

FINAL DRAFT REPORT

Operations & Management Plan

Salem Wharf Project

**City of Salem
Blaney Street
Salem, MA**

November 2008



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Operations and Management Plan

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SALEM WHARF PROJECT
OPERATIONS AND MANAGEMENT PLAN
WITH
MARKETS & ESTIMATED REVENUE PROJECTIONS

1. INTRODUCTION

The City of Salem is seeking to establish a significant multi-purpose municipal port facility. At this time, the City has selected a consultant team led by Bourne Consulting Engineering to evaluate the market analysis and identify the revenues anticipated from the creation of the port facility.

The challenge for the City of Salem will be the ability to maximize the potential of the existing site while providing the flexibility of a multi-use facility. A key component will be the balancing of the watershed utilization with the landside support limitations. The existing upland area of the site is limited in its ability to provide both parking and development area for supporting structures and uses. The future ability to increase on-site parking will be a key component for allowing future expansion of port activities and greater site utilization.

2. FACILITY DESIGN

The existing facility provides limited vessel berthing with a floating barge system that allows for berthing both sides. The 100 foot long dock system provides ADA and MAAB accessibility to the upland area. The current marine users include the seasonal Salem Ferry, occasional small port of call cruise vessel visits and temporary berthing for an offshore LNG supply boat. The upland area improvements are sparse but does include parking, bathroom (port-a-potty) and an office trailer for the ferry operation. A narrow public pathway follows the waters edge and is actively used by neighborhood residents.

The facility expansion program has been established and the proposed project is currently in the regulatory approval process. The program is illustrated in the development plan in Exhibit 2-A .

Major vessel accommodations for the proposed port facility include the following:

Vessel Usage

Vessel Type	Berthing Requirement		Usage
Offshore Supply Vessel	130 ft berth	at floating barge	Home Port
Commercial Berthing	up to 300 feet	at pier face	Day Use
Lobster Boats – 30 slips	40 foot	at inner basin	Year Round
Salem Ferry	120 ft berth	at ADA barge	Home Port
Coastal Cruise Vessels	250 ft berth	at ADA Barge	Day Use
Small/Medium Cruise Ships	up to 400 ft	at pier face	Day Use
Medium Cruise Ships	up to 800 ft	Anchorage	Day Use
Tenders		to ADA barge	Day Use
Visiting Vessels/Tall Ships	up to 400 ft	at pier face	Day/Overnight
Excursion Vessels	120 ft berth	at ADA Barge	Live Berth
Water Taxi	50 ft berth	Float at ADA Barge	Live Berth

Proposed Waterside Facilities

A fixed “L” shaped pier designed to accommodate trucks with adequate maneuvering room, refueling and provisioning apron areas and space along the pier end to accommodate small coastal cruise ships (250 feet in length) and visiting ships. The main pier leg is 32 feet wide and 250+/- feet long. The pier “T” end varies in width from 20 to 50 feet and is 130 feet long. The pier is designed to have a 10 ton mobile crane load capacity.

The float facility on the west side of the fixed pier will re-use the existing 130 foot long float in order to accommodate the ferry *Nathaniel Bowditch* and small coastal cruise ships (185 feet in length).

A series of new steel floating docks on the east side of the fixed pier will be used to accommodate the LNG offshore supply boat, water taxis and excursion vessels.

Floats along the westerly side of the backland portion of the site will provide slips to accommodate the lobster vessel fleet and other commercial fishing vessels.

Dredging of approximately 153,000 cubic yards in a 7.29 acre (317,585 square feet) area around the site will create three basins with depths ranging from elevations - 10 feet to -26 feet at Mean Low Water. The dredging of the most landward basin includes approximately 43,285 square feet of intertidal area. This dredging is needed to create berthing for the local commercial fishing fleet and other smaller draft vessels, and to allow floats to be placed closer to the shoreline.

Proposed Landside Facilities

Vehicular access to the site is from Derby Street via Blaney Street to a new loop road with a passenger drop off area for ferry and cruise passengers suitable for auto, bus and trolley access. The loop road and pier extension will also accommodate truck access to and from the site.

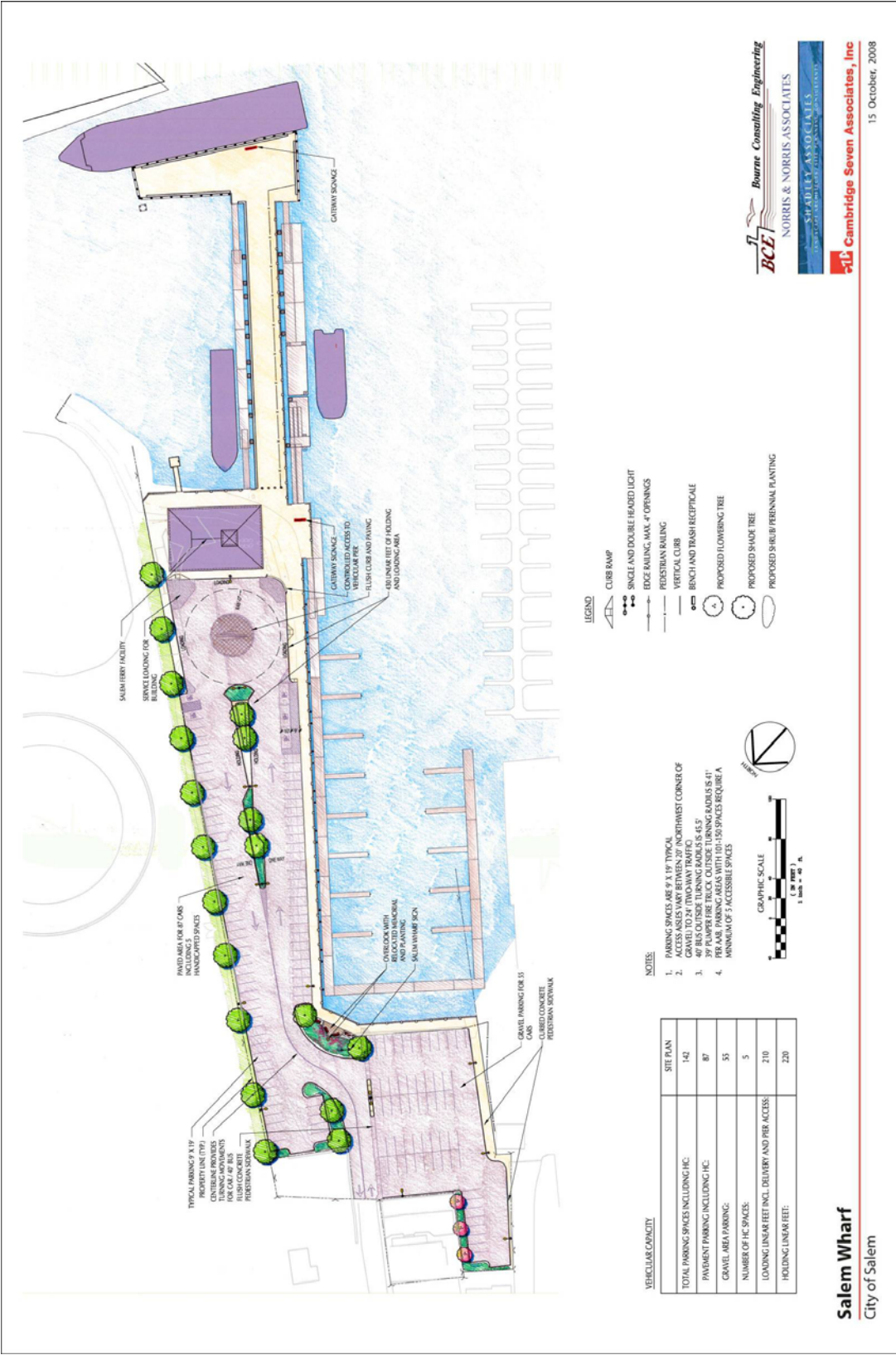
Parking spaces are provided for 146 vehicles.

Pedestrian access to/from Derby Street is via White Street connecting to internal pedestrian circulation along a 12 foot wide pile supported Harborwalk.

The site will include new electrical and water service, a sewage pump-out line, refuse containers and lighting.

A two story, 10,500 square foot Terminal Building will include facilities for passenger waiting/ticketing; office and support space; and maintenance storage areas, as described in the following Terminal Building Program.

EXHIBIT 2-A Proposed Salem Wharf Development



Terminal Building Program

Waiting/Ticketing/Info	Public	1200sf		
Office	Private	850sf		
Workshop/Storage	Private	1000sf		
Public Restrooms	Public (2 @160sf)	320sf		
Outdoor covered waiting porch	Public	400sf*		
3. Cruise Vessels		-0-		Seasonal use; can share waiting and public space with ferry
Waiting/Info	Shared with Ferry	-0-		
4. Visiting Vessels		-0-		Can share waiting and public space with ferry
Waiting/Info	Shared with Ferry	-0-		
5. Offshore Supply Vessel		4,700sf		Year round use; heavier activity during fall and winter months
Office	Private	2500sf		
Workshop	Private	1000sf		
Storage	Private	1000sf		
Private Restrooms	Private; 2 @ 100	200sf		
6. Other Shared Areas		250sf		General building needs
Utilities	Common	150sf		
Maintenance/Storage	Common	100sf		
Total Net Square Feet		8,070sf		Area without circulation, wall s etc.
Total Gross Square Feet	One Storey Building @ 1.1x		8,877sf	Site limits may preclude a 1 storey building
Total Gross Square Feet	Two Storey Building @ 1.3 x		10,491sf	2 Storey building would require more circulation space; footprint of approximately 5,250 sf

- Exterior space; Not included in net square footage

3. IDENTIFICATION OF MARKETS

The potential markets for the site were evaluated including both commercial maritime and public transportation supported uses. In addition, opportunities were identified for use of the upland and the associated building. The primary markets were identified as follows:

Passenger Vessels: Including passenger ferry, cruise ships, excursion vessels, visiting vessels and water taxis

Commercial Vessels: Including offshore supply vessel, marine construction vessels, commercial berthing, lobster vessels and other fishing vessels

Office/Storage: Including office rental to offshore supply and ferry operations, possible kiosks for excursion vessels, off-season building use including functions and meetings.

- Upland Utilization: Opportunities for revenue including paid parking for peak periods, off-season storage of vessels, off-season winter parking.
- Support Opportunities: Related landside support revenue including fees for concessions, trolley and pedicabs.

4. PASSENGER VESSELS

4.1. Passenger Ferry Operations

For purposes of this report, passenger ferry operations are defined as those transporting passengers between two sites for either commuter transit or for tourism and recreational purposes. Expansion of the passenger ferry services is expected to be strong for the existing Salem Ferry, with several longer term opportunities to expand to other routes. While there are similarities between the point to point passenger ferries and other excursion services, they have been treated as separate markets because of anticipated differences in operations and docking needs.

4.1.1 Salem – Boston Passenger Ferry

The City of Salem has invested in the purchase of a passenger vessel ferry that provides seasonal service to Boston. Currently under agreement with a private operator, the Salem Ferry has been a major success with strong ridership growth since its beginning. This operation is seen as one of the cornerstones of the site development.

The Salem Ferry is just starting its third year of service as a city owned vessel and provides seasonal commuter and visitor service from the existing Salem Port pier to Downtown Boston. The ferry operates seasonally from late May to early November. At this time there is no additional ferry operations anticipated.

4.1.2 Other Potential Passenger Ferry Opportunities

There are several potential passenger ferry operations that might operate from the new Salem Port include the following.

Salem – Provincetown (46 nm each way, 92 nm round trip): Potential sightseeing Mass Bay trip to Provincetown and back; as a seasonal charter or weekly scheduled excursion. Such a service might also offer a whale watch component, since an expanded route through Stellwagen Bank is close to the direct route from Salem to Provincetown. Such an operation would require a supply of overnight parking on or nearby the sight.

Salem – Gloucester: (11 nm one way, 22 nm round trip): for seasonal visitors and North Shore sightseeing. A potential scheduled loop to Gloucester could provide a two way service during the peak visitor season, while also offering a short Cape Ann tour. Partial vessel use of berths and delivery costs from remote berthing would create operational challenges.

4.1.3 Passenger Ferry Market

The existing Salem Ferry has been operating for the last three years and has seen substantial annual ridership growth and has been projected to be over 80,000 passengers for the 2008 operating season doubling the 2006 ridership. The level of growth is anticipated to flatten out under normal economic conditions but could be expected to exceed 100,000 by 2012, based on current schedule and capacity. The

special Salem events in October leading up to Halloween, combined with fall tourism combine to extend the ferry market season well beyond the summer months.

Sustaining higher levels of annual market growth, however, may be difficult in the near future due to current economic conditions limiting tourism growth, combined with higher fuel costs resulting in higher fares, and inherent physical site limitations. Both the tourism and commuter ridership is discretionary and overall trends during the current economic downturn may influence ridership numbers. The current site poses operational limitations in terms of upland parking. While the proposed reconstructed site will provide an enhanced visitor experience and a more efficiently structured approach to parking and vessel support operations. However there remains the issue of limited parking capacity until such time as new nearby off site additions to the visitor parking supply are available.

Increasing ferry demand growth will also put strains on the existing single vessel operation and fixed passenger capacity with, some current peak period trips reaching the vessel's maximum capacity. To achieve substantial growth in the longer term, a second vessel may be required for peak period trips

4.1.4 Competitive Position

The proposed Salem Port Project is well situated to serve several market areas for ferry use. The commuter ferry service to Boston is most likely to continue only as a seasonal service complementing the year round commuter rail service which offers more frequent scheduled trips. The two services are complementary in offering different schedule intervals, and a choice of Salem and Boston departure/arrival points. In Salem the rail station is more convenient for auto and bus connections, while the ferry is more accessible by foot to historic waterfront tourist destinations. In Boston, commuter rail at North Station connects to other MBTA lines (Orange and Green), while the Central Wharf ferry landing is closer by foot to the Downtown business district and waterfront tourist sites.

The Salem Ferry vessel ownership by the City and the City's control of the associated upland site are key elements to the success of the current ferry service. The site is well positioned near a dense residential area and visitor destinations that encourage a substantial portion of "walk-to-ferry" riders. Alternative competitive locations within Salem are limited and do not have the upland drop-off or parking support or such strong proximity to visitor attractions or residential areas.. These factors would appear to be barriers to entry of competing landings or new ferry services.

The primary market includes Boston to Salem and Salem to Boston discretionary riders. A competing service is ultimately possible with operations into Pickering Wharf /Salem Historical Maritime Park area but will likely restrict vessel size and market access. Any up harbor docking locations would also require a slow passage through no-wake mooring fields and would add to trip times Current ridership demand is not sufficient to justify a competing service but as ridership grows and capacity limits are reached expanded operations of the Salem Ferry would be the most efficient way to meet new demand.

4.1.5 Operating Procedures

The following are the primary operational processes and procedures that would be undertaken at the Salem Port Project for the Salem Ferry and other scheduled passenger vessel excursion and whale watch operations:

- Embarkation and disembarkation of ferry passengers
- Receipt of provisions as well as marine stores, fuel, and equipment – particularly necessary for homeported vessels
- Disposal of trash
- Security services
- Provision of parking and shuttle services for passengers
- Routine vessel maintenance and repair
- Dockside utilities including power, water and pumpout

The passenger vessels under consideration would likely operate with crews of 3 to 4 per vessel, with additional onshore ticketing and management required if a multiple vessel fleet is established. Operating periods would tend to be seasonal from early June through the end of October. Operating hours would be most intensive on seasonal weekends with less weekday use, from mid morning into the evening.

Berthing and dockside management would most likely be done privately by the resident Salem Ferry management, or by other homeported vessel operators. It is anticipated that there will be a future need for both dedicated layover berthing slips and managed short term berthing time slots for passenger loading and off-loading of the vessel.

The proposed floating ferry dock is located on the west face of the Salem Pier which will offer suitable berthing for passenger vessels with lower freeboards (4 to 6 feet), with direct links to the terminal and curbside access, via ADA and MAAB compliant ramps and gangways. The floating docks would be shared between ferry, excursion and small cruise vessels.

The floating dock on the east side of the fixed pier would be used primarily for the offshore supply boat and other transient commercial vessels. Based on demand and frequency of use by the primary vessel operations, the east side floats may also be utilized for some limited passenger vessel berthing. Given the relatively high frequency of passenger vessel calls at the pier (multiple times per day), it is likely that a specific length of west side floating dock space during peak seasonal use periods would be dedicated to transient passenger ferry (as opposed to Salem Ferry) use (110 feet).

4.1.6 Infrastructure Needs

The essential capital equipment and resource needs for passenger vessel operations include the following:

- A new floating pier with removable boarding ramp designed to accommodate all vessels with a low freeboard that would benefit from a fixed four to five foot float – compliant with federal and state regulations requiring disabled persons access for passenger ferry vessels.
- An outdoor passenger waiting area and covered shelter adjacent to the floating pier and convenient to the curbside auto and bus drop-off area
- Parking would be required for ferries used by Salem area residents.

- Homeported ferry operations at the Salem Pier would require passenger reception/waiting and ticketing facilities in the lobby space the terminal building, also convenient to the curbside drop-off.
- Equipment and temporary supply storage needs to be accommodated in a transit shed.
- Utilities for vessel including power, water, sewer pumpout and fueling.
- Vessel accessibility for provisioning and removal and storage of trash.
- Sufficient pier capabilities to allow for pier-side equipment transfers to/from vessel (10 ton crane).

4.1.7 Liability Issues

Ferry liability and security needs are relatively minimal, and largely borne by the operators. As with any public ferry system, the operators will be responsible for a US Coast Guard approved security plan to address Homeland Security requirements, to be coordinated with an approved public access facility security plan for the docks. Personal injury or property damage/loss liability concerns for passengers are also largely the responsibility of the vessel operators. ADA and MAAB access requirements will be provided as integral to the floating pier design. Watersheet management guidelines would need to be established and monitored by the City to assure vessel safety and appropriate use of shared fairways between the new floating dock, Hawthorne Cove Marina and, Dominion Power operations.

4.1.8 Projected Performance – Facility Revenue Generation

4.1.8.1 Market Size:

The primary market is for the existing Salem Ferry and vessel that is owned by the City, currently leased and licensed to Water Transportation Alternatives, Inc. The ferry is operative seasonally from late May to early November, with peak periods during summer and October weekends. There are currently no other homeported ferry services in Salem Harbor, and it is not projected that competitive operations will be established in the near future. Ridership is expected to grow and top 100,000 riders per season during the next few seasons. A second vessel is likely to be needed in several years for peak loading periods that are typically weekend and holiday periods in high season.

Two factors in continuing growth of the Salem and passenger ferry markets will be competitive fares and schedules adapted to changing demands.

The secondary market would be for future scheduled “other” passenger vessel excursion and whale watch vessel operations. For all practical purposes, such routes would most likely operate in conjunction with the next category of vessel use, excursion and whale watch operations, offered by the same operators and using the same vessels. In addition, based on the current dock and site plan parking, there will not be enough berthing space for more than one additional homeported ferry vessel. Therefore this smaller market component has been incorporated in excursion /whale watch vessel trip projections below in section 4.2.7.

4.1.8.2 Comparative Market Review: A comparative investigation of berthing revenue similar vessel berthing operations was made. Direct comparison of commercial berthing for ferry vessels was limited and comparison of

other commercial vessels including excursion vessels was made that would be the same size and need the same services. A summary of the findings are as follows:

- **Fall River State Pier**
 - Passenger Vessels - \$225 / day - \$900 / mo 100 ft vessel
 - Cruise Vessels - \$225 / day
 - Medium size vessels \$500 / day
- **Boston – assuming 100 ft vessel**
 - Downtown #1 commuter - \$33,000 /mth
 - Downtown #2 commuter / excursion - \$6,700 / mth –w/ upland
 - Downtown #3 excursion - \$3,000 / mth – 5 mth season
 - Downtown #4 excursion - \$5,500 / mth – 6 mth season
 - Downtown #5 limited excursion - \$4,500 / mth – 6 mth season
 - Excursion - Several locations asking \$35-40 /ft-mth
- **Gloucester**
 - Casino - \$60,000 / yr
 - Whale Watch #1 - \$14,000 / season plus \$30 /mth/prk space
 - Whale Watch #2 - \$16,000 / season
 - Historic Rate \$24,000 /yr – 100 ft vessel
- **Oak Bluffs Town Landing**
 - Passenger Vessel #1 - \$225 / ft season
 - Passenger Vessel #2 - \$175 / ft season (more limited schedule)
 - Large cruise vessels (>2000 people) - \$3,000 / ship (12-15 /yr)

4.1.8.4 Recommended Dockage Rates

The Salem Ferry is not currently paying for berthing at the existing facility due to the nature of the management contract with the City. The following berth rates would be considered market rates for passenger ferry vessels:

Commercial ferries – assume 100 ft vessels

- Yearly Rate \$3,500-\$4,500 /mth
- Monthly Rate \$4,000 - \$6,000 /mth
- Daily Rate \$ 500/day

These rates would escalate at an average of 5% per year. As proposed, the longer the term of the lease, the lower the daily rate

4.2. Excursion Vessels

4.2.1. Excursion Vessels

Excursion ferries are those providing a recreational loop starting and ending at the Salem port docks. The opportunities for new and expanded excursion vessel operations are anticipated to be high including charters, dinner boats and harbor cruises. Ecotourism is also anticipated to grow as a future market segment with the addition of whale watch and other coastal ecology tours.

4.2.2. Excursion Vessel Market

Harbor Excursion and Charter Services:

Recently charter and special event excursion services have been offered in Salem Harbor by Water Transportation Alternatives Inc., the operators of the Salem Ferry with 8 provided during the 2007 season and more excursions planned for the 2008 season. Otherwise historically, there have been no regularly scheduled excursion services from the Blaney Street facility. Based on conversations with several operators, there appears to be a potential market for a variety of excursion and charter services in the future including summer season tour, dinner and music cruises incorporating a range of routes.

The general viability of such services is somewhat limited by several factors including the local market catchment area, the somewhat exposed navigation conditions outside the harbor, the preference for a homeported vessel in Salem (as oppose to visiting vessels from other nearby ports), and the limited availability of on-site parking, particularly on weekends and peak Salem Ferry periods..

Navigation conditions must also be considered for the waters outside Salem Harbor and the type of vessel needed to operate comfortably in the normal range of sea conditions during summer months. For such operations to be reliable in Salem on a scheduled basis would require a stable, sea worthy (higher freeboard height) vessel such as the *Nathaniel Bowditch* or other whale watch type vessels. Even with such vessels, flexible itineraries would be needed that might on occasion be limited to Salem harbor and protected areas inside the nearby islands in the event of higher wave states in Mass Bay. Current Salem ferry operators have indicated that during the May to November season, operating conditions have been predominantly favorable for local excursion operations, with few days when sea conditions would preclude scheduled trips.

Such navigation factors combined with sailing distances for visiting vessels from ports such as Boston or Gloucester would suggest the need for a resident excursion and multi-purpose ferry with good sea keeping characteristics and licensed for off-shore operations.

Adequate parking needs to be available within a short walking distance of the boarding location to support excursion or charter services, and the number and capacity of the vessels may need to be matched to available parking supply.

Whale Watch and Ecotourism Services:

While many of the larger whale watch excursion vessels have been based in Boston Harbor, successful whale watch ferries have operated from Cape Ann, as the observation grounds are within an equal or slightly shorter sailing time. The Cape Ann whale watch departures have been centered in Gloucester, with three operators providing a variety of options. Salem Harbor is also well situated to capture a share of the whale watch market north of Boston, being an equal water distance from the observation areas. Salem is somewhat better located with respect to the north and north western communities, with closer proximity to I-95 north and further west with respect to Route 128.

The constraint in Salem has been availability of homeport or layover berthing and ample parking combined with the lack of competing multiple operators clustered in Gloucester and Boston Harbor. A positive development favoring all whale watch

operations is the recent installation and maintenance of offshore sensor buoys that are proving to be very accurate in tracking whale movements and making it easier to know the favored locations for whale sightings. A negative factor for such operations relates to current proposed federal rulemaking that would limit speed and operations of all vessels including ferries in areas traversed by whales, potentially increasing trip times.

Projecting potential ridership for whale watch operations is difficult without assuming a displacement of portions of current Gloucester operations. One of the larger operators, Yankee Fleet, has had to relocate to a temporary boarding, layover site and parking location in Gloucester. At such time as dock and parking capacity are available in Salem, it will be appropriate to consider the demand for additional Cape Ann whale watch operations. At that time the issues regarding restrictions on vessel operations near whale grounds, and the impacts of the sensor buoys on such operations will be better known.

Other types of eco-tourism excursion demands may emerge on the north shore, particularly related to educational charters. However, based on the current sea life and state of the fishery in Massachusetts Bay, there would not appear to be any new attractions other than general aquatic environmental awareness. As more educational and ecotourism programs are offered at the Boston Harbor Islands, connections to Georges and Spectacle Island may be worth reconsidering. In the past when seasonal services from Salem to Georges Island were offered, the ridership was insufficient to justify the added schedule travel time.

Other types of recreational, ecotourism and educational programs are also somewhat limited. The Salem area waters are not particularly conducive to diving because of the colder Mass Bay waters and generally murky conditions.

4.2.3. Competitive Position

The proposed Salem Port Project is well situated to serve several market areas for excursion use. The excursion vessels would enjoy a location advantage on Cape Ann and the north shore because of good access to routes 128 and I-95, as well as proximity to many nearby north and northwest suburban communities.

Demographically, Salem supports a large catchment area for summer and shoulder season users. Geographically, the attractions of Cape Ann and the North Shore are all currently believed to be underserved by general excursion vessel services (with the exception of the Gloucester whale watch fleet). The further potential for linking with periodic visiting cruise vessels adds to the cumulative total market of potential ferry and excursion vessel passengers.

4.2.4. Operating Procedures

The following are the primary operational processes and procedures that would be undertaken at the Salem Port Project for other scheduled passenger vessel excursion and whale watch operations:

- Embarkation and disembarkation of excursion passengers
- Receipt of provisions as well as marine stores, fuel, and equipment – particularly necessary for homeported vessels
- Disposal of trash
- Security services
- Provision of parking and shuttle services for passengers

- Routine vessel maintenance and repair
- Dockside utilities including water, power and pumpout.

The smaller vessels under consideration (149 to 200 passengers) would operate with crews of 3 to 4 per vessel, with additional onshore ticketing and management required if a multiple vessel fleet is established. Operating periods would tend to be seasonal from early June through the end of October. Operating hours would be most intensive on seasonal weekends with some weekday use, from mid morning into the evening.

Berthing management would most likely be done privately by the resident Salem Pier management. In the event of multiple excursion and ferry uses combined with dedicated space for small cruise vessels, it is anticipated that there will be a future need for both dedicated layover berthing and a time managed short term berth for passenger loading and off-loading of the vessels.

The proposed floating finger pier on the west face of the Salem Pier will offer preferable boarding sites for small passenger vessels due to their lower freeboards, and needs for direct terminal and curbside access, in addition to ADA compliant ramp and gangways. The floating docks would likely need to be shared with the ferry and small cruise vessels. That would require careful scheduling by the pier management. Given the potential for multiple small passenger vessel calls at the pier during peak periods, it is likely that a specified amount of floating dock space would have to be dedicated solely to the existing Salem Ferry (110 feet), while a homeported excursion or whale watch vessel (110 feet) would need to schedule boarding times around the ferry arrival schedule during seasonal operations.

In terms of landside operations, substantial space for passenger drop-off and pick-up for buses and autos as well as nearby parking would be needed for charter and scheduled ferry operations. Excursion vessel operations can typically require large amounts of parking – one parking space per two passengers is recommended. .

4.2.5. Infrastructure Needs

Since the Salem Ferry is owned by the City of Salem, it is assumed that the vessel will continue to occupy one seasonal layover berth at the expanded pier, and have a priority for a portion of the upland parking versus uses by excursion or other passenger vessels. There is also likely to be a need for dock capacity for visiting, charter and excursion vessels, when compatible with resident berthing patterns and parking availability. However, if there is to be an additional seasonal resident excursion and/or whale watch vessel, it is of interest to determine the threshold market and operation conditions to support a second homeported ferry.

The key capital equipment and resource needs excursion and whale watch vessel operations are similar to those described for the passenger ferries and include the following:

- A new floating pier with removable boarding ramp designed to accommodate a range of vessels with lower freeboards from four to six feet.
- Ramps and gangways need to be compliant with federal and state regulations requiring disabled persons access for excursion vessels.
- An outdoor passenger waiting area and covered shelter adjacent to the floating pier and convenient to the curbside auto and bus drop-off area
- Ample parking for ferries used by Salem area residents.

- Excursion passenger reception/waiting and ticketing facilities in the lobby space the terminal building, also convenient to the curbside drop-off.
- Equipment and temporary supply storage needs to be accommodated in a transit shed for homeported vessels.
- Utilities for vessel including power, water, sewer pumpout and fueling.
- Vessel accessibility for provisioning and removal and storage of trash.
- Sufficient pier capabilities to allow for pier-side equipment transfers to/from vessel (10 ton crane).

4.2.6. Liability Issues

Excursion liability and security needs are relatively minimal, and largely borne by the operators. As with any public ferry system, the operators will be responsible for a US Coast Guard approved security plan, to be coordinated with an approved public access facility security plan for the docks as the responsibility of the Salem Pier as the landlord. Passenger personal injury or property damage/loss liability concerns are largely the responsibility of the vessel operator. Legal requirements for disabled person access will be provided as integral to the floating pier design. Watersheet management guidelines would need to be established and monitored by the City to assure vessel safety and appropriate use of shared fairways between the new floating dock, Hawthorne Cove Marina and, to a limited degree, Dominion Power operations.

4.2.7. Projected Performance – Facility Revenue Generation for Excursion/Whale Watch Operations

Market Size: The primary market is for new excursion and whale watch vessel operations. There are limited excursion operations at the Salem Pier at present, but it is anticipated to grow with the establishment of the Salem Port Project. Over time the market is likely to mature and expand sufficiently to support a homeported excursion vessel berthed at the pier during the summer fall season. For the basis of overall revenue prediction, the following was assumed: As noted above, these projections include the market for “other passenger vessels” in addition to projected excursion /whale watch trips.

2010	Day Dock Rate:	12 vessel trips/season
2015	Day Dock Rate:	18 vessel trips/season
2020	Day Dock Rate (6 months):	24 vessel trips/season
	Annual Dock Rate	1 homeported vessel
2025	Day Dock Rate (6 months):	24 vessel trips/season
	Annual Dock Rate	1 homeported vessel

There are no other identified year round commercial excursion berthing markets at this time and there is no history for demand for year round berthing.

- #### 4.2.7.1. Comparative Market Review:
- An investigation of comparable commercial vessel berthing operations was made. Direct comparison of commercial berthing for excursions vessels was made by looking at similar port sites that would be of comparable size and need the same services. A summary of the findings are as follows:

- **Fall River State Pier**
 - Passenger Vessels - \$225 / day - \$900 / mo 100 ft vessel
 - Cruise Vessels - \$225 / day
 - Medium size vessels \$500 / day
- **Boston – assuming 100 ft vessel**
 - Downtown #1 commuter - \$33,000 /mth
 - Downtown #2 commuter / excursion - \$6,700 / mth –w/ upland
 - Downtown #3 excursion - \$3,000 / mth – 5 mth season
 - Downtown #4 excursion - \$5,500 / mth – 6 mth season
 - Downtown #5 limited excursion - \$4,500 / mth – 6 mth season
 - Excursion - Several locations asking \$35-40 /ft-mth
- **Gloucester**
 - Casino - \$60,000 / yr
 - Whale Watch #1 - \$14,000 / season plus \$30 /mth/prk space
 - Whale Watch #2 - \$16,000 / season
 - Historic Rate \$24,000 /yr – 100 ft vessel
- **Oak Bluffs Town Landing**
 - Passenger Vessel #1 - \$225 / ft season
 - Passenger Vessel #2 - \$175 / ft season (more limited schedule)
 - Large off-shore anchored cruise vessels (>2000 people) - \$3,000 / ship (12-15 /yr)

4.2.7.2. Recommended Revenue

After evaluating comparable alternative commercial berthing rates for excursion vessels, it is recommended that the following rates be considered for the facility:

Excursion – assume 100 ft vessels

- Yearly Rate \$3,500-\$4,500 /mth
- Monthly Rate \$4,000 - \$6,000 /mth
- Day Rate \$ 500/day

These rates are assumed to increase annually at about 5% per year. It is also recognized that the rates for a vessel which utilizes the facility year round may need to be less than for vessels that only operate a portion of the year or only during the peak season.

