports): Continue to use the EFP process to petition the Council to make regulatory changes favorable to the MB/PSL fisheries.

Priority: Medium.

Trade Policy/Lobbying: Spend time and resources influencing U.S. trade policy to place restrictions on imports of seafood from nations with little or no regulatory oversight or sustainable fishing practices. The MB/PSL fishery should also spend resources communicating these efforts with their stakeholders, local consumers, lawmakers, business leaders, and other fisheries managers. Through the collective comanagement entity, the fishery should consider pooling the efforts of other ports along the coast and join with organizations already involved in lobbying to strengthen their voice in urging Trade Commission leaders to level the playing field and halt the import of cheap seafood from poorly managed fisheries.

Action Item 31 (Both Ports): Spend time and resources influencing U.S. trade policy to place restrictions on imports of seafood from nations with little or no regulatory oversight or sustainable fishing practices.

Priority: Medium.
17.7 Develop Effective Partnerships

**Political:** The San Luis Obispo County commercial fisheries would benefit in the short-run and the long-run from more recognition and support from local politicians and business leaders. Although political leaders are generally supportive, they should be kept apprised of local progress in fisheries revitalization and reminded that voters support the local commercial fishing industry and that the working waterfront plays a huge role in local tourism. They stand to gain from guidance on an issue that has broad support and could potentially strengthen their platform.

Congresswoman Lois Capps' staff member, Greg Haas, testified at the PFMC meeting in November 2007 in support of the exempted fishing permit (EFP) that eventually won approval. Congresswoman Capps has represented our fisheries in Congress many times. She is aware that she has the support of the greater fishing community for her efforts. Janice Peters, the Mayor of Morro Bay, has also consistently supported the commercial fishing industry and receives their support and recognition. It is this type of relationship that should be targeted with other political and business entities.

**Action Item 32 (Both Ports):** Fishery Managers should:

- Prepare a one-page overview of the industry highlighting employment, landing data in dollar value, tourism value, and intrinsically sustainable fishing practices and compliance. Communicate the document, give talking points, and suggest how to respond to important fisheries related questions
- Invite local, State, and national politicians to fishing related events to gain mind share and engage the political entity.
- Maintain consistent communication between politicians, their staff, and the fishery.

Political representatives include: Lois Capps (U.S. Congress), Abel Maldonado (California State Senate), Sam Blakesley (Assembly Representative), Jerry Lenthall, Bruce Gibson (County Board of Supervisors), Adam Hill (candidate, County Board of Supervisors), Jim Patterson (County Board of Supervisors, North County, interested in and supportive of local commercial fishing industry), Morro Bay City Council, and the Port San Luis Harbor District Commission

**Priority:** Medium.

**Business Community:** Create recognition and support in the business community. Commercial fishing provides employment, supports local businesses, generates income, and provides a huge tourism draw to the County. Business organizations include: Dave Garth (San Luis
Chamber of Commerce, expressed support in a September meeting), Pete Candela (Morro Bay Chamber of Commerce, supportive, influential), Lions Club, and Kiwanis Club. Each of these will be pleased to offer opportunities for the local fishing industry to provide input and to address their group. Membership in Kiwanis or Lions can lead to opportunities to raise awareness and inform the public.

**Action Item 33 (Both Ports):** Create recognition and support in the business community.

**Priority:** Medium.

**Educational Community:** Cultivate a relationship and a collaborative research effort with Cal Poly and/or UCSB to help implement management reform. As indicated in the California Fisheries Fund Business Framework, such a partnership will put the local fishery in an advantageous position to leverage the "fund" to compensate fishermen for research participation.

Publishing data and reporting to agencies and funding sources on the efficiency and efficacy of innovative gear will require assistance and attention of the educational community. This partnership will also provide a conduit for information to flow into the University, raising awareness on commercial fishery issues, and motivating students and professors to participate in and support fishery-related programs.

**Action Item 34 (Both Ports):** Cultivate a relationship and a collaborative research effort with Cal Poly and/or UCSB to help implement management reform.

**Priority:** Low.
APPENDIX

The following section contains the appendices referenced in this document.
Figure HR-1
CITY OF Morro Bay
Navigational Channels and Mooring Areas

End of Maintained Channel in the City

Mooring Area A-1

Mooring Area A-2

Entrance Improvement Area

Navy Channel

End of Maintained Channel in the City

PACIFIC OCEAN

Channelized Area

Scale: 1 in. = 400 ft
Appendix A: Morro Bay/Port San Luis Maps
## Market Analysis Interview Summary – Key Findings

**Source:** Interviews conducted by Lisa Wise Consulting & Environmental Defense June-August, 2007

### Channel Description

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<th>Channel Description</th>
<th>Demand Characteristics</th>
<th>Seafood Purchasing Process</th>
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<th>Barriers Within the Channel to Buying/Selling Local Seafood</th>
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### Summary of Interviews

- **Appendix B:**
  - 1 interviews conducted
  - 2 primary businesses models:
    - **Online:**
      - Click-to-order delivery by UPS, FedEx, etc.
    - **Waterfront-based / Farmer’s Market:**
      - Centralized managed waterfront store or harbor store (ex. Fishing Association)
      - Boast-individual sales
Morro Bay/Port San Luis Commercial Fisheries Business Plan
Interview Guides for Task 2 (Market Analysis)

Interview Guide – Initial Contact (Tier 1 Questions):

I.) General business background:
Describe your business in terms of:
- Size (approximate revenue)
- Product & service scope (types of products / services offered)
- Number & approximate square footage of locations and facilities
- Number of employees

II.) Seafood business & purchasing decision process:

General:

In general, how much seafood does your business you buy? What species make up the bulk of your purchases? (volume & price details discussed below)

From whom do you buy seafood?
- Type of organization (processors, fishermen, buyers/brokers, cooperatives, etc.)
- Origin of product (California, other US, international, don’t know)
- Method of purchase (direct, consignment, auction, payment terms - net 60, net 30 etc.)

Are you currently buying seafood from Morro Bay/Port San Luis?
- If so, what are your impressions (positive and negative) of MB / PSL seafood?
- If not, have you ever considered buying seafood from MB / PSL? Explain.
- Might you be interested in purchasing MB / PSL seafood as supply increases over the next several months / years?

Describe your seafood purchasing process:
- How many different suppliers do you use? Does this supplier base vary over time?
- How do you find out what seafood is available from your suppliers?
- How do you determine what to buy (species, volume)?
- How long does it take from order to delivery? Are there intermediate steps?

How do you (and your customers) value the following seafood characteristics / services / arrangements / product details? To what extent do they influence your buying decisions?
- Product quality (how do you measure it?)
- Product variety
- Price
- Origin of fish (locally-caught v. domestic v. imported, wild caught, farm raised)
- Use of environmentally-sustainable fishing practices (i.e. fixed gear, MSC certified, etc.)
- Consistent availability of product
- Processing
- Ordering flexibility
- Existing relationships with suppliers
- Other?

Processing / product form:
Morro Bay/Port San Luis Commercial Fisheries Business Plan
Interview Guides for Task 2 (Market Analysis)

In what form do you prefer to purchase seafood? (i.e. whole, gutted, scaled, individual, serving-sized portions, frozen/deep frozen, iced, packaging)?

Do you (or can you) process fish at your facility?
  • How do you modify/process the seafood product you receive?
  • Approximate quantity / capacity?

Supplier Relationships:

What are some common characteristics of your most successful suppliers?

When your suppliers “go wrong,” what factors negatively impact their performance?

III.) Marketing:

Which of the following seafood characteristics do you currently market to your customers, and is there a premium price associated with them?:
  • Fresh?
  • Wild-caught?
  • Sustainably-caught?
  • Locally-caught?
  • Other?

Do you, your associates, or your competitors actively market sustainably- or locally-caught seafood to your customers? Why / why not? How?

Are your customers’ aware of the social & environmental impact of commercial trawl fishing? (i.e. seafloor destruction due to trawling, waste/bycatch, safety, community survival, etc.)

Are you or your consumers familiar with Marine Stewardship Council’s seafood certification? If so, what impact does it have on purchasing decisions?

With proper consumer education, do you believe that your customers would be willing to pay more for seafood caught by more environmentally-sustainable methods? (i.e. fixed gear, line & hook, traps, etc.)

IV.) Purchasing Needs, Requirements, Demand, & Pricing:

Consistency of supply:

Do you buy and sell seasonal products or limited quantity, specialty items?

How do you deal with products that have intermittent supply? (i.e. may not be available year-round due to fishing regulations and closures)

Species preference (continued from above):
Appendix C: Tier 1 Interviews

Morro Bay/Port San Luis Commercial Fisheries Business Plan
Interview Guides for Task 2 (Market Analysis)

Which of the following seafood species do you currently buy or might you be interested in buying?

- Black Cod / Sablefish
- Salmon
- Albacore
- Flatfish (flounder/sole/halibut),
- Rockfish
- Crab
- Prawn
- Sardines
- Mackerel
- Swordfish
- Squid
- Shark
- White sea bass
- Shrimp
- Turbot
- Octopus
- Other

Estimating demand:
What determines the volume of seafood you purchase in a given time period? (i.e. planned in advance, responsive to market, etc.)

Pricing:
How is the price you pay for seafood determined?
- Role of historical & market prices on price paid?
- Impact of volume, availability on price paid?
- Do prices tend to be fixed or flexible? Primary causes of flexibility?

How are prices communicated / agreed upon between you and your suppliers?

Do you feel there is economic value in "branded" seafood products? (i.e. environmentally-sustainable, locally-caught, etc.)

V.) Wrap-Up / Conclusion:
One critical step in increasing seafood supply from MB / PSL is to approximate demand and potential seafood revenue... would you be willing to help us estimate hypothetical price demand from a company like yours?

How do you see your seafood business evolving over the next several years (growth – size/volume, prices, location, customer needs/concerns, etc.)

Is there anyone else in your industry or a related channel with whom we should speak?
Morro Bay/Port San Luis Commercial Fisheries Business Plan
Interview Guides for Task 2 (Market Analysis)

**Interview Guide – Follow-Up Contact (Tier 2 Questions):**

**I.) Order & Delivery Mechanics:**

What processes / systems do you use to place seafood orders?

At what point in the week do you place your fish order?

How do you schedule & receive seafood at your facility? When do you expect delivery?

How do you prefer to receive seafood deliveries (product form, etc.)? How do you determine and specify the type of seafood processing you require?

**II.) Collaborative Marketing:**

Would you be able to integrate a message into your sales chain if you had access to appropriate advertising material? (i.e. printed information cards, displays, tri-folds, point-of-purchase educational material, or stickers describing unique product background & characteristics)

How could a local, sustainably-harvested seafood supplier help you to improve your marketing efforts?
- Marketing materials (tri-folds, other signage, etc.)
- Packaging
- Customer education efforts
- Other?

**III.) Estimating Demand:**

*Estimating demand (continued from above):*

Are you able to estimate approximate amounts of the species you might be interested in purchasing (ball-park estimates, order-of-magnitude)? (use input to populate attached MS Excel demand template, by species)

Does your demand vary significantly during the calendar year? Do you have seasonal or temporal preferences? For example, are you interested in salmon or tuna all year? (use input to populate attached MS Excel demand template, by month & species)

**IV.) Estimating Pricing:**

What price or range of prices (low, high, most likely) do / would you pay for each of the primary products and species that you buy? (use data to populate attached MS Excel demand template, by species)

**V.) Next Steps:**

Would you be interested in parterning with Morro Bay / Port San Luis to increase supply and demand of locally- produced, sustainably-caught seafood?
Appendix D: Tier 2 Interviews

Morro Bay/Port San Luis Commercial Fisheries Business Plan
Interview Guides for Task 2 (Market Analysis)

Do you have a process for “certifying” seafood suppliers?

What steps would be necessary for your company to begin buying Morro Bay / PSL seafood?

Does your company have specific customer support / sales representative requirements for seafood suppliers?
Situation:
Under traditional practices, many central Californian fishermen’s connection with their catch ends when seafood is purchased at the dock. As a result, Morro Bay and Port San Luis fishermen may not have a complete perspective on purchasing decisions and demand determinants across a wide variety of market channels.

Response:
To support the Market Analysis (“Task 2”) of the Morro Bay / Port San Luis Commercial Fisheries Business Plan, we will interview key contacts in each of the primary channels. The goals of these conversations are to:

• Inform a market- and environmentally-driven approach to renewing commercial fishing in the region by broadening our understanding of the seafood value chain,
• Gauge (and stimulate) demand for locally- and sustainably-caught seafood, and
• Enable effective fishing, processing, and distribution efforts in Morro Bay and Port San Luis Ojai that align closely with market needs

Interviews will target the following channels:
• Restaurants (Local, Regional / National)
• Supermarkets & Grocery Stores (Regional, National)
• Food Distributors:
  o Specialty (limited product range, geography)
  o Broadline (broader product range, geography)
• Direct-to-Consumer:
  o Dockside storefront
  o Internet / phone

Since seafood buyers, brokers, and processors play a central role in each of these 4 channels, we will also seek to better understand their role in the MB /PSL seafood value chain:
• Buyers:
  o Local / Regional / National
• Brokers (if applicable)
• Processors

The following interview questions will illuminate potential MB /PSL seafood customers’ requirements, decision-making processes, and willingness-to-pay for locally-caught, sustainably-harvested products. Interviewees will include restaurant owners, chefs, supermarket retailers, buyers, distributors and processors. The objective of these conversations is not to discover confidential information, but to build a better understanding of the commercial seafood industry so as to identify opportunities for mutual gain and strengthen the entire seafood value chain.

