

market. As contrasted with the other fishing-related businesses within this study, transportation for the live fish trade is a major input cost. This is mainly due to the weight of the water and special equipment necessary for keeping fish alive and in good condition. In addition, the longer the distance for transporting live fish the more exposure they have to trauma and stress which directly impacts the condition of the live fish when it arrives at the market. Due to Belford's close proximity to customers in the New York Metropolitan Area and throughout New Jersey, their transportation costs will be low compared to other national and international suppliers and they are more likely to have a better quality product. This

competitive advantage buffers Belford from national and international competitors.

As shown in the NJDA study and confirmed with persons involved in the live fish trade, there is a wide variety of fish that can be sold in the live market. Ethnic tastes are relatively broad when it comes to seafood with the emphasis on live products. For some retail stores, it may take some initial effort to stimulate the market for a given species but there is potential for selling any product live that is currently being sold frozen if the supply logistics and price are relatively stable. (Chan personal interview, May 2, 2007). According to live fish market experts, "Fishermen need to diversify

to meet these [live fish] market demands... offering 10 different species is far better than just one" (Springuel, 2001). The variety of fish landings at Belford provides another competitive advantage. The Belford fishermen already sell Blackfish (Tautog), Winter Flounder, Ocean Pout, and Black Seabass. This live fish market for these fish could be expanded with additional holding facilities (J. Charley and B. Yahara, personal interview, March 11th, 2007). Other fish landed at Belford could also be sold live such as Weakfish, Porgy (Scup), Spot, Kingfish, Croaker, Witch Flounder, Yellowtail Flounder, Summer Flounder, Monkfish, American Eel, and Cod.

The Jersey Seafood label, part of the NJDA *Jersey Fresh* brand, would provide a market advantage to Belford live fish (see "Jersey Seafood Labeling" Section on page 31 for more details). By utilizing the label, Belford businesses could distinguish their products from products outside of the region. Consumers would then know that these products are local and therefore fresh compared to products from outside the region (such as live fish being trucked for two days from Arkansas). In addition, Belford would benefit from the *Jersey Fresh* marketing campaign administered by NJDA.

Physical Feasibility

The general requirements for a live fish facility include a good quality water source, sufficient tanks, and associated facilities. If large numbers/volumes of fish are to be kept alive for extended periods, water treatment systems