4.3. Cruise Ships

Salem currently has several small coastal cruise visits scheduled for 2008. The interim landing facility at Blaney Street can accommodate vessels in the 100 to 200 foot range for short term port of call visits, sharing the landing with the Salem Ferry and the offshore supply vessel. An independent berthing dolphin does exist on the west side that allows for tying up the larger vessels.

At such time as the fixed pier and new landings are built as currently planned, the dock facilities will be much better able to accommodate somewhat larger coastal cruise

operations on a more frequent basis. The new dock facility is designed to provide dockside berthing and terminal facilities for smaller coastal cruise ships, while also being able to handle mid sized cruise vessels anchored offshore by means of transfer ferries or lighters that would bring 150 to 200 passengers ashore per trip.

Two types of seasonal cruise visit are common at smaller New England ports similar in size and historic character to Salem, as described in the recently completed report, *Historic Ports of Massachusetts*, prepared by Ketchen Associates for the Massachusetts Seaport Advisory Council (completed in October, 2007). Port-of-Call cruise operations are those which visit a port as part of a cruise itinerary, but do not take on or off-load passengers. Homeported cruise operations are those which use a particular port as an embarkation and disembarkation base for passengers at the beginning and end of such an itinerary.

4.3.1. Port-of-Call Cruise Operations:

The primary cruise business activities to be conducted at the Salem Pier for future cruise ship operations would include the following needs for port-of-call vessels:

- Dockside berthing of cruise vessels up to 300 feet during a port visit.
- Landing availability for lighters (ferry shuttles) for medium and larger cruise ships of approximately 1,200 to 2,400 feet anchored off-shore depending on the draft required.
- Watering, fuelling, waste removal, incidental supplies, and incidental maintenance and repair services for a cruise vessel berthed at the Salem Pier.
- Dockside terminal and covered waiting area with curbside bus, trolley and cab access.
- Provision of landside transportation including shuttle bus operations for cruise vessel passengers embarking on a cruise from the Salem Pier
- Limited emergency repairs administered by mobile equipment.

4.3.2. Homeported Cruise Operations: The primary cruise business activities to be conducted at the Salem Pier for future homeport cruise ship operations would include the following services and facilities for vessels:

- Dockside berthing of cruise vessels up to 300 feet during a port visit on a “homeport” basis (as the initial and final port on a cruise such that cruise passengers embark and disembark the vessel in Salem).
- Watering, fuelling, storing, provisioning and providing general maintenance and repair services to a cruise vessel berthed at the Salem Pier – this activity would likely to be much more significant for any vessel homeported at the Salem Pier than a visiting or Port-of Call vessel.
- Booking, ticketing, receiving, embarking, and disembarking cruise passengers to/from a vessel berthed at the Salem Pier for homeported vessels.
- Providing baggage services for cruise vessel passengers – primarily for homeported vessels
- Providing landside transportation including parking, car parking services and shuttle bus operations for cruise vessel passengers embarking on a cruise from the Salem Pier.

- Dock side terminal including passenger waiting, processing, baggage handling and ancillary amenities.
- Dockside cruise ship operations offices, crew handling, storage, ships services and customs (for International arrivals)

Dock and pier facilities needed for dockside berthed port-of-call and homeported ship visits would be similar, providing for safe and efficient passenger handling and service needs. The homeported vessels, however, would require adequate apron area for more extensive baggage and supply handling as well as more extensive servicing.

Dockside facilities for offshore anchored port-of-call vessels would require berthing for lighters or ferries for incremental boarding of groups up to 250 passengers, including ADA and MAAB access from landing floats to terminal. Any light servicing would need to be conducted from the fixed or floating docks.

Landside facilities for the two types of visit would be similar but more demanding for Homeported vessels. The port-of call vessels would be able to share terminal facilities and curbside transportation with the Salem ferry and other excursion vessels. Passengers would be rapidly transferred to landside transportation or directed on foot to nearby Salem attractions. Homeported vessels would require a larger terminal facility to handle the embarkation and disembarkation needs of passengers as well as the administrative needs of the ship operators.

4.3.3. Cruise Ship Market

The New England/Eastern Canada cruise market is highly seasonal with vessels being deployed on itineraries calling at northeast U.S. and Canadian ports only between May and October. Typically, vessels relocate to warmer locales such as the Caribbean during the New England winter months. There are two major segments to the New England/Eastern Canada cruise market:

- Large cruise vessels that are generally longer than 600 feet and carry passenger complements of over 1,000. All of these vessels operating in the New England market are of foreign registry and must incorporate foreign ports of call within a cruise itinerary (e.g. Canada or Bermuda).
- Smaller cruise vessels of around 150 to 250 feet in length that generally have berths for approximately 100 to 200 passengers. Such ships are typically of U.S. registry and may serve U.S. ports of call exclusively. These are generally known as coastal cruises.

The large vessel segment of the New England/Eastern Canada cruise market is composed of such major lines as Carnival Cruise Lines, Celebrity Cruises, Holland America, Norwegian Cruise Line, Princess Cruises, and Royal Caribbean. Typically, these vessels are homeported at either New York or Boston in order to have close access to the cities' major airports as well as large-scale tourist facilities that can cater to passenger contingents of over a thousand persons at a time. While it may be possible to attract some of these medium sized vessels for port of call visits, the Salem terminal will have a maximum berth potential of approximately 300 feet, and will not be able to service larger cruise ships dockside. Boston's expanding cruise terminal with excellent airport access should continue to be the dominant homeport, with some cruise visits being absorbed by the recently completed Ocean Gateway in Portland, Maine. The opportunity to attract these

vessels will likely be associated with occasional callings associated with the large cruise vessel relocation and seasonal movements.

The New England small cruise vessel segment is comprised of four to five major operators: American Cruise Line (four vessels operating out of Providence RI and Bangor ME); Pearl Seas Cruises (one vessel departing out of Portland, ME); American Canadian Caribbean Line (two vessels operating out of Warren RI); Cruise West (one vessel, *Spirit of Nantucket*) formerly operated out of Quebec City, Boston, and New York but does not have any vessels in the Northeast at this time; and the modern cruise schooner *Arabella* (one vessel operating out of Newport RI). While the number of passengers per small cruise vessel at approximately 100 or less and considerably smaller than the 1,000 plus passenger capacities of the large cruise vessel segment, it should be noted that the small cruise passenger tends to spend more time ashore in communities where the vessels call. The itineraries generally include short overnight trips between coastal ports, with day long layovers. Passengers on the smaller coastal cruise vessels often dine ashore. According to findings in the recent “Historic Ports of Massachusetts” report, the coastal cruise passengers are on average more affluent than their large cruise counterparts and spend considerably more per person in the ports of call on goods and services

4.3.4. Competitive Positioning

Passenger cruise ship operators have used the new interim Salem Pier on an intermittent basis in recent years. During the summer of 2008, two cruise visits were scheduled for July and August as part of a Cruise New England itinerary of the American Canadian Caribbean Line. The vessels expected are 183 feet in length and carry a maximum of 100 passengers. Other cruise lines have small U.S. flag vessels of 210 feet length overall (LOA) or less that typically carries around 100 passengers on coastal cruises during the months of May to October. Another emerging niche in small cruise industry is the increasing number of purpose-built motor/sail vessels, such as the *Arabella*, a three masted schooner, or other historic tall ship replicas that have staterooms and are licensed to carry passengers, such as the *Stad Amsterdam*, which visited Boston for 5 days in April of 2008. Factors that impact the competitive position of the future Salem Pier as a port of call for coastal and medium sized cruise vessels include the following:

- The site is well suited for domestic coastal or “boutique” cruise operations (up to 200 passenger vessels of under 250’ LOA). Such vessels may use Salem Pier on a port-of-call basis during the May to October season.
- Salem presents an attractive historic port cruise destination for smaller and medium sized vessels due to its walking distance proximity to many historic attractions, architectural heritage, and destination museums such as the House of the Seven Gables, Salem Port National Heritage Area, and recently expanded Peabody Museum.
- Larger vessels (up to 1000 passengers / up to 700’ LOA) are less likely to be regular visitors and more likely to call at shoulder seasons (in May and October) when re-positioning between New England and Caribbean
- Larger non-U.S. flag vessels need to incorporate Canadian and/or Bermuda calls in typical weekly itineraries out of Boston or New York that makes diversion to Fall River unattractive due to time and distance constraints.

- Homporting for smaller sized vessels requires considerable backland support for parking, passenger handling and servicing, which is currently is problematic owing to the small footprint of the Blaney Street site. At such time as the site is expanded for parking and other homeport support needs, Salem may offer port services as a homeport for coastal cruise ships.
- For medium cruise vessels, dockside berthing is also a prerequisite which is difficult to justify at the Salem Pier for occasional re-positioning visits. In addition to available dockside berthing, the immediate access of medium and larger cruise vessels to major airports is also a key factor in homeport siting. Both factors are far better filled by the Black Falcon Terminal in Boston
- Gloucester, Newburyport, Provincetown, and Portsmouth, NH are the competing nearby coastal cruise historic port destinations. However; they also provide the advantage of short cruise distance destinations from Salem for the Cape Ann/Massachusetts Bay itineraries of the cruise lines that have emerged during the past few years.

The expansion of the Salem Pier as a cruise destination with the new fixed pier and expanded floating docks to serve the low freeboard coastal vessels will help attract more regularly scheduled summer season visits. The availability of an anchorage area near the outer harbor entrance, and availability of lighter docking should help attract the occasional mid-sized cruise vessels in shoulder seasons without over extending the shore side facilities. The new shared terminal center and curbside transportation should significantly improve its competitiveness with other New England ports as a port of call for both small and medium cruise vessels.

4.3.5. Operating Procedures

The following are the main operational processes and procedures that would be undertaken at the Salem Pier for passenger cruise ship operations. It is assumed that the operations will be limited to port-of-call visits, based on current limitations of upland space at the Blaney Street site, and the current terminal building program and accommodations:

- Embarkation and disembarkation of port-of-call cruise passengers;.
- Visitor information, curbside transit access and hospitality services.
- Berth for lighters to off load anchored medium sized cruise vessels
- Receipt of incidental passenger and crew provisions and stores as well as marine equipment, fuel, power, and water.
- Disposal of trash
- Security services
- Shore excursion links – buses would pick up and drop off passengers at the curbside adjacent to the terminal building.
- Emergency and incidental vessel maintenance and repair.

The coastal cruise vessels would berth directly at the south end of the fixed pier, or alongside the western floating berth, depending on the boarding deck freeboard height. For the smaller vessels, the 5 foot freeboard float would work well for a gangway to the lower deck. Sailing cruise vessels such as the *Arabella* might berth either at the float or fixed pier depending on freeboard height and tide.

Occasional calls by medium sized cruise vessels during the New England shoulder seasons would need to be accommodated at a designated anchorage location in the outer harbor, with passenger transfers by lighter to the transient excursion berth at the Salem Pier.

Cruise vessels would need to have direct access to the terminal building and curbside area for excursion bus transfer as well as pedestrian access to downtown Salem and other nearby excursion destinations such as the House of the Seven Gables. Trucks delivering foodstuffs and marine stores as well as fuel by truck to cruise vessels will need to be able to park alongside the vessels on the wharf apron of the fixed pier.

In the long term, if coastal cruise vessels were to be homeported at the Salem Pier they would require more extensive facilities for vessel servicing on the pier, as well as passenger reception, ticketing facilities and baggage services in an expanded terminal building. Cruise vessel berth space would need to be reserved for more frequent visits and turnarounds. In addition, off-site parking would need to be provided for passengers, crew, and shoreside cruise line employees. Given the limitations of the current Blaney Street site, such expansion plans are not anticipated at this time, and would need to be revisited at such time as appropriate new contiguous parcels of land might become available.

4.3.6. Capital Equipment and Resource Needs

The key capital equipment and resource needs for cruise vessel operations include the following:

- Suitable berthing space for small cruise ships such as the west floating dock and south face of the fixed pier,
- Partial use of the transient floating dock for passenger lighters for the occasional medium sized anchored vessel calls.
- Passenger reception and waiting facilities to be shared with Salem Ferry and excursion ferry operations on the ground floor of the terminal building.
- Shore excursion and shuttle bus parking area.
- Pedestrian access to downtown and nearby visitor attractions

As all of these facilities will be shared with other uses, the capital costs are prorated based on the assumed number of coastal and medium sized cruise visits per year.

4.3.7. Liability Issues

While the relatively small number of coastal cruise vessel visits and movement of hundreds of cruise passengers on an annual basis through the Salem Pier cruise terminal facilities could create the potential risk of personal injury claims and environmental damage from vessel incidents, it is anticipated that the scale of operations is far more manageable than those encountered at a large cruise terminal with homeported vessels such as Black Falcon in Boston. Most of the liability for such claims would be borne by the cruise vessel operators but there is some risk of the Salem Pier becoming involved in potential litigation due to its landlord status.

Occasional conflicts between maritime supply boat operations with passenger vessel and passenger foot traffic will be a concern for both safety and security reasons, but is seen to be manageable with the pier and site layout.

4.3.8. Projected Performance – Facility Revenue Generation

Market Size: The primary market is for occasional visits between May and October. There is no identified year round commercial market for coastal cruise vessels at this time

The concern for meeting the demand of this cruise ship market will be the establishment of a competitive market rate that is competitive with nearby ports, and encourages and retains such usage as well as provides the needed upland support facilities. This would include providing terminal and pier side amenities as may be required.

The market size for ship visits and development of revenue projections was based on the following:

Year:	2010	Coastal Cruise Ships	4 vessels
	2015	Coastal Cruise Ships	16 vessels
		Medium Cruise Ship	1 vessel
	2020	Coastal Cruise Ships	24 vessels
		Medium Cruise Ship	2 vessels
	2025	Coastal Cruise Ships	24 vessels
		Medium Cruise Ship	3 vessels

4.3.9. Comparative Market Review: An investigation of comparable cruise ship berthing operations was made. Direct comparisons of commercial berthing for cruise ships were found to be limited and therefore a comparison of other commercial vessels of similar size and services needs was included. A summary of the findings are as follows:

- **Fall River State Pier**
 - Passenger Vessels - \$225 / day - \$900 / mo 100 ft vessel
 - Coastal Cruise Vessels - \$225 / day
 - Medium size vessels \$500 / day
- **Boston – assuming 100 ft vessel**
 - Downtown #1 commuter - \$33,000 /mth
 - Downtown #2 commuter / excursion - \$6,700 / mth –w/ upland
 - Downtown #3 excursion - \$3,000 / mth – 5 mth season
 - Downtown #4 excursion - \$5,500 / mth – 6 mth season
 - Downtown #5 limited excursion - \$4,500 / mth – 6 mth season
 - Excursion - Several locations asking \$35-40 /ft-mth
- **Gloucester**
 - Casino - \$60,000 / yr
 - Whale Watch #1 - \$14,000 / season plus \$30 /mth/prk space
 - Whale Watch #2 - \$16,000 / season
 - Historic Rate \$24,000 /yr – 100 ft vessel

- **Oak Bluffs Town Landing**
 - Passenger Vessel #1 - \$225 / ft season
 - Passenger Vessel #2 - \$175 / ft season (more limited schedule)
 - Large cruise vessels (>2000 people) - \$3,000 / ship (12-15 /yr)
- **Salem –**
 - Coastal Cruise Vessel \$500 / ship

4.3.10. Recommended Revenue

Currently the offshore supply vessel is paying \$2,000 per month at the Salem pier utilizing the current facility infrastructure with no office or fixed pier and limited other services. When considering alternative commercial berthing rates, it is recommended that the following rates be considered for the facility:

Coastal Cruise Vessels

- Daily Rate \$ 500 - \$1,000 /ship

Medium Cruise Ships

- Daily Rate \$2,000 - 3,000 /ship

These rates are assumed to increase with time at about 5% per year. the peak season.

4.4. Visiting Vessels

Hosting visiting vessels, especially if part of a schooner race or Tall Ships festival, can be a spectacular event, attracting a diverse crowd that might not otherwise come to a port, and bringing positive publicity to the port and host community. Direct revenues from the vessels are not generated for a port or city by these events. In fact there may be costs. Revenues can be made by associated activities; establishing an area for vendors and charging for licenses to participate is one example. Area retail shops, restaurants, museums, and other activities may benefit economically from the influx of people.

4.4.1. Historic Vessels and Tall Ships

Historic and non-naval military vessels are owned or supported by a variety of organizations – governmental, non-profit, educational, and commercial, which must be contacted individually about a possible visit. There are many Web sites that list visiting vessels and the information that communities will need to know to determine the feasibility of a visit to their port (see Appendix B). There are also organizations, such as the American Sail Training Association (ASTA), which, in addition to marketing their member vessels through such means as maintaining a list of the vessels on its Web site, also provides other services with regard to vessel visits.

In the case of ASTA, the information its Web site (<http://tallships.sailtraining.org>) provides on member vessels includes their support organizations and the Web sites for these support organizations. These member Web sites, in turn, generally provide detailed information on vessel dimensions, their season schedules, and their homeport. Such service is part of and supports ASTA's broader mission, which, in its own words, is to organize races and rallies to bring together sail training ships and crews with communities throughout North America. Each year ASTA organizes race events in a series of ports along a given coast – Atlantic or Pacific. Two years in advance of a race, ASTA will contract with each participating port; for each such port, per its contract, it will help in permitting, securing Coast Guard

services, and promoting the event; it will also serve as contact for vessels which wish to participate. Vessels typically sign on for a whole series. Ports may use the help of such an association in coordinating a race or other event of visiting vessels.

Like ASTA's use of races, communities and vessel support organizations frequently invite visiting vessels as part of an event, whether a race, Tall Ships or other type of maritime festival. Vessels visiting for an event in one port may also visit nearby ports; for example, two vessels which participated in Tall Ships Rhode® Island 2007 in Newport made visits in Boston Harbor during the same period. There is often coordination among organizations:

This points' up the importance to a port community, which is interested in hosting a visiting vessel event, of checking the schedules of visiting ships before contacting them to determine their availability and possible opportunities to coordinate with visits they may be making in its area. The American Sail Training Association's (ASTA) next Atlantic Coast races and other events (collectively known as the Tall Ships Atlantic Challenge® Race) is in 2009 as is the next major tall ships event organized by Sail Boston Inc. that takes place in Boston Harbor (July 8-13; 2009; see <http://www.sailboston.com/index.html>).

4.4.2. Military Vessels

Destroyers, frigates, cruisers, and amphibious vessels of the U.S. or a foreign Navy are available to make calls at communities. Arranging a visit of a naval vessel is a relatively simpler process than arranging for a visit of an historic vessel or military vessel that is owned by an organization other than a navy. All requests for visits are made to one party, the Commander in Chief of the U.S. Atlantic Fleet in Norfolk VA, and there is one source representing the Commander and coordinating naval vessel visits in the Massachusetts area; currently this latter is Scott Cavanaugh. According to Mr. Cavanaugh, requests for a visit must come from the key official(s) of a community and must be made in writing. Every attempt is made to honor requests – the example of community requests from the state of Maine this past year was cited, of which five out of six were honored -- but a positive response will depend on the world situation. Multiple requests per year may be made, as they have been, for example, by the City of Gloucester, which hosts ship events twice a year, and these usually (though not always) have been approved. Visits can be made at any time of year if a vessel will be docked pier-side; if the visiting vessel is to be anchored in a harbor, visits must take place in the summer. A community dictates the duration of the stay. There is neither a charge for a vessel visit nor for tours of a visiting vessel. Community sites must be of sufficient size to accommodate the visiting vessel; while navy vessels have an average length of 700 F and their drafts range from 36-39 F, there are smaller vessels requiring lesser draft. See Appendix for available visiting navy and other military vessels less than 300 F long and 20 F in draft that could be accommodated at the Salem Port Expansion project site. Provisioning of the vessel is handled by the ship agent.

As a security measure, a pier where the naval vessel is to be docked will be swept for bombs prior to a vessel's visit; a community may be asked to have their local police provide for the protection of the swept site until the ship arrives. Arranging a call of a military vessel not under the jurisdiction of a navy (U.S. or foreign) is covered below along with historic vessels. Prospective sites are now assessed more carefully in light of evolving homeland security prerequisites. Safety zones around pier berth may be required and can impede navigation locally.

4.4.3. Port Responsibilities and Visiting Vessel Costs and Earnings

Some historic vessels may be happy to come and have no fee. Others may charge from \$2000 - 10,000 for a visit to a port. To defray these and other maritime event costs, Ports often seek sponsors.

While open houses on vessels at no cost are said to be normal, vessels may charge admission, unless a port pays a vessel for a visit. Even when not charging for tours, vessels may charge for taking passengers out for a casual sail or allowing guests onboard during a race. They may also sell memorabilia or rent its space for use for receptions at the end of a day, as is frequently done, and retain the earnings from these activities. Sponsors of receptions are responsible for covering the costs of catering as well as rent.

Ports are responsible for providing for pilotage, if needed, utilities, pumpouts, certified waste disposal that is required for foreign vessels, and security. These services may be provided by the host

4.4.4. Competitive Position

The proposed Salem Port Project is well situated to attract visiting vessels with its unique historical history and visitor attractions including the House of the Seven Gables, the Peabody Essex Museum, Salem National Marine Heritage Area and the Witch Museum.

Demographically, Salem supports a large catchment area for summer and shoulder season users. The potential for linking periodic visiting cruise vessels with ferry and excursion vessel passengers adds to the cumulative total market potential.

4.4.5. Operating Procedures

The following are the primary operational processes and procedures that would be undertaken at the Salem Port Project for other scheduled passenger vessel excursion and whale watch operations:

- Embarkation and disembarkation of passengers – limited numbers
- Receipt of provisions as well as marine stores, fuel, and equipment – particularly necessary for homeported vessels
- Disposal of trash
- Security services
- Dockside utilities including water, power and pumpout.

Berthing management would most likely be done privately by the resident Salem Pier management. In the event of multiple visiting, excursion and ferry vessels combined with dedicated space for small cruise vessels, it is anticipated that there will be a future need for both dedicated layover berthing and managed short term berth for passenger loading and off-loading of the vessels.

The proposed accessible floating pier on the west face of the Salem Pier will offer preferable berthing sites for the smaller visiting vessels due to their lower freeboards, while the “t” end of the pier would be suitable for the larger vessels (up to 300 feet).. However, it should be noted that the outshore face is more likely to be available for day or multi-day visits, sine it is less likely to conflict with other scheduled ferry, excursion and supply boat berthing needs. The floating docks would likely need to be shared with the ferry and small cruise vessels. That would require careful scheduling by the pier management.

4.4.6. Infrastructure Needs

Visiting vessels will need to operate around existing facilities uses. Since the Salem Ferry is owned by the City of Salem, it is assumed that the vessel will continue to occupy one seasonal layover berth at the expanded pier, and have a priority for a portion of the upland parking versus uses by excursion or other passenger vessels. The key capital equipment and resource needs for passenger vessel operations include the following:

- For smaller vessels, a floating pier with removable boarding ramp designed to accommodate all vessels with a low freeboard that would benefit from a fixed four to five foot draft float – compliant with federal and state regulations requiring disabled persons access for excursion vessels. This would be consistent with passenger ferry and excursion vessel operational needs.
- Pier side utilities and support services to provide provisioning as may be required. This would be consistent with proposed ferry and excursion vessel requirements.
- Parking availability on site or near the site for public visitation events.
- Visitor access pathways to allow the public to gain access.

4.4.7. Liability Issues

Liability and security needs are relatively minimal, and largely borne by the operators. As with any vessel, the operators will be responsible for a US Coast Guard approved security plan, if required, to be coordinated with an approved public access facility security plan for the docks as the responsibility of the Salem Pier as the landlord. Passenger personal injury or property damage/loss liability concerns are largely the responsibility of the vessel operator. Legal requirements for disabled person's access will be provided as integral to the floating pier design. Watersheet management guidelines would need to be established and monitored by the City to assure vessel safety and appropriate use of shared fairways between the new floating dock, Hawthorne Cove Marina and, to a limited degree, Dominion Power operations.

4.4.8. Projected Performance – Facility Revenue Generation

As indicated above, there is generally not an opportunity for direct revenue generation from visiting vessels, and in some cases costs may be incurred. Although military vessels do not charge, other vessels including tall ships and historic vessels may have a fee associated with port calls.

4.5. **Transient Vessels**

4.5.1. Description of the Business

The transient vessel market under this section is typically one of convenience and opportunity and represents a specific market that the City should seek out as it represents users that require minimal upland support. These users may or may not be commercial maritime users but would be a revenue opportunity for the City using the infrastructure in place with would require no additional investment.

In the long term, the space for non-commercial transient berthing may become restricted due to other commercial maritime use demands on the facility. Given that the project is in a Designated Port Area, commercial uses will have priority over non-commercial uses.

4.5.2. Competitive Positioning

The market being served is one of convenience and opportunity but also the ability to accommodate the vessel sizes seeking these services. It is anticipated that the facility should seek to limit services to the large yacht and mega-yacht markets which can not be accommodated with slips at the private marinas in the area. As such, the port facility will be the primary site within Salem Sound for this market.

4.5.3. Operating Procedures

Operating procedures would be similar to other commercial users. The upland demands for parking and other services will be limited. It is anticipated that these users would require power, water, sewer pumpout, fuel and provisioning. The use would be seasonal and anticipated to be limited to the May to October time frame.

The location for berthing would be based on opportunity but could include the inner embayment area not being used by lobster vessels which is anticipated to be several hundred feet of berthing. The outshore face of the fixed pier would also be available the mega-yachts that may be over 100 feet in length.

Potential users would coordinate usage with the facility manager in terms of reservations and scheduling.

4.5.4. Capital Infrastructure and Resource Needs

No additional infrastructure or resources would be developed due to the infrastructure already in place.

4.5.5. Liability issues

Liability issues would be the same as for the passenger vessels identified above.

4.5.6. Projected Performance – Facility Revenue Generation

Market Size

The market size is limited and the ability to predict actual usage should not be counted on to provide significant revenue. For the basis of overall revenue prediction, the following was assumed based on a typical 100 vessel length:

Year:	2010	40 days
	2015	60 days
	2020	80 days
	2025	100 days

4.5.7. Comparative Market Review – Transient Berthing

The market is current growing and there is a lack of facilities to handle 100 foot plus yachts. The ability to provide this service to yachts allows an alternative destination to these users who are typically not cost sensitive. The size of the vessels results in their upland needs for services to be limited to water, sewer, and power and not typically for showers, laundry facilities, etc. As such, this would be ideal for this marine facility. An operator in Boston was able to achieve over a \$100,000 in revenue last year providing this type of service. Typical rates found include the following

Marina Operator:	\$3.50 - \$4.00 /ft per night Plus services (\$45/day typ)
Hinckley Yachts, Portsmouth, RI:	\$4.75 /ft per night \$60 / ft per month Includes services
<u>Typical for smaller vessels (<65 feet)</u>	
Tucker's Wharf, Marblehead, MA	\$3.50 /ft per day with elec.
Pickering Wharf, Salem, MA	\$150 /ft per month
Hawthorne Cove Marina, Salem, MA	\$2.00 /ft per day
Beverly Harbor Center, MA	\$2.00 /ft per day

4.5.8. Recommended Revenue

When considering the alternative yacht transient berthing rates, it is recommended that the following rates be considered for the facility and would not include any services:

Transient Vessels – assume 100 ft vessel length

- Daily Rate \$ 400 /day (\$4.00/ft)
- Monthly Rate \$ 60 to \$100 / ft per month

Vessel services are presumed to be in addition to the above and would be equal to the cost of such services for the purposes of this analysis.

These rates are assumed to increase with time at about 5% per year. It is also recognized that the rates for a vessel which utilizes the facility year round may want to be less vessels that only operate a portion of the year and only during the peak season.

5. COMMERCIAL VESSELS

5.1. Offshore Supply Vessel

5.1.1. Description of the Business

Currently an offshore LNG mooring exists for the discharge of natural gas into the New England natural gas distribution system. An element of that facility, known as the Northeast Gateway Project, is the supporting offshore supply vessel that is required to be on standby throughout the period of vessel mooring. This vessel, along with its supporting services to the LNG vessel, requires a base of operations with upland support for transfer of crews, equipment and provisions.

5.1.2. Competitive Positioning

The proposed Salem Port Project is well situated to commercial vessels due to its size and amenities. The opportunity to provide year round berthing to the existing offshore supply vessel is a major benefit to the facility's overall operation. The ability to retain this market will be based on negotiation and maintaining competitive rates and services.

The benefit for the Salem Port Project is its location and the providing of a protected berth with the necessary upland support services. However, it should be noted that similar services could be found in Boston, Gloucester and, to some degree, Lynn. These alternate sites are not as desirable in terms of distance for LNG

mooring site, level of storm protection and/or level of shore side amenities but could be alternatives if vessel berthing rates are not competitive.

Other commercial users are anticipated to be irregular and not predictable and would consist of such things as layover berthing, material or product transfers (marine contractors) or vessel maintenance requiring heavy equipment replacement with pier-side crane capabilities.

5.1.3. Operating Procedures

The following are the primary operational processes and procedures that would be undertaken at the Salem Port Project for commercial vessel operations:

- Embarkation and disembarkation of crews
- Receipt of provisions as well as marine equipment, stores, fuel, and equipment
- Disposal of trash
- Security services
- Provision of parking and shuttle services for personnel and crews
- Routine vessel maintenance and repair
- Dockside utilities including power, water and pumpout

The vessels under consideration would likely operate with crews of 3 per vessel, with additional management of 3 to 5 people. Operating periods would be year round but with higher activity levels seasonally in fall through the winter due to greater frequency of ship visits. Operating hours would be 24 hours per day during LNG activity at offshore mooring.

Berthing management would most likely be done privately by the resident Salem Port Project management. It is anticipated that there will be a future need for both dedicated layover berthing and managed short term berthing for other commercial vessels.

The proposed floating pier is located on the east face of the Salem Pier which will offer a preferable berthing location for commercial vessels due to their lower freeboards, with the needed direct terminal access. This allows for a separation of passenger vessel activities from the commercial vessel operations.

The floating dock on the west side of the fixed pier, although used primarily for the passenger vessel activities, may also be utilized for some commercial vessel berthing, particularly during the late fall, winter and spring seasons..

5.1.4. Infrastructure and Resource Needs

The key capital infrastructure and resource needs for commercial vessel operations include the following:

- A new floating pier with removable boarding ramp designed to accommodate all vessels with a low freeboard that would benefit from a fixed four foot float.
- An associated office and storage area adjacent to the floating pier.
- Limited area for parking to support office and vessel activities
- Equipment and supply storage needs could be accommodated.
- Utilities for the vessel including power, water, sewer pumpout and fueling access
- Vessel accessibility for provisioning and removal and storage of trash

- Sufficient pier capabilities to allow for pier-side equipment/material transfers to/from vessel (10 ton crane)

5.1.5. Liability issues

Vessel liability and security needs are relatively minimal, and largely borne by the operators. As with any commercial operation, the operators will be responsible for a US Coast Guard approved security plan, to be coordinated with an approved public access facility security plan for the docks. Personal injury or property damage/loss liability concerns are largely the responsibility of the commercial vessel operations. Watersheet management guidelines would need to be established and monitored by the City to assure vessel safety and appropriate use of shared fairways between the new floating dock, Hawthorne Cove Marina and, to a limited degree, Dominion Power operations. Any potential conflicts between passenger ferry and commercial vessel operations will need to be monitored and managed by the Salem Port management entity

5.1.6. Projected Performance – Facility Revenue Generation

Market Size: The primary market is the existing offshore supply vessel that is supporting the offshore LNG mooring. At this time it is understood that a vessel must stay on-station at all times during product transfers as well as the availability of a backup vessel in a nearby port. There are no other identified year round commercial berthing markets at this time and there is no history for demand for year round berthing.

The concern for meeting the demand of this market will be the establishment of competitive market rates for land and waterside facilities that retains this current usage as well as provision of appropriate facilities to support this usage. This would include the dedicated berthing space: the upland office space, material storage, parking; and pier side amenities are including the ability of vessel loading by crane.