Interview Guide – Initial Contact (Tier 1 Questions):
Appendix E: MB/PSL Marketing Channel Interviews

I.) General business background:
Describe your business in terms of:
• Size (approximate revenue)
• Product & service scope (types of products / services offered)
• Number & approximate square footage of locations and facilities
• Number of employees

II.) Seafood business & purchasing decision process:

General:

In general, how much seafood does your business you buy? What species make up the bulk of your purchases? (volume & price details discussed below)

From whom do you buy seafood?
• Type of organization (processors, fishermen, buyers/brokers, cooperatives, etc.)
• Origin of product (California, other US, international, don’t know)
• Method of purchase (direct, consignment, auction, payment terms - net 60, net 30 etc.)

Are you currently buying seafood from Morro Bay/Port San Luis?
• If so, what are your impressions (positive and negative) of MB / PSL seafood?
• If not, have you ever considered buying seafood from MB / PSL? Explain.
• Might you be interested in purchasing MB / PSL seafood as supply increases over the next several months / years?

Describe your seafood purchasing process:
• How many different suppliers do you use? Does this supplier base vary over time?
• How do you find out what seafood is available from your suppliers?
• How do you determine what to buy (species, volume)?
• How long does it take from order to delivery? Are there intermediate steps?

How do you (and your customers) value the following seafood characteristics / services / arrangements / product details? To what extent do they influence your buying decisions?
• Product quality (how do you measure it?)
• Product variety
• Price
• Origin of fish (locally-caught v. domestic v. imported, wild caught, farm raised)
• Use of environmentally-sustainable fishing practices (i.e. fixed gear, MSC certified, etc.)
• Consistent availability of product
• Processing
## Morro Bay/Port San Luis Commercial Fisheries Business Plan

### Interview Guides for Task 2 (Market Analysis)

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**Comments**
Appendix F: Interview Responses

Market Analysis, Interview: Academia Barilla

Date: 7/18/2007

Name: Kim Sayid
Director, Academia Barilla
Address: Academia Barilla USA, 1200 Lakeside Drive, Bannockburn, IL 60015
Telephone: 866-772-2233
Fax: 847-405-7521

Contact Method: Telephone
Interview Duration: 75 minutes

Interview Guide:

I.) Business background & parallels with premium seafood:

Academia Barilla founded in 2002 as a separate operating unit of Barilla, S.p.A to offer gourmet food products to restaurateurs & specialty retail stores. 4-pronged mission includes:
• Safeguarding Italian food and drink traditions through educational programs for professionals and consumers;
• Encouraging production of high quality food and drink by small and large producers;
• Educating consumers about how their food and drink choices influence gastronomic diversity and richness
• Fostering research for innovation in the means of safeguarding Italian gastronomic traditions and cultural heritage.

Academia sells ~25 premium Italian products (i.e. does not produce anything itself), which it selects, purchases, and markets under Barilla brand. Culinary school in Parma, Italy, serves as Academia’s flagship operation with courses in gastronomy, food preparation. Also conducts custom courses and culinary tours in Italy for individuals and corporations. Product selection & operations are overseen by a panel of Italian cuisine experts (process includes blind tasting, extensive brainstorming, exhaustive supplier search, regular testing & follow-up...ultra-premium operation, intimate knowledge of suppliers).

Parallels with premium seafood initiative:
• Experience-based, lifestyle-focused dining (slow food movement)
• Food with a story (strong sense of place, historical tradition, authenticity)
• Health benefits (natural ingredients, purity of product, freshness, quality)
• Preservation of lifestyle, small producers (Italian artisans, Californian fishermen)
II.) Sales / Marketing / Branding:

Sales through buyer education:

Primary challenge = convincing chefs and specialty store buyers that there is value in a premium, differentiated product. Once customers understand & appreciate the product, 80-90% retention rate.

Although Italian cuisine is viewed as comfort food in America, knock-offs & low-quality products are pervasive in US stores & restaurants.

Sales approach: 1-on-1 education with executive chefs, retail buyers, specialty food distributors. 4-person sales teams based in New York, Los Angeles, Chicago, Miami go restaurant-to-restaurant conducting tastings & demonstrations (many clients are initially unfamiliar with Academia products & have been “corrupted” by unauthentic, low-quality oils, meats, cheeses).

Pricing: Academia’s products are consistently priced at very high end of price ranges; Sayid said that price reflects higher quality inputs rather than wider profit margin (Academia is yet to break-even, though goal is stand-alone profitability within 5 years.)

Academia focuses on per-use pricing to ease sticker shock (i.e. one bottle of balsamic vinegar or olive oil may be used 100+ times, per-use cost differential is small)

Market segmentation: Segmentation is essential to premium product value proposition – cannot blend premium with standard product lines Academia’s target market is distinct from that of Barilla’s mainstream products; results in difficulty selling Barilla name to high-end retailers / restaurants. Academia sends samples at great cost, sometimes only to find that store buyers / chefs insist they’re not interested in pasta (Barilla’s mainstream brand association is extremely difficult to break).

III.) Public Relations / Advertising:

Print Advertising: Early on, Academia ran full-page ads in Gourmet Magazine with very little effect (despite huge expense)...difficult to convey authenticity, story, tradition, visceral experience on paper. Premium-focused ads looked very similar to those of other products.
Appendix F: Interview Responses

Market Analysis, Interview: Big Sky

07/31/07

Chad
Executive Chef
Big Sky Café
1121 Broad St
San Luis Obispo, CA 93401
Telephone: (805) 545-5401
e-mail: bigskycafe@kcpx.net

Contact: 25 minute phone conversation, intro e-mail with list of questions

MORRO BAY & Port San Luis (MB/PSLO PSL) MARKETING CHANNEL

INTERVIEWS:
Interview Guide – Initial Contact (Tier 1 Questions):

I.) General business background:

Chad is the new executive Chef at big sky Café. He has been there for 3 months, previously a chef at Pelican Point.

Big Sky Café is an informal, busy, medium/upper price restaurant in the heart of San Luis Obispo (city).

The restaurant does breakfast, lunch and dinner. Prices range from $5 appetizers to the king salmon plate at $16.95. They seat 118 people and Chad estimates they serve 19,000 meals a month.

There are approximately 45 employees, 15 in the kitchen and support and 30 "front" staff.

II.) Seafood business & purchasing decision process:

General:

He estimates buying approximately 15 pounds of salmon per day and 12 to 15 pounds of "other" fish that include mahi, escolar, shrimp, scallops, tiger shrimp, ono and catfish. They always have salmon, shrimp, scallops and catfish on the menu and will buy farm raised to adjust for inconsistencies in supply. They try to buy farm raised fish that are fed organic feed and use sustainable environmental practices.
Appendix F: Interview Responses

Market Analysis, Interview: Big Sky, continued

Their main supplier is Central Coast Seafood. He has purchased from Old Port a couple of times due to previous relationships.

They have purchased Morro Bay/Port San Luis seafood from Central Coast Seafood and reacted positively on local product but cited lack of supply for not making more effort to maintain or promote it on the menu. He would definitely like to have local product and stated that if it was available, CCS would probably have it.

He cited quality, availability, variety and origin as characteristics he and his customers value. He also cited Central Coast Seafood impeccable service and six day week deliveries as part of his decision process. He agreed that customer awareness is increasing in the preferences for wild caught, and local fish are greater. He also agreed that educating (if he really got into it) customers could influence their purchasing decisions and price sensitivity.

They claim to avoid frozen fish completely, however shrimp and scallops may be previously frozen. He claims Charles (owner) changes the menu approximately every two years and in that case, the salmon and catfish staples may be changed.

He claims that they buy absolutely no frozen fish. All the fish are fresh and/or farm raised.

All fish that come into his establishment are cut or modified in some way. Pin bones are removed from salmon, catfish into portion size fillets. They do not have the facility or the time to process (gut, scale, behead and dress) more than a few pounds a day.

III.) Marketing:

In order of priority he listed fresh, wild caught then local as the characteristics they market to their customers and on which they base their prices.

They are pleased with CCS variety and quality and again, feel that if local seafood is available CCS will inform them.

He agreed customer awareness is increasing, but not sure that they were aware of the environmental impacts of trawl fishing and seafloor habitat destruction.

He claimed to be vaguely aware with the MSC program, had just recently researched the program on the Internet. He did not know if any of the fish he purchased already carry the MSC certification.

They agreed that spending time to educate his waitstaff could bring about more sales and allow them to charge
Appendix F: Interview Responses

Market Analysis, Interview: Big Sky, continued

more per plate but claimed to be near his workload capacity right now as executive chef.

IV.) Purchasing Needs, Requirements, Demand, & Pricing:

Consistency of supply:

The restaurant showcases seasonal vegetables, making reference on their website and their menu. They do not focus on seasonal seafood. They offer staples (salmon, catfish, scallops, shrimp) and a "Fish 1" or fish of the day/special. No focus is placed on seasonality of seafood.

Mahi, escolar, ono, salmon, catfish, "whitefish", scallops, tiger shrimp are the species that they are currently buying and comfortable with. He claimed that purchases for the special fish are driven by price and the interests of the chef.

Big Sky Café does some catering and how many special events (SLO International Film Festival, fundraisers, Mardi Gras, Gay Pride, SLO Arts Festival). Seafood purchases increase for these events, and holidays.

V.) Wrap-Up / Conclusion:

When asked if there was any species that they want and cannot get he said escolar is often difficult for them to source. He probably hasn't seen this blog: http://www.twistyfaster.com/2004/07/crap-shoot.html

Charles has also expressed interest in octopus and claims that at one time they did in octopus salad that was very popular.
BJ Johnston
Avila Live Fish Market
Harford Pier
September 14, 3:30 – 4:00
September 19, 12:00-12:45
805-680-5143

Notes on Interview: I called BJ for an interview time, but met with him before the interview to introduce myself. He had the air of a defeated person in a fight, but despite this, he was very open and willing to talk, but was more guarded when I asked specific questions.

Operation Description: BJ has owned the operation for roughly 20 years (he can remember exactly when he received his receivers license from DFG, but he says he was in wholesale before that. Combined it has been roughly 20 years – since 1986 when he started fishing himself in the live-fish (nearshore) fisheries.

BJ owns and operates the live fish market, which is an open-air markets enclosed by fencing. The market hold several tanks (roughly 10), and deals in crab, a variety of rockfish, urchin, and shellfish (oysters). His primary buyers are in LA, San Jose, and San Francisco

History of Live-Fish fishery:
BJ is both a live-fish fisherman and a live-fish buyer. He began both enterprises in the mid-1980s. According to BJ, in roughly 1986 the live-fish fisheries began in Port San Luis with just a handful (4-5) of fishermen fishing out of their regular 45-70’ vessels. This was a time of “substantial commercial fishing out of Port San Luis. They realized at this time that there was a substantial market for live fish and that the price gotten for live rockcod could not compete with dead rockcod. Many then switched over OR fished the nearshore fishery as supplement to their income, when their “normal” fishery (e.g. salmong and albacore) was out of season (e.g. winter time).

The live-fish fishery peaked in the mid to late 1990s. At this time, BJ estimates there were roughly 100-150 fishermen participating in the live fish fishery. As a buyer, BJ was delivering anywhere between 2,000 and 4,000 pounds of live rock cod per week. He comments that he is lucky to do that in a year.

Over the past four or five years, the fishery has declined dramatically. BJ estimates by 75-80%. The number of fishermen participating in the live fishery out of PSL today is between 10 and 12. The smallest boat is 22 feet and the largest, 26-27 feet.

The price of live fish, however, has gone up, rising from $6 to $12 a pound. A lot of this has to do with a bigger demand (increase in Asian populations, increase in wealth in these populations) and less supply (due to closures
Appendix F: Interview Responses

Market Analysis, Interview: Avila Live Fish Market, continued

and regulations. They buy the whole fish live, and they mostly come from LA or SF (pointing to the demand that the live fish fishery has).

BJ ALSO sells to any of the 12 or 15 major buyers (he wouldn’t say specifically who he sells to, but said he doesn’t have a steady buyer) whom he must contact after an offloading. He said that Central Coast Seafood, Pacific Fresh, and Facciola are largest distributors in the area, but he doesn’t sell directly to them.

The most popular species sold NORMALLY is halibut, but since halibut is retailing for a high price now, salmon is the most popular. In terms of rockfish, red snapper is the most widely sold. For the livefish stock, in terms of species, balleina is the most sold; in terms of volume, gopher is the most sold.

Harbor changes have not affected BJ yet. The price of BJs rent has remained the same.

Comments on Policy:
According to BJ, Milton Love conducted a study to examine the health of the gopher cod fish stock. He called this study “ludicrous”, as it ran a lot of money in the cost of personnel and in the cost of equipment. The problem was, he monitored an area that didn’t have any fish, and so his conclusion was that the particular species he was examining didn’t have a high recovery rate. In reality, as BJ mentioned, a study in the right areas where the fish are (using local knowledge of fishermen) would reveal a very high recovery rate. He says, “Mother Nature takes care of herself.”

Referrals:
BJ referred me to Courtney Morris at Pete’s
Appendix F: Interview Responses
Market Analysis, Interview: Café Roma

July 26, 2007

Marco Rizzo
Owner
Café Roma
1020 Railroad Ave
San Luis Obispo, CA 93401
Telephone: 805-541-6800
marco@caferomaslo.com

Contact: telephone, 25 minute conversation

Interview Guide – Initial Contact (Tier 1 Questions):

I.) General business background:
Café Roma is a 27-year-old Italian restaurant in San Luis Obispo, one of the better-known establishments in the city. The restaurant serves lunch Monday through Friday and dinner Monday through Saturday. Entrées range from $12-$28. The restaurant seats 90, the patio an additional 40 and the banquet room 40 more. Marco estimates they serve about 3800 plates per month.

II.) Seafood business & purchasing decision process:

Marco claims to buy between 5 and 10 pounds of clams and mussels per day and approximately 5 to 10 pounds of seafood/fish per day (20 orders).

They source their seafood from distributors, product comes from California, Alaska, Hawaii, Europe and Asia.