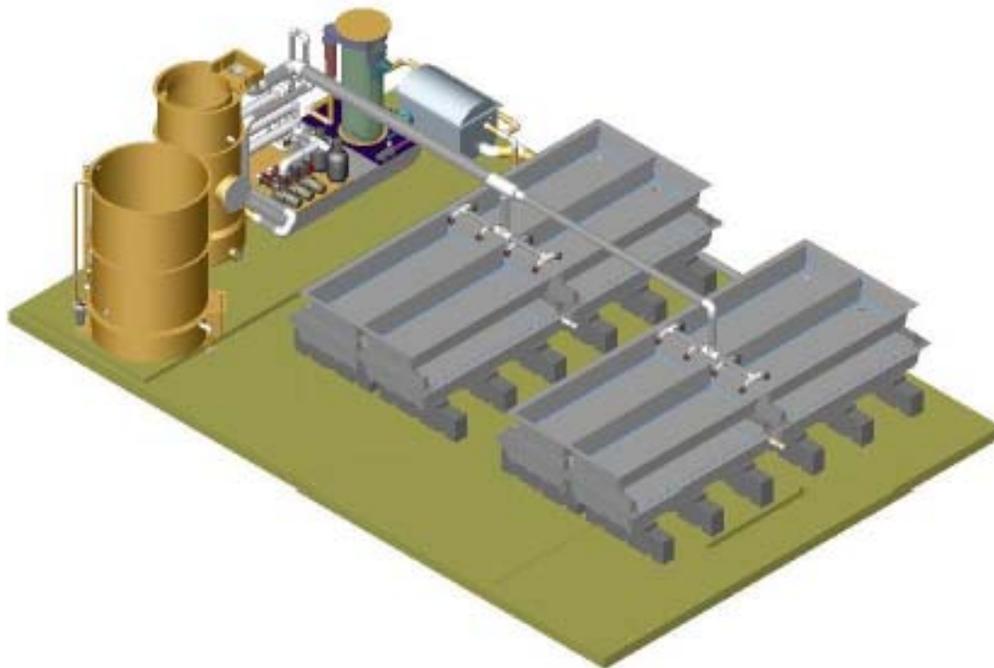


Figure 5.12: Life fish tank model, Source: Marine Biotech

would be necessary in order to manage ammonia and other toxic waste products, and temperature control would be needed (J. Ewart, personal interview, May 29, 2007). Experienced management should oversee the facility to ensure good biosecurity practices, water quality, and fish health. Fishing vessels participating in this market would need to have suitably sized tanks onboard equipped with good aeration and water flow to keep fish in healthy condition while at sea.

A live fish transport system would be necessary since most markets and restaurants purchasing live fish are not willing or are not equipped to come to the fish house to pick up products. The live fish transport system should be capable of servicing a range of markets – from distributors to retail markets (J. Ewart, personal interview, May 29, 2007). There are a range of vehicles and trailers that can be used. A live fish facility at the Port of Belford would mostly likely resemble Figure 5.12 and Figure 5.13 is one option for a live fish transport system.

The construction and operation of a live fish facility is regulated by NJ Department of Environment Protection and NJ Department of Health and Senior Services. The regulations that pertain to the construction and operation include: US FDA’s HACCP (USFDA 21 CFR 123); Interstate Shellfish Sanitation Conference (ISSC) requirements; and N.J.A.C. 8:21 (Alexander, personal interview April 4, 2007).

Conclusion

The live fish facility is an exciting development opportunity for the Port of Belford. This development option is different than many of the other options within the study because of the competitive advantage Belford offers. Due to the high transportation costs and complex issues entailed (i.e., customer’s emphasis on health of live fish), the Port is buffered from national and international competition. This alternative does not require extensive facility construction or radical changes to fishing practices or fisheries conducted, nor does it require increased fishing effort or increased catches. By making changes in the handling, storage, and transportation of fish, this alternative would open up new markets to Belford fishermen, significantly increasing the selling price per pound. And, since the live fish market is currently dominated by farmed species, there is considerable opportunity for expansion of the wild-caught component of this market, as well as introducing species not traditionally available in the live fish market.

Open Space

Introduction

There is local interest in developing the Seaport Associates site (Figure 2.1 – Parcel B), or part of it, as open space with waterfront access. While the site no longer contains natural shoreline, the waterfront location provides spectacular views of the Bay and New York



Figure 5.13: Live haul trailer, Source: MFSE

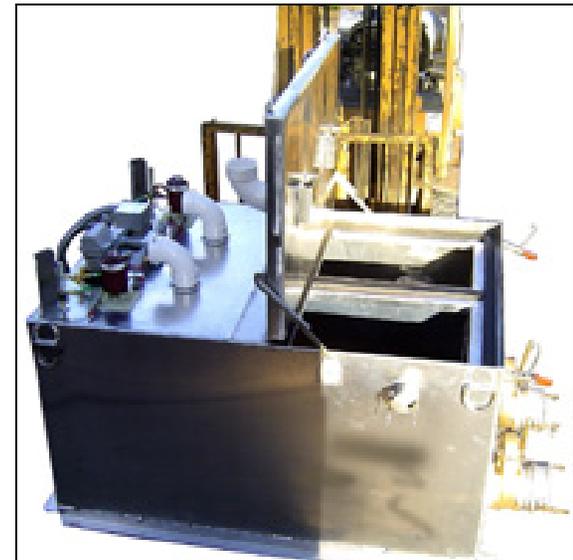


Figure 5.14: Live haul tank on fork lift, Source: MFSE



Figure 5.15: Potential for boardwalk along water's edge.