5.1.7. Comparative Market Review: An investigation of comparable commercial vessel berthing operations was made. Direct comparison of commercial berthing for offshore supply vessels was limited and comparison of other commercial vessels was made that would be the same size and need the same services. A summary of the findings are as follows:

- MA Marine Contractor #1- \$500 /day
- MA Marine Contractor #2 - \$300-\$500 /day
- **Portland, ME -**
 - Transient - \$1.50/ft-day (\$150 /day for 100 ft vessel)
 - Pier face \$1,000 - \$2,000 /mth – 100 ft vessel
- **New Bedford State Pier –**
 - < 100 ft - \$100 /day; > 100 ft - \$150 /day
 - > 200 ft - \$600 /day
 - Has Wharfage charges
 - Utilities – Water min \$50 / \$1.50 /ton / Elec - \$150 /day
- **Fall River State Pier –**
 - \$5.50 per foot per month
- **Salem – Offshore Supply Vessel - \$2,000 /mth**

- **Oak Bluffs – Mail Boat** - \$8,000 /yr – no layover
- **Fall River State Pier**
 - Passenger Vessels - \$225 / day - \$900 / mo 100 ft vessel
 - Cruise Vessels - \$225 / day
 - Medium size vessels \$500 / day
- **Boston – assuming 100 ft vessel**
 - Downtown #1 commuter - \$33,000 /mth
 - Downtown #2 commuter / excursion - \$6,700 / mth –w/ upland
 - Downtown #3 excursion - \$3,000 / mth – 5 mth season
 - Downtown #4 excursion - \$5,500 / mth – 6 mth season
 - Downtown #5 limited excursion - \$4,500 / mth – 6 mth season
 - Excursion - Several locations asking \$35-40 /ft-mth
- **Gloucester**
 - Casino - \$60,000 / yr
 - Whale Watch #1 - \$14,000 / season plus \$30 /mth/prk space
 - Whale Watch #2 - \$16,000 / season
 - Historic Rate \$24,000 /yr – 100 ft vessel
- **Oak Bluffs Town Landing**
 - Passenger Vessel #1 - \$225 / ft season
 - Passenger Vessel #2 - \$175 / ft season (more limited schedule)
 - Large cruise vessels (>2000 people) - \$3,000 / ship (12-15 /yr)

5.1.8. Recommended Revenue

Currently the offshore vessel is paying \$2000 per month based on the current facility infrastructure with no office or fixed pier and limited other services. When considering alternative commercial berthing rates and potential competing uses at the Salem Pier, it is recommended that the following rates be considered for the facility:

Commercial – assume 100 ft vessels

- Yearly Rate \$3,000-\$4,000 /mth
- Monthly Rate \$4,000 - \$6,000 /mth
- Daily Rate \$ 500/day

These rates are assumed to increase with time at about 5% per year. It is also recognized that the rates for a vessel which utilizes the facility year round may want to be less vessels that only operate a portion of the year and only during the peak season.

5.2. **Other Commercial Vessels**

5.2.1. Description of the Business

The market under this section is typically one of convenience and opportunity and does not represent a specific business or operation that the City should seek out. However, where future opportunities for offshore supply vessel berthing becomes apparent to support offshore operations whether LNG moorings, wind farms,

marine construction support or other maritime uses that are year round, the City should aggressively market the Salem Port Project.

Other markets may be marine construction projects including offshore buried utilities including gas and power lines that need substantial landside support.

5.2.2. Competitive Positioning

The market being served is one of convenience and opportunity which would include marine contractors and other commercial vessel operators that need shore side support on a limited, as available basis.

5.2.3. Operating Procedures

Operating procedures would be the same as for the offshore supply vessel as indicated above with a heavier emphasis on use of the south pier face for transfer of equipment, and secondary use of available floating berths for smaller vessels.

5.2.4. Capital Infrastructure and Resource Needs

No additional infrastructure or resources would be developed due to the small market size, and availability of dock space.

5.2.5. Liability issues

Liability issues would be the same as for the offshore supply vessel identified above.

5.2.6. Projected Performance – Facility Revenue Generation

Market Size

The market size is limited and the ability to predict actual usage should not be counted on to provide significant revenue. For the basis of overall revenue prediction, the following was assumed:

Year:	2010	Day Rate:	2 vessels
	2015	Day Rate:	10 vessels
	2020	Day Rate:	18 vessels
		Annual	1 vessel
	2025	Day Rate:	24 vessels
		Annual	1 vessel

5.2.7. Comparative Market Review

The market review is the same as presented for the offshore supply vessel as presented above.

5.2.8. Recommended Revenue

When considering alternative commercial berthing rates, it is recommended that the following rates be considered for the facility:

Commercial – assume 100 ft vessels

- Yearly Rate \$3,000 - \$4,000 /mth
- Monthly Rate \$4,000 - \$6,000 /mth
- Daily Rate \$ 500/day

These rates are assumed to increase with time at about 5% per year. It is also recognized that the rates for a vessel which utilizes the facility year round may want to be less vessels that only operate a portion of the year and only during the peak season.

5.3. Fishing/Lobster Vessels

5.3.1. Description of the Business

Commercial lobster fishing is Massachusetts' most economically significant fishery conducted within state waters. Massachusetts' landings of lobster from all waters, territorial and non-territorial, at 10.9 million pounds, was valued at \$52.4 million dollars in 2006, 11% higher than 2005, making the state the second leading producer in the country, after Maine. Maine and Massachusetts combined produced 90% of US landings.

Within Massachusetts, Essex County, in which Salem is located, retained its position in 2005 as first in the state in number of pounds of lobster landed and in number of active fisherman.

In Salem Sound and the North Shore area, there is a shortage of year-round commercial fishing dockage space that is of a good price and safe in terms of protection from winter storms

5.3.2. Competitive Positioning

In Salem, itself, there are two facilities that have permanent berthing space for commercial fishing vessels, Winter Island, which is public, and Pickering Wharf Marina, which is private. At Winter Island, there is a pier, but it is unused for permanent berthing because of exposure to winter storms. At Pickering Wharf Marina, there is space buffered from winter storms; the space includes a 500-F wharf, 10 slips at 39 F each (accommodating boats on two sides), and 3 docks with a total length of 130 F. Slots are allocated on a 1st-come, 1st -serve basis. Fees for the summer are \$150/F/6-months (May –October) and \$51/F for the winter 6-months November through April. With this rate structure, pleasure craft generally fill the facility in the summer season, though one lobster vessel used the facility this past summer. Generally six+/- lobster vessels use it in the winter season; currently there are 11 lobster vessels at the facility.

The Dock Master believes that demand for commercial lobster dockage is stronger than the supply, but could not say whether any requests for dockage at his facility in the winter season had not been met. He said the facility is generally full year-round though in the winter, there are fewer vessels, as larger pleasure craft tend to use the facility at this time of year; commercial sight-seeing vessels also use the facility.

Other than Hawthorne Cove, which does not accommodate commercial vessels, Winter Island is the only facility in Salem with available mooring space with good access and depths; however, weather exposure is an issue in this location; moorings here are a flat \$500/yr and services are good. There are currently two lobster boats moored at Winter Island.

With regard to potential new commercial lobster fishing space, a dredging project is proposed at an existing pier elsewhere in Salem in the vicinity of the new Beverly-Salem Bridge. The project is for a private facility that would accommodate 4-6 lobster vessels and would provide protection for these vessels from winter storms. The status of the project is unknown, but there are significant obstacles to it going

forward, including conflict with existing plans for a park for the neighborhood. The existing park plans represent mitigation for the bridge construction project and would require City Council approval to change; there is also neighborhood objection to the change.

Nearby Marblehead has no slips; moorings have weather exposure and the wait at 12-15 years is long; however, commercial vessels of residents may be given preference, and dockage fees are quite low at \$3.50/F/yr, less than those for recreational boats; services include a conveyor for loading and off-loading lobster catch at the State St. Landing. According to Harbor Master's office records, dated 12/2007, there were mooring permits for 29 lobster boats in Marblehead. In the winter, some vessels are taken out of the water, some relocate to Gloucester, Beverly, and Pickering Wharf in Salem.

Beverly, the leading producer in lobster landings in Salem Sound and among the top ten statewide in all of the criteria ranked by the Massachusetts Division of Marine Fisheries has what is considered by some the premium public commercial berthing space for the area at the public Beverly Harbor Center (BHC). Its fees and services reflect those of the Jodrey State Pier in Gloucester, which the Facilities Manager for the Harbor Center considered the model in the area for commercial dockage. Gloucester, as previously noted, is the top lobster producer in the state. Dockage fees for commercial vessels at BHC are \$76/F/yr. Dockage is protected from winter storms. Services include a hoist for loading/unloading, electricity, fuel and bait delivery, but no haul-out or launch. The facility has 17 commercial slip spaces; while one is currently available; there is a waiting list of 6-10, demand is said to have been less in the past.

5.3.3. Operating Procedures

The following are the primary operational processes and procedures that would be undertaken at the Salem Port Project for commercial vessel operations:

- Embarkation and disembarkation of lobstermen and product
- Receipt of provisions including bait as well as marine equipment, stores, fuel, and equipment
- Disposal of trash
- Provision of parking for crews
- Routine vessel maintenance and repair
- Dockside utilities including power, water and pumpout

The vessels under consideration would likely operate with crew of 2 per vessel. Operating periods would be year-round but with generally higher activity seasonally in summer and fall. Operating hours would typically be early morning to early afternoon.

Berthing management would most likely be done privately by the resident Salem Port Project management. Berthing assignments are anticipated to be by first-come first-served with a priority to Salem based lobstermen. It is anticipated that the number of protected berths will be less than the total available and result in some loss of vessels during the winter season. The proposed floating docks would be located within the embayment which would provide for the protective year round berth. The pier face would be available for short term berthing and for transfer of heavy gear by crane or jib-boom.

5.3.4. Infrastructure and Resource Needs

The key capital infrastructure and resource needs for commercial fishing vessel operations include the following:

- A new floating dock system pier with direct access to landside for equipment and product transfer
- Berth siting to provide year round protection from storms
- Limited area for daily parking
- Utilities for vessels including power, water and sewer pumpout
- Vessel accessibility for provisioning and removal and storage of trash
- Equipment and supply storage needs could be accommodated seasonally in fall winter spring
- Sufficient pier capabilities to allow for pier-side equipment/material transfers to/from vessel

5.3.5. Liability issues

Vessel liability and security needs are relatively minimal, and largely borne by the operators. As with any commercial operation, the operators will be responsible for a US Coast Guard as to vessel certifications.

Personal injury or property damage/loss liability concerns are largely the responsibility of the commercial vessel operations. Watersheet management guidelines would need to be established and monitored by the City to assure vessel safety and appropriate use of shared fairways between the new floating dock, Hawthorne Cove Marina and, to a limited degree, Dominion Power operations.

5.3.6. Projected Performance – Facility Revenue Generation

Market Size: Based on the research performed, there is a strong market potential for year round lobster vessel berthing with an anticipated market of 20 plus vessels provided that fees are competitive and that the berths are fully protected from winter storms. The preferred alternative provides for approximately 17 protected berths

The concern for meeting the demand of this market will be the upland constraints that the project site has and the limited year round parking and other support that a full commercial fishing vessel berthing operation should have. These services would typically include such things as bait storage, product handling, pier side support area, seasonal trap storage and sufficient area for parking and truck loading area. These amenities may be obtainable in the future if adjacent land ever becomes available but sufficient land area is not available at the present time.

5.3.7. Comparative Market Review: An investigation of comparable lobster vessel berthing operations was made and a summary of the findings are as follows:

- **Salem**
 - Pickering Wharf -
 - Summer - \$150 /ft
 - Winter - \$51/ft
 - Winter Island
 - Summer - \$500 /yr (not suitable during winter)

- **Marblehead**
 - Marblehead Harbor Mooring - \$3.50 /ft (not suitable during winter)
- **Beverly**
 - Beverly Harbor Center - \$76 /ft for year
- **Gloucester**
 - Jodrey Pier - \$79.20 /ft for year
- **Winthrop**
 - Town Commercial Dock (new) \$85.00 /ft

5.3.8. Recommended Revenue

Currently lobster vessels are paying as much as \$200/ft per year when considering both winter and summer berthing. Based on a review of these, it is recommended that the following rates be considered for the facility:

- Winter: \$50.00 /ft 17 slips – limit of safe berths
- Summer \$75.00 /ft 8 slips – limit due to parking

These rates are assumed to increase with time at about 5% per year.

6. UPLAND MARKETS AND OPPORTUNITES

6.1. Office/Storage

6.1.1. Description of the Business

The city intends to have a terminal building associated with the Salem Port project that would provide public restrooms, ticketing and a protected waiting area. In addition to these functions, the City seeks to provide office and storage space, for lease, to the offshore supply vessel, Salem Ferry and excursion vessels to help offset the cost and operation of the building. In addition there may be some limited off-season opportunities for leasing of the public waiting area as a function space. The waiting area might also be made available in the off-season for community meetings that probably would not produce any income.

6.1.2. Competitive Positioning

The unique location of the office and storage to the marine facility provides a strong competitive position over other potential sites. The ability of the vessel operator to have a physical presence at the site to view the vessel(s) directly as well as the comings and goings of vessel activity is a significant benefit that can not be matched

6.1.3. Operating Procedures

The following are the primary operational processes and procedures that would be undertaken at the Salem Port Project for office and storage operations:

- Normal office operations including phone/data/high speed internet access
- Direct visual access to pier for monitoring vessel and conditions
- Ticketing for ferry and excursion vessels
- Secure area for money handling and management
- Crew swapping for LNG vessel
- Receipt of provisions as well as marine equipment, stores and equipment

- Storage and transfer of heavy items by fork lift or small crane (10 ton)
- Parking for office personnel
- Waiting area for crews

6.1.4. Infrastructure and Resource Needs

The key capital infrastructure and resource needs for office and storage building include the following:

- Protected public waiting area
- Public restrooms
- Water, sewer and power for building requirements
- Elevator for second floor access to meet ADA requirements
- Separate office and storage area from public area
- Trash dumpster suitable for all site users
- Parking for office personnel

6.1.5. Liability issues

Office and storage liability and security needs are relatively minimal and largely borne by the operators. The building public areas will need to have personal injury and property damage/loss insurance to protect the City from claims.

6.1.6. Projected Performance – Facility Revenue Generation

Market Size: The market size will be limited to the space negotiated the water dependant commercial users seeking office and storage space. The limited upland will restrict the total office and storage areas to those that can be incorporated into the proposed 10,000 square foot building and also provide public restrooms and an inside, weather protected, terminal waiting area. Based on interviews with the offshore supply vessel and Salem ferry operators, the following has been identified as the desirable office and storage areas:

	<u>Office</u>	<u>Storage</u>
Offshore Supply Vessel	2,700 sf	2,000 sf
Salem Ferry	750 sf	1,000 sf
Function Space	1,500 sf	

6.1.7. Comparative Market Review

An assessment of office and storage space for rent/lease was made in the Salem and Peabody market area. Exhibit 6-1 provides a summary of the investigation and was used as the basis for determination of what would be considered as market rates. Typical rates for office space would be between \$13 and \$18 per square foot with about \$3.00 per square foot attributed to taxes. Storage space was found to be more variable with rates between \$4 and \$16 per square foot, however there is a good demand for space in the 1,000 to 2,000 square foot range and the rates are typically \$10 to \$12 per square foot. Factors needing to be included in final rate determinations is common area maintenance fees associated with building and the site as well as factors associated with tax and insurance increases (if applicable).

EXHIBIT 6-1 Comparative Market Review

Address	City/Town	Space Available (in square feet)	Type of Space	Lease Rate	Lease Type	Listed by
Industrial and Warehouse Space						
119R Foster Street	Peabody	6,000	Creative/Loft	\$5.00		Carney & Company
58 Pulaski Street	Peabody	1,000	Industrial/Warehouse	\$7.50		RCG
58 Pulaski Street	Peabody	4,000	Industrial/Warehouse	\$4.50		RCG
58 Pulaski Street	Peabody	11,000	Industrial/Warehouse	\$10.00		RCG
58 Pulaski Street	Peabody	1,000	Industrial/Warehouse	\$4.50		RCG
Summit Industrial Park (Summit Street)	Peabody	30,000	Industrial/Warehouse	\$6.00		True Associates
63 Grove Street	Salem	15,000	Warehouse	\$6.95	Modified Net	The Drumlin Group
Office Space						
2 Front Street	Salem	1,420	Office	\$13.01		Goldberg Properties Management
214 Derby Street	Salem	1,100	Office	\$13.09	Tenant pays utilities	The Drumlin Group
125 Washington Street	Salem	300 to 3,500	Office	\$16.00	Gross (incl. utilities)	The Drumlin Group
76 Lafayette Street	Salem	275	Office	\$13.75	Gross (incl. utilities taxes)	RCG
77 Lafayette Street	Salem	1,000	Office	\$14.40	Gross (incl. utilities taxes)	RCG
78 Lafayette Street	Salem	1,650	Office	\$14.55	Gross (incl. utilities taxes)	RCG
209 Essex Street	Salem	6,500	Office	\$15.00	Tenant pays utilities	The Drumlin Group
84 Newbury Street	Peabody	36,000	Office Class A	\$15.00		Associated Brokerage Group
39 Cross Street	Peabody	1,061	Medical/Office	\$18.00		Hillcrest Properties
83 Pine Street	Peabody	10,750	Office/Institutional	\$8.00		The Drumlin Group
Shetland Park						
Shetland Park - Office	Salem	300 to 20,000	Office	\$14.00 to \$17.00	Modified Gross	Shetland Properties
Shetland Park - Industrial	Salem	300 to 200,000	Industrial	\$9.00 to \$16.00	Modified Gross	Shetland Properties
Shetland Park - Warehouse	Salem	300 to 200,000	Warehouse	Starts at \$4.00	Modified Gross	Shetland Properties

Source: LoopNet.com, Shetland Properties, The Drumlin Group, and ConsultEcon, Inc.

6.1.8. Recommended Revenue

Based on the investigation and review of office and storage markets rates, it is recommended that the following rates be considered.

Office Space \$15.00

Storage Space \$10.00

6.2. Meeting/Function Space**6.2.1. Description of the Business**

The nature of this business is provide use of the 1,200 square foot public area within the terminal building for off-season usage as a meeting or function space which would provide revenue for offsetting the maintenance costs of the building through the winter period. It is estimated that the space would comfortably accommodate up to 150 people standing or auditorium seated, or 100 people seated at tables.

6.2.2. Competitive Positioning

The site represents a unique experience on the waterfront with great views of the outer harbor which does not exist elsewhere in Salem. Its relatively small size would limit group size but could provide an intimate space for small groups.

6.2.3. Operating Procedures

In order to take advantage of this revenue opportunity, the City would need to allow or provide the following:

- A defined period where events could be booked and take place.

- A support or warming kitchen area for food preparation/setup for a caterer.
- Stored tables and chairs may be desirable if meetings are a common occurrence. Functions could provide their own setup.
- A program for scheduling events and managing events

6.2.4. Infrastructure and Resource Needs

Limited infrastructure is required and the only addition need would be the establishment of a area that could be utilized for function preparation by a caterer. This may be space vacated by the seasonal ferry operation but would need to include a kitchen area with amenities that are more then otherwise needed for the terminal building.

6.2.5. Liability issues

No additional liability exposure is anticipated for the City.

6.2.6. Projected Performance – Facility Revenue Generation

Market Size: At this time it is unclear how large the market would be for functions in the future terminal building. The market would be limited to the off-season and run from November to May to prevent its conflict with normal facility operations in the rest of the year.

6.2.7. Comparative Market Review

No comparable market review has been performed at this time for this type of usage.

6.2.8. Recommended Revenue

It is believed that the market revenue for functions in general can be lucrative but having a sufficient size area for these functions are key to booking. It is recommended that the following rates be considered for general public and for non-profit organizations:

General	\$800/event
Non-Profit	\$400/event

6.2.9. Projected Functions

Year:	2010	General Rate:	4 events
		Non-Profit Rate	4 events
	2015	General Rate:	6 events
		Non-Profit Rate	6 events
	2020	General Rate:	8 events
		Non-Profit Rate	8 events
	2025	General Rate:	12 events
		Non-Profit Rate	12 events

6.3. **Parking**

6.3.1. Description of the Business

The project site has the opportunity to obtain revenue by charging parking during the peak operational periods including weekends from June through November and week days from the first of July until Labor Day. During the off season a portion

of the area near the terminal building could be reserved for public use and an area near the lobster slips could be retained for the fishermen.

6.3.2. Competitive Positioning

It is believed that at peak periods there would still be insufficient parking for all users. Through a combination of reserved parking for terminal tenants and fishermen and charging for transient users, the limited supply can be managed and avoid peak season use by incidental vehicles. A small area of public parking near White Street could be reserved for general public parking during off peak hours to allow for neighborhood recreational use of the site. An issues that will need to be addressed includes fees for parking associated with daily commuters to Boston, which may need to be folded into the ticket price.

6.3.3. Operating Procedures

In order to take advantage of this revenue opportunity, the City would need to allow or provide the following:

- A kiosk to monitor traffic and parking within project site
- Manning or automation of the parking kiosk during identified periods for charging for parking
- Ability to provide passes to employees associated with facility tenants
- Identification of who will manage the parking will be required. It could be a site tenant or the City.

6.3.4. Infrastructure and Resource Needs

Limited infrastructure is anticipated to be required and the only addition need would be the establishment of a kiosk and/or automated ticketing gates to monitor parking and payments. Kiosk/gates will need power and data connections. Moveable control barriers may need to be considered to secure parking areas.

Identification of methods to minimize operation and management costs need to be considered including utilization of an MBTA style payment system.

6.3.5. Liability issues

No additional liability exposure is anticipated for the City.

6.3.6. Projected Performance – Facility Revenue Generation

Market Size: The market size is limited to the area that could be utilized for paid parking on-site. Parking for tenant use will like consume 20 or more spaces and the spaces available for paid parking would be approximately 125.

The number of days that parking would be charge would be as follows:

Weekends (June – October):	40 days
Weekdays (July – August)	40 days

6.3.7. Comparative Market Review: Comparative prices for providing parking in the City of Salem include:

Museum Place Garage	\$12.00 per day (12 hours)
South Harbor Garage	\$12.00 per day (12 hours)
Church Street Lot	\$12.00 per day (12 hours)
Sewall Street Lot	2 hour meters

- 6.3.8. Recommended Revenue: Based on an MBTA style payment system, a fee of \$5.00 per day is recommended. Monitoring of payment should be twice a day to cover commuter/day user as well as evening cruise/excursion users.

6.4. Public Area Concessions

6.4.1. Description of the Business

The nature of this business is the control of the Salem Port Project site assets and the charging for businesses that wish to operate within this area for picking/dropping off of passengers for tours, food and retail concessions that may operate on the site within the terminal building, or through kiosks or carts outside.

Licensing for transport modes would apply to trolleys or taxis that stand-by to offer services to arriving passenger vessels. This would not include taxi's that drop off or are called to the site by passengers. At such time as there are too many pedicab/rickshaw type conveyances, these too would be subject to licensing. While eventually as competition increases there may be opportunities for fees associated with such transport mode licenses. Initially, however, the licenses are intended as a means of traffic control and public convenience.

Licensing for sales concessions of food, beverages, and visitor goods would also be needed to control the number, type and location of such concessions. Revenue opportunities for such concessions would apply to exterior site and terminal interior locations.

6.4.2. Competitive Positioning

The site represents a controlled area which can generate a substantial amount of traffic flow throughout the day during the peak summer season. As such, it represents an exclusive environment that the City has the option to control.

6.4.3. Operating Procedures

In order to take advantage of this revenue opportunity, the City would need to allow or provide the following:

- A program for licensing of concessions which defines what falls within this category and what does not.
- A system of site management of concessions in terms of location and number to prevent impedance of passengers and other site users. This would include the establishment of limits to number and type of concessions.

6.4.4. Infrastructure and Resource Needs

Limited infrastructure is required and the only addition need would be the establishment of a kiosk/push cart stations. Licensed mobile concessions would require defined parking zones that did not compete or conflict with transit and drop-off functions. Kiosks for retail and food may need power and data connections although many are self contained.

6.4.5. Liability issues

No additional liability exposure is anticipated for the City.

6.4.6. Projected Performance – Facility Revenue Generation

Market Size: At this time it is unclear how large the market is for concessions but it is clear that trolleys and pedicabs have found that passengers from the ferry (and presumably other modes) to be a desirable market to attract business. The utilization of licensing these concessions would be to control their numbers and reduce congestion on the site as much as possible.

6.4.7. Comparative Market Review

No comparable market review has been performed at this time for this type of usage.

6.4.8. Recommended Revenue

It is believed that the market revenue is relatively small and that the fees from concessions should be relatively small with the intent to require licenses more for control of the number of concessions and not for overall revenue generation.

It is recommended that fees be assessed by the kiosk, cart or unit (pedicabs, trolley, etc.) with some effort to balance fees to usage. A common lease arrangement for push cart type concessions is to charge a percentage of revenue in the 5% to 10% range.

6.5. **Vessel Storage**

6.5.1. Description of the Business

The project site has the opportunity to utilize portions of the parking area in the off-season for vessel storage for additional revenue. This operation would be leased out competitively to a third party that would provide this service. For example, the nearby Hawthorne Cove Marina might need convenient additional upland storage for seasonal marina tenants.

6.5.2. Competitive Positioning

The use as boat storage is an opportunity that the City should consider given the proximity of Hawthorne Cove Marina. While other boat storage contractors may be interested, the cost of moving vessels by trailer to and from the site might make it less attractive.

6.5.3. Operating Procedures

In order to take advantage of this revenue opportunity, the City would need to allow or provide the following:

- Closing off approximately 12,500 square feet which represents about 25 percent of the parking area during the off-season for boat storage. The main access loop to the terminal and pier would need to remain open, and a portion of on site parking would need to be kept available.
- Allow erection of a security fence around the vessel storage area
- Provide for direct access to and from the storage site for trailers

6.5.4. Infrastructure and Resource Needs

Limited infrastructure is anticipated to be required and the only addition need would be the establishment of a security zone around the area dedicated for vessel storage. The security would be provided by removal fencing that would be the responsibility of the vessel storage contractor.

6.5.5. Liability issues

The City will need to require the vessel storage contractor to carry all insurances and have the City identified as additionally insured to protect the City from all potential claims.

6.5.6. Projected Performance – Facility Revenue Generation

Market Size: The market size is limited to the area that could be utilized for vessel storage which is currently indicated to be immediately adjacent to Hawthorne Cove Marina. The area is approximately 12,500 square feet and is anticipated to hold up to 45 vessels.

6.5.7. Comparative Market Review: Comparative prices for providing dry storage in the Salem area is about \$35 per linear foot and does not include any hauling, cleaning or movement costs.

6.5.8. Recommended Revenue: Based on incorporating direct access for heavy trailers and boat moving equipment, revenue of \$20 per linear foot is recommended. If a contractor has to move boats to/from the site over the road by trailer, this value may be less.

7. REVENUE SUMMARY

7.1. Introduction

Based on the analysis of market sizes and anticipated revenues within each market that has been presented above, a summary of the anticipated revenues has been developed. Revenues have extrapolated to identify and recognize future growth for 2011, the anticipated first year of operation, and years 2015, 2020 and 2025.

The basis for growth within each market includes a three percent per year general increase due to inflation as well as increase in activity in some developing markets.

The projections presented are not intended to establish a pricing or fee structure that would be used but rather provides an estimate of what revenues should be anticipated from each market based on comparable markets and uses.

7.2. Passenger Vessels

- 7.2.1. Passenger Ferry: The City owns a passenger ferry vessel and provides an operation between Boston and Salem through the peak summer season which is run by a private operator. The revenue generated by this operation is based on typical berthing rates for commercial/excursion/ferry vessels. Given that this is a vessel owned by the City, it would be assumed to be berthed year round and therefore pay a rate that is lower rate than seasonal operations. The vessel is a 149 passenger ferry having a 92 foot length. Based on a market rate of \$3,000 per month for a 100 foot vessel, the ferry should contribute as follows:

- Year: 2011 Revenue: \$2,750/mth \$33,000 /yr

Based on a 5 percent increase per year, the revenue for future years would be projected to be:

- Year: 2015 Revenue: \$37,142 /yr
- Year: 2020 Revenue: \$43,058 /yr
- Year: 2025 Revenue: \$49,915 /yr

- 7.2.2. Excursion Vessels: Excursion vessel revenue is based on the development of this market once the port facility has been constructed. The vessels are assumed to be 100 foot in length as a typical size. Based on the identified market, the rates would be \$500/day, \$4,000 per month seasonal rate or \$3,500 per month for annual berthing. Based on these rates, the project revenue that excursion vessels should contribute is as follows:

- Year: 2011

Daily Rate:	12 days	Revenue:	\$6,000 /yr
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Based on a 3 percent increase per year, the revenue for future years would be projected to be:

- Year: 2015

Daily Rate:	18 days	Revenue:	\$10,130 /yr
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- Year: 2020

Daily Rate:	24 days	Revenue:	\$15,657 /yr
Annual Rate:	1 vessel	Revenue:	\$54,800 /yr
- Year: 2025

Daily Rate:	24 days	Revenue:	\$18,151 /yr
Annual Rate:	1 vessel	Revenue:	\$63,529 /yr

- 7.2.3. Cruise Ships: Cruise ship revenue is based on the continued development and expansion of this market once the port facility has been constructed. The vessel revenues are based on smaller coastal cruise ships that are less than 300 feet in length and medium cruise ships that would have greater lengths and be required to moor in an anchorage area. Based on the identified market, the rates would be \$500/day for coastal cruise vessels and \$2,000 to \$3,000 per visit for medium size cruise ships and would vary based on vessel size. Based on these rates, the project revenue that cruise ships should contribute is as follows:

- Year: 2011

Calls:	4 days	Revenue:	\$ 2,000 /yr
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Based on a 3 percent increase per year, the revenue for future years would be projected to be:

- Year: 2015

Calls:	16 days	Revenue:	\$6,753 /yr
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- Year: 2020

Calls:	24 days	Revenue:	\$15,657 /yr
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- Year: 2025

Calls:	24 days	Revenue:	\$18,151 /yr
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- 7.2.4. Visiting Vessels: Visiting vessels include historic vessels, tall ships and naval and Coast Guard vessels calling at the Salem port facility. Based on investigation of this market, no revenue can be anticipated. Although such visits have a high public benefit and awareness, they do not provide revenue to port facilities. Some might even require payment by the City or sponsors prior to making a port-of-call to cover their expenses.

- 7.2.5. Transient Vessels: Revenue from transient vessels is based on opportunity to provide these users with a modern marine facility and the ability to handle the larger transient vessels that typical marinas cannot accommodate. These would include large yachts and mega-yacht markets. This market would be expected to grow as knowledge of this facility widespread. Based on the identified market, the rates would be \$4.00 /ft/day or \$400 per day for a 100 foot vessel. Based on a average 100 foot vessel, the projected revenue from transient vessels would contribute is as follows:

- Year: 2011 Calls: 40 days Revenue: \$16,000 /yr

Based on a 3 percent increase per year, the revenue for future years would be projected to be:

- Year: 2015 Calls: 60 days Revenue: \$27,012 /yr
- Year: 2020 Calls: 80 days Revenue: \$41,753 /yr
- Year: 2025 Calls: 100 days Revenue: \$60,504 /yr

7.3. Commercial Vessels

- 7.3.1. Offshore Supply Vessel: The City currently has an agreement with an offshore supply vessel that is utilized with the Northeast Gateway LNG Project. This relationship is anticipated to continue with a long term annual berthing agreement. The vessel would be berthed year-round and therefore pay a rate that is lower rate than seasonal operations. The vessel is a 130 foot offshore supply vessel and based on a market rate of \$3,000 per month for a 100 foot vessel, this commercial vessel should contribute as follows:

- Year: 2011 Revenue: \$3,900 /mth \$46,800 /yr

Based on a 3 percent increase per year, the revenue for future years would be projected to be:

- Year: 2015 Revenue: \$52,674 /yr
- Year: 2020 Revenue: \$61,063 /yr
- Year: 2025 Revenue: \$70,789 /yr

- 7.3.2. Other Commercial Vessels: While these vessels would not represent a steady or predictable market, definite interest has been expressed by various marine contractors and commercial operators to take advantage of the proposed port infrastructure. The typical size vessels are assumed to be 100 feet in length. Based on the identified market, the rates would be \$500/day, \$4,000 per month seasonal rate or \$3,500 per month for annual berthing. Based on these rates, the project revenue that excursion vessels should contribute is as follows:

- Year: 2011
Daily Rate: 2 days Revenue: \$ 1,000 /yr

Based on a 3 percent increase per year, the revenue for future years would be projected to be:

- Year: 2015
Daily Rate: 10 days Revenue: \$ 5,628 /yr
- Year: 2020
Daily Rate: 18 days Revenue: \$11,743 /yr
Annual Rate: 1 vessel Revenue: \$54,800 /yr
- Year: 2025
Daily Rate: 24 days Revenue: \$18,151 /yr
Annual Rate: 1 vessel Revenue: \$63,529 /yr

- 7.3.3. Fishing/Lobster Vessels: These vessels would utilize the embayment slips and projected full berth use is based on a continuation of reported current market conditions. . The number of berths would be limited in the summer to allow for better site utilization during this peak period by other users. Vessels were assumed to be 40 foot length on average. Based on the identified market, the rates would be \$50 per foot for winter berths and \$75.00 per foot for summer berths. Based on

these rates, the project revenue that excursion vessels should contribute is as follows:

- Year: 2011

Summer:	8 Slips	Revenue:	\$34,000 /yr
Winter	17 Slips	Revenue:	\$24,000 /yr

Based on a 3 percent increase per year, the revenue for future years would be projected to be:

- Year: 2015

Summer:	8 Slips	Revenue:	\$38,267 /yr
Winter	17 Slips	Revenue:	\$27,012 /yr
- Year: 2020

Summer:	8 Slips	Revenue:	\$44,362 /yr
Winter	17 Slips	Revenue:	\$31,315 /yr
- Year: 2025

Summer:	8 Slips	Revenue:	\$51,428 /yr
Winter	17 Slips	Revenue:	\$36,302 /yr

7.4. Upland Markets And Opportunities

- 7.4.1. Office / Storage: Construction of a new terminal building provides an opportunity for inclusion of rentable space for office and covered storage for marine tenants. The primary users would be the Salem Ferry operator and the offshore supply vessel for staffing and support. Based on market analysis, the anticipated revenue for these uses would be \$15.00 per square foot for office space and \$10.00 per square foot for storage. Based on these rates, the project revenue that excursion vessels should contribute is as follows:

- Year: 2011

Office:	3,450 sf	Revenue:	\$51,750 /yr
Storage:	3,000 sf	Revenue:	\$30,000 /yr

Based on a 3 percent increase per year, the revenue for future years would be projected to be:

- Year: 2015

Office:	3,450 sf	Revenue:	\$58,245 /yr
Storage:	3,000 sf	Revenue:	\$33,765 /yr
- Year: 2020

Office:	3,450 sf	Revenue:	\$67,522 /yr
Storage:	3,000 sf	Revenue:	\$39,143 /yr
- Year: 2025

Office:	3,450 sf	Revenue:	\$78,277 /yr
Storage:	3,000 sf	Revenue:	\$45,378 /yr

- 7.4.2. Meeting / Function Space Rental: While there are few comparables for a small waterfront rental space during the off season, estimates have been prepared for revenues from two sources: general rental rate use of the space and non-profit rate use of the space.