They would like to buy and market Morro Bay/Port San Luis seafood and feel strongly about supporting the local fisheries. Their opinion is that there is not enough local supply and that the focus for the local fishermen has been to send their product to larger markets, LA and San Francisco. They have recently brought in white seabass, it has been extremely popular.

They source seafood from a number of different distributors, Central Coast Seafood, Honolulu Fish Company, and Facciola Seafood. Delivery times are fast, he claims that he gets most of his shipments within two days of placing the order. In fact, he stated, that their philosophy is to exhaust supply, a just-in-time inventory system and replenish supply when necessary. Variety in the type of species available is communicated by the supplier sales staff.

They try to source of fresh fish and avoid frozen seafood if possible. In an effort to keep sole, salmon, calamari, shrimp and shellfish on the menu, they buy some farm raised and frozen product. Marco feels that flash frozen/on the boat is a good alternative to fresh in terms of quality, appearance, texture, and flavor. He mentioned the
Market Analysis, Interview: Café Roma, continued

Alaska fisheries.

III.) Marketing:

As a premium restaurant, they feel that customers trust them to serve the freshest seafood that does not contribute to destruction fish stocks or degradation of habitat. He claims to serve no Chilean sea bass or swordfish by choice (no mention on the menu).

While awareness of wild caught versus farm raised and sustainable fisheries is growing, his average customer has scant knowledge on these issues. In terms of promoting this kind of product, they are hesitant to begin a program that touts sustainably-caught or local fish if they cannot maintain a certain level of consistency. To date, their perception is that consistency does not exist. No message of local or sustainable appears on their menu. The halibut is described as Alaska. The salmon, calamari, sole, shrimp and oysters are not identified. However, the tomatoes they use for their marinara are Marzano’s, imported from Italy and they make their own veal stock from scratch, never from a can.

He is not familiar with Marine Stewardship Council or the Seafood Choice Alliance. He asked me to send him information on both of these organizations. He conceded that he could probably do more training of his waitstaff and agreed that they were an important part of the communication chain and could probably help them successfully increase consumer awareness and subsequent sales and perhaps help increase pricing.

IV.) Purchasing Needs, Requirements, Demand, & Pricing:

He deals with intermittent supply by sourcing frozen halibut, calamari, sole and salmon and farm raised salmon, shellfish and shrimp and sourcing foreign product (through his distributors).

He does serve sardines and head-on shrimp occasionally. He said he would like to add a "whole fish" to his menu. I suggested rockfish, a resource that is available through much of the year and in the 1 pound -2 pound range. He agreed that would be a good idea and expressed some flexibility at the species that would be offered in this "whole fish" spot on the menu.

Banquets and private parties tend to increase the amount of seafood he needs. Demand increases around the holidays, mid December through early January.

V.) Wrap-Up / Conclusion:

He expressed interest in collaboration to create marketing and point-of-purchase type advertising but stressed that it would have to generate financial return.
July 6 and July 10, July 17, 2007

Giovanni Comin
Owner, CEO, Purchaser, Sales Manager
Central Coast Seafoods
5495 Traffic Way
Atascadero, CA 93422
Office: (805) 462-3474
Direct: (805) 461-4062
gioc@ccseafood.com

Contact: telephone
Duration: approx. 40 minute phone conversation, 50 minute on-site visit, 10 minute follow-up phone call.

Interview Guide – Initial Contact (Tier 1 Questions):

I.) General business background:

Central Coast Seafood does approximately $10 million a year in sales almost exclusively in seafood. They distribute some meat products but do no meat processing. Meat makes up approximately 0.3%-0.4% of their total income.

They buy fish in the round from fishermen and buyers, locally and imported. They avoid buying processed seafood but are occasionally forced to in order to maintain consistent supply and remain competitive. They consider themselves "producers" as they take fish in one form and change it to another through the cutting/cleaning process. They make fish available to local retail stores and restaurants through daily (six days per week) shipments and assist in the sale to end users by providing point of purchase educational material. CCS has deep freeze facilities and sells some frozen product to maintain diversity of product mix.

They employ 12 (full-time) cutters, apparently the largest fish processing crew from San Francisco to San Diego and have two part-time cutters. One more cutter will be added to the line this summer, bringing the total fish processing crew to 15. There are 20 employees in the production facility and four salesmen including Giovanni, the owner.

The facility houses three coolers (12' x 45', 10' x 15', 15' x 19') and a freezer (40' x 40' x 15') that can maintain -10°F temperatures. The freezer is 15 years old and is currently being upgraded to be more efficient. This freezer could be further improved to maintain even colder, -20°F--30°F if necessary.
Appendix F: Interview Responses

Market Analysis, Interview: Central Coast Seafoods, continued

Capacity: Giovanni estimated that he could process 100,000 pounds of seafood per month for approximately 5 months without adding additional staff or capital resources. At this rate, he would eventually have to hire more cutters. Doubling or tripling the processing staff could bring him to several million pounds per month capacity.

II.) Seafood business & purchasing decision process:

Central Coast Seafood has been in business for over 20 years. In the early 90s they purchased and processed several million pounds of fish per month. As mentioned earlier, they could again attain this level by increasing their cutting staff.

Seasonality plays a big role in their species choice. Perishability is a large and looming factor. There is a constant incentive to keep fish coming in and going out. They frontload demand by preparing their customers for the next fish that is in season. For example they are now in the process of marketing flatfish that will be caught in the TNC sea trial. They also need to be cognizant of what is being landed, where and when and must act and purchase quickly. Very little speculation is done in this market, too risky, specially based on the regulatory climate and the repercussions of being caught with thousands of pounds of fish that you can’t sell.

CCS buys seafood from fishermen and fish buyers all over California, Oregon, Washington and Alaska. They source foreign product from distributors regularly and distribute farm raised product from the US, South America and Asia. Their worldwide supplier list includes: Tahiti, Fiji, Japan, Canada, Mexico, Costa Rica, Ecuador, Chile, Greece, France, South Africa, New Zealand, Australia and more.

In a recent advisory notice to his customers, Giovanni explained that CCS would cease the distribution of any seafood produced or processed in China until further notice (due to recent information regarding tainting)

Central Coast Seafood operated in Morro Bay for 20 years and is part of the MB/PSL commercial fishing fabric. They are very supportive of the fisheries and understand the value of a locally caught product. They buy as much local seafood as possible. Giovanni claimed that he would buy MB/PSL seafood exclusively if there were sufficient supply.

Central Coast Seafood target market is presently concentrated in San Luis Obispo County. The locally based, large retail chains are becoming increasingly aware of sustainable fishing methods, the advantages of locally caught seafood, and the higher price it demands.

Giovanni claims that the level of awareness of his customers and end-users is increasing. Certainly, fresh and healthy are important features and help attract sales, local seafood is highly coveted, especially here in San Luis.
Obispo County. "Sustainable harvest" and "sustainable fisheries" are gaining awareness. He claims that "local" and "sustainable" are worth about $.40 or $.50 a pound more. "Targeted methods" and "light" trawl gear are presently outside of his current customer base reference criteria. CCS makes delivery six days a week and has a team of four salespeople and a marketing manager on the phone, contacting customers, all day.

Central Coast Seafood sources product from diverse suppliers to help reduce inconsistencies (fishermen, fish buyers, distributors, international sources).

Central Coast Seafood prefers fish in the round, whole fish. They claim that a product that comes directly from a whole fish is ultimately fresher and has more eye appeal and gives the seller/processor a greater time advantage. Processed fish (already been cut) is often three or four days old when it gets to their facility. Giovanni claims it is difficult to recut this type of seafood and make it look attractive.

As stated above, they presently have the capability of approximately 100,000 pounds per month and could produce this volume for five months before adding additional staff or capital improvements. With additional staff, CCS could produce several million pounds per month.

He thinks his customers are motivated by a pristine, fresh, properly handled, properly processed product. He thinks that his customers feel assured that they are getting quality seafood by his commitment to stop supplying Chinese-sourced product and Chilean sea bass, extraordinary customer service, a return policy and 6 day per week delivery service. CCS goes above and beyond the traditional supplier by assisting the customer in marketing and selling and paying attention to details such as the fuel efficiencies of the trucks that they use for delivery (25 miles per gallon).

When asked what could the MB/PSL fisheries could do to improve from his, a distributors/processor viewpoint, he added that a refrigerated truck and perhaps refrigeration facilities on the dock to maintain fish at a proper temperature before and during shipment. According to FDA law, fish must arrive at his facility at a certain temperature. In a refrigerated truck, those temperatures can be confirmed. If shipped on ice, the temperature of each individual fish must be confirmed before legally accepting it at the facility.

III.) Marketing:

Fresh, wild caught, sustainably caught, and locally caught are all attributes touted by CCS literature. Their handling, inspection and quality control, working with a select group of fisherman and worldwide suppliers and cut to order service as well as daily deliveries all command a higher price, up to $.50 a pound more.

Central Coast Seafood is presently marketing a "branded" Central Coast caught product. They claim to focus on a high-end product and feel that being a processor/distributor gives them an advantage in freshness and timing.
They also tout their years of experience, proximity to port of Morro Bay and Port San Luis and decades of direct involvement in these fisheries.

Central Coast Seafood is the exclusive seafood supplier for six local Albertson's and will include nine more stores in August. There are 292 Albertson's in California, their goal is to eventually supply all of these establishments. They are also the sole supplier for the five Spencer’s Fresh Markets in San Luis Obispo County and the local Scolari’s. In these cases, CCS assists in the management of the seafood department. Giovanni claims to supply approximately 90% of the restaurants in San Luis Obispo County.

Central Coast Seafood provides point-of-sale material at local grocery stores that showcases fish recipes from "Central Coast" restaurants, they call this program the "RECIPE RACK".

Based on growing demand and flexibility in increasing prices, he claims that consumer awareness for local products and sustainably caught product is certainly increasing. He feels that it is a environmental/liberal demographic that is willing to pay the higher price and leading the pack in awareness and knowledge of sustainable fishing methods and the advantages of effective management programs.

CCS has yet to use the Marine Stewardship Council certification. He is aware of it and its advantages at no cost to him. It may be something that he could you integrate into his marketing literature. Claims that his customers may be interested as well.

IV.) Purchasing Needs, Requirements, Demand, & Pricing:

CCS buys salmon, black cod, pink shrimp, rockfish, shellfish, albacore, crabs, squid many seasonal and limited quantity items.

CCS owns seven refrigerated trucks and contracts a semi trailer that make pickups and drop-offs from San Francisco to San Diego. Santa Barbara and Ventura supply much of his Central Coast product. He also works with buyers and fishermen in Long Beach, San Pedro, and Half Moon Bay.

They deal with inconsistencies by having a diverse supply base, local, greater California, greater West Coast, greater North America and Europe, South America and Asia.

Prices are driven by the market. A bigger player like Pacific, will name their price, a smaller distributor/processor finds itself more at the whim of the market and the "going" prices.

Notes: Giovanni was interested in working with Fish Wise to help enhance and improve his marketing efforts.
CCS operated a fish processing facility on the Embarcadero in Morro Bay for 20 years. Water and utility costs became so expensive (ridiculous were his words) that he moved 15 miles east to Atascadero.

His meat distribution business is focused at customers who are unable to make minimum quantity orders from larger distributors and include Miller Blue Ribbon Beef.

Sea trials: CCS has guaranteed to purchase all of the fish from the TNC sea trials. The potential for this type of 2-3 day outing is between 10,000 pounds and 30,000 pounds. They are enthusiastic to see a trawler working in the area and feel they can process and distribute the catch from two such trawlers. Considerable effort would be needed to reignite the demand for Dover sole, in particular.

CCS pays fishermen in approximately 2 weeks from receipt of product.

Black cod: 5000 pounds per month (approximately 85% domestic, remainder frozen and shipped to Asia)

Salmon: approximately 100000 pounds per month, one of his top 3 products

Albacore: 30,000 pounds-40,000 pounds per month (US caught albacore is 12 pounds-15 pounds and better suited for the sushi market, the Fiji albacore is 50 pounds-60 pounds and more appropriate for steaks, loins and fillets).

Halibut: 100,000 pounds per month, Alaska and California

Rock cod: 100,000 pounds per month, Monterey, Canada
Appendix F: Interview Responses

Market Analysis, Interview: Facciola Seafood Inc.

July 5, July 21, 2007

Dave Hayworth  
Director Seafood Sales  
Facciola Seafood Inc., a division of Sysco  
48811 Warm Springs Blvd.  
Fremont, CA 94539  
telephone: 510-438-8600  
cell: 443-3462

Contact: telephone, personal interview  
Duration: phone approx. 44 minutes, personal interview approx. 80 minutes

Interview Guide – Initial Contact (Tier 1 Questions):

I.) General business background:

In the last two years, Facciola Seafood has gone from 0 fish sales to $1.5 million per month. During this period, entire company grew at 4%, the seafood division grew at 24%. In the last 12 months, they have sold $20 million in fresh fish. 80% of Facciola's $100 million sales business is meat. The local USDA inspector has an office in their Fremont, California facility. The parent company, Sysco is the largest buyer of frozen seafood in the country, a $37 billion company. Facciola's has 1100 customers.

Processing is relatively new business for Facciola/Sysco. As a salesman for the company Dave started processing fish on a small scale on the central coast (his initial sales territory with Facciola) and selling it to his accounts to prove that there was a viable business (he ran the fish processing facility in Morro Bay in the 80s, Morro Bay Seafood, then worked for Giovanni Comin at Central Coast Seafood for five years). Facciola's currently buy approximately $1.5 million of fish per month and have 20 to 23 full time cutters on staff (there is no part-time processing staff). One of their cutters trains new employees, they could increase capacity rapidly if necessary.

While the company specializes in providing meat, poultry and other frozen and refrigerated food products to restaurants, hotels and other food service, the seafood division focuses solely on purchase, processing, sales and marketing of fish.