Figure 5.16: Coastal vegetation and natural beach



Figure 5.17: Study area contains expansive views.

City. There is a significant level of recreational and subsistence fishing occurring along the bulkhead of the Seaport Associates property, as the deep waters at the mouth of the creek offer good fishing for bluefish, striped bass, and other species. Fishing here is common from March through the fall months. Also, the waters of Raritan and Sandy Hook bays and Compton's Creek are popular among kayakers. The Seaport Associates property is immediately across the road from the marsh portion of Bayshore Waterfront Park, and could be a component of the Bayshore Trail, and is close to the Henry Hudson Trail.

Market Conditions

Funding for acquisition of the property for open space and public waterfront access for fishing and kayaking may be available through a variety of sources. Middletown has an open space tax of 2 cents per \$100 of assessed valuation which is used for open space acquisition. Monmouth County allocates \$2 million from the annual Monmouth County Open Space Trust Fund for cooperative projects with Monmouth County municipalities. Both land acquisition and development for park, recreation, and open space purposes are eligible for funding. More than 13,000 acres of open space have been preserved as part of the Monmouth County Park System. The Park System's ultimate goal is to preserve over 20,000 acres to meet the county's park, recreation, conservation, and open space needs of the future. The Monmouth Conservation Foundation is a non-profit organization whose mission is to acquire, hold, preserve and protect the open

lands in Monmouth County. The Foundation has conveyed to the County of Monmouth and its communities over 4,500 acres of land dedicated to open space preservation.

While the town and county budgets for open space acquisition are limited, there are additional funding options. In July 2001, the Port Authority committed \$30 million each to the States of New Jersey and New York to create the Hudson-Raritan Estuary Resources Program, whose goal is the purchase of property for public use and natural resource preservation. In New Jersey, acquisitions have been made for public access and preservation in the Hackensack Meadowlands. This fund currently has \$20 million remaining out of the \$30 million to be used in NJ.

The New Jersey Green Acres program has participated in several fishing access projects in the Hudson-Raritan estuary recently. Hoboken received Green Acres funding to develop Frank Sinatra Park, Castle Point Park, and Pier C Park along the Hudson River. These parks feature fishing and kayak access and offer spectacular views of the Manhattan skyline and the Hudson River. The Borough of Keyport is rehabilitating the municipal fishing pier through partial funding from the New Jersey Green Acres Program.

Due to the environmental value and recreation potential, the Green Acres program would like to see the 9-acre parcel with more preservation than development (W. Kastning, personal interview, March 25, 2007). Green Acres is in-

terested in securing public access for recreational fishermen, and the State Acquisition program would like to add properties to the existing parks along the Bay and creeks. If part of the Belford study area were to be preserved, Green Acres may be able to provide for the funding for outdoor improvements such as bulkhead rehabilitation, a boardwalk or other environmental structure, and parking.

Physical Feasibility

In order to provide safe public access to the property for fishing and other recreation, some basic site improvements are required. The bulkhead is badly deteriorated and would need to be rehabilitated or rebuilt, with a railing along the top. Kayak access could be established at the western end of the property, by “Dunes at Shoal Harbor” where the old concrete decking has fallen down and been removed, and where kayak launching would be well away from the navigational channel into the creek. A parking area would be created on the site to provide access from Port Monmouth Road.

Once these improvements are made, no staffing would have to be committed to the site, other than maintenance. Coastal land preservation for public waterfront access for recreational purposes would be well within CAFRA and Coastal Zone Management rules. CAFRA and Coastal Zone rules regulate commercial and residential development in coastal areas in order to prevent pollution and increases in rainwater runoff, protect the coastal zone from storms, erosion, and flooding, and protect

wildlife habitat and the natural beauty that attracts visitors.