- Year: 2011 Revenue: \$ 5,000 /yr

Based on a 3 percent increase per year, the revenue for future years would be projected to be:

- Year: 2015 Revenue: \$ 5,628 /yr
- Year: 2020 Revenue: \$ 6,524 /yr
- Year: 2025 Revenue: \$ 7,563 /yr

- 7.4.3. Parking: It is anticipated that parking during the peak season will be in high demand and that revenue paid parking on the site could be achieved. The revenue per car would be \$5.00 per day for the 125 spots identified for paid parking. Based on an average of 50 cars per day over 80 days, the project revenue that parking should contribute is as follows:

- Year: 2011 Revenue: \$20,000 /yr

Based on a 3 percent increase per year, the revenue for future years would be projected to be:

- Year: 2015 Revenue: \$22,510 /yr
- Year: 2020 Revenue: \$26,095 /yr
- Year: 2025 Revenue: \$30,252 /yr

- 7.4.4. Public Area Concessions: No revenue has been projected for this potential use.

- 7.4.5. Vessel Storage: It is anticipated that vessel storage could be an off-season revenue source. It is anticipated that 12,500 square foot would be available for this use and that the rate would be \$20 per linear foot of vessel storage on site. It is assumed that 45 vessels at an average length of 28 feet would fit on site. Based on these assumptions, the project revenue that vessel storage should contribute is as follows:

- Year: 2011 Revenue: \$25,200 /yr

Based on a 3 percent increase per year, the revenue for future years would be projected to be:

- Year: 2015 Revenue: \$28,363 /yr
- Year: 2020 Revenue: \$32,880 /yr
- Year: 2025 Revenue: \$38,117 /yr

7.5. Revenue Summary

A summary of the revenues identified above can be seen in Exhibit 7-1 and illustrates the revenue for each primary user or market as well as the total estimate revenue for the first year of operation (2011) as well as for 2015, 2020 and 2025. Also provided is the annual financial bond amount to cover the City of Salem's portion of the capital improvements.

EXHIBIT 7-1 Summary of Project Revenues**SALEM WHARF PROJECT**

ANNUAL REVENUE	City Annual Investment	2011 1 Year	2015 5 Year	2020 10 Year	2025 15 Year
PASSENGER VESSELS					
Ferry	\$ 37,373				
- Berthing		\$ 33,000	\$ 37,142	\$ 43,058	\$ 49,915
- Office - 750 sf		\$ 11,250	\$ 12,662	\$ 14,679	\$ 17,017
- Storage - 1,000 sf		\$ 10,000	\$ 11,255	\$ 13,048	\$ 15,126
Excursion	\$ 27,231	\$ 6,000	\$ 10,130	\$ 15,657	\$ 18,151
- Vessels daily calling		12	18	24	24
- Vessel Berthing				54,800	63,529
Cruise Ships - Coastal	\$ 37,637	\$ 2,000	\$ 6,753	\$ 15,657	\$ 18,151
- vessels calling		4	16	24	24
Cruise Ships - Medium		\$ -	\$ 2,814	\$ 6,524	\$ 11,344
- vessels calling		-	1	2	3
Visiting Vessels		\$ -	\$ -	\$ -	\$ -
Transient Vessels		\$ 16,000	\$ 27,012	\$ 41,753	\$ 60,504
- Vessel - Annual Overnights		40	60	80	100
COMMERCIAL VESSELS					
Offshore Supply Vessel	\$ 51,353				
- Berthing		\$ 46,800	\$ 52,674	\$ 61,063	\$ 70,789
- Office - 2,700 sf		\$ 40,500	\$ 45,583	\$ 52,843	\$ 61,260
- Storage - 2,000 sf		\$ 20,000	\$ 22,510	\$ 26,095	\$ 30,252
Commercial Vessels	\$ 24,508	\$ 1,000	\$ 5,628	\$ 11,743	\$ 18,151
- Vessels daily calling		2	10	18	24
- Vessel Berthing				\$ 54,800	\$ 63,529
Lobster Boats	\$ 33,607				
- Winter - 17 vessels		\$ 34,000	\$ 38,267	\$ 44,362	\$ 51,428
- Summer - 8 vessels		\$ 24,000	\$ 27,012	\$ 31,315	\$ 36,302
UPLAND ELEMENTS					
Meeting/Function		\$ 5,000	\$ 5,628	\$ 6,524	\$ 7,563
Parking - 80 days @ 50 per day		\$ 20,000	\$ 22,510	\$ 26,095	\$ 30,252
Concessions (To be determined)			\$ -	\$ -	\$ -
Vessel Storage - 45 vessels		\$ 25,200	\$ 28,363	\$ 32,880	\$ 38,117
City Infrastructure	\$ 69,814	\$ -	\$ -	\$ -	\$ -
Annual Investment/Revenue	\$ 281,522	\$ 294,750	\$ 355,942	\$ 552,898	\$ 661,380

Fees and berthing rates assumed to increase 3% annually

Does not include operation and maintenance costs

Dredging Costs Not Included

8. FACILITY OPERATION AND MAINTENANCE

8.1. Introduction

The formal management structure of the new Salem Wharf Project is reviewed and developed within Section 13 below. In this section, the day to day costs for management and operation of the facility are identified including those costs that may be borne by the City directly. The majority of costs are assumed to be directly reimbursed by the revenue generated by the facility activities and controlled through an annual budget and appropriation by the management entity.

8.2. Management Operation and Maintenance

The day to day management of the new Salem Wharf Project is presumed to be through a year-round full-time Operations Manager. Additional part time staffing would be present during the busy summer period to assist in the seven day work periods and multiple facility demands. The facility manager would either be a seasonal contract employee or a full-time city employee that has other duties the rest of the year.

As part of the management, costs for typical office operations would need to be budgeted including phone/fax/computers/etc as well as supplies. In addition, information for “customer service” would need to be developed including fee and rate schedules, marketing materials, web site information.

An investigation of other public marine facilities and existing city budgets for Winter Island, the Harbormaster’s office, and Parks and Recreation Department was performed to identify a likely budget for these requirements.

8.3. Building Operation and Maintenance

The building operation and maintenance is assumed to be separate from all other maintenance activities. Each tenant is would be responsible for its own utilities and the cost for janitorial services either directly or through their lease agreement. This would include dumpsters with trash removal that would need to be managed to minimize site impact. The building public areas would require maintenance including public restrooms, terminal waiting area, facility manager office space, etc.

Building maintenance would be responsibility of the City’s management entity and an annual budget would need to be established with the understanding that it is likely need to be increase as the building gets older.

Since the site and building will be owned by the City of Salem, property taxes have not been incorporated into this operations analysis.

8.4. Site Operation and Maintenance

The site maintenance will be another area that will require regular attention to keep the site in a high level of appreciation as experienced by visitors. This will include regular (daily) site cleaning with trash pickup, street sweeping as required, attention to landscaping, etc. Public trash receptacles would need to be picked up regularly. All of which will present the first image to Salem to many tourists.

Other maintenance will include operating and maintaining site lighting, the need for snow removal including pier and around the terminal building. Seasonal site items that will require attention include storm system maintenance including catch basin cleaning and winter sand removal.

Many of these items are performed by the City at other city owned properties and the determination of how these items are performed at the Salem Wharf site. At this point the elements of site lighting, stormwater system maintenance, snow plowing and pavement sweeping would be done a part of City-wide maintenance activities while all other items would be managed onsite.

8.5. Fixed Pier - 17,740 sf Operation and Maintenance

The fixed pier provides the main access for larger vessels as well as provides protection of the vessels on the south side with the inclusion of the wave barrier under the pier. The maintenance of the new pier should be minimal with the biggest concern being vessel berthing damage to the fender system. The pier is anticipated to have lighting and convenience power at the pier which will be a regular operating cost for the facility. Power and other utilities to the vessels would be paid for by the users and would not create a burden to the facility.

8.6. Floating Barges - 6,500 sf Operation and Maintenance

The floating barges associated with the commercial vessels including the offshore supply vessel and the ferry would require maintenance at a higher level than the pier. The maintenance budget should be put into a reserve account such that it would have adequate funds for a significant maintenance activity, which may include removal and recoating the floats on a periodic basis, repair of the mooring brackets and replacement of cathodic protection system anodes.

It is also assumed that the barges are the north side would not be used and may be relocated to the south side to avoid the more severe winter weather and would be relocated back in the spring. This relocation cost has been identified with an annual budget.

No other operating costs are anticipated and that other potential costs would be borne directly by the float users.

8.7. Commercial Fishing Floats - 10,425 sf Operation and Maintenance

The floating docks associated with the commercial fishing vessels would require maintenance had a higher level than the pier. The maintenance budget should be put into a reserve account such that it would have adequate funds for a significant maintenance activity which may include removal, repair and replacement of the floats on a periodic basis, repair of the mooring brackets and replacement/repair of utilities as required.

It is also assumed that the floats that are more outshore may be relocated into the embayment to avoid the more severe winter weather and would be relocated back in the spring. This relocation cost has been identified with an annual budget.

The only other operating costs anticipated would be the costs of lighting on the floats that would not be directly paid for by the boat slip renters. This may be distributed to the users or carried as a separate cost associated with site lighting.

8.8. Summary of Recommended Maintenance and Operation Cost Budgets

The Exhibit below provides a breakdown of the individual maintenance and operating costs that are recommended within the Salem Wharf budgets

EXHIBIT 8-1 Operation & Maintenance Costs**SALEM WHARF PROJECT**

ANNUAL REVENUE	Responsibility	2011 1 Year	2015 5 Year	2020 10 Year	2025 15 Year
Management					
- Personnel	Private	\$ 99,186	\$ 116,034	\$ 141,173	\$ 171,758
- Other Operating Expenses	Private	\$ 9,900	\$ 11,582	\$ 14,091	\$ 17,144
Building					
- Utilities - Common Areas - sf	Private	\$ 17,500	\$ 20,473	\$ 24,908	\$ 30,304
- Janitorial/Ins/Repairs - sf	Private	\$ 39,800	\$ 46,560	\$ 56,648	\$ 68,921
- Taxes - sf (None)	City	\$ -	\$ -	\$ -	\$ -
Site					
- Utilities - Lighting	City	\$ 1,000	\$ 1,170	\$ 1,423	\$ 1,732
- Stormwater	City	\$ 1,000	\$ 1,170	\$ 1,423	\$ 1,732
- Snow Plowing/Sweeping	City	\$ 1,000	\$ 1,170	\$ 1,423	\$ 1,732
- Trash - Office/Site Barrels	Private	\$ 3,000	\$ 3,510	\$ 4,270	\$ 5,195
- Landscaping	Private	\$ 3,000	\$ 3,510	\$ 4,270	\$ 5,195
- Maintenance	Private	\$ 5,000	\$ 5,849	\$ 7,117	\$ 8,658
Fixed Pier - 17,740 sf					
- Utilities - Lighting	Private	\$ 1,000	\$ 1,170	\$ 1,423	\$ 1,732
- Maintenance	Private	\$ 5,000	\$ 5,849	\$ 7,117	\$ 8,658
Floating Barges - 6,500 sf					
- Utilities - Lighting	Private	\$ 1,000	\$ 1,170	\$ 1,423	\$ 1,732
- Maintenance	Private	\$ 10,000	\$ 11,699	\$ 14,233	\$ 17,317
- Seasonal Relocations	Private	\$ 5,000	\$ 5,849	\$ 7,117	\$ 8,658
Commercial Fishing Floats - 10,425 sf					
- Utilities - Lighting	Private	\$ 1,000	\$ 1,170	\$ 1,423	\$ 1,732
- Maintenance	Private	\$ 10,000	\$ 11,699	\$ 14,233	\$ 17,317
- Seasonal Relocations	Private	\$ 5,000	\$ 5,849	\$ 7,117	\$ 8,658
Capital Reserve	5%	\$ 10,919	\$ 12,774	\$ 15,542	\$ 18,909
<hr/>					
Estimated Annual Operating / Maintenance Costs		\$ 229,305	\$ 268,255	\$ 326,373	\$ 397,083

Operating cost increases assumed to be 4% annually (Includes inflation and real increases)

Vessels pay for own utilities - power/water/sewer/trash

9. DISTRIBUTION OF USER CAPITAL COSTS

- 9.1. In order to compare the projected revenue to the estimated project capital costs, a distribution of the capital costs was performed. This allowed for the direct allocation of construction costs to a specific user or market which can then be compared to the revenues generated by that market segment. Exhibit 9-1 illustrates the total project capital costs as well as a breakdown of this cost by the primary users (or markets) associated with the Salem Port Project.

A major section of the capital costs was identified as “Public Infrastructure” which represents major site improvements that are not directly associated with single or multiple users but required for the site’s overall development. This includes such elements as main utility feeds from Derby Street, the Harbor Boardwalk, shoreline stabilization, public building space and other general site work.

The capital costs are then broken to an annual cost to support a bond in the amount to finance the identified improvements. These costs are further allocated through identification of the City’s required contribution that is needed to match Seaport Council funding that is anticipated for the project.

EXHIBIT 9-1 Capital Cost User Distribution

Item	Total	Salem Ferry	Offshore Supply Vessels	Commercial Vessels	Excursion/Visiting Vessels	Pier Berthing Ships	Lobster Boats	Public Infrastructure
UTILITIES	\$ 425,000	\$ 85,000	\$ 85,000			\$ 85,000	\$ 85,000	\$ 85,000
SITE WORK	\$ 898,250	\$ 179,650	\$ 89,825		\$ 35,930	\$ 53,895	\$ 89,825	\$ 449,125
HARBORWALK	\$ 1,433,750							\$ 1,433,750
SHORELINE STABILIZATION	\$ 210,000							\$ 210,000
PIER STRUCTURE	\$ 3,995,000	\$ 665,833	\$ 665,833	\$ 665,833	\$ 665,833	\$ 1,331,667		
FLOATS W/ MOORING	\$ 500,800						\$ 500,800	
ADA FLOAT RELOCATION	\$ 40,000	\$ 40,000						
FENDER SYSTEMS	\$ 180,000				\$ 18,000	\$ 162,000		
BARGE FLOATS	\$ 1,080,750		\$ 360,250	\$ 360,250	\$ 360,250			
MOORING PILES	\$ 180,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000			
SERVICES	\$ 80,000	\$ 15,000	\$ 15,000	\$ 5,000	\$ 5,000	\$ 20,000	\$ 20,000	
GANGWAYS	\$ 60,000	\$ 30,000	\$ 15,000				\$ 15,000	
TERMINAL BUILDING								
Public Space	\$ 625,000							\$ 625,000
Office	\$ 656,250	\$ 213,278	\$ 377,345		\$ 65,628			
Storage/Workshop	\$ 468,750	\$ 117,188	\$ 351,563					
GATEWAY	\$ 262,500							\$ 262,500
WAVE BARRIER - 300 lf	\$ 750,000	\$ 250,000	\$ 250,000				\$ 250,000	
DREDGING								
Embayment Toe Wall - 51	\$ 515,000						\$ 515,000	
Totals	\$ 12,361,050	\$ 1,640,948	\$ 2,254,816	\$ 1,076,083	\$ 1,195,641	\$ 1,652,562	\$ 1,475,625	\$ 3,065,375
Contingency - 20%	\$ 2,472,210	\$ 328,190	\$ 450,964	\$ 215,217	\$ 239,129	\$ 330,513	\$ 295,125	\$ 613,075
Inflation - 7%	\$ 1,038,329	\$ 137,840	\$ 189,405	\$ 90,392	\$ 100,434	\$ 138,816	\$ 123,953	\$ 257,492
Total Construction Budget w/o dredging	\$ 15,871,589	\$ 2,106,978	\$ 2,895,185	\$ 1,381,692	\$ 1,535,204	\$ 2,121,891	\$ 1,894,703	\$ 3,935,942
City of Salem Contribution (25 Percent)	\$ 3,967,897	\$ 526,745	\$ 723,796	\$ 345,423	\$ 383,801	\$ 530,473	\$ 473,676	\$ 983,986
Annual Bond Cost (25 yr @ 5.0%)	\$ 281,522	\$ 37,373	\$ 51,353	\$ 24,508	\$ 27,231	\$ 37,637	\$ 33,607	\$ 69,814

10. PROJECT PRO FORMA ANALYSIS

A. Revenue / Operating Budget

Salem Wharf fees are assumed to increase at a rate of 3 percent compounded from year 1 (2011), reflecting recent year Consumer Price Index (CPI) average annual rates. Revenue will increase with increased future utilization. The Salem Wharf operating organization will have to be fully operational at opening to accommodate anticipated demand and will ramp up during the first 5 years of operation.

Increased utilization will increase operating costs, as well as increase revenue. Annual operating expenses are compounded annually at a 4 percent, which includes a 3 percent cost inflation rate and 1 percent increase due to increased facility utilization.

The data presented in Exhibit 10-1 shows the 5-year pro forma operating expenses and net operating income during the start-up phase. Year 1 (2011) is in current dollars. Debt service payment estimates have not been included.

Exhibit 10-2 provides the summarize operating assumptions for the first year of operation based on the market analysis present above.

The information in Exhibit 10-3 illustrates the anticipated annual revenue for the 5-year start-up phase. Year 1 (2011) is in current dollars.

In Exhibit 10-4 the estimated first year (2011) operating expenses are presented in current dollars.

The graph in Exhibit 10-5 presents the estimated annual revenue, operating expenses, net income, debt service and the overall profit/loss anticipated over the first 15 years of operation. The debt service extends for a period of 25 years before it is completely retired. It is anticipated that the facility reaches a maximum utilization in about 2025 and that subsequent revenue increases would be limited to inflation and the ability of charging users premium rates for facility usage.

EXHIBIT 10-1 5 Year Pro Forma Analysis

	2011	2012	2013	2014	2015
Earned Revenue Potential	\$294,750	\$308,228	\$322,248	\$337,379	\$355,942
Operating Expenses	\$229,305	\$238,478	\$248,017	\$257,937	\$268,255
Net Operating Income	\$65,445	\$69,750	\$74,232	\$79,442	\$87,687

Source: Bourne Consulting Engineers, Norris and Norris, Portscape, and ConsultEcon, Inc.

EXHIBIT 10-2 Year 1 (2011) Operating Assumptions in Current Dollars***Inflation and Future Increases***

Annual Marine and Facilities Rate Inflation	3.0%
Annual Operating Cost Increase (Inflation & Actual Increases)	4.0%

Marine Rates

Passenger Ferry	\$2,750 per month
Excursion Vessels (Daily)	\$500 per day
Excursion Vessels (Homeport)	\$3,500 per month
Cruise Ships (Coastal)	\$500 per day
Cruise Ships (Medium)	\$2,500 per day
Commercial Vessel (Homeport)	\$3,900 per month
Commercial Vessel (Other)	\$500 per day
Commercial Vessel (Other Homeport)	\$3,500 per month
Transient Vessel	\$400 per day
Lobster Vessel - winter season	\$75 per linear foot
Lobster Vessel - summer season	\$150 per linear foot

Facility Rates

Office Space	\$15 per square foot
Industrial/Warehouse Space	\$10 per square foot
Parking	\$5 per day

Marine Uses

Average size of Lobster Vessel	40 linear feet
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Facilities

Building Size	9,950 square feet
Size of Leasable Office Space	3,450 square feet
Size of Leasable Industrial/Warehouse Space	3,000 square feet
Size of Common Areas	3,500 square feet
Utility Cost	\$5.00 per square foot
Janitorial, Maintenance and Repairs Cost	\$4.00 per square foot
Number of Annual Facility Rentals	10
Net Revenue from Facility Rental	\$500
Net Revenue from Winter Vessel Storage	\$560 per vessel
Assumed Winter Vessel Storage Capacity	45 vessels

Parking

Total Parking Spaces	125
Parking Rate	\$5 per day
Days of Paid Parking per Year	80 days
Average Daily Parking Usage	50 cars

Personnel

Pier Manager Salary	\$60,000 per year
Fringe and Benefits Rate - Full-Time	30% of Salary
Fringe and Benefits Rate - Part-Time	7% of Salary
Part-time/Seasonal Staff Rate	\$15 per hour
Part-Time/Staff Hours ^{1/}	1,320 per year

1/ Hours based on average of 60 hours per week for 26 weeks between May and October.

Source: Bourne Consulting Engineers, Norris and Norris, Portscape, and ConsultEcon, Inc.

EXHIBIT 10-3 5-Year Revenue Potential

Revenue Category	2011	2012	2013	2014	2015
<i>Marine Facilities</i>					
Passenger Ferry					
Rate/month	\$2,750	\$2,833	\$2,917	\$3,005	\$3,095
Months/year	12	12	12	12	12
Annual Revenue	\$33,000	\$33,990	\$35,010	\$36,060	\$37,142
Excursion Vessels					
Rate/day	\$500	\$515	\$530	\$546	\$563
Days/year	12	13	14	16	18
Annual Revenue	\$6,000	\$6,695	\$7,426	\$8,742	\$10,130
Cruise Ships - Coastal					
Rate/day	\$500	\$515	\$530	\$546	\$563
Days/year	4	6	8	10	12
Annual Revenue	\$2,000	\$3,090	\$4,244	\$5,464	\$6,753
Cruise Ships - Medium					
Rate/day	\$2,500	\$2,575	\$2,652	\$2,732	\$2,814
Days/year	0	0	0	0	1
Annual Revenue	\$0	\$0	\$0	\$0	\$2,814
Commercial Vessel (homeport)					
Rate/month	\$3,900	\$4,017	\$4,138	\$4,262	\$4,389
Months/year	12	12	12	12	12
Annual Revenue	\$46,800	\$48,204	\$49,650	\$51,140	\$52,674
Commercial Vessel (other)					
Rate/day	\$500	\$515	\$530	\$546	\$563
Days/year	2	4	6	8	10
Annual Revenue	\$1,000	\$2,060	\$3,183	\$4,371	\$5,628
Transient Vessel					
Rate/day	\$400	\$412	\$424	\$437	\$450
Days/year	40	45	50	55	60
Annual Revenue	\$16,000	\$18,540	\$21,218	\$24,040	\$27,012
Lobster Vessel					
Rate/season (winter)	\$2,000	\$2,060	\$2,122	\$2,185	\$2,251
Slips/season	17	17	17	17	17
Annual Revenue	\$34,000	\$35,020	\$36,071	\$37,153	\$38,267
Rate/season (summer)	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377
Slips/season	8	8	8	8	8
Annual Revenue	\$24,000	\$24,720	\$25,462	\$26,225	\$27,012
Subtotal Marine Facilities	\$162,800	\$172,319	\$182,263	\$193,194	\$207,431
<i>Upland Facilities</i>					
Office	\$51,750	\$53,303	\$54,902	\$56,549	\$58,245
Industrial/Warehouse	\$30,000	\$30,900	\$31,827	\$32,782	\$33,765
Facility Rentals	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628
Concessions (To be determined)					
Vessel Storage (45 Vessels)	\$25,200	\$25,956	\$26,735	\$27,537	\$28,363
Parking	\$20,000	\$20,600	\$21,218	\$21,855	\$22,510
Subtotal Upland Facilities	\$131,950	\$135,909	\$139,986	\$144,185	\$148,511
Total Annual Revenue	\$294,750	\$308,228	\$322,248	\$337,379	\$355,942

Source: Bourne Consulting Engineers, Norris and Norris, Portscape, and ConsultEcon, Inc.

EXHIBIT 10-4 Estimated Year 1 (2011) Operating Expense Budget

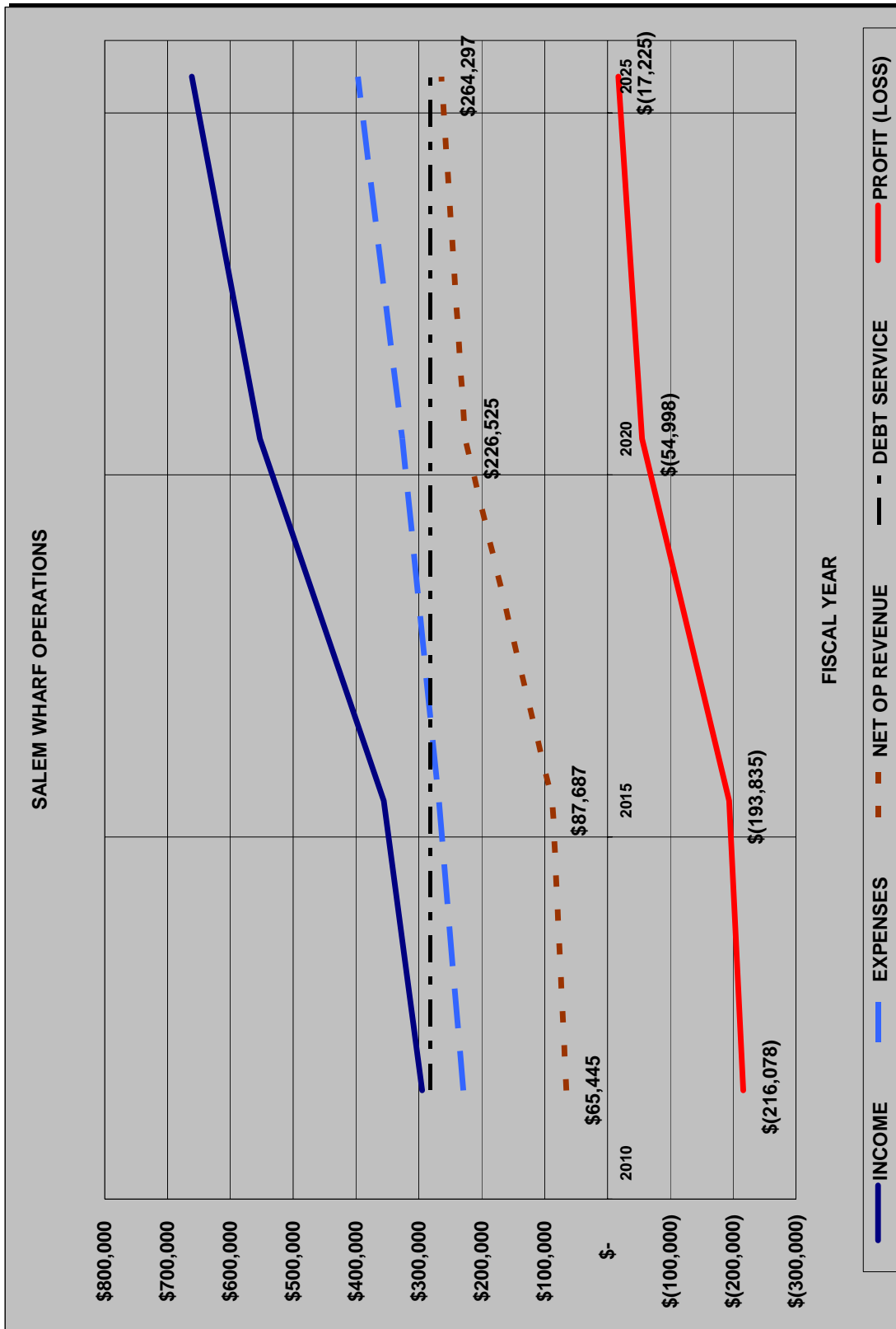
Expense Category	Amount	Percent of Total
<i>Personnel</i>		
Salaries - Full-Time	\$60,000	26%
Salaries - Part-Time/Seasonal	\$19,800	9%
Taxes, Fringe and Benefits (Full-Time Only)	\$18,000	8%
Taxes, Fringe and Benefits (Part-Time Only)	\$1,386	1%
Subtotal Personnel	\$99,186	43%
<i>Administrative</i> ^{1/}		
Office Supplies	\$1,500	1%
Printing and Binding	\$1,000	0%
Advertising	\$2,500	1%
Telephone	\$2,000	1%
Equipment	\$2,000	1%
Educational Training	\$600	0%
Uniforms	\$300	0%
Insurance ^{2/}	Not Calculated	
Subtotal Administrative	\$9,900	4%
<i>Building</i>		
Utilities	\$17,500	8%
Janitorial, Maintenance and Repairs and Insurance	\$39,800	17%
Taxes	NA	
<i>Site and Pier</i>		
Utilities	\$1,000	0%
Stormwater	\$1,000	0%
Snow Plow/Sweeping	\$1,000	0%
Trash Removal	\$3,000	1%
Landscaping	\$3,000	1%
Maintenance	\$5,000	2%
<i>Fixed Pier</i>		
Utilities - Lighting	\$1,000	0%
Maintenance	\$5,000	2%
Seasonal Relocations		
<i>Floating Barges</i>		
Utilities - Lighting	\$1,000	0%
Maintenance	\$10,000	4%
Seasonal Relocations	\$5,000	2%
<i>Commercial Fishing Floats</i>		
Utilities - Lighting	\$1,000	0%
Maintenance	\$10,000	4%
Seasonal Relocations	\$5,000	2%
Subtotal Operating Expenses	\$218,386	95%
Capital Reserve (5% of operating expenses)	\$10,919	5%
Total Operating Expenses	\$229,305	100%

1/ Administrative expenses based on assessment of Harbormaster, Winter Island and Recreation Department FY08 budget detail. Does not include janitorial and maintenance supplies and labor, which are included under building and site expenses.

2/ Insurance is presumed to fall under the City's general insurance coverage.

Source: Bourne Consulting Engineers, Norris and Norris, Portscape, and ConsultEcon, Inc.

EXHIBIT 10-5 Salem Wharf Performance Graph



11. PROJECT SCHEDULE

A project schedule as developed for the project that identifies the regulatory, design and construction phases of the project. Estimated time requirements and inter-relationships of the different elements have been identified. The Salem Wharf Project Schedule is illustrated in Exhibit 11-1. A summary of the schedule time lines and key milestones are presented below. The summary below also includes a number of associated tasks that would need to be considered/implemented within the project.