Facciola's has 175,000 ft.$^2$ of processing and shipping in Fremont, California. This facility also contains 52,000 ft.$^2$ of -20 Fahrenheit freezer capacity.

The seafood sales division has 40 highly trained, sales professionals. They have begun an intensive education
program for their sales staff called, Seafood 101. Eventually Dave will be replaced in his "director of seafood division" role to spend full-time training and educating their staff and customers. He estimated that this would happen in the next three or four months.

II.) Seafood business & purchasing decision process:

Facciola's buys fish from buyers, direct from fishermen and co-ops and small distributors.

Seafood is sourced from around the world. High emphasis is placed on wild caught product. Consistency of supply is attained through diversity of sources; Alaska, Oregon, Washington and California as well as Canada and other overseas markets.

In the case of Morro Bay, Dave assured that suppliers are paid, at the latest in eight days, as checks are cut on Fridays.

Extremely positive. As the seafood sales director, Dave has responsibility and authority over where, when, from whom and how much fish is purchased by the seafood division. He grew up in Morro Bay. His father was involved in the fishing industry on the Central Coast, as was Dave. He owned a fish processing facility in Morro Bay as well as worked on fishing boats. He has a personal commitment to the fishermen in the area and claims to have promised that he will buy whatever local suppliers have, hoping to increase loyalty to Facciola. Under his guidance, MB/PSL seafood is considered and touted as the best in the world. He also oversees a strong demand for non-MB/PSL seafood that comes from MB/PSL buyers (i.e. white sea bass from the Channel Islands, and salmon from Half Moon Bay from Tognazzini or Morro Bay Fish Company).

He has used intermittent supply to his advantage, tough to find, tough to get, that's one of the things that makes it the best.

Through Dave, Facciola’s keeps contact with the local fisheries. Fishermen also know how to get in touch with Dave. He is a big, accessible player in the market.

In terms of MB/PSL seafood, Facciola buys what they can, when they can. Dave stressed the only thing that the MB/PSL commercial fisheries can do to become more attractive is to make a commitment to get him fish when they have it. He has trucks that go as far south as Ventura four days a week. He also said that he would buy seafood in other ports that was sourced by MB/PSL buyers.

Facciola's has trucks running up and down the coast and can schedule stops in Morro Bay.

Dave Haworth is responsible for training sales staff to communicate the characteristics and advantages of quality
seafood, they in turn educate buyers, restaurant servers and seafood counter personnel. Facciola's seafood staff is well versed in fishing methods and the advantages to targeted gear as well as communicating texture, smell, and appearance as benchmarks for quality. "Wild caught" and "local" are buzzwords for intrinsically better quality and higher sustainability.

Whole fish (in the round) is their preference.

Facciola's is a major fish processor, with state-of-the-art equipment and recently purchased a $50,000 pneumatic, pin bone removal device. Sysco's involvement has allowed them to upgrade equipment. Sysco is a $37 billion company and has spared no expense in capital expenditures.

A successful supplier would make some sort of supply commitment (however informal) to his company and provide fish when they could. He claims he does not get this kind of response and attention from the MB/PSL fisheries. He also voiced doubts and concerns that the fisheries would be able to consolidate, cooperate and provide a unified voice.

Dave argued that Facciola's wants to be a partner in the local fisheries, has been around for years and will be around for much longer and they have resources.

III.) Marketing:

Wild caught and local are buzzwords for intrinsically better quality and higher sustainability.

Facciola's actively markets sustainably and locally caught seafood because they feel it is a better product and can and does command a higher price. Dave indicates on his invoices and packing slips where the fish was caught, on what gear and even provides the name of the captain and the ship if he can. He claims to get more than $.40 or $.50 a pound a premium for this type of service/product.

He agreed that awareness has increased rapidly in the last 12 to 18 months. People are not only familiar with "oceans in crisis" but what they can do to help, like patronize local, sustainable fisheries, and follow suggestions from the Monterey Bay National Aquarium.

Marine Stewardship Council is not part of their sales pitch. He agreed that it has potential to be integrated into their marketing message.

IV.) Purchasing Needs, Requirements, Demand, & Pricing:
Based on their buying power Facciola is able to maintain consistency of supply in many species/markets. For example, during the June closure in the salmon season, Dave sourced fish from Oregon, Washington and Alaska. As far as wild caught salmon is concerned, they have not missed a beat with their customers. They prefer to have locally caught product but will do what is necessary to supply their customers.

Volume. Dave claimed that he would buy as much Morro Bay/Port San Luis seafood as he could get. He claims to have explained fishermen to factor in their costs and he would pay what they ask, as long as it was reasonable.

He claims they pay market driven prices and often include a premium for MB/PSL fishermen to help excite consistent commitment and loyalty. To date, a positive response from the fishermen has not materialized.

Facciola’s has a voicemail system that allows the sales manager to communicate with the sales people immediately and inform them of products that have come available and fluctuation in pricing. If they end up with an oversupply, a salesman will be informed on the street and be able to communicate with their buyers immediately.

They have actively marketed a local, informally branded (on invoices and packing slip) seafood and are experiencing great demand from their customer base.

V.) Wrap-Up / Conclusion:

N/A

Interview Guide – Follow-Up Contact (Tier 2 Questions):

I.) Order & Delivery Mechanics:

Facciola trucks moving up and down the coast all week. Dave claims to have trucks crisscrossing the state all week, Fremont to Ventura, 4 times a week, Fremont to the Oregon border, 5 times a week, Fremont to the Lake Tahoe area, twice a week.

II.) Collaborative Marketing:

Facciola’s works very closely with Fish Wise to educate their customers and maximize price and demand. MB/PSL seafood is apparently being sold into Andronico’s and Molly Stone.
Appendix F: Interview Responses

Market Analysis, Interview: Facciola Seafood Inc., continued

Special notes: in discussing the decline in albacore prices to the point that renders it untenable for local fishermen, Dave agreed that processing tuna into steaks and fillets and making it available to specialty retailers, key restaurant accounts, etc. may make more sense for fishermen and provide an advantage for his company. He assured me that Facciola has the capacity to process albacore on many different levels and that fresh albacore steaks and fillets and will draw more profit and demand than a tinned product. He also added that albacore (a smaller fish) caught off our coast is more suitable for sushi and canning. There are two Japanese-owned distributors that have the sushi market covered.
July 17th, 2007

Robert Root, Executive Chef
Inn at Morro Bay
60 State Park Rd
Morro Bay, CA 93442
(805) 772-5651
rroot@innatmorrobay.com

Contact: telephone
Duration: approx. 15 minute phone conversation, follow-up e-mail.

Interview Guide – Initial Contact (Tier 1 Questions):

I.) General business background:

The Inn at Morro Bay is a fine dining restaurant in 98 room resort. The restaurant seats 85, and serves an approximate 1000-1500 patrons per month (Bay Club, Orchid Restaurant). Kitchen staff is approximately 20 people. The resort employees approximately 50 more. Entrées range from $16 to $32 (New York strip steak) to $47 (Brazilian lobster tail).

II.) Seafood business & purchasing decision process:

Robert estimates that he buys between 40 pounds and 100 pounds of fish per week. The resort does a consistent banquet business, fish purchases are higher if banquets are on the schedule. No one species is predominant. Besides shrimp, ahi and scallops, he purchases based on what is available. Central Coast Seafood is his principal supplier but he does by some frozen product (shrimp) from other distributors on a small, intermittent scale. He relies on his supplier for fresh, quality seafood, delivered six days a week with recourse (return policy) if they are not satisfied. He claims that his purchase decisions are based on "good" fisheries doing the "right thing" and stressed that even his farm raised product (he claimed initially, he avoids) is from Target Marine, who claim to use organic feed. He prefers a US caught product over an international one but is forced to source foreign product (through his distributor) to maintain variety and consistency. His impressions of Morro Bay seafood are very positive. He understands that the commercial fisheries here are having a difficult time. He claims to do a lot of research but relies on his sales representative at Central Coast Seafood to find out what species are available and how much they cost. He claims to be fairly flexible when it comes to which species is offered on the menu, availability, his interest, and the interests of kitchen staff drive his purchase decisions.

He claimed that the average "Inn" customer is not aware of sustainable fishing methods or wild caught versus farm raised but does prefer local product. Awareness on sustainability is rising but very slowly and limited to a small sector of his customer base. As a high-end restaurant, customers are willing to pay a little more for better
quality product which gives him flexibility and reduces his price sensitivity. For example, he buys Alaskan halibut because they are generally a bigger, thicker fish at 20 pounds -30 pounds each. He finds the local halibut too small, thin, it dries out and over cooks easily. Alaskan halibut sells for $12-$13 per pound, the local product is available for $7-$9 per pound.

He likes to keep scallops on his menu but the latest tainting scare has caused him to seek dry packed product that apparently contains no chemicals. Dry packed scallops are approximately $6 per pound more. He is in the process of deciding whether to continue making scallops available. He claims that he will buy the dry packed product through his distributor, CCS.

He can process to some extent in his kitchen, if they are not busy and it is a small quantity, like two or three salmon. He prefers to have fresh loins, steaks and fillets or frozen, serving size portions.

Variety was the first word out of his mouth when I asked him what may be lacking in the local Fisheries.

He is very satisfied with Central Coast Seafood and feels that they give him a lot of attention, a quality product, consistency, variety and most of the time, "get it right".

The restaurant orders seafood twice a week and is often as five days per week, deliveries arrive by 3 p.m. the following day.

Robert measures quality by 1) freshness, 2) texture, 3) color, 4) handling practices.

III.) Marketing:

Again, as a high-end restaurant, freshness, decent selection, presentation and preparation are what his customers seek. He does some educating of his waitstaff but claims that many of them are college students and the turnover rate is high. He acknowledged that some of his servers are better versed and better educated on seafood issues than others. It sounds that there may be an educational opportunity here for waiters and waitresses, an ongoing program that he has approved but does not have to manage and oversee.

There are only a couple other restaurants in town serving locally caught fish, he does not think that they interfere with his business.

He said that, while he regrets it, most of his customers, the average Joe, doesn't know or doesn't care where seafood comes from.

Again, while awareness in sustainable fishing methods and farm raised versus wild issues are growing they are still a minority in his customer base.

He was not aware of the Marine Stewardship Council and asked that I forward to him information regarding the
certification. He agreed that it might be a concept he could integrate into his menu and help educate his staff.

Robert feels that his customers would pay more if they were better educated in environmental and economic issues in the commercial fisheries.

IV.) Purchasing Needs, Requirements, Demand, & Pricing:

Again, variety is very important to this restaurant. He attains consistency and variety with CCS and some sourcing outside the distributor relationship. He is interested in seasonal products, they add to the variety of the offerings on his menu. Intermittent supply is mitigated by a distributor with multiple sources.

The Inn at Morro Bay does a healthy banquet business. A large banquet may force him to buy as much as 120 pounds per week. If there are no banquets planned he orders as little as 35 or 40 pounds in a week. Pricing is set by the distributor and sensitivity is calculated by what the entrée or appetizer would cost on the menu. For example, scallops at an additional $6 per pound may force the cost of the entrée up by $3-$5 per plate, which may result in scallops being taken off the menu.

The prices he pays are influenced by what he can charge on the menu.

He would like to have a greater percentage of locally caught product on his menu and would be interested in assistance in marketing once in local product becomes more available and consistent (through his distributor).

V.) Wrap-Up / Conclusion:
There are plans for expansion of the resort but there are medium/long term. It would include a larger restaurant and probably more demand.
Appendix F: Interview Responses

Market Analysis, Interview: Monterey Fish Market

July 13, 2007

Tom Worthington
Head of Wholesale
Monterey Fish Market
Wholesale Office
Pier 33
San Francisco, CA
Tel 415.956.1985
Fax 415.956.5851

Contact: telephone
Duration: 20 minutes

Note: Tom and Paul Johnson (President, Monterey Fish) have been in contact with Rod Fujita about ED's work in sustainable fishing. Although very supportive of the Morro Bay fishing community and LWC/ED's work, Tom was reluctant to get into business details over the phone. In the process of scheduling in-person follow up meeting for July 26/27.

Interview Guide – Initial Contact (Tier 1 Questions):

I.) General business background:

Size, facilities, product scope, # employees, seafood's share of total business:

Berkeley-based wholesale & retail operations (wholesale at Pier 33, San Francisco, CA, Tel 415.956.1985, retail at 1582 Hopkins, Berkeley, CA 94707, Tel 510.525.5600), with offices at 1649 Hopkins, Berkeley, CA 94707, Tel 510.525.0999.

Well-established, influential seafood buyer, processor, distributor with 28-year history providing fresh seafood. “Our suppliers know that if they've got premium product, we're willing to pay for it. We at Monterey Fish do our best to bring you the freshest, quality seafood available.”

II.) Seafood business & purchasing decision process:

Seafood Sources:

“From the earliest days, Paul and I always preferred to deal with small, individual fishermen, most of whom were catching fish by hook and line. Not because of any philosophical reasons, but because they had the best fish! It has taken years and years to develop our philosophy when it comes to fish, and the process is still going on. We just keep studying the issues, learning all we can and making the best decisions we can at the time.” -Tom
Appendix F: Interview Responses

Market Analysis, Interview: Monterey Fish Market, continued


Purchasing Process:

“ Basically, California rockfish is unavailable. But rockfish from Canada and especially Alaska is well managed over the long term, [the fishery is] mostly hook and line, and the stock is still in good shape. So I usually buy Canadian and Alaskan, plus a little bit from some Oregon hook and line fisheries. I base my decisions more on how people fish than anything else.” —Paul Johnson (2004 Seafood Monitor interview, http://www.seafoodmonitor.com/sample/people.html)

Farmed Fish (i.e. farmed Atlantic salmon): I have some customers — people who are nationally known, whose names are known all over the place — who continue to buy it, not only for economic reasons, but for ease of preparation as well [because it’s consistent in size & quality]...I have an economic responsibility to stay in business. If I were in business for myself, as a restaurateur, I could do things exactly as I like, but being in the wholesale seafood business, customers tell me what to do. If these customers want to buy Atlantic salmon, and I don’t sell it to them, someone else will. That leads to the quandary, the responsibility to stay in business while I do the best I can, and at least try to achieve our goals. —Paul Johnson (2004 Seafood Monitor interview, http://www.seafoodmonitor.com/sample/people.html)

Form/preferences & processing capacity:
TBD

Doing Business With Morro Bay?:
Tom is very familiar with Morro Bay and he is aware of the TNC permit buyout (Tom does not necessarily support buy-outs as a sustainable solution to overfishing, but he may not be familiar with the leaseback plan details).