Conclusion

The study area is presently a destination for water-dependent recreation including fishing and paddling. Funding sources appear to be available for land acquisition for preservation and public access, as well as rehabilitation of the bulkhead and other site and parking improvements. The permitting process for making these site improvements would not be extensive, as water-dependent uses and public access are protected by CAFRA and Coastal Zone policies.

Educational



Figure 5.18: Interactive educational exhibits, Source: Odyssey Center.

Introduction

Based on the growth in “cultural tourism” destinations, the potential for an educational/interactive facility highlighting Belford’s unique cultural heritage is tremendous (Duggan 1991; Duggan and Caldwell 2005; Brassieur 2005; and LaLone 2001). Belford is ideally situated in



Figure 5.19: Tuckerton Seaport is a multifaceted site for entertainment, education and maritime experience located in Ocean County, NJ. Source: Tuckerton Seaport



Figure 5.20: Children’s activities teaching environmental stewardship and sustainability Source: Odyssey Center

that, currently within the Monmouth County region, there are no facilities dedicated to the preservation of the region’s maritime culture. Since Belford is one of the last commercial fishing ports that has had no impact from recreational (head/party boats) fishing, it is not only an important site to protect for its own merits, but also as a cultural destination designed to increase public awareness about Monmouth County’s over one-hundred year old maritime tradition. Shelly Drummond of the Tuckerton Baymen’s Museum believes that since so much of the waterfront in Belford was owned by J. Howard Smith’s fish factory, Belford became a “truly preserved area” (S. Drummond, personal interview, April 13, 2007). It did not change as the result of a recreational fishery and so recreational fishing did not become part of the commercial fishermen’s yearly rotation. This situation is unique because Point Pleasant, Tuckerton, and Cape May all have had head boats.

Market Concerns/Physical Feasibility

Other waterfront communities are capitalizing on their heritage to create similar facilities. In North Carolina, the goal of the Core Sound Waterfowl Museum is to not only perpetuate and support their local craftsmen, but to remind the community about how important protecting the region’s natural resources and the traditions that make up their coastal way of life are. They offer a Junior Duck Stamp program, a “Down-East” tour on the web and a site for community scrapbooking, as well as an on-site museum with hiking trails and viewing platforms. A similar facility at Belford could satisfy some of these same goals. Current fishermen could be encouraged to share their knowledge and participate in a museum as “artists in residence”. Utilizing Belford fishermen as local experts would be helpful for succession planning, in that the men who mend the fishnets now and still fish could become part of the educational process. Their knowledge could provide visitors with a window into the days of factory boats, the railroad, tar pots, and even piracy.

Other maritime museums have relied heavily on interactive components, ones that allow teachers to easily blend the museum activities into their curriculum. Museum web pages are rich with activities that encourage people to actively engage with the museum’s offerings. There are games like “Drag and Drop Salmon”, a “Morse Code Translator”, and an “Interactive Waterfront”. These games are

provided in conjunction with museum exhibits and interactive displays. Visitors can go “inside ships” to see what it is like to work on a fish factory boat or a contemporary lobster trawler; they can work “on deck” and meet the crew; or, they could work “at the helm” as they navigate a ship through the bay. Any of these activities are also possible at a facility in Belford. Some ideas for Belford include programs that encourage visitors to “identify the boat” or interact at a fish market. Both of these are highly compatible with the existing infrastructure at the port. There are several different fishing boat types that use the port and there is an active fish market with a retail presence on site. To allow visitors the opportunity to identify the boat types, a boardwalk with identification signs could be built along the bulkhead on the north side of the channel. Digitalizing the exhibits would make changing exhibits easier, while adding a web site would increase attention to the facility and its multiple uses. These types of “tourist experiences” are important to today’s museum visitor (MacCannell 1999 and Norkura 1993).