Assumptions:

- Preliminary Design Complete
- Regulatory Filings made for Phase I elements
- Funding for final design approved

Key Milestones

- | | |
|--|----------|
| 1. Selection of Design Consultant for all elements | Nov 2008 |
| 2. Confirmation on Building Program | Mar 2009 |
| ▪ Excelerate commitments | |
| ▪ Salem Ferry use determination | |
| 3. Submission of Regulatory Filings for Phase II | Dec 2008 |
| ▪ Identify requirements for resource impacts – Mitigation requirements | |
| ▪ Initiate mitigation design if required | |
| 4. Review and approval of 75% of design – Marine/Site/Building | |
| ▪ Marine Elements | Feb 2009 |
| ▪ Site Development | Feb 2009 |
| ▪ Building | Mar 2009 |
| 5. Facility review by City for incorporating City services/standards | Mar 2009 |
| 6. Obtain Salem Conservation Commission approval for final site plan | Mar 2009 |
| 7. Identify Salem Wharf Marine Advisory Board Structure (SWMAB) | Mar 2009 |
| 8. Identify Terminal Manager | |
| 9. Review/Approve Final Contract Documents – by SWMAB and Terminal Manager | |
| ▪ Marine Elements | Aug 2009 |
| ▪ Dredging – Phase I & II: | Aug 2009 |
| ▪ Site Work: | Jul 2009 |
| ▪ Building: | Mar 2010 |
| 10. Identify Construction Management and Resident Engineering | Jul 2009 |
| 11. City Approval(s) award for project | Aug 2009 |
| 12. Construction Award | |
| ▪ Marine Elements | Aug 2009 |
| ▪ Dredging | Sep 2009 |
| ▪ Site Work | Jul 2009 |
| ▪ Building | Mar 2010 |
| 13. Construction Completion | |
| ▪ Marine Elements | Jul 2010 |
| ▪ Dredging | Mar 2011 |
| ▪ Site Work | Jul 2010 |
| ▪ Building | May 2011 |

It is assumed that in the summer season of 2011 all aspects of the Salem Wharf Project would be fully operational.

EXHIBIT 11 - 1

Task Name	Duration	Start	Finish	Predc	September 8/10/8/24/9/7/9/21/10/5/0/1	September 11/2/1/1/1/3/2/1	November 2/2/1/11/1/25/2/8/2/22/3/8/3/22/4/5/4/19/5/3/5/17/5/31/6/14/6/28/7/12/7/26/8/9/8/23/9/6/9/20/10/4/0/1	November 11/1/1/1/1/2/2/1	January 2/2/1/10/1/24/2/7/2/21/3/7/3/21/4/4/4/18/5/2/5/16/5/30/6/13/6/27/7/11/7/25/8/8/8/22/9/5/9/19/10/3/0/1	January 0/3/1/1/1/2/2/1	March 2/2/1/9/1/23/2/6/2/20/3/6/3/20/4/3/4/17/5/1/5/15/5/29/6/12	March 2/2/1/9/1/23/2/6/2/20/3/6/3/20/4/3/4/17/5/1/5/15/5/29/6/12	May 2/2/1/9/1/23/2/6/2/20/3/6/3/20/4/3/4/17/5/1/5/15/5/29/6/12	
1	Task Name	Duration	Start	Finish	Predc									
2	Task 1 - Permitting - Phase I	116 days?	Mon 9/15/08	Thu 2/19/09										
3	1. NOI Salem ConCom Filing	35 days	Mon 9/15/08	Fri 10/31/08										
4	2. DEP - Water Quality - w/ NOI	35 days	Mon 9/15/08	Fri 10/31/08										
5	3. DEP Waterways - Chp 91 Filing	112 days?	Mon 9/15/08	Fri 2/13/09										
6	4. CZM - Consistency	93 days?	Tue 10/14/08	Tue 2/17/09										
7	5. USACE Section 10 Filing	116 days	Mon 9/15/08	Thu 2/19/09										
8	Regulatory Coordination - Phase I	113 days	Mon 9/15/08	Mon 2/16/09										
21														
22	Permitting - Phase II	143 days	Fri 10/31/08	Fri 5/15/09										
23	1. Mitigation	23 days	Fri 10/31/08	Fri 11/28/08										
24	2. NOI Salem Filing	34 days	Mon 12/1/08	Thu 1/15/09										
25	3. DEP - Water Quality - w/ NOI	33 days	Mon 12/1/08	Wed 1/14/09										
26	4. DEP Waterways - Chp 91 Filing	93 days	Mon 12/1/08	Fri 5/8/09										
27	6. CZM - Consistency	85 days	Mon 1/5/09	Fri 5/1/09										
28	5. USACE Section 10 Filing	120 days	Mon 12/1/08	Fri 5/15/09										
29	Regulatory Coordination - Phase II	111 days	Mon 12/1/08	Mon 5/4/09										
42														
43	Task 2 - Final Design - Marine Structures (Phases I & II)	200 days	Fri 10/31/08	Tue 8/4/09										
44	75% Design - Marine Structures	68 days	Fri 10/31/08	Fri 1/30/09										
45	100% Design / Draft Constr Doc	36 days	Fri 2/13/09	Fri 4/3/09	44									
46	100% Review & Comment	10 days	Mon 4/6/09	Fri 4/17/09	45									
47	Final CDs - Marine Structures	22 days	Mon 4/20/09	Tue 5/19/09	46									
48	Bid Phase	20 days	Wed 5/20/09	Tue 6/16/09	47									
49	Contract Award - Marine Structures	35 days	Wed 6/17/09	Tue 8/4/09	48									
50														
51	Task 3 - Final Design - Upland Site / Mitigation	190 days	Fri 10/31/08	Tue 7/21/09										
52	75% Design - Upland Site	68 days	Fri 10/31/08	Fri 1/30/09										
53	100% Design / Draft Constr Doc	25 days	Fri 2/13/09	Thu 3/19/09	52									
54	100% Review & Comment	10 days	Mon 3/23/09	Fri 4/3/09	53									
55	Final CDs - Upland Site	22 days	Mon 4/6/09	Tue 5/5/09	54									
56	Bid Phase	20 days	Wed 5/6/09	Tue 6/2/09	55									
57	Contract Award - Upland Site	35 days	Wed 6/3/09	Tue 7/21/09	56									
58														
59	Task 4 - Final Design - Building	355 days	Mon 11/3/08	Thu 3/11/10										
60	Schematic Design / Program Verification	90 days	Mon 11/3/08	Thu 3/5/09										
61	Review /Comment - City	15 days	Fri 3/6/09	Thu 3/26/09	60									
62	Final Design / DD	90 days	Fri 3/27/09	Thu 7/30/09	61									
63	CDs / Permitting	120 days	Fri 7/31/09	Thu 1/14/10	62									
64	Bid / Award	40 days	Fri 1/15/10	Thu 3/11/10	63									
65														
66	Task 5 - Final Design - Dredging (Phases I & II)	157 days	Mon 1/5/09	Tue 8/11/09										
67	75% Design - Upland Site	26 days	Mon 1/5/09	Mon 2/9/09										
68	100% Design / Draft Constr Doc	34 days	Tue 2/10/09	Fri 3/27/09	67									
69	100% Review & Comment	20 days	Mon 3/30/09	Fri 4/24/09	68									
70	Final CDs - Upland Site	22 days	Mon 4/27/09	Tue 5/26/09	69									
71	Bid Phase	20 days	Wed 5/27/09	Tue 6/23/09	70									
72	Contract Award - Upland Site	35 days	Wed 6/24/09	Tue 8/11/09	71									
73														
74	Task 6 – Construction	498 days?	Mon 7/6/09	Wed 6/1/11										
75	Marine Structures	240 days	Mon 8/10/09	Fri 7/9/10	49									
76	Marine Structures - Phase II	80 days?	Mon 1/3/11	Fri 4/22/11										
77	Upland Site Construction / Mitigation	265 days	Wed 7/22/09	Tue 7/27/10	57									
78	Terminal Building Construction	300 days	Fri 3/12/10	Thu 5/5/11	64									
79	Dredging - Stage 1	84 days	Mon 12/6/10	Thu 3/31/11	80									
80	Dredging - Stage 2	90 days	Tue 9/29/09	Mon 2/1/10										
81	Construction Management	498 days	Mon 7/6/09	Wed 6/1/11										

12. MANAGEMENT STRUCTURE ISSUES

12.1. Management Needs

The management of the site can take many forms that can range from a separate port authority, which has the power to issue bonds, to a City employee working under the direction of the City Council or City department. The degree of formalization will be dependent on how much autonomy the management needs to perform its duties which in turn are dependent on the complexity of the facility.

The Salem Wharf project is presumed to be relatively simple in nature but anticipated to be subjected to operating pressures that would call for an on-site manager during the busiest time periods, roughly May through October. The management of the facility will need to deal with a number of issues that are more than the City Council would want to handle directly. An overseeing committee or group is a natural consideration. Some of the main management issues include:

- Contractual / Accounting: This element defines who has the authority to enter into contracts and agreements with site tenants and vessels wishing to call at Salem Wharf. The degree of formality depends on the user and the duration of the contract, which could be as long as a multi-year agreement or as short as one for a single vessel overnight. In association with this is where the responsibility lies for billing, collecting funds, and monitoring delinquencies. The greater commitment of the site into agreements would imply the need for a more formal and public approval process. This would include defining standard rates annually as well as approval of long term lease contracts for the building tenants and vessel berthing.
- Marketing / Sales: The nature of the Salem Wharf will require a marketing and sales effort to reach its full potential. This effort needs to be performed in a manner that is consistent to the City's other promotional efforts and that is focused on the commercial aspects of what the facility offers to prospective users. It should also be recognized that there are a variety of markets that need to be considered and the best way to reach those markets will need to be identified. Marketing associated with the tourist industry may need to come from a different entity than marketing associated with commercial uses in order that neither becomes limited or forgotten because of the primary focus of the marketing group.

It should be understood that the facility manager's position and role within the marketing is key for successful development of the site. The manager needs to understand that he or she will be the primary face to potential users including the ferry operator, cruise ships, visiting vessels and commercial vessels. This manager will also be responsible for a close working relationship with the commercial fishing boat operators.

- Site / Building Maintenance: The maintenance of the building and site in a professional manner will be a key component in the perception of visitors that are arriving to Salem by boat (ferry, cruise ship or transient vessel). The site manager will need to implement methods to insure that the facility is truly seen as the "Gateway to Salem". This will include management of the tenants to ensure that their areas are properly maintained as well as implementing the programs to keep the public spaces in presentable condition.

In addition, the management of the facility will need to incorporate seasonal maintenance programs for painting and cleaning, repairing site problems and other items that may be required in the off-season.

- Marine Structure Maintenance: The management of the marine structures will need to entail the close watch of the floating structures and moveable elements (gangways) for potential problems of wear and damage and the determination of how they need to be fixed. Once items have gone beyond the ability of on-site to fix, a determination of which repairs will be made in a cost-effective and timely manner.
- Daily Operations Management: Management of the daily activities will be the primary responsibilities of the facility manager who will represent the management entity. The issues will include the coordination of different users, resolution of disputes between users and enforcement of the site regulations and policies. The approach and attitude of the site manager will have a strong role in how the public and commercial users see the attractiveness of the site to their needs.

Although the manager may need to have the enforcement powers of a typical harbormaster or assistant harbormaster, the manager will need to be perceived as a welcoming representative for the City where law enforcement is secondary to customer satisfaction.

13. MANAGEMENT STRUCTURE EXAMPLES

13.1. Introduction

A number of comparable public management structures were investigated to determine how other communities managed their public commercial waterfront facilities. The following illustrate how larger and smaller port facilities are managed and how they interact with their overall community governing structure.

13.2. Oak Bluffs Marina

A. Summary of Operations

Although called a marina and is the largest marina on Martha's Vineyard, it provides substantial commercial marine facilities including passenger vessel berths with numerous seasonal callings, year round mail boat, larger cruise ship support as well as commercial fishing vessel berthing.

B. Management

The waterfront area is managed by a Todd Alexander who serves both as Harbormaster and Marina Manager. He is overseen by a town committee that is known as the Marina Advisory Committee. The committee members are appointed and approved by the Town Selectmen. Contractually all things go through the Town. Todd is able to run the marina, passenger vessel berths, commercial fishing berths and commercial vessel berthing in a privatized method with a focus on service and profit. Two permanent employees work for the Town during the year with about 10 temporary employees during the summer. The committee is comprised of like-minded members who seek to keep the "private" operated feel.

C. Contractual / Accounting

All contracts are formally executed through the Town by approval of the Selectmen. Agreements are developed by the Town's Harbor Advisory Board which negotiates with tenants and then provides recommendations to the Selectmen. Accounting and revenue collection varies but most go through Harbormaster's Office and directly into Town's general fund.

Rates are reviewed by the Harbormaster and the Harbor Advisory Board annually. Recommendations are put forward to the Selectmen for final adoption of rates.

Contracts for commercial passenger vessels include:

- Patriot Party Boats (mail boat)
- Island Queen
- Vineyard Fast Ferry

D. Marketing / Sales

The Harbormaster performs marketing through web site maintained by them. It is primarily a reservation system but provides a lot of site information as well. Oak Bluffs has been very successful as a preferred location for transient vessels.

Some sales are through Harbormaster's Office for the various type users including:

- Marina/Transient Boaters – maximum limits on stays
- Cruise Ships (large cruise ships with tender service) – Ports of Call
- Commercial Fishing – Lobster Boats – Contracted through Harbormaster

E. Site / Building Maintenance

The site has minimal infrastructure which consists primarily of a small harbormaster's office. Ferries either have no terminal or have terminals within private building space.

Maintenance for the site is minimal and is based on transient boater revenue (\$1.00 per boat) with an annual budget of about \$13 to \$15,000 per year.

The Town provides site maintenance including trash collection, snow plowing, street cleaning, lighting, green spaces, etc.

F. Marine Structure Maintenance

Larger maintenance projects need to receive approval by the Selectmen.

G. Management of Daily Operations / Conflict Resolution Management

The Harbormaster manages all daily issues including support for passenger vessels, resolution of conflicts, launch service (fee) and management of staff.

H. Revenue / Operating Budget

The annual revenue for the Town managed waterfront is about \$800,000. The operating budget for the 2007 season was about \$255,000.

13.3. Wellfleet Town Marina

A. Summary of Operations

The Town Marina operates independently from revenues it collects from slip and mooring rentals, transient boating fees, boat ramp operations, marine fueling and other activities. It supports limited commercial vessel activity which is limited by draft and including commercial fishing vessels including lobster and shellfish boats and head boats. They do maintain a commercial fishing pier which provides berthing and ability for offloading.

B. Management

The waterfront area is managed by an Enterprise Fund established in 1989 where the Harbormaster provides the specific daily management of all operations. The Enterprise Fund is overseen by a Marine Advisory Committee, the members of which are

appointed by and who advise the Town Selectmen. The Selectmen are the primary governing entity. The Harbormaster manages all activities and answers directly to the Selectmen.

Contractually all things go through the Enterprise Fund. The operation is able to run the marina, boatramp, commercial fishing, marina and transient berths, moorings and marine fueling in a privatized method with a focus on service and profit. Two full time and one part time employee work for the Town during the year with up to about 8-10 summer temporary employees. All staff is paid through Enterprise Fund revenues.

C. Contractual / Accounting

All contracts are formally through the Enterprise Fund but all rates are approved by the Selectmen through a public meeting process.

Rates are reviewed by the Harbormaster and the Harbor Advisory Committee annually. Recommendations are put forward to the Selectmen for final adoption of rates.

D. Marketing / Sales

Very limited formal marketing occurs but it is performed by the Enterprise Fund. Harbormaster maintains a Wellfleet Town Marina web site.

Sales are through Harbormaster's Office for the various type users including:

- Marina/Transient Boater Slips – maximum limits on stays
- Moorings
- Boatramp Use
- Commercial Fishing – Lobster Boats – Contracted through Harbormaster
- Marine Fueling Station

E. Site / Building Maintenance

The maintenance of the site and buildings are the responsibility of the Enterprise Fund with the majority of maintenance activities done directly by staff. Where Town performs activities, the Enterprise Fund pays the Town. There is minimal building infrastructure which consists primarily of a small harbormaster's office and separate building for vehicle storage and seasonal bathrooms/showers.

F. Marine Structure Maintenance

Larger maintenance or capital improvement projects need to receive Town approval with the recommendation of the Harbormaster and Marine Advisory Committee. Bonding is subject to a Town vote but would be paid by the Enterprise Fund revenues. The marina has been able to take advantage of federal and state grant programs for capital projects.

G. Management of Daily Operations / Conflict Resolution Management

The Harbormaster manages all daily issues including boatramp, marine fueling, transient slips and moorings, resolution of conflicts and management of staff. There are two full time employees and one part time employee for the Town and about 10 seasonal workers.

The Harbormaster, although as some legal authority, exercises minimal upland policing activity and relies on local police department.

H. Revenue / Operating Budget

The typical annual operating budget is \$400,000 to \$500,000.

13.4. EDIC/Lynn**A. Summary (from EDIC/Lynn Website)**

The Economic Development and Industrial Corporation of Lynn (EDIC/Lynn) is a nonprofit corporation established under a state mandate in 1977 that functions as the City's development bank.

EDIC/Lynn has a history of more than 30 years providing financing to the businesses in the City of Lynn. Through innovative programs EDIC/Lynn is able to put financing tools into the marketplace that allows for capital to become available at very attractive rates.

Since 1977, EDIC/Lynn has strengthened Lynn's economy by encouraging existing companies to expand or new companies to relocate into the City. Simply stated, EDIC/Lynn has all the financial tools and capabilities from the public sector's vantage point that private developers need at their disposal.

B. Management

The Lynn/EDIC entity operates' separately from the City and receives no monies for operating from the City. Although the organization is under the Office of Economic & Community Development, all operating costs are derived from revenues obtained from agreements and leases of properties owned and controlled by EDIC. It has its own Board of Directors and the ability to work through the City for access to State and Federal funding programs including the MA Seaport Council.

C. Contractual / Accounting

Contracts and accounting associated with agreements is all within the office of EDIC which are located within Lynn City Hall.

D. Marketing / Sales

All marketing and sales associated with agreements and facility utilization is all within the office of EDIC which are located within Lynn City Hall.

E. Site / Building Maintenance

EDIC is responsible for all its building maintenance. Site maintenance is performed by City departments as appropriate

F. Marine Structure Maintenance

EDIC is responsible for all its building maintenance. Site maintenance is performed by City departments as appropriate

G. Management of Daily Operations / Conflict Resolution Management**13.5. Fall River****A. Summary of Operations**

The Fall River State Pier is a state-owned facility operated by a 501(c)3 non-profit organization, Fall River Pier Line, Inc. The facility caters to commercial maritime users and has a large landside warehouse for storage, which is one of the Pier's largest sources of revenue.

B. Management

The Commonwealth maintains a long-term lease with Fall River Pier Line, Inc., which was created by an act of state legislature in 1955. A board of directors, whose members are appointed by the Fall River Port Authority, oversees Pier operations. The 10-member Fall River Port Authority includes the Mayor of Fall River, the City Council president, and the City Treasurer and all positions on the Authority and board of Fall River Pier Line are appointed by the Mayor at an annual meeting. The board of Fall River Pier Line meets quarterly.

The management structure is anticipated to change when redevelopment plans are implemented, pending passage of state legislation. The future structure will be a 7-member state commission, with members consisting of state and local officials (or designees) and residents of Fall River appointed by the Governor.

C. Contractual / Accounting

All contracts and accounting are handled by Fall River Pier Line, Inc. The annual budget is approved by Commonwealth's Department of Conservation and Recreation, which maintains the lease agreement with the non-profit organization. The "rent" to the state consists of the profits after expenses and is determined by state auditors. The Commonwealth owns the land, building, and equipment.

D. Marketing / Sales

Marketing and sales of facility berths and warehouse space is handled by Fall River Pier Line, Inc. The facility's users include commercial fishing vessels, a floating fish distribution plant, cargo shipping operators, and cruise ships. Word of mouth is important. All businesses come across the transom. There is reportedly not enough dock space to accommodate the demand for it.

E. Site / Building Maintenance

Fall River Pier Line, Inc. is responsible for all site and building maintenance. The Pier is approximately 8.6 acres and the building is approximately 96,000 square feet.

F. Marine Structure Maintenance

Fall River Pier Line, Inc. is responsible for all marine structure maintenance.

G. Management of Daily Operations / Conflict Resolution Management

Fees are charged for office space and dock space, as well as water and electric (with a 4 percent surcharge). Fall River Pier Line, Inc. has 11 total staff, including 2 office staff, 2 maintenance staff and 7 security staff. Security is a 24 hour/7 day requirement, with someone onsite at all hours. Due to Coast Guard regulations, all employees onsite must have transportation workers identification card.

H. Revenue / Operating Budget

In 2007, Fall River Pier Line, Inc. had a \$63,000 net profit on \$492,000 in gross revenue. Warehouse rental space brought in \$205,000, dockage fees brought in \$86,000 and water and power brought in \$145,000.

Expenses for 2007 totaled \$439,000. Salary and benefits totaled \$205,000 or 47 percent of total operating expenses. Security costs were \$50,000 for the year.

13.6. Provincetown Public Pier Corporation

A. Summary of Operations

MacMillan Pier is owned by the Town of Provincetown and operated under a long-term lease by the Provincetown Public Pier Corporation, which was established by an act of state legislature in 2000 specifically to operate MacMillan Pier after it was reconstructed. The Pier Corporation pays annual rent to the Town, manages day-to-day operations, and is responsible for all Pier maintenance and upkeep.

B. Management

The Pier Corporation manages all day-to-day pier operations and has a board of directors, appointed by Town Selectmen, to oversee its operations. The Pier Corporation Board of Directors and the Town Selectmen have an annual joint meeting to keep the Town abreast of Pier Corporation business. Prior to the Pier Corporation, the Town had managed the Pier. The rationale behind the creation of the Pier Corporation was to provide more focused management oversight that could better capitalize on the economic opportunities presented by the Pier redevelopment. In addition, the structure would be less subject to Town politics, which has reportedly not occurred.

C. Contractual / Accounting

The Pier Corporation manages its own accounts and contracts and collects user fees and rent, but all revenue and expenses are processed through the Town accounting department to ensure transparency and oversight. The Pier Corporation can set rates and enter into contracts, but must hold a public meeting in order to do so.

D. Marketing / Sales

The Pier Corporation works collaboratively with the Town and the local Chamber of Commerce and tourism marketing agency. It also maintains a website with current rates and regulations. Many of the users are long-term tenants with long-term leases or licenses that were executed before the creation of the Pier Corporation. Marketing and sales have focused on attracting cruise ships and using the facility for public events.

E. Site / Building Maintenance

The Pier Corporation is responsible for all site and building maintenance. The Town provides for snow and trash removal.

F. Marine Structure Maintenance

The Pier Corporation is responsible for all marine structure maintenance and with Town approval can borrow money for capital improvements.

G. Management of Daily Operations / Conflict Resolution Management

The Pier Corporation has two year-round, full-time employees focused on day-to-day management of the Pier. In addition, the Pier Corporation contracts with the Town to manage the harbormaster office and staff, so in this capacity, the Pier manager serves as Harbormaster and manages two full-time assistant harbormasters. During the peak summer season, the Pier Corporation employs three to four seasonal part-time staff, as well as 2 night watchmen.

H. Revenue / Operating Budget

In fiscal year 2007, total revenues were \$562,669 and total expenses were \$514,047, resulting in a net income of \$48,622. Revenue from dockage and license fees was \$346,426, or 62 percent of total revenues. The harbormaster management fee was \$137,000, or 24 percent of total revenues. Salaries and benefits totaled \$257,352 or 50 percent of total expenses. The pier lease payment was \$92,000, or 18 percent of total expenses. Other significant expenses included insurance, utilities and maintenance and repairs.

13.7. MASSPORT

A. Summary of Operations

The Massachusetts Port Authority (MASSPORT) manages the largest publicly owned marine facility in Massachusetts as well as the largest airport. The MASSPORT is a state legislated public authority and operates independent of the state or any local governments. They are self-funded and get not economic support from the state.

B. Management

It has its own Board of Directors that are appointed by the Governor on a rotating basis which provides the management for the organization. MASSPORT also has the ability to obtaining bonding for financing its projects. All operating costs are derived from revenues from their operations with Logan Airport providing substantial revenues.

C. Contractual / Accounting

Contracts and accounting associated with all agreements are all within MASSPORT's control.

D. Marketing / Sales

MASSPORT performs all their own marketing and sales associated with lease agreements, concessions, etc.

E. Site / Building Maintenance

MASSPORT perform their own site and building maintenance including roadways, landscaping, and buildings.

F. Marine Structure Maintenance

MASSPORT is responsible for all its own building maintenance. Site maintenance is performed by City departments as appropriate

G. Management of Daily Operations / Conflict Resolution Management

MASSPORT is responsible for all overall management with contracts to tenants for management of specific areas that leased out. All security it provided within its management as well as with the State Police.

13.8. Project Management Recommendations

A. Summary of Operations

The operations of Salem Wharf will be limited initially but will be important to maintain an order and a methodology for determining uses, operational limits and contractual understanding and interpretations. Management will need to deal with agreements of tenants both from marine operations to terminal building space and utilization. Marine operations will include long term leases associated with commercial

and passenger ferry operations, seasonal slips for commercial fishing, transient vessels, cruise ship port-of-calls, excursion vessels as well as other limited maritime uses of the pier.

Upland issues of parking as well bus, trolley, pedi-cabs and truck use of the site will need to be managed to provide an efficient as well as “presentable” face to visitors coming to Salem by boat and the resolution of conflicts associated with limited space.

B. Management

Similar to the examples of Oak Bluffs and Wellfleet, the City of Salem should consider a Salem Wharf Advisory Board that will provide the general oversight and management of the site including the interfacing with the Wharf Operations Manager. The Board would not have any legal position to enforce regulations, fees or agreements which would be reserved for City Council review and approval. They would provide recommendations and a structure for policies and agreements including recommendations for establishment of fees. They would also provide recommendations for the position of Wharf Operations Manager including selection and replacement as may be required. Given the role of the Board, members should be appointed on a staggered terms and consist of members which would have no conflict of interest.

The ultimate goal of management will be to develop site opportunities to a level where operations can be self-supported by revenues on a sustainable basis.

The Wharf Operations Manager will need to be an individual is entrepreneurial in spirit without sacrifice of the site or the image of the City. It is presumed that the initial position would be part time with full time presence on-site from May through November with seasonal assistance. As the site utilization increases, the role would be year-round and requiring greater seasonal coverage to maintain a 7 day / 12 hour day presence at the facility.

C. Contractual / Accounting

All contracts for multi-year agreements and leases would be formally approved through the City Council based on recommendations by the Wharf Advisory Board and the Operations Manager. Standard rates would be established annually for usage including commercial fishing, transient vessels, Ports of Call, etc. which would be submitted to the City for approval and for any changes.

Accounting and revenue collection would vary with multi-year payments going directly to the City while all other would be collected by the Operations Manager before submitted to the City. It is recommended that all revenues associated with Wharf agreements be accumulated separately by the City prior to going into City’s general fund for transparency, management and enterprise purposes.

Contracts for commercial vessels would include:

- Salem Ferry
- Excelerate Offshore Supply Vessel
- Cruise Ship Port-of-Calls – multi-year agreements

It is anticipated that fees from vessels utilizing water, power, sewage pumpout would collected during the season and payment for those utilities would be required to be paid on a monthly basis. As such an account needs to be maintained by Salem Wharf to deposit fees and pay for associated charges.

D. Marketing / Sales

The primary marketing and sales will need to come from the management entity that should include a strong web site on the opportunities of Salem Wharf as well as cross links to overall City tourist marketing.

The Operations Manager will need to be able to provide direct sales to potential users including transient vessels, visiting vessels, commercial users seeking to load/off-load from the pier, etc.

E. Site / Building Maintenance

The site will have substantial infrastructure including a new terminal building. Although the level of maintenance should be limited due to new construction, the Operations Manager will need to have the access to resources necessary to maintain the site and building to a high level. This would include site and building utilities, building janitorial requirements, pier and float maintenance requirements.

Site trash removal: Public trash receptacles may be City of Salem standard (solar powered compactors) where the City department would take responsibility or be standard receptacles where Operations staff would be required to empty them regularly into site dumpster.

Street sweeping: City street cleaning department in spring with any additional requirement contracted out if required

Snow plowing: City snow removal department.

F. Marine Structure Maintenance

Any substantial marine structure maintenance projects need to go through City for financing and approval. Where revenues are sufficient, a maintenance reserve account should be established to take care of unanticipated needs.

G. Management of Daily Operations / Conflict Resolution Management

The Operations Manager would be responsible for managing all daily issues including support for passenger vessel activities, resolution of pier user conflicts, management of pier staff, and coordination of pier partners. Unlike the harbormaster position, the operations manager should not be seen as a security position and serious issues should be directed to the Salem Police Department.

14. MARKETING PLAN

14.1. Introduction and Overview

This section reviews the recommended marketing plan for the start-up phase and stable ongoing operations of the Salem Wharf.

In general, other commercial marine facilities in Massachusetts conduct a limited amount of general advertising, relying primarily on a web site to publish general information, such as contact information, facility hours of operation, services offered, rates, and rules and regulations. It is recommended that the Salem Wharf create a web site that would serve the same function. The web site would also be an appropriate forum to promote tenant businesses, especially those that cater to general passengers and tourists, such as the Salem Ferry, excursion vessels, and cruise ships. A Salem Wharf website should link

to existing Salem public and private, resident, business and visitor organizations to build marketing and outreach capacity.

Many existing marine facilities rely on word-of-mouth to reach potential users. Therefore, it is of utmost importance that the Salem Wharf focus on quality customer service in order to build a reputation as a marine facility of choice for commercial users that might have an option to use other facilities in Massachusetts or the North Shore region. Moreover, passenger vessels catering to the general public will require a high level of cleanliness and safety on land, as well as clarity in signage and wayfinding. The facility and site should be easy for first-time visitors to navigate. The Salem Wharf will function as a gateway to the community for many first-time visitors. As the first impression of Salem, the Salem Wharf sets the tone for a visit and as such, every effort should be made to provide the highest level of experience possible.

As proposed above, the Salem Wharf Operations Manager would be responsible for facility sales and marketing; however, outreach methods would be different for different user types. Commercial vessels will require more “retail” interaction, direct, face-to-face communications by the Operations Manager and staff than passenger vessels. Passenger vessels are marine “wholesale” operations coordinated by the Operations Manager, Salem Wharf Advisory Committee and City Council.

Since the Salem Wharf will have commercial businesses that would cater to visitors to Salem (i.e. passenger vessels with the exception of transient vessels), the Operations Manager should coordinate with the City’s Office of Tourism and Cultural Affairs (Destination Salem) to attract the types of businesses that would complement the existing tourism and hospitality base. Moreover, the Operations Manager could help connect wharf businesses with local tourism and economic development agencies, such as Destination Salem, the North of Boston Convention and Visitors Bureau, Essex National Heritage Area, the National Park Service, the Salem Chamber of Commerce, and the North Shore Chamber of Commerce.

The Salem Wharf design and development program were driven, in part, by the needs of two core tenants: the Salem Ferry, which has operated onsite for several years from temporary facilities; and, an offshore supply vessel that has agreed to a long-term lease. As these users are estimated to provide over 50 percent of the facility’s total revenue, the City of Salem should focus on securing long-term leases with these users in the short term.

Each market identified as a revenue opportunity in earlier report sections is reviewed in turn to identify potential commercial users and to outline a likely communication strategy that would consist of targeted outreach and a value proposition.

14.2. Passenger Vessels

A. Passenger Ferry

The Salem Ferry is an existing tenant at the Salem Wharf currently and it is anticipated that the company Water Transportation Alternatives will continue to operate the Salem Ferry.

B. Excursion Vessels

Due to the large resident and tourist markets it serves, the Salem Wharf will have an opportunity to expand the excursion vessels that call in Salem. Water Transportation Alternatives, the operator of the Salem Ferry, has offered several excursions during the

2008 season. The new marine facility will offer additional capacity and improved services for other excursion operators to enter the Salem market.

The goal of initial marketing efforts should be to create awareness among existing excursion operators. As a public facility with limited capacity, one method for attracting the appropriate operator would be through a request for proposals (RFP), request for qualifications (RFQ) or request for letters of interest (LOI) in such an opportunity.

The Pier Manager would work within the City's existing RFP/RFQ/LOI process. In addition to regular notification channels, such as the city's website and area news outlets, the Pier Manager should develop a list of likely targets from existing ferry/excursion boat operators in Massachusetts, such as Water Transportation Alternatives, Mass Bay Line, Bay State Cruises, and Boston Harbor Cruises. Other excursion vessels operating at other Massachusetts ports, such as Gloucester, Rockport, Newburyport, and Provincetown, would also be likely candidates.

C. Cruise Ships

In 2008, the City of Salem attracted two overnight stays from cruise ships operated by the American Canadian Caribbean Line, based in Warren, RI. The marketing effort to attract cruise ships should continue to be led by the City in coordination with the Operations Manager and the Historic Ports of Massachusetts marketing initiative through the Commonwealth's Seaport Advisory Council and Office of Travel and Tourism. Due to the small number of cruise operators, direct communication will be important to highlight the facility's key attributes and the reasons Salem should appeal to cruise ship passengers. This latter value proposition ties directly into Salem's overall tourism positioning while the former would focus on the facilities functionality and passenger friendliness. In addition to American Canadian Caribbean Line, coastal cruise lines operating in the area include American Cruise Line, Pearl Seas Cruises, Cruise West, and the schooner Arabella.