Interest in Expanding Local Supply:
Monterey has a demonstrated interest in purchasing locally-caught, environmentally-sustainable fish. Several web-based interviews (Seafood Monitor, Upwelling Newsletter of the Farallones Marine Sanctuary Association) highlight his influence and commitment.

Customer base:
San Francisco Restaurants (Traci Desjardins – Jardiniere, Alice Waters - Chez Panisse, Patricia Unterman - Hayes Street Grill)

III.) Marketing:

Point-of-Sale Marketing & Characteristics Advertised:

Monterey places great importance on “teaching & telling” as a way to connect people with their food. “...
we filter out that information to our customers, like on our price sheets, which show the origin of each fish, where it was caught, that sort of thing. We also wrote our own book and handed it out to all our chefs.” -Tom Worthington (2004 interview, http://www.seafoodmonitor.com/sample/people.html)

Website includes prominent sections on sustainability, fishing methods & implications. Monterey is involved with public events (Oceanic Dinner in collaboration with Oliveto Restaurant, 2008 Slow Food gathering, etc.) to raise awareness about food origin & harvesting methods.

Social and environmental awareness among customers:

“[Sustainability is] a huge issue for us, because it’s a huge issue for our customers. The people who live in this area are more educated, more environmentally aware than probably any other place in the country. Most of our customers are truly concerned about the issues, therefore we have to be concerned. ...And sometimes their opinions can change overnight. If there’s a bad article in the Chronicle, that can be the "tipping point" on an issue that may have been around for a long time. The restaurateurs themselves may be so buried in the day-to-day running of the business that the pressure comes from the customers. [Diners] ask questions of the waiters, who take the questions back to the kitchen, and after a while the chefs say okay, it’s time to change. You can get beat up pretty fast around here.” –Paul Johnson, Tom Worthington (2004 Seafood Monitor interview, http://www.seafoodmonitor.com/sample/people.html)

Able to obtain / pay premium for sustainable / local fish?
Tom sees branding as key to raising awareness and ensuring fishermen’s success – under current system, fishermen don’t know what happens to their product after it leaves the dock, which results in loss of value for high-end seafood as it is mixed with lower-quality product.

Cited Copper River Salmon as a terrific marketer – although quality may not surpass other brands (Yukon, etc.), Copper River has developed awareness of quality and sustainability that supports significant price premiums.

“Brand is the new frontier...” It is crucial for fishing communities to move from individual towards group affiliations, to establish a moniker, and to control the process for as long as possible to derive maximum value. Tom advocates fishermen keeping possession of their catch as far into the value chain as possible, perhaps through a marketing coop with designated salespeople, internal and external marketing. According to Tom, individual fishermen’s sales efforts are “slash & burn” and can’t compete with large, vertically-integrated competitors.

he is a strong proponent of harvest and marketing co-ops

Marine Stewardship Council / Sustainability Certifications.
TBD

IV.) Purchasing Needs, Requirements, Demand, & Pricing:
Appendix F: Interview Responses

Market Analysis, Interview: Monterey Fish Market, continued

Product Needs:
TBD

Species: (from California Seafood Council Producer Index - http://ca-seafood.ucdavis.edu/csc_org/producer/montere0.htm)
Salmon
Albacore
Black Cod / Sablefish
Groundfish (Lingcod, Rockfish, Sablefish, Sanddab, Sole, Thornyhead, Whiting) Grouper, Lingcod, Rockfish, other groundfish
Flatfish (flounder/sole/halibut)
White sea bass Yes
Shrimp
Prawn Spot Prawn
Sardines
Mackerel
Squid Yes
Swordfish Yes
Shark
Crab

Ability to deal with seasonality, limited availability:

Pricing – how determined,
TBD

V.) Wrap-Up / Conclusion:

Other contacts:
Paul Johnson, President

Scheduling follow-up in-person discussion for July 26-7 with Tom Worthington, Paul Johnson, Paul Parker (New England Hook Fishermen’s Association), Chuck Cook, Kate Bonzon, Rod Fujita

In May, 2008, Tom will coordinate seafood-related programming for a 4-day, 60,000 person Slow Food Gathering in San Francisco (led by Alice Waters, Slow Food Nation). Mentioned that Morro Bay could serve as an example of re-tooling the commercial fishing industry, aligning environmental and economic goals, opening new markets.
Appendix F: Interview Responses

Market Analysis, Interview: Spencer’s Fresh Market

July 6, 2007

John Daley
Manager, Meat Department
Spencer’s Fresh Market
Morro Bay
2650 Main St
Morro Bay, CA 93442
Telephone: (805) 772-8103

Rod Rhine
Meat & Seafood Buyer / Agent
Spencer’s Fresh Market
Telephone: 805-481-9424

Contact: telephone
Interview Duration:
• 25 minutes (John Daley)
• 30 minutes (Rod Rhine)

Interview Guide – Initial Contact (Tier 1 Questions):

I.) General business background:

Spencer’s Fresh Market is a local, California-based supermarket chain with an emphasis on fresh, local, and/or organic foods. Central California includes 4 stores (Morro Bay, Arroyo Grande, Santa Maria, Atascadero). Morro Bay store located close to MBCFO facility.

Meat sales represent 5-7% of store revenue, with seafood comprising ~1% (relatively small, compared to interviewee’s prior experience with Albertson’s, where seafood was ~3% of sales).

II.) Seafood business & purchasing decision process:

Seafood Sources:

Spencer’s purchases fish from two primary sources:
• Central Coast Seafood – Spencer’s primary supplier as of 2007...business recently negotiated on basis of local connection, fresh product, higher quality. Both Daley and Rhine are extremely pleased with
service, quality, & availability. Central Coast delivers 6 days per week, with same day delivery for orders placed before 8:00am. Recent price negotiations have been strained, as Spencer’s has insisted on preferred pricing & put significant downward price pressure on Central Coast. Daley is extremely pleased with Central Coast’s performance providing locally-caught fish, citing regular availability of local, top-quality product, variety of species, variety of processing options, 6-day per week delivery promotes freshness. Daley recognized seasonality & stock-outs, but could not identify other areas for improvement. Generally impressive service, delivery, selection.

Pacific Seafood – Longtime, incumbent supplier to Spencer’s, with declining share of seafood business in recent months. Decision to move away from Pacific was not a result of poor service (although Pacific’s products are generally of lower quality and more likely to have been frozen), but rather a desire to work with other local operations (like Central Coast). According to Daley, Pacific is used to smooth supply throughout the year, to avoid stock-outs, and to supply high-volume sale products (Spencer’s is “forced” to use Pacific for highest volume products). Pacific Seafood is not as responsive or high-quality as Central Coast, but Daley has no significant concerns about Pacific.

Purchasing Process:

Each of Spencer’s 4 stores places orders independently and directly with Central Coast or Pacific. Buying process is facilitated by Rod Rhine (Spencer’s corporate office), who maintains supplier relationships and places “ads” for all four stores’ orders. Ads are non-binding, serving as demand “placeholders” so that individual store managers can learn what product is available and be assured of product availability. Ads are set on a weekly / biweekly basis (8-10 days in advance of orders), consisting of species, volume, and prices for all four stores.

Product:

Spencer’s seafood mix includes farm-raised (Atlantic salmon, tilapia) and wild-caught fish (wide variety, see below), with strong preference for fresh, wild-caught fish. Copper River Salmon, Alaskan halibut, rock cod & snapper are Spencer’s top-selling, fresh, local species. Frozen Asian tilapia is an exception to this preference, included because of consistent supply, suitability for specials. (Daley expressed no concern about Asian seafood products, but cited company interest in fresh, local product and awareness of negative environmental impact of farm-raised fish)

Form/preferences.

Spencer’s relies on suppliers for all processing, appreciates range of processing options (fillets, individually-wrapped & whole fish are primary, other forms available from suppliers but purchased less frequently), cites greater efficiency for supplier to process seafood than for Spencer’s to cut fish in-store.
Appendix F: Interview Responses

Market Analysis, Interview: Spencer’s Fresh Market, continued

Appreciated wide range of quantity available – 10 to 100 pounds.

III.) Marketing:

Point-of-Sale Marketing:

Each Spencer’s meat department has a large board with seafood pricing & product information, and display cases include tags to highlight fresh seafood, occasionally indicate locally-caught product. Department manager expressed interest in expanding point-of-sale marketing to include more information on local and/or environmental origins, and Rod Rhine suggested opportunity to display / distribute additional information & point-of-sale materials.

Spencer’s owner & founder (John Spencer) records daily radio spots Monday through Friday to talk about store offerings / specials / etc, emphasizing freshness and product origin. These radio broadcasts are Spencer’s primary means of showcasing unique products & would provide an outlet for educating on sustainably-harvested, local product.

Social and environmental awareness, customers:

Interviewees state that most customers don’t inquire about environmental impact of seafood harvest methods (i.e. trawling vs fixed gear), and Spencer’s has made no marketing efforts concerning environmental sustainability. Environmentalism, however, has been discussed internally by Spencer managers and is perceived as a potential selling point.

Marine Stewardship Council:

Rod Rhine is unfamiliar with MSC certification, and harvest methods have little impact on purchasing decisions.

IV.) Purchasing Needs, Requirements, Demand, & Pricing:

Product Needs:

Freshness is Spencer’s #1 priority in seafood sourcing, clearly superior to price, variety, consistent supply, etc. (“Fresh is right there in the name of our store”).

Emphasis on origin & production methods (ex: Hearst Ranch meats), but it is unclear to what extent Spencer’s markets these features directly (may be integrated into store image).
Species:
- Black Cod / Sablefish - No
- Salmon – farmed and Copper River Salmon
- Albacore - Yes
- Flatfish (flounder/sole/halibut) – Yes (all) key product
- Rockfish – Yes (primary product, incl. snapper)
- Crab – Seasonal (king crab legs at Christmas)
- Prawn / Shrimp – variety of sizes
- Sardines – No
- Mackerel – No
- Swordfish - little
- Squid - little (frozen box, thought to be used for bait)
- Shark - little
- White sea bass - little
- Turbot - Yes
- Octopus - No

Interest in Expanding Local Supply:

Satisfied with current suppliers, but additional local, environmentally-sustainable supply would fit with store goals and image. Rod Rhine is interested in cultivating additional suppliers (presumably to ensure advantageous pricing), but stated that addition of new suppliers would depend on inspection and timing.

Pricing:
Because seafood represents small proportion of Spencer’s overall sales, price is not a top concern. Quality and freshness trump price, and seafood is viewed as a specialty item.

Price negotiations are conducted by Rod Rhine on behalf of Spencer’s stores. Recent negotiations have intensified, focusing on obtaining preferred pricing from Central Coast for high-quality product (Spencer’s is not interested in lower quality product at a lower price).

Demand:
Monthly seafood spend for all four stores ranges from $30-$50K, with poundage varying significantly across species. Neither interviewee was able to provide exact quantities without pouring through past orders.

V.) Wrap-Up / Conclusion:
Appendix F: Interview Responses

Market Analysis, Interview: The Park Restaurant

July 30, 2007

Name: Maegen Loring (Executive Chef, The Park Restaurant)

Address:
The Park Restaurant
1819 Osos Street
San Luis Obispo, CA 93401

E-Mail: maegen@theparkrestaurant.net
Telephone: 805.545.0000

Contact Method: in-person
Interview Duration: 75 minutes

Interview Guide – Initial Contact (Tier 1 Questions):

I.) General business background:

Size, facilities, product scope, # employees, seafood’s share of total business:
60-seat, upscale restaurant in San Luis Obispo. Varied cuisine, emphasis on seasonality, locality, high-quality ingredients, and organics. Menu consistently includes 2 fish entrees

From Gayot review: “Chef Maegen Loring’s California rustic cuisine celebrates the artistry of bio-dynamic agrarians and uses the season’s finest ingredients. The simple but stately dining room, designed by her architect husband and partner, Jeff, keeps the focus where it belongs: on the chef’s skills. The always interesting amuse-bouche, maybe a shot glass of watermelon gazpacho or fresh ricotta and beet terrine, provides a tasty bite to awaken the palate. Starters like Dungeness crab cakes flecked with fresh ginger and lime make the taste buds sing. Vegans opt for her mushroom moussaka roasted with eggplant and béchamel. The paella is chockablock with artisanal linguiça, the freshest Manila clams, mussels, prawns and fresh veggies of the season. All desserts are house-made including decadent cheesecakes and chocolate soufflé torte. Loring’s commitment to fine dining extends far beyond the kitchen. The reasonably-priced wine list offers an excellent choice of local wines with several good international selections.” (http://www.gayot.com/restaurantpages/info.php?tag=CCRES060602&code=CC)

II.) Seafood business & purchasing decision process:
Seafood Sources:

Central Coast Seafood: Primary supplier of fresh, local fish. CCS’ recent open house reaffirmed Maegen’s confidence in quality, variety, sustainability of CCS’ operation.

Services offered by CCS include: reusable plastic tubs for deliveries, water packed ice (rather than gel), place of origin listed on invoice

Other Sources: Maegen was generally uninterested in other seafood sources, citing administrative burden that accompanies doing business with many small suppliers. Maegen was not unaware of other local sources of local fish but expressed willingness to talk with CCS about expanding local, seasonal seafood offerings.