Other cultural tourism ideas that developed through this study include building, in conjunction with a museum, an outdoor amphitheater for summer concerts or movies, promoting the area through a festival that captures the maritime flavor of the area, expanding waterfront access for kayaking or canoeing, or holding an annual fishing weekend that includes both water and land activities. A relatively new idea in educational facilities and used in Tuckerton, as well as Core Sound, is

gallery space. Gallery space provides a place for community and family members to scrapbook and a site to document oral histories and house photo collections. This space could also be used for children’s workshops. If school groups plan to use the facility, size becomes an important issue (the Hudson River Maritime Museum in New York hosts over 2,000 school children a year), so included in any design must be the physical space to accommodate 50-100 people. The Baymen’s Museum in Tuckerton did not address that issue and now has a problem accommodating large groups. Discussions with other museum entities and the community suggest that a museum of this type would be a very positive addition to the area. Some fishermen see a museum as a way to “celebrate the bay” (R. Pulsch, personal interview, May 11, 2007) and building one would be a “real good idea” (R. Isaacsen, personal interview, May 21, 2007) because it would get people involved. The museum would highlight the community’s history, while providing a sense of continuity for those men and women who have worked at Belford and continue to rely on the commercial fish port for their livelihood. Preserving remnants of the older port operations is necessary for promoting its history. For example, the still existing range lights at the site should be preserved. The range lights were navigational aids for fishing boats and tug boats before automatic identification systems were required.

Conversations with a representative from the NJDEP and the Monmouth County Park System, as well as the Tuckerton Baymen’s Mu-

seum and others suggest that obtaining funding for such a project would need to come from a variety of sources. Transportation grants through the ferry or boating infrastructure grants like “I Boat NJ” are two possibilities. The “I Boat NJ” grant allows you to build infrastructure through a boating/educational grant. Another possible source of funds would be Green Acre funds. NJDEP suggested several possible funding sources that include, in addition to Green Acre funds, funds from the American Littoral Society, the Monmouth Conservation Foundation, the Port Authority and even the state for state park land acquisition. In addition to grants, creating a “Save Belford Group”, a foundation that would grow from volunteers in the community to professionals, would assist in generating private and public support for an educational facility at the Port of Belford.

Conclusions

Based on the community’s interest and the current environment for experience driven tourism, the potential for an interactive/educational facility succeeding at Belford is very high. The unique preserved location and a maritime heritage theme working together can only be a positive and highly complementary addition to any redevelopment effort at the port. To be a success, though, the right leadership, engagement with the commercial fishermen, and a continuous source of funding are essential



Figure 5.21: Exhibits on NJ maritime history, Source: Tuckerton Seaport

Other Strategies

Retail Booth at Ferry Terminal

The development of the Belford ferry terminal and parking facility has created significant changes to the Belford area. The ferry service, which operates directly across Compton’s Creek from the Belford Co-op, provides approximately 2,200 daily trips with commuters traveling from across the region to use the service (see Figure 5.22). These customers are mostly very affluent individuals traveling to and from work. A survey conducted in 2006 by The Louis Berger Group found that the average Belford ferry rider had an average annual income of \$158,358. These riders traveling in and out of the site every day are an “untapped” market that could help revitalize some of the existing businesses within the study area.

The study area contains three seafood retail businesses and one restaurant. Over the years these businesses have struggled due to problems attracting customers to the area. This large “untapped” market associated with the ferry terminal can be penetrated if businesses are able to provide their products in an easily accessible manner. Even though the ferry terminal and study area are directly across the creek from each other, the ferry rider has to drive 1.5 miles out of their way home to the end of Port Monmouth Road to access the businesses. As noted in numerous interviews, ferry riders once exiting the ferry “race” to their cars and quickly leave the site for home. It is very unlikely that they will be lured to drive out of the site and back around to these businesses.