D. Visiting Vessels

As visiting vessels, such as tall ships, sometimes require payment in return for a port call or do not expect to pay a dockage fee, attracting these vessels should be a low priority, only to be pursued in conjunction with citywide events and in coordination with the City and tourism marketing agencies.

E. Transient Vessels

As part of the recreational boating market, transient vessels are not part of Salem Wharf's primary commercial marine user base, but may offer revenue opportunities for short-term dockage if a priority user is not berthed. The recreational boating market is a large consumer market whose members are often drawn to marinas specializing in recreational boating. The Salem Wharf would be positioned as a secondary option for large vessels that cannot be accommodated at local marinas. Therefore, the Operations Manager should build awareness of the facility and its capacity to handle large vessels with local marina owners in Salem and the North Shore region through regular, direct communications.

14.3. Commercial Vessels

A. Offshore Supply Vessel

Through the course of this study, the City of Salem has been negotiating with a company involved in the Northeast Gateway LNG Project to homeport an offshore

supply vessel, which would also lease office and storage space in the new Salem Wharf building. The City should seek to finalize contract negotiations and reach an agreement on facility design and operational terms. Terms to consider would include placing restrictions on major provisioning and maintenance activity during peak passenger activity times at the Salem Wharf.

B. Other Commercial Vessels

The market for other commercial vessels is ill defined and is considered a secondary market based on opportunities that might arise. The Salem Wharf could be used by a number of marine-related businesses in the City and the region on an as-needed basis. The marketing strategy would entail raising the awareness of the Salem Wharf's potential benefits to commercial users, including the size of ships it can accommodate, the marine services it offers, and the Wharf's structural elements that can handle industrial loads. These benefits would be communicated formally through a website and informally through relationships with commercial vessels and commercial port operators in the area.

C. Fishing/Lobster Vessels

Lobster vessels are small enterprises and the local market consists of area residents familiar with area marine and maritime facilities. The market research indicates that there are waiting lists for commercial lobster boat slips in the region, indicating an unmet demand. Important facility attributes are that lobster berths are accessible to fisheries, have power and water services, and are protected from winter storms. These benefits should be communicated formally through the website and informally through word-of-mouth to lobster vessels berthed in the area and marina and port operators that cater to this marketplace.

14.4. Upland Markets and Opportunities

A. Overview

The upland Salem Wharf site is constrained and marine uses will drive demand for parking space, building areas and multi-modal, transfer-oriented, public and private circulation.

B. Office and Storage Space

Over fifty percent estimated year 1 revenue for onsite office and storage spaces is associated with existing ferry and commercial marine businesses. The City of Salem should secure long-term lease contracts for leasable building (office and marine industrial storage) space during negotiations with marine tenants.

C. Parking

Parking is limited onsite, which may constrain future marine enterprise potential due to lack of employee or end-user parking. Parking constraints impinge multi-modal circulation patterns. Potential for parking space premium rates during peak demand periods.

D. Events

Salem Wharf's design should incorporate water experiences, as well as "painless" transfer experiences. Salem Wharf's potential for events hinges on its ability to offer a unique and amenity-filled experience that is lasting and permanent, which might conflict with the transit transfer component. Future building designs should incorporate

a distinctive community transit lobby with an interior area for over 100 sit-down diners in non-peak hours.

E. Public Area Concessions

This study does not review the potential market for concessions onsite, but there is an existing ticket sales booth on Salem Wharf. Visitor concessionaires, hawkers, transporters and vending machines are all a potential market that would contribute to commercial activity nodes in Salem. The situation would be comparable to the Essex Street Pedestrian Mall.

F. Vessel Storage

The marina adjacent to the proposed Salem Wharf has a wait list of vessel owners desiring winter storage space. The Salem Wharf should continue to work with the marina and vessel owners to accommodate Salem waterfront usage.

14.5. Market Timing and Project Implementation

Project development management transition and start-up operations should be supported by the city with the hire of the Salem Wharf Operation Manager starting in the fall of 2010. A well-connected and multi-faceted pier manager is desired for the operations manager position. Initial duties would include monitoring the Wharf construction project, developing the accounting, billing and contracting systems, finalizing rates and regulations, and building awareness of the facility through marketing and outreach with potential users and the general maritime community in the region.

15. SUMMARY

15.1. Purpose of Study

The City of Salem is proposing a major commercial waterfront development project at the Blaney Street site which is known as the Salem Wharf Project. In order to identify the key elements in the operation and management of such a project, it commissioned this study. The key elements of this study included: Identification of the markets; identification of the anticipated revenue, the determination of the estimated operational costs, the establishment of an overall schedule to obtain required approvals and for construction; and to provide a recommendation for a management structure for its operation.

15.2. Final Plan and Construction Cost

A plan developed under another phase of the project was utilized as a basis of facility capacity and for the estimated construction cost. This plan was seen as a representation of the probably maximum site development given the upland site constraints. The development plan utilized for this study can be seen in Exhibit 2-1 which includes the major elements of a Terminal Building with office space, a “T” shaped fixed pier with commercial grade steel floats on each side pier’s approach. The facility also includes a commercial fishing dock system in the embayment. The overall construction cost for the infrastructure is estimated to be about \$16 million plus the cost of dredging. Dredging is required to provide adequate draft at the pier and in the embayment for the commercial fishing vessels.

The City of Salem is seeking funding through the Seaport Council which would fund 75 percent of the infrastructure cost as well as 100 percent dredging cost within a state Designated Port Area (DPA).

15.3. Definition of Markets

An investigation of potential markets that might utilize the site for commercial operations and provide revenue to the City to pay for operational costs as well as offset the capitol costs that the City would have to fund. As the site is in a DPA, there are restrictions as to the type of commercial entities that can operate on the site. As a DPA, the site must be for commercial water dependant uses. This would exclude recreational boating and severely restricts non-water dependent operations. Non-water dependant uses may be included but can not be more than 25 percent of the operation and not result in excluding water dependant uses.

The specific water dependant markets identified for the Salem Wharf Project are the following:

- Passenger Ferry Services with associated office/storage
- Offshore Supply Vessel (Excelerate) and associated office/storage
- Coastal Cruise Vessel - Port of Calls
- Cruise Ships
- Excursion Vessels – Whale Watch, Dinner Boats, Harbor Tour Boats
- Military, Tall Ship and Historic Vessel calls
- Lobster Boats and other commercial fishing
- Commercial Marine - Other
- Large Vessel Transient Berthing

Other associated markets identified include:

- Terminal Building Office/Storage for water dependant uses
- Terminal Building – function/meeting space rental
- Parking
- Public Area Concessions
- Vessel Winter Storage

15.4. Determination of Revenue

The fees and revenue for each of the markets was investigated and presented within Sections 5 and 6 of the report and summarized in Exhibit 7-1 in Section 7. The revenue growth was based on a three percent inflation factor as well as increase in site utilization for some markets. No increases were incorporated into the revenue that might develop as premiums charged for future limited supply.

The revenues estimated are as follows:

Year	2011	2015	2020	2025
Annual Revenue	1 Year	5 Year	10 Year	15 Year
Water Dependant Revenues	244,500	299,442	487,398	585,448
Upland Revenues	50,200	56,501	65,500	75,932
Total Revenue	\$294,750	\$355,942	\$552,898	\$661,380

15.5. Operating and Maintenance Costs

Operating and maintenance costs were estimated for the Salem Wharf Project which included a Terminal Manager and associated seasonal support staffing. It is presumed that the Terminal Manager position may be seasonal at the time of start up but would transition to a full time position once facility activity becomes significant. The major elements included within the operation and maintenance costs for the project include:

- Management and Staffing
- Building: Utilities, janitorial, maintenance and repairs
- Site Services including:
 - Lighting
 - Stormwater
 - Snow removal / sweeping
 - Trash and maintenance
 - Landscaping
- Fixed Pier – Lighting and maintenance
- Floating Barges – Lighting, maintenance, seasonal relocation
- Commercial Fishing Floats - Lighting, maintenance, seasonal relocation
- Capitol Reserves

Other utilities are presumed to be paid directly by tenants and not result in costs to the facility: The estimated annual operation and maintenance costs are as follows:

Year	2011	2015	2020	2025
Estimated Annual Operating / Maintenance Costs	\$229,305	\$268,255	\$326,373	\$397,083

15.6. Project Schedule

A project schedule was developed to illustrate the time for obtainment of the necessary regulatory approvals, for competition of the final design and constructions documents and to illustrate the construction period and time of completion. The project schedule can be seen in Exhibit 10-1. The Project Schedule indicated the following key dates:

- Obtainment of all Regulatory Approvals May 2009
- Marine Elements
 - Completion of Final Design
 - Structures Aug 2009
 - Dredging Aug 2009
 - Completion of Construction
 - Structures Jul 2010
 - Dredging Mar 2011
- Building
 - Completion of Final Design Mar 2010
 - Completion of Construction May 2011
- Upland Site Work
 - Completion of Final Design July 2009
 - Completion of Construction July 2010

15.7. Management Structure

Alternatives were investigated for creation of a management entity for the Salem Wharf. Examples of existing community commercial waterfront management organizations were investigated and summarized within the report. The final recommendation called for all legal aspects of the management to remain with the City but that creation of a Salem Wharf Advisory Board that would provide general oversight and management would be strongly recommended. They would provide guidance to the Wharf Operation's Manager who would be an employee of the City although could be by contract.

The Advisory Board, with the Operations Manager, would be responsible for review and establishment of recommended annual budgets, tenant long term agreements and annual rates and fees. All elements would be subject to formal City review and approval.

15.8. Marketing Plan

A marketing plan has been developed as part of this report to provide the City of Salem guidance in the startup phase as well as the ongoing operations as to the marketing effort and coordination that needs to be considered. This includes establishment of the Operation's Manager responsibilities, the need for web based promotion, and the coordination with other City agencies including the Office of Tourism and Cultural Affairs (Destination Salem).

APPENDIX I

Visiting Historic & Military Vessels



MEMORANDUM

DATE: APRIL 11, 2008
TO: RON BOURNE
FROM: LAUREL RAFFERTY, PORTSCAPE
RE: SALEM PORT EXPANSION PROJECT – VISITING HISTORIC & MILITARY VESSELS

VISITING HISTORIC & MILITARY VESSELS

Hosting visiting vessels, especially if part of a schooner race or Tall Ships festival, can be a spectacular event, attracting a diverse crowd that might not otherwise come to a port, and bringing positive publicity to the port and host community. Direct revenues from the vessels are not generated for a port or city by these events. In fact there may be costs. Revenues can be made by associated activities; establishing an area for vendors and charging for licenses to participate is an example. Area retail shops, restaurants, museums, and other activities may benefit economically from the influx of people.

Details on arranging for visits of historic and military vessels, including the costs and facility requirements, are presented below.

Naval Military Vessels

Destroyers, frigates, cruisers, and amphibious vessels of the U.S. or a foreign Navy are available to make calls at communities. Arranging a visit of a naval vessel is a relatively simpler process than arranging for a visit of an historic vessel or military vessel that is owned by an organization other than a navy. All requests for visits are made to one party, the Commander in Chief of the U.S. Atlantic Fleet in Norfolk VA, and there is one source representing the Commander and coordinating naval vessel visits in the Massachusetts area; currently this latter is Scott Cavanaugh. According to Mr. Cavanaugh, requests for a visit must come from the key official(s) of a community and must be made in writing (see sample letter in Appendix A1¹). Every attempt is made to honor requests – the example of community requests from the state of Maine this past year was cited, of which five out of six were honored -- but a positive response will depend on the world situation. Multiple requests per year may be made, as they have been, for example, by the City of Gloucester, which hosts ship events twice a year, and these usually (though not always) have been approved. Visits can be made at any time of year if a vessel will be docked pier-side; if the visiting vessel is to be anchored in a harbor, visits must take place in the summer. A community dictates the duration of the stay. There is neither a charge for a vessel visit nor for tours of a visiting vessel. Community sites must be of sufficient size to accommodate the visiting vessel; while navy vessels have an average length of 700 F and their drafts range from 36-39 F, there are smaller vessels requiring lesser draft. See Appendix A2 for available visiting navy and other military vessels less than 300 F long and 20 F in draft that could be accommodated at the Salem Port Expansion project site. Provisioning of the vessel is handled by the ship agent. As a security measure, a pier where the naval vessel is to be

¹ Communities are advised to send a letter as much as a year in advance of the desired date of the visit and also to update the name/rank of the Commander as the position rotates regularly.

docked will be swept for bombs prior to a vessel's visit; a community may be asked to have their local police provide for the protection of the swept site until the ship arrives. Arranging a call of a military vessel not under the jurisdiction of a navy (U.S. or foreign) is covered below along with historic vessels.²

Historic Vessels

Historic and non-naval military vessels are owned or supported by a variety of organizations – governmental, non-profit, educational, and commercial, which must be contacted individually about a possible visit. There are many Web sites that list visiting vessels and the information that communities will need to know determine the feasibility of a visit to their port (see Appendix B). There are also organizations, such as the American Sail Training Association (ASTA), which, in addition to marketing their member vessels through such means as maintaining a list of the vessels on its Web site, also provides other services with regard to vessel visits. In the case of ASTA, the information its Web site (<http://tallships.sailtraining.org>) provides on member vessels includes their support organizations and the Web sites for these support organizations. These member Web sites, in turn, generally provide detailed information on vessel dimensions, their season schedules, and their homeport. Such service is part of and supports ASTA's broader mission, which, in its own words, is to organize races and rallies to bring together sail training ships and crews with communities throughout North America. Each year ASTA organizes race events in a series of ports along a given coast – Atlantic or Pacific. Two years in advance of a race, ASTA will contract with each participating port; for each such port, per its contract, it will help in permitting, securing Coast Guard services, and promoting the event; it will also serve as contact for vessels which wish to participate. Vessels typically sign on for a whole series. Ports may use the help of such an association in coordinating a race or other event of visiting vessels.³

Like ASTA's use of races, communities and vessel support organizations frequently invite visiting vessels as part of an event, whether a race, Tall Ships or other type of maritime festival. Vessels visiting for an event in one port may also visit nearby ports; for example, two vessels which participated in Tall Ships Rhode® Island 2007 in Newport made visits in Boston Harbor during the same period. There is often coordination among organizations:

On one fourth of July a fleet -- led by New Bedford's Schooner *Ernestina*, the *Spirit of Massachusetts*, *HMS Bounty* and *Gazela of Philadelphia* -- could be viewed from ashore at Castle Island in Boston participating in the annual Turn Around of the USS *Constitution*, along with USS *Salem*, a heavy cruiser, and the destroyer *Cassin Young* in a spectacular event to honor WWII veterans. Next the four Tall Ships sailed in company along the Massachusetts coast leaving Boston ... in the afternoon ...enroute to Plymouth to anchor for an evening of fireworks in Warren Cove The ships transited the Cape Cod Canal betweenFriday, July 5th. The coastal passage finished with the ships sailing into New Bedford Harbor All four vessels docked for a weekend of tours and activities at the State Pier in New Bedford.⁴

² Source: Scott Cavanaugh, representative of the Commander of the Mid-Atlantic Naval Region

³ Source: ASTA Web site and Jonathan Harley, Race Director, and Jennifer Spring, American Sail Training Association (ASTA)

American Sail Training Association (ASTA)

⁴Source: <http://72.14.205.104/search?q=cache:bDQKbzwTkDMJ:www.ernestina.org/history/1996.html+visiting+vessels+massport&hl=en&ct=clnk&cd=4&gl=us>.

This points up the importance to a port community, which is interested in hosting a visiting vessel event, of checking the schedules of visiting ships before contacting them to determine their availability and possible opportunities to coordinate with visits they may be making in its area. The American Sail Training Association's (ASTA) next Atlantic Coast races and other events (collectively known as the Tall Ships Atlantic Challenge® Race) is in 2009 as is the next major tall ships event organized by Sail Boston Inc. that takes place in Boston Harbor (July 8-13; 2009; see <http://www.sailboston.com/index.html>).

Visiting Vessel Dimensions

Vessels participating in Tall Ships Rhode® Island 2007 ranged in overall length from 78 - 293 F, in width from 18 - 39 F, and in draft from 7.5 – 24 F (see Appendix C)

Port Responsibilities and Visiting Vessel Costs and Earnings

- Some historic vessels may be happy to come and have no fee. Others may charge from \$2000 -10,000 for a visit to a port. To defray these and other maritime event costs, Ports often seek sponsors.
- While open houses on vessels at no cost are said to be normal, vessels may charge admission, unless a port pays a vessel for a visit. Even when not charging for tours, vessels may charge for taking passengers out for a casual sail or allowing guests onboard during a race.⁵ They may also sell memorabilia or rent its space for use for receptions at the end of a day, as is frequently done, and retain the earnings from these activities. Sponsors of receptions are responsible for covering the costs of catering as well as rent.⁶
- Ports are responsible for providing for pilotage, if needed, utilities, pumpouts, certified waste disposal that is required for foreign vessels, and security. These services may be provided by the host community for free.⁷

Examples -- Different Approaches Taken by Different Port Communities to Vessel Visits

Gloucester

Gloucester hosts two major maritime events a year in which visiting naval and historic vessels participate. The Cape Ann Chamber of Commerce plays a leading role in organizing the events. In an interview, Tracy Arabian, assistant to the Chamber's Executive Director, spoke about the Chamber's approach and experience in organizing the events. She indicated that lining up historic vessel visits requires much calling of individual organizations and that a number of factors influence positive responses to visit requests. In initial invitations, selling the community – why they would want to come – is key. The standard letter the Chamber sends to the navy for a vessel visit (in Appendix A1) demonstrates how the Gloucester markets itself. The quality of the event, one that is experienced as fun -- and getting well-known for this, lead to repeat visits, and importantly, also lead to both calls initiated by the vessels themselves, now eager to visit, and referrals to other vessels. This year, 27 vessels participated in Gloucester's

⁵ Source: Michael Costello, Executive Director, Cape Ann Chamber of Commerce

⁶ Sources: Captain Jeffery Monroe, Director, Ports and Transportation Department, Portland, ME and Jonathan Harley, Race Director, American Sail Training Association (ASTA)

⁷ Source : Jonathan Harley, Race Director, American Sail Training Association (ASTA)

schooner race, a significant increase over last year race of 15 vessels. Tracey mentioned ASTA and the American Schooner Association as important sources of information on visiting vessels. According to the Executive Director of the Cape Ann Chamber of Commerce, the schooner race attracts a diverse crowd, but the numbers of people are not tremendous.

Portland, ME

Portland Maine's Ports and Transportation Department (PTD) takes direct responsibility for inviting visiting vessels. Based on prior experience with a major Tall Ships event, the Department Director, Captain Jeffery Monroe, has concluded that a series of smaller events, consisting of single vessel visits are more manageable for smaller communities, as single big events require a huge amount of resources and are costly. Single vessel visits, he believes, create their own events. See Appendix D for Portland's 2007 Ship Schedule which consisted of 10 historic vessel visits, 13 military vessels visits, and 5 festivals. Portland's PTD books events just as it books vessels. Captain Monroe advises that a good variety of vessels, domestic and foreign, be invited and that they be complementary to and not the same as home-ported vessels. He believes hosting separate festivals for historic vessels vs. other types of festivals is the ideal. In his experience, visiting historic vessels may charge from \$2000-\$10,000 a visit or may charge up to \$5 per person for admission to the vessel (above \$5/person is said not to sell). To generate revenues for the city, it allows vendors to set up on a 1.5 acre site and charges a \$25 licensing fee or 5-10% of gross vendor revenues; in its experience, charging a licensing fee is simpler.

Newport, RI

Tall Ships Rhode® Island 2007 which took place in Newport was a participating event in ASTA's series on the Atlantic Coast this year. ASTA's performed the role described above, setting up the event two year's in advance, and serving as the contact for vessels, among the other services its provides. It was not involved in organizing at the port. An event-specific governing board ran the event. Newport has never charged admission to anyone visiting its ships. It is said to work hard to obtain sponsors. It does use a ticketing system as a means of managing the numbers of people on a vessel at a given time.⁸ The Friendship, a replica of an historic vessel based at the Maritime National Historic Site in Salem (see below), was invited. It was paid \$10,000 to attend (an amount it is typically paid).⁹

Salem

Salem is homeport to replicas of two historic vessels which make visits to other ports, the Friendship, that is exhibited at Salem's Maritime National Historic Site, and Fame, owned and operated by a commercial enterprise, Pennant Enterprises, Inc., based at Salem's Pickering Wharf Marina (<http://www.schoonerfame.com/>), that, in addition to making visits to others ports, several times daily offers cruises to the public on historic Salem Sound, and is available for private charters. There are synergies between Friendship and Fame – they jointly host a lecture series once a month and there is much word-of-mouth from each about the other – but as different types of vessels supported by different types of organizations, they have different constituencies. Friendship is not

⁸ Source: Jonathan Harley, Race Director, American Sail Training Association (ASTA)

⁹ Source: Colleen Bruce, Wharfinger, Salem Maritime National Historic Site

certified to carry passengers, and is a much larger vessel, which makes impractical short two-hour tours that are offered by Fame. Friendship's marketing is largely by word-of-mouth. It gets visit requests and referrals, many stemming from its membership with ASTA, which advertises Friendship on its Web site and in its directory. ASTA is found to be a well-used resource in the experience of staff responsible for Friendship.

Friendship's location is within the Essex National Heritage Park; the Park, as part of its role in promoting the maritime heritage of Essex, serves to market Friendship to other Essex County ports, such as Newburyport and Lynn. At Friendship's location in Salem, there is a visiting vessel dock that can accommodate ships 100 F in length and 13 F in draft and is used "in fits-and-starts"; commercial vessels are not allowed to use the dock unless the purpose of their stay is an activity with public involvement.¹⁰

Through initiatives of the City of Salem, visiting Navy, Coast Guard and other types of vessels have docked at the facilities now owned by Dominion Energy, next to the project site. The most recent visit was said to have occurred approximately six years ago. The visits sometimes involved tours of the vessels for which there was no charge. Because the site hosts a power plant, there are security issues, making logistics a very sensitive matter. The need for liability insurance is one of the biggest problems; this insurance has been paid by a third party.

The Historic Ports of Massachusetts Initiative

The Historic Ports of Massachusetts Initiative, while focused on cruise ships, recognizes that there is a fine line between these vessels and some historic vessels which carry passengers. A report on the Initiative, in its final version, is to include an attachment on visiting historic and educational vessels.¹¹

¹⁰ Source: Colleen Bruce, Wharfinger, Salem Maritime National Historic Site

¹¹ Source: Greg Ketchen, Project Manager, Historic Port of Massachusetts.

Appendix A1

Sample Letter Requesting Visit of Naval Vessel

This is the Cape Ann Chamber of Commerce's standard request for visit sent annually to the Navy. Tracy Arabian of the Cape Ann Chamber indicates that it is a good idea to send this letter as much as a year in advance of the desired date of the visit. She also says that the name/rank of the Commander needs to be updated regularly as this position rotates periodically.

19 November 2008

Admiral John B. Nathman, U.S. Navy
Commander in Chief
U.S. Atlantic Fleet
1562 Mitscher Avenue
Norfolk, VA 23551-2487

Dear Admiral Nathman:

Planning is already underway for the two major 2006 events that will honor the marine heritage of the historic seaport of Gloucester, the oldest fishing port on the Atlantic Coast. Knowing that the scheduling of the Navy's summertime operations will be conducted in scheduling conferences during early 2006, I am writing at this time to invite the U.S. Navy to participate in these events.

Gloucester's people, and its many visitors, always welcome visiting U.S. Navy ships with great enthusiasm. Accordingly, I am pleased to extend the City of Gloucester's invitation to the Navy for the participation of Navy ships in these events, a description of which is as follows:

- ◆ St. Peter's Fiesta, whose history can be traced back to Gloucester's earliest days as a major fishing port, is known throughout the United States. Scheduled for June 22-25, 2006, the Fiesta draws a large enthusiastic crowd to its combination of religious celebrations, music, food, sporting events, and parade, and culminates in the famous Blessing of the Fishing Fleet.
- ◆ The Gloucester Schooner Festival commemorates the classic fishing schooner's contribution to the history of Gloucester, and features a dozen of the last remaining of these great old 100 foot vessels as they compete for the Esperanto Cup, one of the trophies from the first International Fishermen's Races held off Halifax, Nova Scotia in 1920. The Festival will be conducted on Labor Day weekend, September 1-4, 2006. Other highlights include: a parade of sail, races for 60 additional small sailing craft, deck tours, public sails, a lighted boat parade, and a grand fireworks display over Gloucester harbor.

Admiral John B. Nathman
U.S. Navy
19 November 2008
Page Two

Each of these events focuses on Gloucester's relationship with the sea, and draws huge local and tourist participation, as well as receiving national media attention. U.S. Navy ships have been major features of many prior Gloucester celebrations, and their participation in the 2006 events would enable the Navy to display its vessels to an appreciative, enthusiastic, and interested citizenry. We sincerely hope that the Navy will be able to schedule these ship visits in 2006. Please contact me if we can provide any additional information you may require.

Sincerely,

Michael Costello
Executive Director

cc: Gary Barrett, District Director, Office of Congressman John F. Tierney
Mayor John Bell, City of Gloucester
Scott Cavanaugh, U.S. Navy

Fax to: QMC Emanuel, 757-836-6623

Scott Cavanaugh, U.S. Navy
Commander
NE Fleet Support
Charlestown Navy Yard, Building 24
Charlestown, MA 02129

(617) 242-5672

Appendix A2

Available visiting navy and other military vessels less than 300 F Long and 20 F in draft *

Source	Vessel Type	Draft (F)	Length (F)	Width @ Beam (F)	Other Comments
US Naval Academy	Yard Patrol Crafts	< 20	108	24	Come in units of 6; vessels can be tied up three-abreast
US/Foreign Navy	Patrol Boats (PCs)	10	179	26	
	Mine Sweepers	15	225	39	
Navy of Brazil	Cisne Branco – Brazilian Navy Tall Ship	15.75	254	34.5	

Source: Scott Cavanaugh, representative of the Commander of the Mid-Atlantic Naval Region; and
Portscape Memo of 11-3-07, Appendix

* Military ships not under the jurisdiction of a navy generally appear to be floating exhibits or dry-docked at their homeport and/or are greater than 300 F in length.

Appendix B

Web Sites on Visiting Historic Vessels

- **American Sail Training Association** <http://tallships.sailtraining.org/> The American Sail Training Association organizes races and rallies to bring together sail training ships and crews with communities throughout North America. Regional sail training events take place each year and draw the interest and enthusiasm of hundreds of thousands of visitors. Trans-oceanic sail training races, organized under the auspices of Sail Training International take place every 5 - 10 years and involve multiple national sail training organizations. ASTA coordinates sail training activities in the US and Canada.
American Sail Training Association
240 Thames Street, PO Box 1459
Newport, RI 02840 USA
Tel: +1-401-846-1775
- **American Schooner Association** <http://www.amschooner.org/> The object of the Association is to foster, promote and encourage the enjoyment, traditions, and preservation of schooners by supporting individuals and organizations that are in sympathy with our object, by maintaining a record of these vessels past and present, and by coordinating a program of racing and cruising.
American Schooner Association
P.O. Box 484
Mystic, CT 06355
No tel. no. provided
If have questions: e-mail at asa@amschooner.org.
The Web site lists schooners, their metrics, support organizations, and more.
- **National Park Service Maritime Heritage Program -- Historic Ships Listed by Region and State** -- Identifies vessel dimensions, homeport, contact information.
http://www.nps.gov/history/maritime/ships/lists/state_1.htm
- **Great New England and Northeast Coast Tall Ships** – listed at
<http://www.sloopprovidenceonline.org/links.htm>
- **Schooner Man** -- Lists vessels at http://www.schoonerman.com/sailing_ships_a.htm

Appendix C

Visiting Historic Vessel Dimensions¹²

Vessel	Type	Homeport	Weight	Sparred Length (F)	Width (F)	Draft (F)
Ernestina	Schooner	New Bedford		156	25.6	13
Gazela Primeiro	Barkentine	Philadelphia	652 DW	177	25	17
Alabama	Schooner	The Black Dog Tall Ships http://www.coastwisepacket.com/ Nantucket		126	21	12.5
Bluenose II	Schooner	Lunenburg Nova Scotia		181	27	16
Bowdoin	Schooner	Castine ME		100	20	10
Cisne Branco	Brazilian Navy Tall Ship fully rigged	Rio de Janeiro Brazil		254	34' 6"	15.75
Dewaruci	Barquentine	Surabaya, Indonesia		191		13
Friendship	Fully rigged	Salem MA		171	30	11.25
Gloria	3-masted Barque	Columbian Navy		250	30	16
Gorch Foch II	3-masted Barque	Kiel, Germany		293	39	15.5
Harvey Gage	Schooner	Watch Hill, RI		131	25	7.5
Picton Castle	3-masted Barque	Lunenburg Nova Scotia		176	24	14.5'
Pride of Baltimore II	Topsail Schooner	Owned by state of Maryland, operated by Pride of Baltimore Inc		157	26' 4"	12.5
Prince William	Brig	Portsmouth England		195	33	15
Providence	Square topsail Sloop	Providence RI		110	20	10
Spirit of Bermuda	Schooner	Bermuda		112		9.5
Spirit of Massachusetts	Schooner	Boston MA		125	24	10.5
Tarangini	3-masted Barque	Kochi India		177	28	15
Tree of Life	Gaff Schooner	Newport RI		93	18' 6"	8.42
Urania	Ketch Rig	Den Helder, Netherlands		78	18	9.83
Virginia	Schooner	Norfolk VA		126	12' 3"	24
						262.25
Average						13.8
Range						7.5-17

¹² Vessels participating in Tall Ships Rhode® Island 2007

Appendix D -- Port of Portland Maine Ship Schedule 2007

PORT OF PORTLAND, ME 2007 BERTHING SCHEDULE											
Rev. 10/1/2007											
Vessel Name	Arrival	Time	Departure	Time	Port Day	Duration	Berth	Agent	Line	Requested On	Passengers
JANUARY											
FV American Freedom	13-Jan	12:00	16-Jan	18:00	Sat-Tue	80	POT	APF	APF	01/12/07	N/A
USCGC Willow	23-Jan	8:00	23-Jan	12:00	Tue	4	POT	USCG	USCG	01/15/07	N/A
USCGC Willow	26-Jan	12:00	28-Jan	10:00	Fri-Sun	TBD	POT	USCG	USCG	01/05/07	N/A
FEBRUARY											
USCGC Seneca	6-Feb	9:00	8-Feb	9:00	Tue-Thu	48	POT	USCG	USCG	01/09/07	N/A
MT Overseas Shirley	23-Feb	6:00	4-Mar	12:30	FRI-SUN	9 Days	POT	Inchcape	OSG	02/22/07	N/A
MARCH											
TV Kings Pointer	5-Mar	18:00	7-Mar	14:00	Mon-Wed	44	MSP	USMMA	USMMA	12/07/06	N/A
MT Bahama Sprit	17-Mar	22:00	18-Mar	5:30			POT	Inchcape			LOA 810
USCGC Campbell	19-Mar	12:00	21-Mar	12:00	Mon-Wed	48	POT	USCG	USCG	02/12/07	N/A
Delaware II	24-Mar	11:00	25-Mar	11:00	Sat-Sun	24	POT	NOAA	NOAA	02/26/07	N/A
APRIL											
Trans. Trade Show	20-Apr	tbd	21-Apr	tbd	Fri-Sat		IMT	N/A	N/A	N/A	N/A
USCG Reliance	29-Apr	9:00	2-May	10:00	Sun-Wed	73	POT	USCG	USCG	4/20/2007	N/A
MAY											
Delta Mariner	5-May	21:30	9-May	2:00	Sat-Wed		IMT	Moran	N/A	05/01/07	N/A
JUNE											
Grandeur of the Seas	3-Jun	8:00	3-Jun	19:00	Sun	12	POT	Quay	RCCL	03/01/06	1950
Cat Walk	10-Jun	10:00	10-Jun	14:00	Sun	4	MSP			03/30/07	
Canadian HMCS (2)	8-Jun	11:00	11-Jun	10:00	Fri-Mon		POT			05/15/07	LOA 181-B 37-D 11.5
US Navy YP Craft (6)	11-Jun	10:00	14-Jun	9:00	Mon-Thu		POT	US Navy	US Navy	10/18/06	N/A
Olympia Press Conference	13-Jun	10:00	13-Jun	11:00	Wed		MSP			06/07/07	N/A
Pride Dance	16-Jun	10:00	17-Jun	2:00	Sat-Sun		MSP			05/14/07	N/A
Grande Caribe	21-Jun	9:00	22-Jun	14:00	Thu-Fri	29	POT	Aocl	Aocl	10/04/06	100
Maasdam	26-Jun	9:00	26-Jun	17:00	Tues	8	POT	Moran	HALW	08/12/05	1258
Grande Caribe	28-Jun	13:00	2-Jul	6:00	Thu-Mon	89	POT	Aocl	Aocl	10/04/06	100
ME Caribbean Connection	30-Jun	7:00	30-Jun	0:00	SAT	17	MSP	N/A	N/A	03/19/07	N/A
JULY											
Grandeur of the Seas	1-Jul	8:00	1-Jul	19:00	Sun	12	POT	Quay	RCCL	03/01/06	1950
Spirit of Nantucket	1-Jul	8:00	1-Jul	18:00	Sun	10	IMT	N/A	Cruise West	01/04/07	102
Maasdam	3-Jul	9:00	3-Jul	17:00	Tues	8	POT	Moran	HALW	08/12/05	1258
Grande Caribe	7-Jul	17:00	10-Jul	6:00	Sat-Tue	59	POT	Aocl	Aocl	10/04/06	100
Grande Caribe	15-Jul	17:00	17-Jul	14:00	Sun-Tue	18	POT	Aocl	Aocl	10/04/06	100
Casco Bay Arts Festival	21-Jul	tbd	22-Jul	tbd	Sat-Sun	48	MSP	N/A	N/A	08/29/06	N/A
Grande Caribe	23-Jul	13:00	24-Jul	12:00	Mon-Tue	23	POT	Aocl	Aocl	10/25/06	100
American Glory	24-Jul	9:00	24-Jul	18:00	Tues	9	POT	ACL	ACL	06/29/07	Length 160'
USCG Ida Lewis	25-Jul	17:30	26-Jul	9:00	Wed	13	POT	USCG	USCG	07/11/07	N/A
RV Gloria Michelle	27-Jul	TBD	29-Jul	TBD			FP	NOAA	NOAA	06/29/06	Length 72' Draft 10'
Grandeur of the Seas	29-Jul	8:00	29-Jul	19:00	Sun	12	POT	Quay	RCCL	03/01/06	1950
USMMA YP 108											
AUGUST											
RV Gloria Michelle	3-Aug	TBD	5-Aug	TBD			FP	NOAA	NOAA	06/29/06	Length 72' Draft 10'
Cultural Survival	4-Aug	tbd	5-Aug	tbd	Sat-Sun	48	MSP	N/A	N/A	08/05/06	N/A