Purchasing Process:
Fish orders placed weekly with Central Coast Seafood sales representative (Tom). Species selection based on availability, seasonality, Monterey Aquarium fish guide (Maegen only buys “green” species), with emphasis on fish that are plentiful in local waters. Deliveries are made directly to The Park, same-day if needed. Wild fish are given top priority.

Maegen orders 5-8 pounds of fish approximately 3 times per week.

Form/preferences:
The Park does very little in-house processing, so fish are ordered in fillets or portion sizes.

Level of Business (& Satisfaction) with Morro Bay Seafood:
To a greater extent than most other local restaurants, The Park strives to create a connection between its menu and local agriculture,

Interest in Expanding Local Supply:
Demonstrated desire to serve local / sustainable fish, counterbalanced by business needs, convenience.

Barriers to buying local / sustainable fish include: administrative burden, time requirement for buying direct from fishermen, minimum order quantities with larger wholesalers (ex: Panioa (?) Seafood in Santa Barbara has $300 minimum order requirement).

Customer base:
Restaurant diners – tourists, locals. Unique, variable menu highlights organics, local food, seasonality.

III.) Marketing:
Point-of-Sale Marketing & Characteristics Advertised:
Wait staff is required to know all food ingredients, origin of seafood, and whether fish is wild or farmed. The Park is uniquely adept at verbally selling dishes that are less-popular at other restaurants (ex: sweetbreads), which applies well to seafood sales.

Maegen is reluctant, however, to overwhelm customers or to clutter menu with too much ingredient information. Customers can only absorb a limited number of details / adjectives.

Social and environmental awareness among customers:
Customers frequently inquire about seafood origin, but there is less interest in harvest methods.

Able to obtain / pay premium for sustainable / local fish?
The Park is able to increase prices as needed ($20-$30 entrees), provided that the quality of food justifies its price. Price sensitivity is generally not so much of an issue as administrative / time requirements.

Marine Stewardship Council / Sustainability Certifications.
Skepticism about environmental certifications, especially in light of “mass-organic” movement, Wal-Mart. Worried that large retailers are not living up to same standards as small producers, retailers, restaurants.

IV.) Purchasing Needs, Requirements, Demand, & Pricing:

Product Needs / Ability to deal with seasonality, limited availability:
High level of flexibility, ability to tolerate seasonality & limited supply. Current menu includes sand dabs, crab, sockeye salmon. Interest in spot prawns.

Quantity Demanded:
15-25 pounds per week of varied species, depending on availability

Pricing:
The Park does not typically negotiate prices or shop around among seafood suppliers. Purchase decisions made based on list price and perceived price fairness.
July 6, 2007

Name: Nogi (Executive Chef, Tsurugi Sushi Restaurant)

Address:
570 Higuera St. #20
San Luis Obispo, CA 93401
Telephone: (805) 543-8942

Contact Method: telephone
Interview Duration: 20 minutes (truncated due to language barrier)

Interview Guide – Initial Contact (Tier 1 Questions):

I.) General business background:

Size, facilities, product scope, # employees, seafood’s share of total business:
Casual, up-scale sushi restaurant in San Luis Obispo, seafood represents vast majority of menu & revenue.

From Gayot review: “This is a popular sushi restaurant---busy but maintains a pleasant, upscale atmosphere. Excellent, fresh sushi and sashimi are served promptly and with aplomb. You’ll find an extensive menu of cooked Japanese specialties; we recommend the soft shell crabs or the broiled eel rice bowl.” (http://www.gayot.com/restaurantpages/info.php?tag=CCRES021291&code=CC)

II.) Seafood business & purchasing decision process:

Seafood Sources:

International Marine (Japanese fish supplier operating in Los Angeles) – Primary supplier, imports fresh, whole fish from Japan.

Central Coast Seafood: Secondary supplier of fresh, whole fish. Nogi was very satisfied with freshness and quality, but complained that Central Coast’s prices are high. Acknowledged higher value of local, fresh fish, but price is a deterrent. Central Coast product includes Canadian wild-caught albacore, wild-caught local species (including salmon), as well as farmed salmon and yellowtail.
Local Fishermen: Tsurugi’s chefs make several weekly trips to local docks to purchase small amounts of local fish (especially halibut). Total volume not likely to exceed 25 pounds (several 3-4 pound fish twice per week).

Purchasing Process:
Places regular orders with International Marine, Central Coast, delivery several times per week. Also purchases directly from fishermen approximately twice weekly in very low volumes at BJ’s Fishmarket, Old Port Fish Pier.

Form/preferences:
Almost all fish is purchased fresh & whole, cut in-restaurant by sushi chefs. Frozen product is inadequate for sushi dishes.

Level of Business (& Satisfaction) with Morro Bay Seafood:
Strong sense of personal identification with local fishermen (“I’m local, they are local – we are the same”), strong desire to buy directly from local fishermen. Nogi has been frustrated, however, by intermittent supply, lack of variety, and inability to predict availability of local fish.

Interest in Expanding Local Supply:
Sounded as if Nogi would prefer to do all of his buying in-person, but limited supply makes this impossible.

Customer base:
Tsurugi caters exclusively to restaurant diners – tourists, locals.

III.) Marketing:

Point-of-Sale Marketing & Characteristics Advertised:
Restaurant touts freshness of fish, emphasis on presentation. Customers frequently ask about local seafood, of which Nogi is quite proud. High value placed on locally-caught fish from both consumer and seller perspective.

Social and environmental awareness among customers:
Nogi expressed a high level of concern for local fish stock sustainability, but seemed resigned to a decline in wild-caught fish (perhaps this view stemmed from recent articles & reports of overfishing). He seemed to have a generally negative impression that wild-caught seafood is
synonymous with stock depletion.

Able to obtain / pay premium for sustainable / local fish?
Tsurugi did not cite higher prices, but inherently premium quality, pricing of sushi – combined with customer interest in local seafood – implies significant value-add associated with local fish.

Marine Stewardship Council / Sustainability Certifications.
Nogi was unfamiliar with MSC, but associated environmental branding with Central Coast Seafood. (Note: this was a difficult topic to discuss due to language difficulties)

IV.) Purchasing Needs, Requirements, Demand, & Pricing:

Product Needs:
Primary species include salmon, albacore, halibut, yellowtail, supplemented by small amounts of wide variety of sushi seafood.

Species:
Salmon 300 lbs / week (farmed & wild)
Albacore 200 lbs / week (Canadian wild)
Black Cod / Sablefish
Groundfish (Lingcod, Rockfish, Sablefish, Sanddab, Sole, Thornyhead, Whiting)
Flatfish (flounder/sole/halibut) 40 lbs / week (local)
White sea bass
Shrimp
Prawn
Sardines
Mackerel
Squid
Swordfish
Shark
Crab
Other - Yellowtail 200 lbs / week
Other

Ability to deal with seasonality, limited availability:
Flexible, eager to incorporate variety of fish into sushi menu.
Appendix F: Interview Responses

Market Analysis, Interview: Whole Foods

July 5, 2007

Mark Hernandez
Associate Seafood Coordinator
Whole Foods
Burlingame/Emeryville
mark.hernandez@wholefoods.com
cellular: 510-396-3324

Contact: telephone, e-mail
Duration: approximately 19 minutes

Interview Guide – Initial Contact (Tier 1 Questions):

I.) General business background:

Whole Foods has 196 stores in the US and UK. Founded in 1990 as one small store in Austin, Texas, Whole Foods touts itself as the world’s leading retailer of organic and natural foods. They stress their commitment to high quality and support of sustainable agriculture. Whole Foods has 21 stores in California that range from 38,000 ft.² to 60,000 ft.² and opening 3 new stores in California this year.

II.) Seafood business in purchasing decision process:

Whole Foods Market is the only supermarket to own and operate three seafood processing and distribution facilities strategically located throughout the United States. The Western region stores work exclusively through:
Costarella Seafoods
Pier 45B8
San Francisco, CA , 94133
Phone: 415-674-0175
FAX: 415-674-0180
http://www.costarellaseafoods.com/services.htm

Costarella services all 21 stores in California.

Mark explained that Whole Foods obtains fish through their distributor, Costarella Seafoods, located in San Francisco. Costarella arranges transport, receives the fish, processes, stores and provides retail-ready fish on demand for each individual store. The retailer relies heavily on Costarella’s experience and guidance. Mark even insisted that Bob Costarella would be present during the next interview.
Mark claims that decisions for all purchases are finalized on his desk after consulting with regional leadership and that the level of consultation increases with the volume of the purchase.

Mark is eager to get more access to MB/PSL seafood and sees it as connecting perfectly with their corporate message of "Supporting fishing practices that ensure the ecological health of the ocean and the abundance of marine life. Partnering with groups who encourage responsible practices and provide the public with accurate information about the issue. Helping educate our customers on the importance of practices that can make a difference now and well into the future. Promoting and selling the products of well-managed fisheries".

He also mentioned carbon footprint and his and other Whole Foods buyers efforts to reduce the amount of resources used to move food from its origin to their stores.

Whole foods buys from many suppliers per category (fishermen, fish buyers and processors). In terms of form preferences, they vary from species to species.

Whole foods considers the following characteristics when making any seafood purchase: logistics, traceability, food safety and cost.

In terms of choosing suppliers they value: sustainability in the fisheries with a particular eye on the treatment of and compassion of animal produce, fair trade (equitable distribution of profit throughout the distribution and harvest chain), traceability, quality, service, costs and finally, consistency

III.) Marketing:

Consumers that enter a Whole Foods store are actively choosing a retail environment where they have access to sustainably and organically produced product. We can assume that their level of sophistication is markedly higher from the average citizen. We can also assume that they are willing to pay higher price as Whole Foods commands a relatively higher price level than traditional grocery stores.

The seafood department focuses on locally harvested, wild caught, sustainably caught or sustainably raised (organic feed).

In March 2000 Whole Foods Market stores introduced the first ecologically certified seafood to carry the Fish Forever label. The notable seal of approval guarantees consumers that the labeled product was from a well-managed fishery and caught in an environmentally sustainable manner.
Appendix F: Interview Responses

Market Analysis, Interview: Whole Foods, continued

Whole Foods claims that, as the largest retailer of natural and organic food, they want to be able to continue over the long-term to provide customers with fish to buy, at the same time support ecological health and the abundance of marine life. Whole Foods believes the Marine Stewardship Council's "Fish Forever" certified sustainably managed seafood program accomplishes both.

Terms of addressing customers purchase decisions, value/price is based on the goals of providing the highest quality, sustainability and environmentally friendly fishing practices as well as freshness queues in the flesh, skin, eyes, gills, odor and general color. These attributes are displayed through carefully controlled and professional processing, packaging, handling, temperature control and butchering workmanship (Costarella Seafoods).

Customers are willing to pay more for sustainable, fresh, local, eco-friendly, compassionate seafood and even more when "super quality", excellent service and consistency are added to the list.

IV.) Purchasing Needs, Requirements, Demand, & Pricing:

Typical preferences in the Northern California market while considering diverse ethnicity include local groundfish, salmon, Dungeness crab, halibut (Northern), farmed salmon, wild-caught shrimp are top preferences. To adjust for inconsistencies, Whole Foods uses the same variety in prefrozen forms during the off-season or periods of low supply.

Whole foods has a good tolerance for inconsistencies as long as they are informed and can prepare, communication is key.

Prices are proprietary.

V.) Wrap-Up / Conclusion:

Whole Foods is in a very strong growth phase. We can expect to see many more stores in California and the Western region in the next few years. Specifics are proprietary.
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*Source: Wine Spectator “Top Restaurants 2007”*
Appendix H: Direct-to-Consumer Sales

RETAIL: DIRECT TO CONSUMER SALES

CITY OF SANTA BARBARA FISH MARKET
117 Harbor Way, Unit F
Santa Barbara, CA 93109
P: 805.965.9564
F: 805.963.7456
https://www.sbfish.com/framesetSBFish.aspx

CITY OF VENTURA FISH MARKET
1449 Spinnaker Drive
Ventura, CA 93001
P: 805.654.8228
http://www.andriasseafood.com/market.cfm

PILLAR POINT HARBOR, HALF MOON BAY, SAN MATEO COUNTY
Fishfone: 650.726.8724
Half Moon Bay, CA 94019
http://www.smharbor.com/pillarpoint/index.htm

Source: 2000 U.S. Census population characteristics

Source: 2000 U.S. Census population characteristics

Source: 2000 U.S. Census population characteristics

Source: 2000 U.S. Census population characteristics
Direct-to-Consumer sales allow fishermen to sell their catch directly to patrons off their vessel at the dock. The following case studies illustrate three examples of operating direct-to-consumer sales models along the California Coast.

City of Santa Barbara Harbor Fishermen’s Market and Fish Market

There are two associated but separate entities that offer Direct-to-Consumer seafood sales at the Santa Barbara Harbor: “The Fishermen’s Market” (Saturday only) and “The Fish Market” (daily operations). The fishermen who participate in the Saturday Market keep all but 10% of their profits which is given to The Fish Market to cover costs including permitting and taxes related to the weekly market.

The Fishermen’s Market operates on Saturday mornings between 7:30 and 9:30 a.m. Here, the public can buy locally caught, whole, fresh fish directly off the boat from fishermen. Purchasers also have the option to have their whole fish steaked or filleted at The Fish Market. Fish availability is completely dependent on the fishermen who chose to participate and their local catch that day.

The Fish Market has been operating for over fifteen years at the Santa Barbara Harbor, and brands its name with “From the Boat to You”. Unlike the Fishermen’s Market which offers the purest direct-to-consumer method of their personal fresh catch, The Fish Market purchases both locally caught and internationally caught seafood for sale at their Harbor location and online.