The study explored different ways of connecting the two sides of the creek to enable ferry riders to access the study area site. A bridge connecting the two sides is not feasible due to the height requirements for tall boats to pass underneath. Having the ferry make a short stop on the north side of the creek before docking is also not practical due to the ferry’s tight schedule and the need to get riders back across the creek to their cars (G. Davis, personal interview, May 10, 2007). Other ways of making connections were explored but a feasible option was not identified.

An alternative way of tapping into this market is through operating retail booths or stands adjacent to the ferry terminal where Belford businesses could sell fresh seafood and pre-

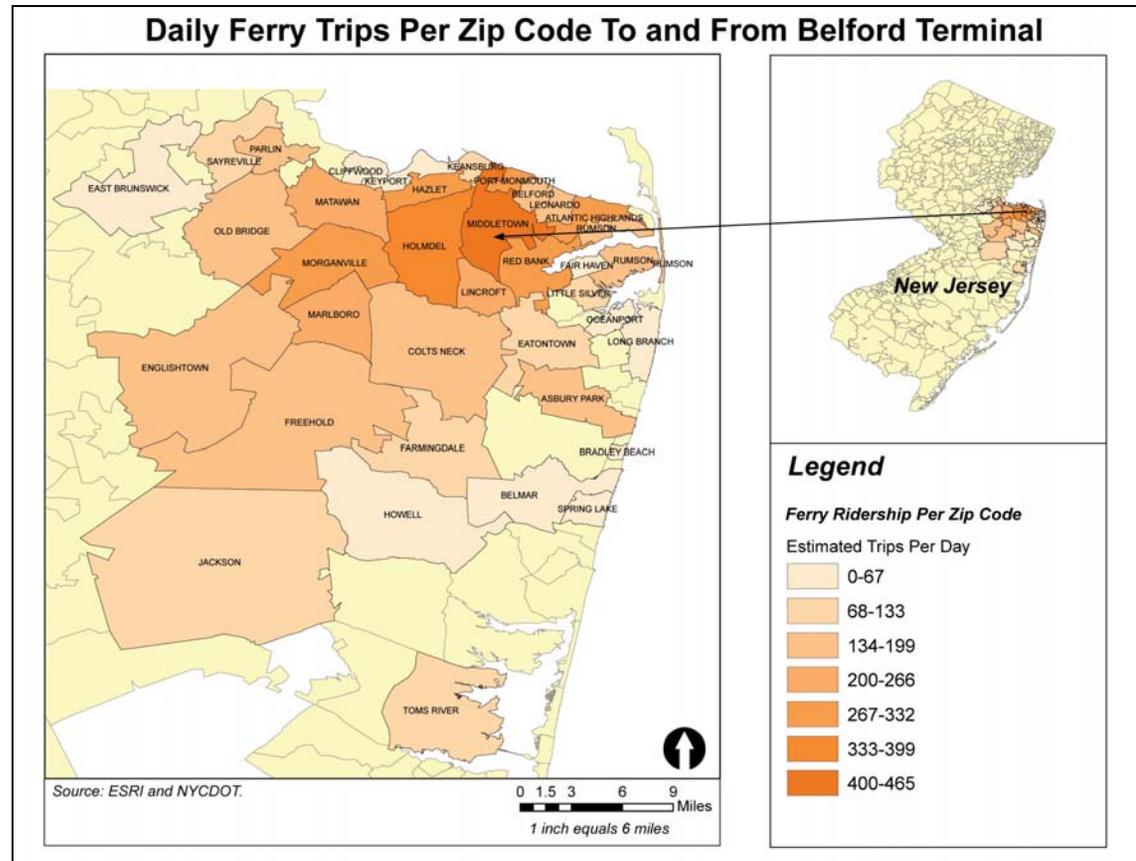


Figure 5.22: NY Waterways ferry service between Belford and Lower Manhattan provides approximately 2,200 daily trips.

pared meals. As the riders are walking to their cars, they could stop and shop. This type of business would most likely not work within the ferry terminal since riders do not exit through the terminal. Since some Belford businesses are already operating a retail component and are involved in prepared foods, they could sell their packaged products during the ferry’s arrival/departure times. Both the County and NY

Waterways see this as a potential success and have tentatively agreed to work with the businesses to operate a series of retail booths adjacent to the ferry terminal (G. Davis, personal interview, May 10, 2007) and (T. O’Connor, personal interview, May 9, 2007).