Appendix E

List of Individuals Interviewed

Scott Cavanaugh, representative of the Commander of the Mid-Atlantic Naval Region

Michael Costello, Executive Director, and Tracy Arabian, Assistant to the Executive Director, Cape Ann Chamber of Commerce

Captain Jeffery Monroe, Director, Ports and Transportation Department, Portland, ME

Greg Ketchen, Project Manager, Historic Ports of Massachusetts Initiative

Colleen Bruce, Wharfinger, Friendship, Maritime National Historic Site in Salem, MA

Jennifer Spring, American Sail Training Association (ASTA)

Jonathan Harley, Race Director, American Sail Training Association (ASTA)

APPENDIX II

**Marine Markets – Commercial Fishing/Lobster; Other Commercial Vessels;
Transient Vessels**

MEMORANDUM

DATE: APRIL 11, 2008

TO: RON BOURNE

FROM: LAUREL RAFFERTY, PORTSCAPE

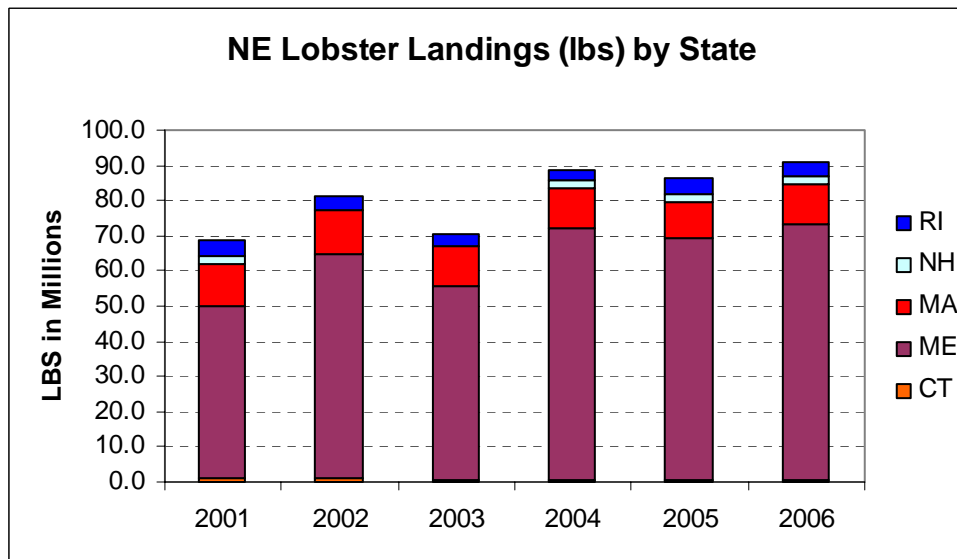
RE: SALEM PORT EXPANSION PROJECT – MARINE MARKETS – COMMERCIAL FISHING/LOBSTER;
OTHER COMMERCIAL VESSELS; TRANSIENT VESSELS

MARINE MARKETS – COMMERCIAL FISHING/LOBSTER; OTHER COMMERCIAL VESSELS; TRANSIENT VESSELS

Commercial Fishing/Lobster

Commercial lobster fishing is Massachusetts' most economically significant fishery conducted within state waters.¹ Massachusetts' landings of lobster from all waters, territorial and non-territorial, at 10.9 million pounds, was valued at \$52.4 million dollars in 2006, 11% higher than 2005, making the state the second leading producer in the country, after Maine. Maine and Massachusetts combined produced 90% of US landings.²

The two charts below³ show the relative standing in commercial lobster landings in pounds and value among New England States from 2001-2006. While Maine has had a commanding lead consistently, Massachusetts has been second consistently.

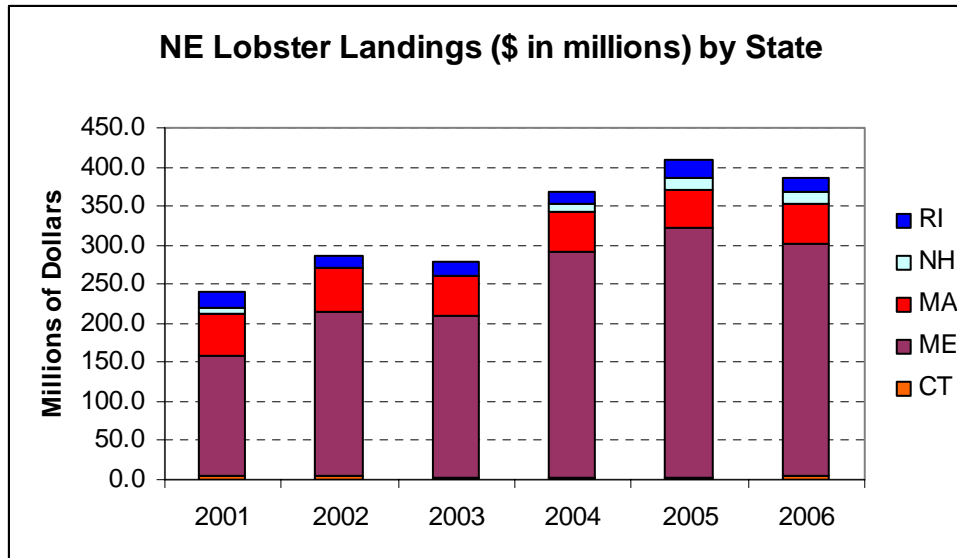


¹ 2005 Massachusetts Lobster Fishery Statistics, Dean, M.J., S.R. Reed, and T.B. Hoopes (TR31-2005), p. 1.

http://www.mass.gov/dfwele/dmf/publications/tr31_2005_lobster_report.pdf

² Source: http://www.st.nmfs.noaa.gov/st1/fus/fus06/01_intro2006.pdf. Statistics compiled by Massachusetts differ, as indicated below.

³ Source: www.nmfs.gov. See Appendix A for data depicted in the graphs.



Within Massachusetts, Essex county, in which Salem is located, retained its position in 2005 as first in the state in number of pounds of lobster landed and in number of active fisherman. The statewide ex-vessel price for Essex County was \$4.85 in 2005, less than the statewide average of \$5.02.⁴

The following chart shows the number of active commercial lobstermen, lobster landings, and traps-fished by homeport for 2005 for Salem, other communities along Salem Sound and on the North Shore, and for important fishing ports of the state. Rankings in each of these measures are also shown.⁵ (See Appendix B for this data on all communities of the state engaged in lobster fishing.) As the chart indicates, Gloucester is first in all performance measures. Beverly has top ranking in all categories among the communities along Salem Sound, followed by Marblehead. Salem ranks low in all categories, between 35th and 37th, of the total of 46 communities covered.

Community	Fishermen		Catch (lbs)				Effort			
	#	Rank	Territorial	Non-Territorial	Total	%	Rank	Traps	%	Rank
Gloucester	194	1	815,170	751,975	1,567,145	14.01	1	61,988	14.58	1
Rockport	64	4	484,158	122,177	606,335	5.42	5	24,154	5.68	4
Beverly	39	8	416,817	148,307	565,124	5.05	7	21,143	4.97	6
Marblehead	31	12	274,153	24,805	298,958	2.67	13	14,619	3.44	9
Manchester	26	15	186,879	6,987	193,865	1.73	19	8,841	2.08	18
Danvers	8	30	51,375	0	51,375	.46	31	3,130	.74	30
Salem	6	37	26,389	0	26,389	0.24	38	2,110	0.50	35
Boston	51	6	292,038	519,024	811,062	7.25	2	18,988	4.47	7
New Bedford	120	2	51,670	423,997	475,666	4.25	9	5,782	1.36	23
Westport-Fall River	26	15	24,963	744,203	769,166	6.88	4	13,143	3.09	11
State Total	1,222	46	6,462,788	4,721,940	11,184,728	100.00	46	425,020	100.00	46

⁴ 2005 Massachusetts Lobster Fishery Statistics, Dean, M.J., S.R. Reed, and T.B. Hoopes (TR31-2005), p. 5.
http://www.mass.gov/dfwele/dmf/publications/tr31_2005_lobster_report.pdf. The ex-vessels price referred to is the landings-weighted average ex-vessel price as taken from the SAFIS dealer reporting database.

⁵ Ibid., p. 7. Data does not include seasonal permits

Opportunity

Factors affecting the level of opportunity there is in developing lobster fishing dockage fall into two categories:

- Those concerning the dockage itself -- its supply, and characteristics of its supply, its price, safety in terms of weather exposure, and service level provided
- Those concerning the lobster resource, its supply -- the status of the stock -- and its sustainability

Dockage

In Salem Sound and the North Shore area, there is a shortage of year-round commercial fishing dockage space that is of a good price and safe in terms of protection from winter storms.

In Salem, itself, there are two facilities that have permanent berthing space for commercial fishing vessels, Winter Island, which is public, and Pickering Wharf Marina, which is private. At Winter Island, there is a pier, but it is unused for permanent berthing because of exposure to winter storms. At Pickering Wharf Marina, there is space buffered from winter storms; the space includes a 500-F wharf, 10 slips at 39 F each (accommodating boats on two sides), and 3 docks with a total length of 130 F. Slots are allocated on a 1st-come, 1st-serve basis. Fees for the summer are \$150/F/6-months (May –October) and \$51/F for the winter 6-months November through April. With this rate structure, pleasure craft generally fill the facility in the summer season, though one lobster vessel used the facility this past summer. Generally six+/- lobster vessels use it in the winter season⁶; currently there are 11 lobster vessels at the facility⁷. The Dock Master believes that demand for commercial lobster dockage is stronger than the supply, but could not say whether any requests for dockage at his facility in the winter season had not been met. He said the facility is generally full year-round though in the winter, there are fewer vessels, as larger pleasure craft tend to use the facility at this time of year; commercial sight-seeing vessels also use the facility. Other than Hawthorne Cove, which does not accommodate commercial vessels, Winter Island is the only facility in Salem with available mooring space with good access and depths; however, weather exposure is an issue in this location; moorings here are a flat \$500/yr and services are good. There are currently two lobster boats moored at Winter Island. With regard to potential new commercial lobster fishing space, a dredging project is proposed at an existing pier elsewhere in Salem in the vicinity of the new Beverly-Salem Bridge. The project is for a private facility that would accommodate 4-6 lobster vessels and would provide protection for these vessels from winter storms. The status of the project is unknown, but there are significant obstacles to it going forward, including conflict with existing plans for a park for the neighborhood. The existing park plans represent mitigation for the bridge construction project and would require City Council approval to change; there is also neighborhood objection to the change.

Nearby Marblehead has no slips; moorings have weather exposure and the wait at 12-15 years is long; however, commercial vessels of residents may be given preference, and dockage fees are quite low at \$3.50/F/yr, less than those for recreational boats; services include a conveyor for loading and off-loading lobster catch at the State St. Landing. According to Harbor Master's office records, dated 12/2007, there were mooring permits for 29 lobster boats in Marblehead. In the winter, some vessels are taken out of the water, some relocate to Gloucester, Beverly, and Pickering Wharf in Salem.

Beverly, the leading producer in lobster landings in Salem Sound and among the top ten statewide in all of the criteria ranked by the Massachusetts Division of Marine Fisheries (DMF; see Tables on p. 2 and in Appendix B), has what is considered by some the premium public commercial berthing space for the area at the public Beverly Harbor Center (BHC). Its fees and services reflect those of the Jodrey State Pier in Gloucester, which the Facilities Manager for the Harbor Center considered the model in the area for commercial dockage. Gloucester, as previously noted, is the top lobster producer in the state. Dockage fees for commercial vessels at BHC are \$76/F/yr. Dockage is protected from winter storms. Services include a hoist for loading/unloading, electricity, fuel and bait delivery, but no haul-out or launch. The facility has 17 commercial slip spaces; while one is currently available; there is a waiting list of 6-10, demand is said to have been less in the past.⁸

⁶ Source: Tom Moran, Dock Master, Pickering Wharf Marina.

⁷ Site survey, 4/9/08.

⁸ Source: Beverly Harbor Center Facilities Manager. The Facilities Manager reported that waiting list application fees might have an impact on the numbers applying for placement on the list.

Manchester also has mooring space only; however, no commercial vessels are allowed; while the topography offers winter storm-weather protection, there is icing over.

Rockport offers protected mooring space for commercial lobster vessels at \$7/F/yr; there are slips, for which fees are \$14/F/yr; however, as the maximum length vessel they will accommodate is 22 F, most lobster vessels are too large for them. Moorings are ample in number but nonetheless there is a long waiting list; a very small number of the total 408 currently on the waiting list are for fishing or lobster vessels. Lobster vessels on moorings are 150-180 in number.

Jodrey State Pier in Gloucester has space for 50 commercial vessels, 45 of which are filled by fishing boats used for lobstering 60% of the time and fishing of other species 40% of the time. There is a wait list of 50. Dockage fees are \$79.20/F/yr.

The key findings of reports on Gloucester's Commercial Fishing industry prepared in 2003 and 2005 are that there is a shortage of berthing space, and further that the shortage is understated in these reports as they focus on groundfish needs, not those of other species, including especially lobster. According to a member of a panel involved in the industry review, lobster boats '*...probably take up more docking space than the larger boats because there are so many of them . . .*'⁹

The report goes on to cite a number of conditions which put more and more pressure on commercial fishing dockage space:

- Gloucester's commercial permanent berthing serves not only Gloucester, but communities in driving proximity, including Beverly
- Smaller nearby harbors have been losing their commercial dockage, and their commercial fishing vessels have looked to Gloucester for space
- Limits on days-at-sea for fishing for many species mean vessels are tied up at docks longer
- The downturn in fishery landings, has led to deferred dock maintenance, and sometimes, as a result, docks that can no longer be used.¹⁰

Within the past year, the press has reported the migration of Maine fishermen to Gloucester because of regulations in the Maine which prohibit landing lobster by-catch, which is allowed in Massachusetts (see article in Appendix C).

Space Available for Commercial Lobster Fishing Boats

Location	Current # Lobster Vessels	Availability of Space
Salem		
Public: Winter Island	2	Ample mooring space, pier unused for permanent berthing space because of exposure to winter storms
Private: Pickering Wharf	11 (winter)	Berthing space at a 500-F wharf, 10 39-F slips(2 sides), and 130-F dock, allocated on a 1 st -come 1 st -serve; used mostly by pleasure craft in summer, 1 lobster vessel was said to use dockage this past summer
Marblehead	29	12-15 year wait for mooring Preference may be given to commercial fishing vessels of residents
Beverly	16	17 spaces, 6-10 on Waiting List
Gloucester ^a	45 ^b	50 spaces, none available, wait list of 50
Rockport	150-180	Moorings - long wait list for moorings Slips - Length will not accommodate most lobster vessels

^a Jodrey State Pier only. ^b Vessels fish lobster 60% of time, other species 40% of time.

⁹ *Commercial Fishing Industry Needs on Gloucester Harbor, Now and In the Future, 2005*, Supplement to a Study of Gloucester's Commercial Fishing Infrastructure: Interim Report October 15, 2003, p. 4.

¹⁰ *Ibid.*, pp.14-18.

Dockage Fees for Commercial Fishing Boats¹¹

Location	Fees
Salem	
Public Winter Island	\$500/yr
Private Pickering Wharf	\$150/F/6-months (May-Oct); \$51/F/6-months Nov-Apr
Marblehead	\$3.50/F/yr for moorings
Beverly	\$76/F/yr for slips
Gloucester	
Public	
Jodrey State Pier	\$79.20/F/yr for slips
St. Peter's Marina	\$3.75/F/month for dockage
Harbor Cove	\$4/F/month for dockage
Private	
Marine Railways*	\$4/F/month+ \$100/month (covering dumpster and electric)
Rockport	\$7/F/yr for moorings; \$14/F/yr for slips (see above)

* Must buy fuel and repairs from facility

Storm Protection for Commercial Fishing Boats

Location	Storm Protection
Salem	
Public: Winter Island	Moorings and pier are exposed to winter storm weather
Private: Pickering Wharf	Dockage protected from winter storms
Marblehead	Moorings exposed to winter storm weather
Beverly	Dockage protected from winter storms
Gloucester	Dockage protected from winter storms
Rockport	
Pigeon Cove	Moorings protected from winter storms

Services Provided for Commercial Fishing Boats

Location	Services
Salem	
Public: Winter Island	Hoist at pier, launch/haul service, seasonal dinghy rack storage, water, boat ramps, parking
Private Pickering Wharf	30+50 amp electrical service
Marblehead	Loading/unloading conveyor (at State St. Landing), launch ramps, floats, commercial fishing vessel float rings
Beverly	Hoist for loading/unloading, electricity, fuel and bait delivery, no haul-out or launch

Status of Lobster Stock

There are short- and long-term threats to the Massachusetts lobster industry. Short-term threats are being appropriately attended to; long-term threats require more attention.

There has been an expansion of effort in the lobster fishery that has been significant and rapid. From the late 1940s through the early 1950s, landings were approximately 25 million pounds. More recently, from 1993-2005, lobster landings increased from 57 million to 88 million pounds, 80% of which were caught in the state's waters.¹² In Massachusetts, concern that expanding lobster fishing was threatening the stock's sustainability led to a prohibition as of 1988 on the issuance of any new coastal commercial lobster fishing permits.¹³ The number of coastal permits, now at 1,428, has fallen for the past eighteen consecutive years. Authorizations for permit transfers in 2005, at 46, were few. The MA DMF report

¹¹ Which may cover additional services

¹² Species Profile: American Lobster Managers Face the Challenge of Rebuilding Depleted Southern New England Stock, Excerpted from ASMFC Fisheries Focus, Vol. 16, Issue 5, July 2007, p.2.

¹³ Permits that allow lobster harvesting anywhere, including, most importantly, the state's coastal waters.

shows that in 2005, 316 offshore permits were issued, continuing a decline over the past three years of the five years shown.¹⁴

Level of effort is thought to be a function of not only the number of fisherman, but the number of traps. As a result, in addition to a moratorium on new licenses, trap limits have been set in some areas.¹⁵

There are additional controls as well. In the management of most fish species, a total allowable catch (TAC) is set, that is, a cap is established on the number or weight of animals that can be landed. In contrast, the lobster fishery is managed through controls to sustain lobster egg production.¹⁶ Management controls to meet this egg production objective, control fish mortality, and reduce latent fishing effort¹⁷, set minimum (and in some areas maximum) legal sizes and prohibit the catching of egg bearing females.

Nonetheless assessments of the stock status indicate that there are problems: in the Southern Gulf of Maine, in Massachusetts Bay and Stellwagen Bank -- the area which borders the coast of Massachusetts from its North Shore to Provincetown and the Outer Cape¹⁸-- there is a low abundance of lobster, high lobster mortality, and low recruitment, and in Southern New England, there is overfishing and stock depletion. In Georges Bank (GBK) and most of the Gulf of Maine (GOM), while there is no overfishing and stocks are not depleted, in the case of the GOM, the high stock abundance is matched by high effort levels, making these levels probably unsupportable if abundance returns to historic median levels, and in the GBK, the high effort levels mean increases in effort are inadvisable.¹⁹

If lobster landings fall to the long-term average, they will be reduced by more than 50% of current landings.²⁰ This return to historical landings will have significant impact on the lobster fishing industry.²¹ Average catch rates, that is, catch per trap-haul, for coastal lobstermen in 2005 was approximately 10% lower than in 2004 and 25% lower for offshore lobstermen²². Catch rates increase with amount of trap soak time up to a week; when this factor is taken into account the term 'pounds per trap-haul*set-over-day' is used. The average catch per trap-haul*set-over-day for offshore lobstermen for 2005 was the lowest reported catch rate for Offshore Lobstermen on record, 19% lower than 2004. While there has been variability year-to-year between 1994 and 2005, the trend line is one of decreasing catch rates for both Coastal and Offshore lobstermen. A comparison of catch rates for state territorial waters of Salem Sound, which fall in Area 3, and those of other coastal areas of the state are shown below.

¹⁴ 2005 Massachusetts Lobster Fishery Statistics, Dean, M.J., S.R. Reed, and T.B. Hoopes (TR31-2005), pp 1-4.
http://www.mass.gov/dfwle/dmf/publications/tr31_2005_lobster_report.pdf

¹⁵ According to a New England Aquarium report on the lobster fishing industry, "...regulating the number of traps places no limit on the number of lobsters that can be harvested commercially."

¹⁶ The Sustainability of the Massachusetts Lobster Fishing Industry Dr. Michael Tlusty Research Scientist New England Aquarium Boston MA 02110-3399 January 2003, p. 7. "The ASMFC is attempting to rebuild lobster populations to a point where egg production values are 10% that of an unfished population..." (p.19)

¹⁷ This refers to "latent traps", that is, "... traps that are not currently being fished either because the fisherman is not using their full allotment (a fisherman with 420 traps in the water can still put in an additional 380 for their quota of 800), or because the license is unfished (*The Sustainability of the Massachusetts Lobster Fishing Industry Dr. Michael Tlusty Research Scientist New England Aquarium Boston MA 02110-3399 January 2003*, p. 10)."

¹⁸ Area 514, of the North Western Atlantic Ocean National Marine Fisheries Service Statistical Reporting Areas; see Map in Appendix D.

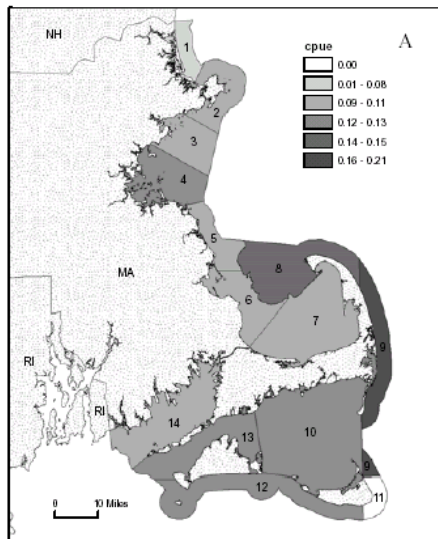
¹⁹ Species Profile: American Lobster Managers Face the Challenge of Rebuilding Depleted Southern New England Stock, Excerpted from ASMFC Fisheries Focus, Vol. 16, Issue 5, July 2007, Fact Sources: Lobster Institute & RI Sea Grant, NMFS; and ASMFC Lobster Flyer, web, 2006.

²⁰ COASTAL FISHERY RESEARCH PRIORITIES AMERICAN LOBSTER (*Homarus americanus*) Prepared by the Gulf of Maine Aquarium January 10, 2001.

²¹ Recent record landings led lobstermen to incur great debt. According to a report on the MA lobster industry: "Economics of the lobster industry are difficult, particularly for fishermen given the recent record landings. This has caused them to incur great debt that makes the appropriate investment unsustainable if landings return to their historical average. Given that the lobster fishery is not statically efficient (meaning that the industry could put in less effort to achieve the same yield, Herriges 2001) the appropriate investment will always be maximized, and any downturn in landings will significantly impact the lobstermen." *The Sustainability of the Massachusetts Lobster Fishing Industry Dr. Michael Tlusty Research Scientist New England Aquarium Boston MA 02110-3399 January 2003*.

²² Source: 2005 Massachusetts Lobster Fishery Statistics, Dean, M.J., S.R. Reed, and T.B. Hoopes, pp. 11-12.
http://www.mass.gov/dfwle/dmf/publications/tr31_2005_lobster_report.pdf.

2005 median catch per unit of effort (CPUE- pounds per trap-haul * set-over-day) for all license types by area fished (A - territorial areas)²³



Catch per unit effort (CPUE) is an index of fishing pressure. The numbers suggest lobsters are becoming more difficult to catch. Since current catch levels are significantly above the long-term average, there is reason for concern that lobsters are being overfished, threatening the sustainability of the lobster industry.²⁴

According to a lobsterman who also does research for the Massachusetts Division of Marine Fisheries, fishery management is currently being done on a species-by-species basis, creating an eco-imbalance in which there are expanding predator fish populations that are diminishing the lobster stock.²⁵ Other researchers have reported that a long-time lobster disease that softens their shells, diminishing their quality, has been on the rise. Another threat to the lobster supply is a regulatory closure of the fishery because of the threat that lobster heavy trap gear and buoy lines pose to right whales, an endangered species.²⁶

The above indicates the status of the Massachusetts lobster industry and some of the multiple factors affecting the status. These factors and others reportedly constitute short- and long-term threats to its sustainability. The industry is said to be taking appropriate measures to assure its sustainability in the short-term; long-term sustainability is at issue. Accurate predictions are difficult because of what is not known. What is said to be important to its long-term sustainability is the dedication of greater effort to improved scientific programs to fill the knowledge gap, as well as improved conservation, monitoring, and enforcement programs.²⁷

Commercial Dockage Facility Needs

Commercial dockage facilities needs are summarized below. They are largely based on interviews of two lobstermen, who reported on three vessels, in their or their families' use. Marblehead is homeport for these vessels. Currently, in the summer season (May–Oct) the three vessels are tied up at moorings in Marblehead and in the winter season (Nov–Apr) are moved to Pickering Wharf Marina in Salem.

Safety – Weather Protection -- The shift in location for the three vessels for the six-month winter season is made for safety reasons. Pickering Wharf offers protected winter dockage, while moorings in Marblehead are exposed to northeasterly storms in winter. A secure location with protection from

²³ Source: 2005 Massachusetts Lobster Fishery Statistics, Dean, M.J., S.R. Reed, and T.B. Hoopes, p. 13.
http://www.mass.gov/dmfele/dmf/publications/tr31_2005_lobster_report.pdf

²⁴ The Sustainability of the Massachusetts Lobster Fishing Industry, Dr. Michael Tlusty, Research Scientist, New England Aquarium, Boston MA, 02110-3399, January 2003, p.2.

²⁵ Interview with Jay Michaud, Lobster Fisherman, 3/6/08.

²⁶ The Sustainability of the Massachusetts Lobster Fishing Industry, Dr. Michael Tlusty, Research Scientist, New England Aquarium, Boston MA, 02110-3399, January 2003, p.10-12.

²⁷ The Sustainability of the Massachusetts Lobster Fishing Industry, Dr. Michael Tlusty Research Scientist New England Aquarium Boston MA 02110-3399, January 2003, p. 22.

weather exposure year-round, but particularly in the winter season, is viewed as a key need by the lobstermen interviewed.

The issue of weather exposure is a critical one, as can be seen from information posted on the web sites of Harbor Masters of Salem Sound and North Shore communities, as well as those of the communities themselves. These web sites often indicate whether the communities' harbors or areas of their harbors, are protected or exposed to winter storms. The issue is well-recognized in Salem Sound by those involved in harbor management. The Salem Harbor Master reports the following in red on his Web site²⁸: All of Salem Waters, with the exception of Area S²⁹, are exposed to a "Northeaster" to some degree. They occur rarely in summer but are common in early spring and late fall. The two long-time lobster fishermen, who were interviewed, stressed the problem of the winter weather exposure of moorings in Marblehead, their homeport, explaining, as noted above, that they move their vessels to in winter to a different location that provides storm buffering. The Beverly Harbor Center Facilities Manager emphasized the issue of weather exposure in Salem Sound in an interview and identified some of the areas of particular concern. The owner of Hawthorne Cove Marina confirmed the problem of strong wave action from winter storms affecting his marina, a facility which is located in close proximity to the Salem Port Expansion project site. Importantly, he noted, that just next to his facility within the project site, there is an area protected from NE and E storms (winter storms), which he identified on a project map (see map in Appendix E).

Berthing Dimensions -- While lobstermen tend to fish in boats less than 35 F in length³⁰, boats range in size, on average, from 25-45 F. Two lobstermen who were interviewed indicated the dimensions of three vessels in their or their families' use: two vessels were 42F in length, and a third was 31 F. Average size lobster vessels were said to be perhaps a bit smaller in their homeport of Marblehead. Width of their vessels ranged from 11.5-13.5F and water depth requirements ranged from 3-5 F. For vessels of 42 F, ideal berth length along a wharf is 50 F, but 46 F would suffice, it was reported; slip lengths could be shorter -- 40 F.

Fishing Season -- The lobstermen interviewed fished lobster only, year-round, in daily trips, as often as the weather allowed, one reported; the average number of days they were at sea was between 150 and 200. Average number of crew is two for the 42 F vessels; and this was said to be the average crew size for commercial lobster fishing vessels moored in Marblehead. Both lobstermen had state and federal permits allowing fishing in state and non-territorial waters; for the 31 F boat, one permit, a state permit, was held; one lobsterman fished in Massachusetts Bay, mostly in federal waters (see Map in appendix); the other fished in Salem Sound and the area of the surrounding islands, within 5 miles of Salem 70% of the time for him and 100% of the time for his family member with the 31-F boat. All used traps, one reporting his number of traps to be the limit, 800. All sold their catch to a Salem retailer/wholesaler, Patriots Seafood, which they would generally have send a truck for pick-up at the dock. Price at the time of the interview was \$8/lb, but the average price during season is \$4+/-/lb. Much of the product was said to be shipped overseas to Europe and it was speculated that the value of the Euro may cause the price to increase.

Seasonal Harvest, Coastal & Non-Territorial -- The annual pattern in territorial and non-territorial landings for 2005 is shown below and reflects that of past years.³¹

²⁸ (<http://www.harbormasters.org/salem/moorings.shtml>)

²⁹ Area "S" is from the Kernwood Bridge to the Beverly Bridge in the Danvers River is designated Area "S". There is a long waiting list and very little turnover.

³⁰ The Sustainability of the Massachusetts Lobster Fishing Industry, Dr. Michael Tlusty, Research Scientist, New England Aquarium, Boston MA 02110-3399 January 2003, p. 4.

³¹ 2005 Massachusetts Lobster Fishery Statistics, Dean, M.J., S.R. Reed, and T.B. Hoopes, p. 8. http://www.mass.gov/dfwele/dmf/publications/tr31_2005_lobster_report.pdf.