Online Sales: The Fish Market website allows free subscribed members the option to purchase fresh local and international freshwater and saltwater fish and shellfish. The website offers a picture, description, and the cost of each, in addition to: where the catch is coming from; farmed or wild; live, fresh or frozen; raw or cooked; fillet or whole. Of the 29 seafood options available for sale, only six were locally caught - all of them shellfish with the exception of white sea bass. All locally sold seafood is wild, and 9 of the 29 offered are farmed. Finally, all local fish ships immediately while international fish requires 24-48 hours.

The website has taken extra steps to enhance the online purchasing experience, with marketing geared toward expected returning “members”. An updating news feed, “Fishermen’s Tip”, and available recipes available through free membership appears to try and appeal to a continued customer base.

Note: all information was retrieved via the Internet August 5, 2007. Because the available seafood selection varies daily depending on what the fishermen catch and what is in season, according to the website, the above data is merely an example of possible seafood selections available.
Appendix H: Direct-to-Consumer Sales

City of Ventura Fish Market

Mark Wagner is the proprietor of Andria’s Seafood Restaurant and Fish Market, first established in 1982. The Ventura Fish Market as it exists today was proposed by the local fisherman’s association, and operates every Saturday from 8-11 a.m. To participate, Ventura requires you must be a fisherman and that fish come from a boat. Local fishermen, usually ranging from five to 20, set up tables and tents behind Andria’s Seafood Restaurant and Fish Market. Andria’s Restaurant and Fish Market holds the use permit for the Saturday Market, and also provide filleting services for customers who have purchased fish from the fishermen. The Ventura Port District spends $2,000 annually on market costs.

Adrian’s Restaurant experiences increased customer traffic due to the fish market, and features many of the same fresh seafood on its menu.

Note: Michael J. Wagner owned and operated Seafood Specialties, a wholesale seafood processor and distributor out of Santa Barbara, CA. Originally solely an abalone processing plant, Seafood Specialties diversified its production and by 1977, processed and distributed all sorts of local and imported fish and shellfish. Mr. Wagner helped to design the Ventura Fisheries Commerce Building in the Ventura Harbor, and upon completion, Andria’s Seafood Restaurant and Market opened in Ventura Harbor on May 13, 1982. Andria’s Seafood Restaurant and Market in Ventura Harbor Village has maintained relationships with many local fishermen and other seafood processors and continues its tradition of buying the freshest seafood available.

Pillar Point Harbor, Half Moon Bay, San Mateo County

Similar to the Santa Barbara Harbor Fishermen’s Market, here fishermen have the ability to sell their catch directly to consumers on the dock. Unlike Santa Barbara, fishermen are not associated in part with another entity, and have the ability to dock at anytime to sell their catch. Advertising or marketing is not needed due to pass-by traffic, word-of-mouth advertising, and most importantly, the Fishfone.

The Fishfone is updated daily by The County Harbor District staff, and informs all those who call of seafood availability dependent upon fisherman’s participation and catch. Weekends are consistently busy, while weekday sales range widely. Operation and overhead costs are incredibly small due to the scale of limited operations. Cutting services are not provided.

Lisa Wise Consulting
THE INTERNET MARKET

The ever-expanding online market allows for a quick, convenient, and nearly effortless method of purchasing locally caught fish from home. Customers can simply visit the website, select from a variety of products offered, and receive the purchased product via express or overnight mail delivered straight to their doorstep. This market often requires a higher level of customer trust due to both the uncertainty of first time purchases and the insurance of continued high-quality product delivery.

Of the three Internet Direct-to-Consumer Market sites visited, retaining first time and returning customers appears to be a high priority. By creating “club memberships” accounts, the supplier not only can gather and store necessary customer information, but they also has the opportunity to give the subscriber a sense of privileged membership that incentivizes customer retention. Paid premium membership accounts can be offered to those who truly intend to purchase products consistently, while free standard memberships allow for the ability to order products and possibly have access to special privileges. If done correctly, an online shopping website can become a very profitable venture. The key is to ensure trust, reliability, and consistent quality.

Old Port Fisheries: Old Port Fisheries is located on the Port San Luis Pier. Due to its location, learning about this enterprise is incredibly valuable when examining the potential of the local market. The Old Port Fisheries website requires at least free standard membership to purchase seafood. In addition, a $49.99 per month Premium Membership Fee grants these special members a 10% discount on all purchases, in addition to two pounds of free hand selected seafood on the second Friday of every month. This certainly retains and appeals to customers who make enough purchases to make the fee worth their while.

Santa Barbara Harbor Fish Market: The Fish Market website allows free subscribed members the option to purchase fresh local and international saltwater and freshwater fish and shellfish. The website offers a picture, description, and the cost of each, in addition to: where the catch is coming from; farmed or wild; live, fresh or frozen; raw or cooked; fillet or whole. This is extremely helpful for customers who make their purchases based on their personal values concerning the origin of the seafood and/or how it was acquired. All available products are organized by type/species and shopping and comparison among all options is exemplary. Besides simply offering the option to buy, the website has taken extra steps to enhance the online purchasing experience, with marketing geared toward expected returning “members”. An updating news feed, “Fishermen’s Tip”, and available recipes are available through free membership.
Refrigerated Truck Transport

Type of Vehicle
Refrigerated vehicles can either be van or truck units with a separated or connected refrigerated storage containers. The refrigeration system can either be self-contained or motor driven.

Type of Refrigeration
Motor driven refrigeration systems use the fuel of the vehicle to power the cooling unit, and refrigeration only occurs while the vehicle is on. This type of refrigeration system is best suited for flower or produce transport, or under circumstances in which a constant temperature is not required while the vehicle is off. These air conditioning systems range 400-500 lbs.

Self contained refrigeration systems are much more suitable for the transport of perishable goods such as fish and meat. These systems are separate air-cooling units that usually sit on-top of the truck, and run constantly regardless of if the vehicle is on or off. In addition, these units usually have separate fuel tanks which require separate fuel filling, and run the risk of turning off without notification once the fuel levels have been depleted. These units can weigh upwards of 1,000 lbs.

The weight of the air conditioning unit is important when determining the vehicles Gross Vehicle Weight (GVW) for insurance and commercial license requirement purposes.

Insulation
Heat from the road, the motor train, the sun, outside air, and from opening and closing the door all contribute to a rise in internal heat of the refrigerated unit. Insulation of refrigerated units ranges from 1-5 inches, where more insulation keeps the generated cool air inside and prevents outside heat infiltration.

Weight and Size
Refrigerated Transport Trucks range in length and weight/storage capacity. The maximum weight of a vehicle including the weight of the vehicle and the vehicle’s maximum capacity for storage is called the Gross Vehicle Weight (GVW). The vehicle can range from 10K-15K lbs., and truck storage capacity (payload) can range from 4K-15K lbs., or more. The length of the vehicle can range from 12-24 ft. depending on the type of truck and the truck’s storage capacity.

New versus used
New trucks have a lower risk for future anticipated and unanticipated maintenance costs, but have a higher upfront cost. Depending on the type of truck and storage capacity, new trucks start at $50K. Used trucks can be acquired for less upfront cost, but run the risk of additional maintenance costs due to unknown maintenance upkeep of previous owners. A used vehicle can be purchased for as low as $28K.

Tax incentives are available for commercial businesses to write off the cost of insurance expenses and vehicle costs for business purposes.
**Maintenance Costs**
Regular oil and maintenance checks are recommended every 6,000 miles. Preventative Maintenance Inspections (PMI) is recommended annually to change all fluids, belts, and tightened any loose screws due to vehicle use. A PMI can cost $400-$500 per inspection.

Different manufactures offer warranties for such maintenance, and new vehicles almost always come with a warranty covering standard vehicle maintenance.

The air conditioning unit’s age and structural status, the condition of the cooling lines, the thermostat, the condition of the walls and insulation, and the sealing of the doors all contribute to the efficiency of cooling. Regular maintenance will reduce fuel costs and increase the life of the air conditioning unit.

**Licensing Requirements**
A commercial license is required for all drivers operating a truck with 26K lbs. GVW or more. Any truck with a GVW less than 26K lbs. only requires a Class C non-commercial driver’s license.

An air break endorsement may also be required for vehicles using an air break system.

**Insurance Requirements**
Commercial Truck Insurance is required, and policies are based on the Gross Vehicle Weight (GVW) of the vehicle. Policies range from $2,500-$3,000 annually for vehicles with 10K-15K lbs. GVW. Pricing for policies increase 10-15% for vehicles entering higher weight classes – 15K-20K lbs. GVW, 50K-26K lbs. GVW – and any vehicle with a GVW that exceeds 26K lbs. is subject to significantly higher insurance rates due to risk, weight capacity, and commercial license requirements.
Subject: Fish freezing/storage facility.

The requirements we discussed and laid out in your e-mail dated 7/12/07 if approached in the correct manner, as with most things, are fairly straight-forward from a refrigeration standpoint.

The following information is provided by way of attempting to establish refrigeration system “order of magnitude” parameters for the project.

Based on the information you have provided, you would anticipate a 20’ tall building of approximately 27,500 sq feet (perhaps 150’ x 150’) for the freezing and storage rooms. The refrigeration equipment would occupy a space of roughly 1,000 square feet outside the main building.

A 480V 3ph 60Hz power supply of some 300 amps (minimum) should be figured at this time.

Approximate costs for the 32°F storage, blast-freeze and low temperature storage areas would be $267,000.00. These costs allow for the supply and installation of the insulated panels for the construction of the cooler, blast-freeze and low temperature storage areas. The supply and insulation of associated refrigeration systems are also included.

Cost not included are as follows:
Architectural, permits, building, services (water and power).

Please call me if you require additional information or clarification.

Regards,

Eddie
RSMeans QuickCost Estimator

Project Title: Morro Bay, commercial fisheries refrigeration f...
Model: Warehouse
Construction: Tiltup Concrete Panels / Steel Frame
Location: SAN LUIS OBISPO, CA
Stories: 1
Story Height (l.f.): 24
Floor Area (s.f.): 22,500
Data Release: 2007
Wage Rate: Union
Basement: Not included

Cost Ranges

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>Med</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total:</td>
<td>$1,359,900</td>
<td>$1,511,000</td>
<td>$1,888,750</td>
</tr>
<tr>
<td>Contractor's Overhead &amp; Profit:</td>
<td>$339,975</td>
<td>$377,750</td>
<td>$472,188</td>
</tr>
<tr>
<td>Architectural Fees:</td>
<td>$82,750</td>
<td>$91,945</td>
<td>$114,931</td>
</tr>
<tr>
<td><strong>Total Building Cost:</strong></td>
<td><strong>$1,782,625</strong></td>
<td><strong>$1,980,695</strong></td>
<td><strong>$2,475,868</strong></td>
</tr>
</tbody>
</table>

Costs are derived from a building model with basic components. Scope differences and market conditions can cause costs to vary significantly.

Do You Need a More Comprehensive Estimate With Current Cost Data and Your Own Detailed Project Specifications?

Access the Custom Cost Estimator, a paid subscription service, to reference a comprehensive library of square foot models updated and localized for the United States to create a customized online estimate specific to your individual project! - All from RSMeans, The Industry Source!
Quote # Morrow Bay Fishery 081007

Attention: Tyler Bridges @ Lisa Wise Consulting

Re: Morrow Bay Fishery Combo Unit

KCT is pleased to offer the following quotation.

Description:
- Combo Cooler/Freezer
  - Freezer: 10'W x 20'D x 8'-6"H - 890 Total Square Feet
  - Cooler: 10'W x 20'D x 8'-6"H - 718 Total Square Feet
- Box: Listed class 1, non-CFC, urethane foam insulation foamed in place, cam-lock walls, ceiling and floor.
- 4" Rigid Insulated Panels

Construction:
- Tongue and groove high density foam, cam-lock.
- Embossed Steel, Exterior/Interior
- 4" Insulation w/ Flat Steel finish & Aluminum Diamond Tread Plate overlay.
- (1) 4' X 6'-5" Hinged Cooler Man door and (1) 4' X 6'-5" Hinged Freezer Man Door.
- Not Applicable (indoor unit)
- Heatcraft Equipment to be provided.
- (2) Internal Ramps w/ Diamond Tread Plate, (4) 4' Low Temp Fluorescent Light Fixtures, (2) 2" Dial Thermometers

Notes:
- Installation is included. Installation is defined as assembly of cold storage and mechanical and electrical hook-up for cold storage. Electrical is assumed to be within 20' of cold storage units.
- * Quoted price subject to change in the event specifications and/or engineered drawings change.
- * Freight is included from manufacturer to 1275 Embarcadero, Morrow Bay, CA ~ 93442
- * All quoted items/material are subject to approval and will not be released without prior approval.

Terms:
- Net 30, Subject to credit approval
- Not Applicable
- 45 days after approved submittals

Total:
- $86,383
  (Price does not include applicable sales tax)

Additional Notes:

Thank you for this opportunity to quote Kelvin Cold Storage Solutions!