Another method of tapping into this market is through distributing Belford businesses’ menus

and posters in the terminal and on-board the boat and having the meals or foods ready for pick-up when the boats arrive. Riders could call ahead as they are boarding the boat in NYC and the meals could be ready for pick-up at the retail booths or with a person waiting for them at the ramp. Both the County and NY Waterways have tentatively agreed to help facilitate this (G. Davis, personal interview, May 10, 2007) and (T. O'Connor, personal interview, May 9, 2007).

Improving Fish Processing Techniques

At present, the Belford Co-op sells most of its members catch wholesale to large markets such as Fulton Fish Market. Processing primarily consists of packing whole fish on ice and shipping it out. As whole fish are typically not retailed, this limits the Co-op's retail opportunities. While the Co-op does have a retail fish market, much of these sales are also whole fish. If the Co-op invested in trained staff to fillet fish, retail sales could be greatly increased, and the Co-op would be able to increase sales to supermarkets and restaurants. Purchase of flash-freeze processing equipment would allow the co-op to retail species such as bluefish, which are presently sold to a business in Cape May, which freezes them and sells them overseas. Mackerel and other species could also be flash-frozen for export.

Placemaking/Destination

The successful revitalization of the study area will require the implementation of numerous

development alternatives and strategies. A mixture of strategies is required to meet the needs of the numerous stakeholders, provide more economic activity to support the fishermen, and create a destination that is productive to the overall community. The agreed-upon strategies can be orchestrated to create a place that is more than the sum of its parts. A place where people will come for passive and active recreation, educational experiences, seafood related retail purchases, wholesale seafood purchases, and dining. These different attractors will help form a destination that would potentially draw visitors from throughout the region. The destination could be branded with a name that helps lure visitors to the sight (e.g., Pirates Cove).

The plan seeks to create this type of place through identifying and applying the appropriate strategies and development alternatives that are compatible with each other and effective at supporting the commercial fishing operation at the Port. An example of a compatible development alternative is the creation of transparent holding tanks for the live fish trade that children and adults could visit and view different types of wild, local fish. This type of aquarium experience could be linked to the educational facility documenting the heritage of the Port of Belford. A site plan displaying the layout of the recommended uses is explained in detail in the Site Plan Section.

Group Marketing

Belford businesses would benefit from a more



Figure 5.23: Full parking lot at Belford terminal



Figure 5.24: Whole fish sold at retail store at Belford



Figure 5.25: Providing fish fillets could increase sales.



Figure 5.26: Folk festival at Tuckerton Seaport

strategic marketing campaign for their products. This can be done through participation in trade shows, distributing product brochures to potential buyers, participating in the NJDA Jersey Seafood labeling program (see below), developing a Belford brand, more aggressively pursuing wholesale buyers, developing market niches such as the live seafood trade, expanding their retail store through increased processing (filleting and flash-freezing) and marketing to ferry riders, advertising locally, and attracting people to the site to learn about the locally caught seafood products and the area’s maritime heritage.

Jersey Seafood Labeling

In order to distinguish their products from cheaper foreign imports, Belford businesses could start using the *Jersey Seafood* label (See Figure 5.29). The *Jersey Seafood* label is part of the Jersey Fresh brand which is an aggressive marketing campaign administered by the NJDA to promote locally grown products as distinct from, and of higher value than, competing products. By utilizing the label, Belford businesses would benefit by associating themselves with the advertising campaigns that NJDA is conducting including: New Jersey



Figure 5.27: Parcel A is home to the Belford Seafood Co-op.