Sincerely,

Omar Castaneda
National Sales Manager
Kelvin Cold Technologies

3155 Patrick Lane, Suite 1
Las Vegas, NV ~ 89120
P: 866.590.6819 (toll free)
P: 702.738.8074
F: 702.987.6991
www.kelvincoldtechnologies.com
Canning: Canning allows fishermen to greatly increase the shelf life of their catch to store for future sale. Canning requires compliance with FDA (Federal Food and Drug Administration) regulations for public health, sanitation, and quality control purposes. In addition, canning requires personnel for product processing and canning equipment operation. The Dixie Canning Company offers two commercial canning machines that can output a variety of sizes of cans up to 20-30 cans per minute. The machines are easy to use and simply require a person to position the can, press a switch, remove and repeat. The Heavy Duty Seamer and Double Seamer sell for $11,000 and $13,500 respectively. Associated costs would depend on the model capacity needed at MB/PSL in addition to shipping and installation costs, on-going operation and maintenance, and eventual replacement as necessary. The Ball Corporation, an unaffiliated company, supplies wholesale two and three piece food cans in a variety of sizes. Prices were not available via the internet.
Appendix M: Canning Equipment

Canning Equipment


786 East Broad Street
Athens, Georgia 30601
Phone 706-549-1914
Fax 706-549-0137

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Heavy Duty Seamer</th>
<th>Double Seamer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Number</td>
<td>UD-AL</td>
<td>25D-TWIN-AL</td>
</tr>
<tr>
<td>Cans per Minute</td>
<td>Up to 20</td>
<td>Up to 30</td>
</tr>
<tr>
<td>Can size range</td>
<td>2” – 6.25” diameter, up to 7” tall</td>
<td>2” – 4.25” diameter, up to 7” tall</td>
</tr>
<tr>
<td>Compressed Air Requirements</td>
<td>100 psi (5 cfm)</td>
<td>100 psi (5 cfm)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>28” X 24” X 73”</td>
<td>29” X 24” X 70”</td>
</tr>
<tr>
<td>Weight</td>
<td>400 pounds</td>
<td>500 pounds</td>
</tr>
<tr>
<td>Specifications</td>
<td>.65 HP, 110/115 VAC, 50/60 Hz, 20 Amps</td>
<td>.65 HP, 110/115 VAC, 50/60 Hz, 20 Amps</td>
</tr>
<tr>
<td>Price</td>
<td>$10,800</td>
<td>$13,500</td>
</tr>
</tbody>
</table>

To Operate: Position can. Engage hand switch. The can is lifted, double seamed and lowered. Remove can. Repeat as necessary.
Vacuum Packing: Vacuum packing processed or whole fish has many benefits by giving fishermen the opportunity to package and store endless quantities of their catch for future sale. Vacuum packing prevents moisture loss, eliminates oxidation and freezer burn, and maintains product quality. Vacuum packed product can be refrigerated up to seven times longer and frozen up to ten times longer.

Several websites suggest the VacMaster for commercial vacuum packing purposes and offer a variety of models are varying size and capacity. Kodiakhealth.com lists five models that could be used at MB/PSL ranging in price from $1,500 to $6,000 each. Associated costs would depend on the model capacity needed at MB/PSL in addition to shipping and operating costs.

Vacuum Packaging Bags “Pouches” are made of 100% food grade nylon poly and range in type, size, quantity, and price. Most are sold in quantities of 1,000 per box. Prices range from $30 to $300 per box depending on size and thickness.

<table>
<thead>
<tr>
<th>Name</th>
<th>Chamber Size</th>
<th>Overall Dimensions</th>
<th>Electrical Specifications</th>
<th>Weight</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>VacMaster SVP-10</td>
<td>10” X 13” X 5”</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>$1,450</td>
</tr>
<tr>
<td>VacMaster SVP-15</td>
<td>10” X 13” X 5”</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>$1,795</td>
</tr>
<tr>
<td>VacMaster SVP-20</td>
<td>17” X 17” X 7”</td>
<td>19” X 21” X 18.5”</td>
<td>110V 60 Hz 20 Amps</td>
<td>190 lbs.</td>
<td>$3,595</td>
</tr>
<tr>
<td>VacMaster SVP-30</td>
<td>36” X 12.5” X 4”</td>
<td>38” X 16.5” X 17.5”</td>
<td>110V 50/60 Hz 30 Amps</td>
<td>208 lbs.</td>
<td>$4,925</td>
</tr>
<tr>
<td>VacMaster SVP-40</td>
<td>21” X 21” X 7”</td>
<td>23” X 25” X 38.75”</td>
<td>110V 50/60 Hz 30 Amps</td>
<td>285 lbs.</td>
<td>$6,095</td>
</tr>
</tbody>
</table>

Vacuum Packaging Bags “Pouches” are made of 100% food grade nylon poly and range in type, size, quantity, and price. Most are sold in quantities of 1,000 per box. Prices range from $30 to $300 per box depending on size and thickness.

The following link provides information specifically for fishermen:

Appendix N: Vacuum Packing

Vacuum Packing, Canning, and Labeling Equipment

Vacuum Packing


What are Some Special Advantages of Vacuum Packaging?

- Vacuum packaging allows for money saving quantity buying. Products such as cheese, continental small goods, fish, bacon, coffee and nuts, processed meats and many other food items may be bought in bulk at a lower price and then pre-packaged by either a central warehouse or in each supermarket or restaurant outlet.
- Vacuum packaging reduces product shrinkage. There is no moisture loss or evaporation in a sealed vacuum bag. Therefore, the weight you package will be the weight you buy or sell.
- Vacuum packaging reduces trim losses by eliminating oxidation and freezer burn.
- Vacuum packaging can enhance product quality. Vacuum packaged meat held at 32° to 35° F does not hinder "aging" or tenderizing.
- Vacuum packaging allows more efficient use of time. Food can be prepared in advance without loss of freshness, so slack times are more productive and busy times are more manageable.

<table>
<thead>
<tr>
<th></th>
<th>Normal Refrigerated Life</th>
<th>Estimated Refrigerated Life (vacuum packed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh Fish</td>
<td>1-2 Days</td>
<td>1 Week</td>
</tr>
<tr>
<td>Smoked Fish</td>
<td>1-2 Weeks</td>
<td>6-12 Weeks</td>
</tr>
</tbody>
</table>

VacMaster SVP-10  
VacMaster SVP-20  
VacMaster SVP-40
Appendix O: Labeling

Appendix P: Chillers

Chillers: Chillers are used to maintain water temperatures in holding tanks to store live fish offloaded until transport. Aquatic Ecosystems Inc. offers a variety of Multi-Temp Water Chillers by Aqua Logic. The nine available chillers range in price from $4,500 to $12,000 in price depending on the units capabilities. The units can be stored outdoor, and operate within a range between 40 to 80°F (4.5-27ºC). Associated costs would depend on the model capacity needed at MB/PSL in addition to shipping and installation costs, on-going operation and maintenance, and eventual replacement as necessary.

**Chiller and Filter Units**


**Chillers**

These larger chillers are used in aquaculture, public aquariums, live seafood holding systems and hydroponics. The chillers feature an insulated heat exchanger with titanium helix coils and commercial duty condensing units mounted on a stainless steel frame. Suitable for outdoor installations. The digital temperature controller is enclosed in a watertight NEMA 4X box with easy push-button programming. The controller can display in either °F or °C. All chillers have a 2” slip inlet/outlet and an installed water flow switch to shut down the chiller should flow to the heat exchanger stop. Water pressure should not exceed 40 psi. 230V models listed; 460V also available. One-year warranty, allow 2 weeks for delivery. Ships motor freight from factory. Made in USA.

<table>
<thead>
<tr>
<th>Part #</th>
<th>Name</th>
<th>Size</th>
<th>Specifications</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT-1</td>
<td>Multi-Temp Water Chillers by Aqua Logic</td>
<td>36” X 29” X 54”</td>
<td>2 Hp, 24000 BTU, 230/1 volts/phase, 11 amps, 20/40 gpm</td>
<td>$4,535</td>
</tr>
<tr>
<td>MT-3</td>
<td>Multi-Temp Water Chillers by Aqua Logic</td>
<td>36” X 29” X 54”</td>
<td>3 Hp, 36000 BTU, 230/1 volts/phase, 17.3 amps, 20/40 gpm</td>
<td>$5,405</td>
</tr>
<tr>
<td>MT-4</td>
<td>Multi-Temp Water Chillers by Aqua Logic</td>
<td>36” X 29” X 54”</td>
<td>3 Hp, 36000 BTU, 230/3 volts/phase, 11.6 amps, 20/40 gpm</td>
<td>$5,405</td>
</tr>
<tr>
<td>MT-5</td>
<td>Multi-Temp Water Chillers by Aqua Logic</td>
<td>45” X 34” X 60”</td>
<td>4 Hp, 48000 BTU, 230/1 volts/phase, 23.7 amps, 30/60 gpm</td>
<td>$6,390</td>
</tr>
<tr>
<td>MT-6</td>
<td>Multi-Temp Water Chillers by Aqua Logic</td>
<td>45” X 34” X 60”</td>
<td>4 Hp, 48000 BTU, 230/3 volts/phase, 14.7 amps, 30/60 gpm</td>
<td>$6,390</td>
</tr>
<tr>
<td>MT-7</td>
<td>Multi-Temp Water Chillers by Aqua Logic</td>
<td>52” X 34” X 62”</td>
<td>5 Hp, 60000 BTU, 230/1 volts/phase, 29 amps, 30/60 gpm</td>
<td>$7,170</td>
</tr>
<tr>
<td>MT-8</td>
<td>Multi-Temp Water Chillers by Aqua Logic</td>
<td>52” X 34” X 62”</td>
<td>5 Hp, 60000 BTU, 230/3 volts/phase, 20.5 amps, 30/60 gpm</td>
<td>$7,170</td>
</tr>
<tr>
<td>MT-9</td>
<td>Multi-Temp Water Chillers by Aqua Logic</td>
<td>54” X 37” X 69”</td>
<td>7.5 Hp, 90000 BTU, 230/3 volts/phase, 31 amps, 60/120 gpm</td>
<td>$10,345</td>
</tr>
<tr>
<td>MT-10</td>
<td>Multi-Temp Water Chillers by Aqua Logic</td>
<td>54” X 37” X 69”</td>
<td>10 Hp, 120000 BTU, 230/3 volts/phase, 40.1 amps, 60/120 gpm</td>
<td>$12,020</td>
</tr>
</tbody>
</table>
Filters: Filters are used to maintain inhabitable water quality in holding tanks to store live fish offloaded until transport. Aquatic Ecosystems Inc. offers three prepackaged filtration systems which provide mechanical and biological filtration and UV sterilization. The units are salt water compatible and boast easy installation. The units range in cost from $2,800 to $5,000 in cost based unit capacity. Associated costs would depend on the model capacity needed at MB/PSL in addition to shipping and installation costs, on-going operation and maintenance, and eventual replacement as necessary.

Filters

These prepackaged filtration systems are perfect for koi ponds, water gardens and multi-tank fish culture systems. They are self-contained filtration units that provide everything needed for a complete life support system. Each provides mechanical and biological filtration as well as UV sterilization for crystal clear water. Made in USA. Package includes:

- Every component is salt water compatible.
- No hassle installation; simply plumb the inlet, outlet and backwash.
- AquaDyneTM bead filter provides mechanical and biological filtration.
- Emperor Aquatics UV sterilizer. Mounted vertically for easy lamp replacement.
- Energy-efficient centrifugal pump with strainer basket.
- Each component is properly sized, eliminating guesswork.
- All equipment is pre-mounted on a plastic base plate.
- Fits in a small footprint.
- One-year warranty. All are 115V/60 Hz, with UL-listed components, and ship via motor freight.

<table>
<thead>
<tr>
<th>Part #</th>
<th>Name</th>
<th>Specifications</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSK1</td>
<td>Commercial Filtration Packages</td>
<td>30 gpm flow rate, 6 cubic feet filter size</td>
<td>$2,815</td>
</tr>
<tr>
<td>CSK2</td>
<td>Commercial Filtration Packages</td>
<td>60 gpm flow rate, 2.2 cubic feet filter size</td>
<td>$4,100</td>
</tr>
<tr>
<td>CSK3</td>
<td>Commercial Filtration Packages</td>
<td>90 gpm flow rate, 4.4 cubic feet filter size</td>
<td>$5,082</td>
</tr>
</tbody>
</table>
Appendix R: Holding Systems

Holding Systems: Aquatic Ecosystems Inc. also offers a Complete Holding System which includes three 500-gal tanks, bead filter, biofilter, air and water pumps, UV sterilizer, sump, plumbing, feeders and mesh tank covers. The system is described as great for holding fish for retail. The entire package sells for $10,000. Associated costs would depend on the model capacity needed at MB/PSL in addition to shipping and installation costs, on-going operation and maintenance, and eventual replacement as necessary.

**Complete Holding Systems**

You don’t have to guess about equipment sizing or worry about losing fish with this system. We’ve designed and tested it to ensure that it is complete, easy to maintain and flexible; just supply water and a place for drainage! Our commercial system includes three 500-gal tanks, bead filter, biofilter, air and water pumps, UV sterilizer, sump, plumbing, feeders and mesh tank covers.

This system is great for quarantine or for holding fish for retail. Each tank has valves for adjusting its water level to full, half-full or empty. For example, you may want to lower a tank’s level to half-full when treating diseased fish with medicine, halving the volume of water so that you only need half the medicine as a full tank. Because the plumbing is already in place underneath the tanks, you don’t need to build it into your flooring.

We use top-quality, reliable components for each commercial system. You get a Sweetwater® Linear II air pump (SL170), AquaDyne® Bead Filter 2.2 and Clearwater™ Low-Space Bioreactor (handles 4-9 lbs feed/day). You can bypass the UV sterilizer (120 W, puts out 30,000 μWs/cm²) for service. The bead filter has its own air pump for backwashing. We recommend operating the supplied artesian water pump at 30-45 gpm. System is 115V/60 Hz or 230V/50 Hz (for export) and requires a minimum space of 25’ L x 8’ W x 5.3’ H.

Other features include a bottom center drain, baffle to help create a circular water flow inside the tanks and mesh netting to cover each tank. Each tank has a Velda feeder (holds 2.5 liters of up to 6-mm food) that operates on a separate timer from the others, feeding up to six times per day. Call AES to learn more about our commercial system or for a quote on a larger package.

<table>
<thead>
<tr>
<th>Part #</th>
<th>Name</th>
<th>Specifications</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>FHS</td>
<td>Holding System</td>
<td>1,500 gallons</td>
<td>$10,228</td>
</tr>
</tbody>
</table>