Figure 5. 2005 commercial lobster landings by month for territorial and non-territorial areas

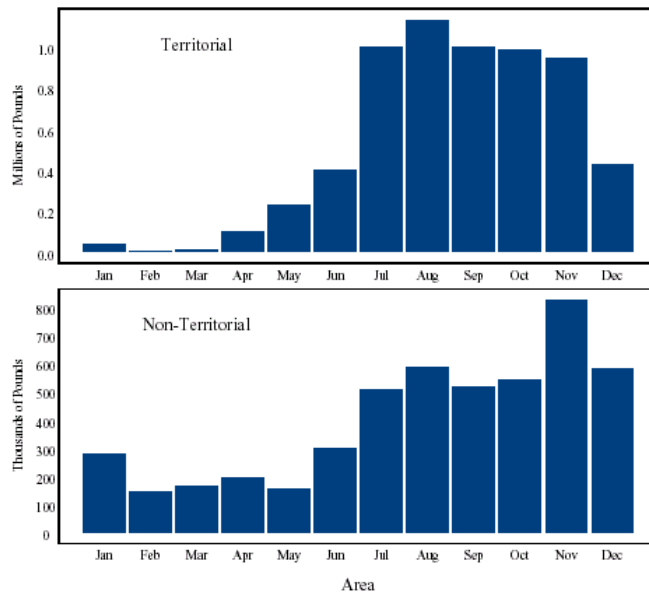


Table 5. 2005 commercial lobster landings (pounds) by month for territorial and non-territorial areas

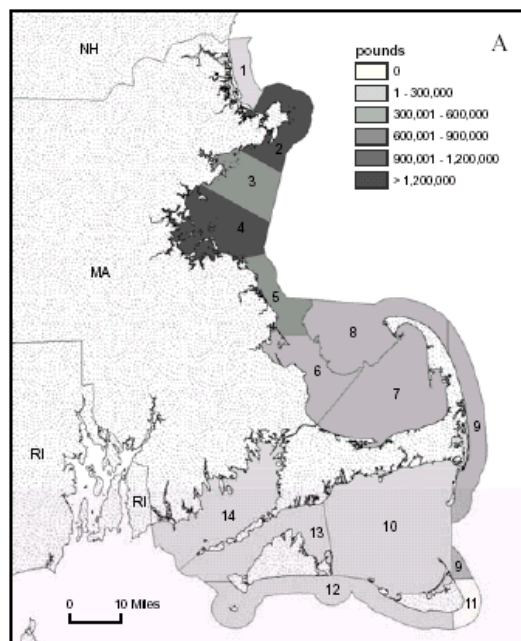
Month	Territorial	Non-Territorial
January	57,563	290,240
February	23,958	156,850
March	27,800	174,690
April	120,617	206,977
May	244,412	165,598
June	413,548	309,548
July	1,018,363	520,066
August	1,143,747	600,884
September	1,017,177	527,171
October	1,001,754	553,667
November	959,872	833,959
December	439,843	591,589
Total	6,468,652	4,931,241

Table: 2005 Commercial Lobster Landings (lbs) by Season for Territorial and Non-Territorial Areas

Season	Territorial	Non-Territorial
May – Oct	4,839,001	2,676,934
Nov -- Apr	1,629,653	2,254,305
Total	6,468,654	4,931,239

Among Statistical Reporting Areas (SRA) of state waters, the one including Salem Sound (SRA 3) had the third highest lobster harvest in territorial waters. The Cape Ann area (SRA 2) had the highest harvest of lobster (18%) in state waters. (See Figure below.)³²

2005 total commercial lobster landings from all permit types by statistical reporting area—(A - territorial areas)



³² Ibid., p.8.

The charts below summarize the berthing and additional commercial dockage facility needs, waterside and landside, (beyond that of protection from weather exposure), and the incentives for their relocation, reported by the interviewed lobstermen:

Waterside

Berthing	
Length	30-40 F slip length; 40-50 F, if along wharf
Duration	Year-Round
Navigational Access	Clear channel with 3-5 F water depths
Utilities	
Electricity	110-120v, 30 amp
Water	¾" Standard hose (nice, but not necessary according to one interviewee)

Landside

Access	Access for trucks that may come to site to pick up lobster, deliver fuel
Parking	1 space/vessel, year-round
Storage	Views: 1) 2000 SF/vessel for traps, buoys, lines on-site next to vessel, year-round, ideal but could live without 2) Temporary storage space only, no need for storage on waterfront, but do need storage space somewhere, ideally on other city-owned property, as yard storage of traps is prohibited in Salem
Fuel	Views: 1) Fuel delivery by truck to site is easiest 2) Not needed, as can obtain off-site, but allowing access to fuel source used by ferry would be beneficial
Loading/Unloading	Conveyor used to load and unload catch in Marblehead is a convenience
Bait storage	Small building, as in Saugus, would be ideal, space permitting, unless would increase cost to that of private marinas
Ice, food, vessel maintenance, repair service	Not necessary

Incentives to Relocation

Year-round dockage available at slip, wharf, or float that provides protection from winter storms, as exposure to winter storms "puts whole business on line", and moorings are harder to access and less economical, requiring a second boat to get to the mooring
Dockage fees more competitive than those of a private marina
Electricity, for vessel safety in providing power for pump-out if leaks develop; also for maintenance with power tools
Proximity to home

Market

When the following question was posed to the lobster fishermen who were interviewed, 'Assuming the facility were built per your comments on what would be needed, as well as those on price, if you were asked "If built, would they come?" how would you answer on a scale of 1-10, 10 being the strongest "yes, they will come? ", they answered, "10, they would come." One elaborated: "A weather protected and affordable facility in Salem would most likely attract at least fifteen year round commercial fishing boats. The vessel size would be in the 25 to 45 foot range."³³ In a follow-up interview, the second lobsterman echoed the first on the size of the market; he believed 15-20 vessels would be attracted to the facility.

Revenue Stream

If dockage fees were those of existing public and private facilities in Salem Sound, the revenues generated by a 35-F vessel for 12 months would range between \$2660 and \$7037. For a 42-F vessel they would range between \$3192 and \$8442.

³³ Emails of 3/29/08.

Revenues Generated from Commercial Fishing Vessel Dockage Fees for a 35-F Vessel (average size)

Location	Fee	6-months summer	6 months winter	12 months
Salem - Pickering Wharf Marina	\$150/F/summer \$ 51/F/winter	\$5250	\$1785	\$7037
Beverly Harbor Center	\$ 76/F/yr			\$2660

Revenues Generated from Commercial Fishing Vessel Dockage Fees for a 42-F Vessel

Location	Fee	6-months summer	6 months winter	12 months
Salem - Pickering Wharf Marina	\$150/F/summer \$ 51/F/winter	\$6300	\$2142	\$8442
Beverly Harbor Center	\$ 76/F/yr			\$3192

The two lobster fishermen who were interviewed and moor their 42-F vessels in Marblehead for the 6-month summer period, and Pickering Wharf Marina in Salem for the 6-month winter period, pay approximately \$2336/yr³⁴ or \$56/F/yr. This amount is less than the fee for Beverly Harbor Center; this facility, while offering year-round dockage at a slip at a facility with winter storm protection, meeting the desired criteria, as well as good services, is considered expensive. While Beverly Harbor Center has a waiting list, this suggests that it may take a fee less than \$76/F/yr to attract these and other lobster fishermen, especially those who use Marblehead, to a new Salem facility for year-round use. The Pickering Wharf Marina fee of \$51/F/six-month winter, is the current benchmark for the winter November to April season; however, generally it is only 6-8 commercial lobster vessels which use this facility in this season.

Impact on Lobster Fishermen Economics

Discussions with experienced, full-time commercial lobstermen indicate that establishing dedicated shoreline slips in Salem, will improve their bottom-line economics significantly. A conservative estimate of pre-tax earnings improvement for a single boat exceeds \$20,000 per annum. In isolated cases, pre-tax earnings improvement may approach double this figure. As with any owner-operator enterprise, individual results vary by each individual boat's current operating circumstances.

The majority of the earnings improvement results from increases in gross revenue. These increases in gross revenue are not accompanied by proportionate increases in either variable costs or in fixed overheads. In simplest terms, proper and dedicated Salem shoreside slips allow more time to actively fish, and require less time to burn time and fuel while traveling. Assuming that each boat saves enough time to fish for lobster at least one half hour per day, for five days a week, only four weeks per month, only six months a year, less than \$170 per day incremental gross revenue, will generate \$20,000 in annual revenue. Inasmuch as the fixed costs of mooring, ownership of the vessel and equipment and insurance, and variable costs, such as fuel and crew labor to travel to and from the fishing ground, are already expended, additional time spent fishing generates revenue that largely flows to the *pre-tax* bottom-line.

Furthermore, proper and dedicated shoreside mooring may result in reduced expenses, particularly for boats currently unable to find economic and efficient moorings. Areas of expense reduction include disposing of dinghies, fuel, reduction of insurance if shoreside moorings permit better risk-management practices; and reduction of weather-related casualty losses.

No estimate is made of benefits accruing to the larger community of Salem, although these may be significant. Benefits include increased tax revenues from lobster boat gross receipts taxes; increased employment at tourist-related enterprises – especially lodging and restaurant employment that rely on “authentic New England” themes to attract customers-, and diversification of Salem's economy.

Similarly, no estimate is made of benefits to the Commonwealth. Benefits to the Commonwealth may include increased income tax revenue from increased employment, increased income tax revenue from

³⁴ This number includes mooring fees as well as some small additional fees for the summer period.

lobster boatmen's increased earnings, and increased sales tax revenue from retail sales at tourist and travel enterprises.

Summary

In Salem Sound and the North Shore area, there is a shortage of year-round commercial fishing dockage space that is of a good price and safe in terms of protection from winter storms. At the same time, overfishing of the lobster resource is a significant concern. It is important to keep this latter issue in perspective -- the industry is said to be taking appropriate measures to meet the short-term threat -- and to understand the threat. Recent harvests of lobster have been at record levels and have led to expansion of fishing effort and an accompanying expansion in investment that this takes. Catch rates, the index of fishing pressure, are in decline, indicating fishing is harder and overfishing is likely. Measures to ensure sustainability of the lobster stock include, among others, a moratorium on issuing new coastal commercial lobster fishing permits and the number of such permits has been declining. The decline indicates that circumstances have had an impact on the lobster fishing industry; other potential significant factors could lead to more impact. A return from record to long-term harvest levels will mean a 50% drop in harvests, and economic consequences for the industry, given its level of investment.

In 2005, there were a total of 76 lobster fishermen in Salem, Marblehead, and Beverly. Currently, there are at least about 49 commercial lobster vessels using facilities in these communities; approximately 17 vessels are using a wharf, slip, or dock on a year-round basis, and 11 vessels are using such dockage for six months in the winter; 1 for 6-months in the summer; the remainder are using moorings in the summer season. Among the factors that would influence a decision to relocate to a new facility, year-round, protected dockage is considered important. A dockage fee of as much as \$60/F/yr, but less than \$76/F/yr would appear to be competitive.

Establishing dedicated shoreline slips in Salem for commercial lobstermen could improve their bottom-line economics significantly. A conservative estimate of pre-tax earnings improvement for a single boat exceeds \$20,000 per annum. As noted, individual results vary by each individual boat's current operating circumstances. Such savings, if demonstrated and accepted by commercial lobstermen, could serve as a highly compelling argument increasing their willingness to pay higher fees.

The two interviewed lobstermen felt very strongly that there is a market for a weather-protected, affordable commercial lobster fishing facility in Salem -- that if built, the lobstermen would come. They estimated the market size to be at least 15-20 vessels.

Evidence of the interest may be suggested by the feedback elicited in the course of interviewing a number of sources in Salem, including individuals associated with public and private marina facilities; it was reported that there was excitement about the possibility of a commercial fishing facility.

Lobster fishing would be synergistic with other possible uses of the site. Cruise passengers and other tourists are said to find fishing vessels and the activities associated with them an attraction and promotions such as "Days of Wine and Lobster" can be built around this use, such as is done with the crab industry in Mendocino on the coast of Northern California.

Other Fishing, Yachts, Transient Vessels

There is a shortage of mooring/dockage space, permanent and transient, for the full range of types of vessels, commercial fishing, as well as pleasure craft such as yachts. With regard to commercial fishing space, the same pressures that apply to lobster fishing facilities, noted above, apply to all types of commercial fishing facilities. There are differences in facilities requirements of different types of fishing vessels, however; berth-size, seasonality of use, storage, service and other needs can vary according to the species the vessel is used to fish. Given the changes that occur in the status of stocks and management controls for sustainability of the various fisheries, the flexibility to accommodate multiple types of fishing vessels can have value. As lobster vessels can be used to fish other species -- as they do in Gloucester currently 40% of the time, providing for these vessels has built-in a certain amount of flexibility.

Providing berthing for permanent or transient use of pleasure craft, especially yachts, while commanding higher dockage fees -- the figures below indicate these fees --, has the potential to create conflict when space is shared with commercial fishing vessels. Pleasure craft also have different space and service needs than commercial fishing vessels. Written common sense rules can mitigate some potential conflicts of shared recreational/fishing vessel space -- rules to ensure proper management of bait to reduce smells is an example --; nonetheless, segregation of these uses may be best. Some sources of conflict are inherent: commercial lobster fishermen often go out to sea at very early hours in the morning, producing noise from vessels engines and other activity at a time yacht users may be asleep onboard.

Recreational Vessel Mooring/Dockage Fees

Location	Fees	
Salem		
Public Winter Island		
Moorings	\$500/yr	
Private Hawthorne Cove	<u>Length</u>	<u>Fee</u>
Moorings	up to 25'	\$1,335.00
	26' to 30'	\$1,450.00
	31' to 35'	\$1,575.00
Dockage	36' to 45'	\$1,650.00
	\$142/F/season 5/1-10/31	
Private Pickering Wharf		
Dockage	\$150/F/6 months summer	
	\$ 50/F/6 months winter	
Marblehead		
Public Moorings		
Main Harbor	\$6.50/F/yr	
West Shore	\$4.50/F/yr	
Beverly		
Public		
Beverly Harbor Center		
Slips	\$141/F/6 months (Summer, May-Oct)	
	\$ 41/F/6 months (Winter, Nov-Apr)	
Moorings harbor-wide	\$5.50 /F/yr (for permit)	

Transient Vessels

Location	Fees
Salem	
Private	
Pickering Wharf	\$150/F/month -- summer
	\$50/F/season -- winter
Hawthorne Cove (recreational)	
Mooring	\$25/day
Dockage	\$2/F/day + electric
Marblehead	
Tucker's Wharf	\$3.50/F/day with electric up to 10 days/stay
Mooring	N/A -- Harbor Master's office refers requests to yacht clubs
Beverly	
Public	
Beverly Harbor Center	\$2/F/night

Appendix A

New England Lobster Landings by State 2001-2005

NE State	2006		2005		2004	
	Pounds	\$	Pounds	\$	Pounds	\$
CT	792,894	4,030,636	713,901	3,821,396	646,994	3,166,060
ME	72,666,935	297,164,762	68,729,813	317,948,122	71,574,344	289,078,847
MA	10,967,296	52,557,255	9,884,340	49,587,035	11,295,474	51,580,647
NH	2,666,344	13,915,298	2,556,187	14,375,191	2,097,396	10,199,038
RI	3,749,541	18,391,519	4,343,900	23,010,314	3,064,128	14,620,742
Total NE	90,843,010	386,059,470	86,228,141	408,742,058	88,678,336	368,645,334
Total All States	92,614,704	395,175,319	87,813,069	415,437,923	90,073,234	374,303,151

NE State	2003		2002		2001	
	Pounds	\$	Pounds	\$	Pounds	\$
CT	671,119	3,170,088	1,067,121	4,225,522	1,329,707	5,450,283
ME	54,970,948	205,715,329	63,625,745	210,950,030	48,617,693	153,982,266
MA	11,385,049	52,329,426	12,853,380	56,568,700	12,132,807	53,430,128
NH			391	1,511	2,027,725	8,071,915
RI	3,474,508	16,731,441	3,835,050	15,875,101	4,452,358	18,746,772
Total NE	70,501,624	277,946,284	81,381,687	287,620,864	68,560,290	239,681,364
Total All States	71,682,906	283,515,593	83,087,146	293,893,651	71,192,803	249,509,514

Appendix B

Number of active commercial lobstermen, lobster landings and traps-fished by homeport for 2005 (does not include seasonal permits).

Table 4. Number of active commercial lobstermen, lobster landings and traps-fished by homeport for 2005 (does not include seasonal permits). Homeport data is taken from vessel information on the permit applications. In cases where no vessel or homeport was specified, port of landing was used. Catch data includes all reported landings, regardless of gear type, while effort data represents only trap effort. Shaded rows denote towns which rank in the top 10 for either number of fishermen, total catch, or total effort. Some cities and towns are combined to protect the confidentiality of the data.

City / Town	Fishermen		Catch (Pounds)					Effort *		
	Number	Rank	Territorial	Non-Territorial	Total	Percent	Rank	Traps	Percent	Rank
Barnstable-Yarmouth	7	34	25,137	273,755	298,892	2.67%	14	3,870	0.91%	27
Beverly	39	8	416,817	148,307	565,124	5.05%	7	21,143	4.97%	6
Boston	51	6	292,038	519,024	811,062	7.25%	2	18,988	4.47%	7
Bourne	3	46	5,047	0	5,047	0.05%	48	560	0.13%	47
Chatham	39	8	188,980	317,166	506,146	4.53%	8	8,985	2.11%	16
Chilmark	12	25	21,167	13,920	35,087	0.31%	36	3,122	0.73%	31
Cohasset	28	13	259,566	47,454	307,020	2.74%	12	13,430	3.16%	10
Danvers	8	30	51,375	0	51,375	0.46%	31	3,130	0.74%	30
Dartmouth	8	30	20,724	0	20,724	0.19%	40	1,385	0.33%	40
Dennis	15	23	40,879	0	40,879	0.37%	33	4,723	1.11%	25
Duxbury-Kingston	8	30	30,431	15	30,446	0.27%	37	1,725	0.41%	38
Eastham	3	46	7,963	0	7,963	0.07%	44	369	0.09%	48
Edgartown-Oak Bluffs	3	46	1,032	0	1,032	0.01%	50	155	0.04%	50
Essex	3	46	7,290	0	7,290	0.07%	45	790	0.19%	44
Fairhaven	28	13	109,621	107,461	217,083	1.94%	18	9,980	2.35%	14
Falmouth	7	34	5,925	31,335	37,260	0.33%	35	650	0.15%	46
Gloucester	194	1	815,170	751,975	1,567,145	14.01%	1	61,988	14.58%	1
Gosnold	3	46	4,514	0	4,514	0.04%	49	340	0.08%	49
Harwich	5	39	8,031	31,748	39,779	0.36%	34	1,150	0.27%	41
Hingham	15	23	165,475	21,684	187,159	1.67%	21	7,929	1.87%	19
Hull	17	21	191,239	40,564	231,803	2.07%	17	8,845	2.08%	17
Ipswich-Rowley	12	25	12,444	0	12,444	0.11%	41	2,250	0.53%	33
Lynn	4	44	4,075	3,177	7,252	0.06%	46	865	0.20%	43
Manchester	26	15	186,879	6,987	193,865	1.73%	19	8,841	2.08%	18
Marblehead	31	12	274,153	24,805	298,958	2.67%	13	14,619	3.44%	9
Marion	4	44	5,536	42,872	48,408	0.43%	32	2,200	0.52%	34
Marshfield	62	5	364,125	91,133	455,258	4.07%	10	27,432	6.45%	3
Mattapoisett	9	28	81,503	22,893	104,396	0.93%	24	4,950	1.16%	24
Nahant	17	21	248,027	12,811	260,838	2.33%	15	10,735	2.53%	13
Nantucket	5	39	21,060	32,018	53,078	0.47%	30	1,793	0.42%	37
New Bedford	120	2	51,670	423,997	475,666	4.25%	9	5,782	1.36%	23
Newburyport-Amesbury	25	17	52,635	51,295	103,930	0.93%	25	5,952	1.40%	22
Orleans	20	19	188,357	4,028	192,385	1.72%	20	7,082	1.67%	21
Plymouth	77	3	542,368	28,381	570,749	5.10%	6	32,824	7.72%	2
Provincetown	36	11	230,078	8,988	239,066	2.14%	16	9,903	2.33%	15
Quincy	7	34	25,097	0	25,097	0.22%	39	1,499	0.35%	39
Rockport	64	4	484,158	122,177	606,335	5.42%	5	24,154	5.68%	4
Salem	6	37	26,389	0	26,389	0.24%	38	2,110	0.50%	35
Salisbury	8	30	10,342	1,020	11,362	0.10%	42	2,070	0.49%	36
Sandwich	37	10	249,510	542,744	792,254	7.08%	3	23,403	5.51%	5
Saugus	20	19	153,557	11,511	165,068	1.48%	22	10,826	2.55%	12
Scituate	49	7	199,159	166,150	365,309	3.27%	11	16,181	3.81%	8
Swampscott	21	18	117,126	17,411	134,537	1.20%	23	7,595	1.79%	20
Tisbury	5	39	4,128	1,924	6,052	0.05%	47	940	0.22%	42
Truro	9	28	64,651	2,899	67,550	0.60%	27	3,515	0.83%	29
Wareham	5	39	10,287	0	10,287	0.09%	43	780	0.18%	45
Wellfleet	5	39	66,563	0	66,563	0.60%	28	2,680	0.63%	32
Westport-Fall River	26	15	24,963	744,203	769,166	6.88%	4	13,143	3.09%	11
Weymouth	6	37	36,712	53,208	89,920	0.80%	26	4,104	0.97%	26
Winthrop	10	27	58,817	902	59,719	0.53%	29	3,535	0.83%	28
Statewide Total	1,222		6,462,788	4,721,940	11,184,728			425,020		
Out Of State	47		0	209,249	209,249			1,600		

* The number of "Traps" for each city/town represents the sum of each individual's maximum traps fished for the year.

Source: 2005 Massachusetts Lobster Fishery Statistics, Dean, M.J., S.R. Reed, and T.B. Hoopes (TR31-2005), pp 1.
http://www.mass.gov/dfwle/dmf/publications/tr31_2005_lobster_report.pdf

Appendix C

2/2008

More Maine fishing boats moving south

By the Associated Press and the Times staff

http://www.newburyportnews.com/punews/local_story_043064534.html

Gloucester's fishing port is emerging as a prime beneficiary from a tide of changes that's being felt hard in the state of Maine.

Groundfishing boats are abandoning Portland and heading south, cutting the fish supply for seafood processors and the Portland Fish Exchange and costing businesses that serve the Maine fleet.

More and more of the harbor's medium and large boats are now bringing their catches to Gloucester — primarily because they can earn extra money by selling lobsters they catch in their nets, a practice outlawed in Maine.

Maine's city-owned Portland Fish Exchange seafood auction is now staffed by a skeleton crew and has cut the number of auctions from five a week to just two. It has been selling about 60,000 pounds of fish a week, just 12 percent of its volume in the early 1990s, and is trying to lease out a portion of its largely empty refrigerated warehouse.

Fewer boats mean fewer customers for Gowen Marine, which repairs boats and gear and sells supplies, and Vessel Services, the harbor's lone remaining company selling ice and fuel to commercial boats. Cozy Harbor Seafood, one of Portland's four larger seafood processors, now imports 95 percent of its groundfish from Canada or Massachusetts, said President John Norton.

It's hard for Maine processors to compete with companies that have access to local fish, said Angelo Ciocca of Nova Seafood. He expects his company and other shore businesses to close after their owners retire.

"We are living the end of the groundfish-harvesting side of the industry in the state of Maine," Ciocca said. "It's done. It's finished."

That's hardly the sentiment in Gloucester, where the arrival of the Maine boats is good news in what has otherwise been a difficult era, said Peter Prybot, the longtime Gloucester lobsterman who writes a commercial fishing column for the Times.

Prybot's column this past Saturday, in fact, noted the growth in such jobs as graders and buyers at the Gloucester Seafood Auction.

"The port of Gloucester, for God's sake, loves to see the Maine boats," Prybot said. "They are top fishermen and top producers. Gloucester not only benefits from the fish landings, they benefit from what is spent on those boats, such as fuel and food."

Statistics show that the New England fishing industry as a whole continues to shrink in the middle of a long-range plan to rebuild stocks of haddock, cod and yellowtail flounder through regulatory measures that include reducing the amount of time fishermen can spend at sea. **In the past year, 20 percent of the active boats in New England have quit groundfishing, said Stephen Ouellette, a Maine maritime lawyer who specializes in fisheries issues.**

Portland has been particularly hard hit, with fish volumes going down nearly 50 percent from 2004 to 2007 — but fish catches brought to Gloucester have been stable, helped in part by Maine fishermen.

Allyson Jordan, of Scarborough, Maine, said she mailed her Maine fishing license back to the state after the Marine Patrol — at the urging of the lobster industry — began enforcing a long-standing but rarely enforced law that bans Maine-licensed boats from possessing lobsters in state or federal waters. Jordan,

whose family has been fishing in Maine for three generations, moved her family's two draggers and shore operations to Gloucester and found an apartment in nearby Rockport.

"It was our family's way of life, and it kind of stinks we had to leave," she said.

Sam Viola, a Portland-based fisherman who has been working out of Gloucester this winter, said he and other boat owners believe they have exhausted all options and are now justified in moving to the Bay State.

"Portland is done," Viola said. "Portland is out of business right now."

1/19/07

http://www.gloucestertimes.com/punews/local_story_019120552

Maine fishermen landing catch in Massachusetts at Maine's expense

**By Douglas A. Moser , Staff writer
Gloucester Daily Times**

Maine fishermen are landing more of their fish in Massachusetts to take advantage of more lenient lobster rules here at the expense of Maine's seafood auction.

Massachusetts law allows fishermen to sell lobsters accidentally caught in their nets; Maine law does not.

In the recent past, many Maine fishermen would just bring their lobsters to Gloucester and Boston and take the fish back to the Portland Fish Exchange. Now, after the prodding of local fishing advocates, they sell their fish here as well.

"I always thought it was too restrictive for them," said Vito Calomo, executive director of the Massachusetts Fishery Recovery Commission. "I used to tell them to come to Gloucester."

Calomo said Maine fishermen would stop to sell their lobsters, then steam back to Maine to sell their fish. Within the last year, they have been landing their entire catch here.

"We pay a higher price in Gloucester for quality fish," he said. "When they're fishing off our area or in the Georges Bank, it's quicker for them to come to Gloucester to drop the lobsters and get a higher price for the fish. They buy fuel here, they buy groceries, they get some repairs done. It's better for our economy."

Maine fishing regulations prohibit fishermen from selling the accidental lobsters, called bycatch, when they are not the fishermen's permitted catch. Massachusetts allows fishermen from any state to sell a bycatch of 100 lobsters per day and up to 500 lobsters per trip.

At about \$4 per pound, which is currently the average price, fishermen can reap an extra \$8,000 from 500 lobsters averaging about four pounds apiece. Calomo said the price rises to between \$6 and \$8 a pound during the summer.

Maine lobstermen also insist that operators of boats that catch fish in nets come to Massachusetts not only because they can sell their lobsters here. They say fishermen also get higher prices for their catches here, while paying out less in fuel costs.

From 2004 to 2005, the number of trips by Maine-based trawlers to Massachusetts to sell fish and lobsters grew from 76 to 160, and the amount of seafood sold grew from \$1.6 million to \$3.8 million, according to a new analysis.

In 2005, Maine fishermen sold 20,000 pounds of lobster in Massachusetts, a tiny fraction of Maine's total harvest of 67.3 million pounds.

"For the sake of these few lobsters, we're losing whole boatloads of fish," said Tom Valleau, president of the Portland Fish Exchange.

Maine's lobster industry opposes changing the rules, fearing too much effort is already being put on the lobster population.

Fishermen know the odds are long that Maine, the nation's leading lobster state, will change its landing law for lobsters. After all, there are more than 6,000 licensed lobstermen in Maine, the industry has a politically powerful voice, and lobstering by far is the state's No. 1 fishery, worth more than \$300 million in 2005.

The new numbers came from fishermen's log books and seafood dealer records that are collected by the National Oceanic and Atmospheric Administration, the federal agency that regulates commercial fishing. The numbers were crunched by an economist at NOAA's Northeast Fisheries Science Center at Woods Hole.

According to the analysis, Maine lost \$9.6 million in seafood revenues to Massachusetts from 2000 to 2005 because of the law outlawing lobster landings.

The Portland Fish Exchange last year handled 9.5 million pounds of product, down from 17.1 million pounds in 2005. In the early 1990s, the auction handled more than 30 million pounds a year.

One of those Maine boats going to Massachusetts, the 70-foot Olympia, is owned by Maggie Raymond, who's the executive director of the Associated Fisheries of Maine.

Last year, her boat stopped going to Portland. Instead, it brought about 400,000 pounds of fish to Gloucester and to Boston, she said.

By going to Massachusetts, her boat also brought in about \$50,000 from lobster that were caught in her fishing nets, Raymond said. She also saved nearly \$9,000 in sales taxes that Maine charges on diesel fuel which Massachusetts does not.

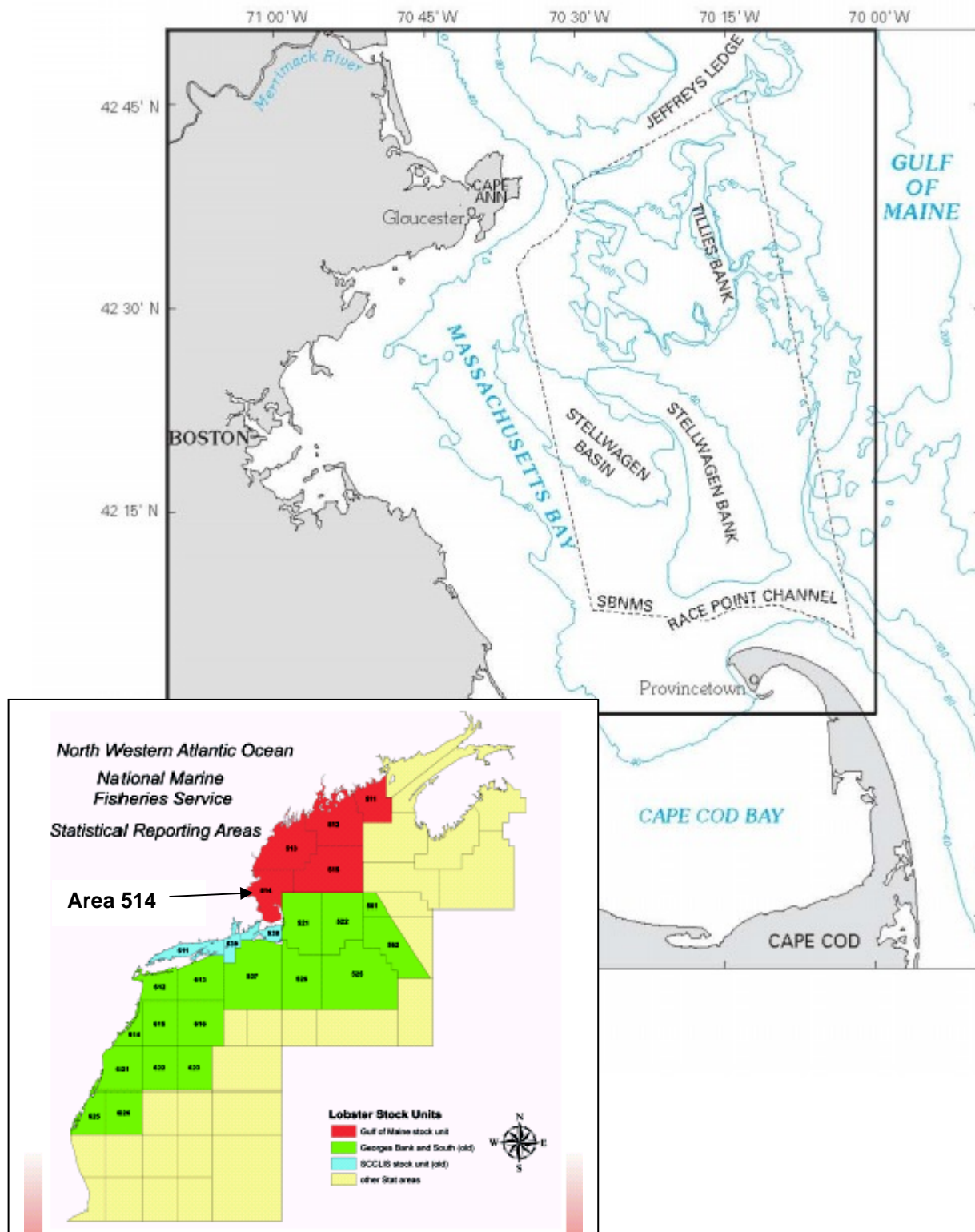
Raymond said she would bring her catch to Portland if Maine law allowed her to bring the lobsters there.

"These lobsters are being landed anyway. They're just being landed in other states," Raymond said. "If there is any hope of preserving what's left of the groundfishing infrastructure in Maine, which is the Portland Fish Exchange, something has to be done."

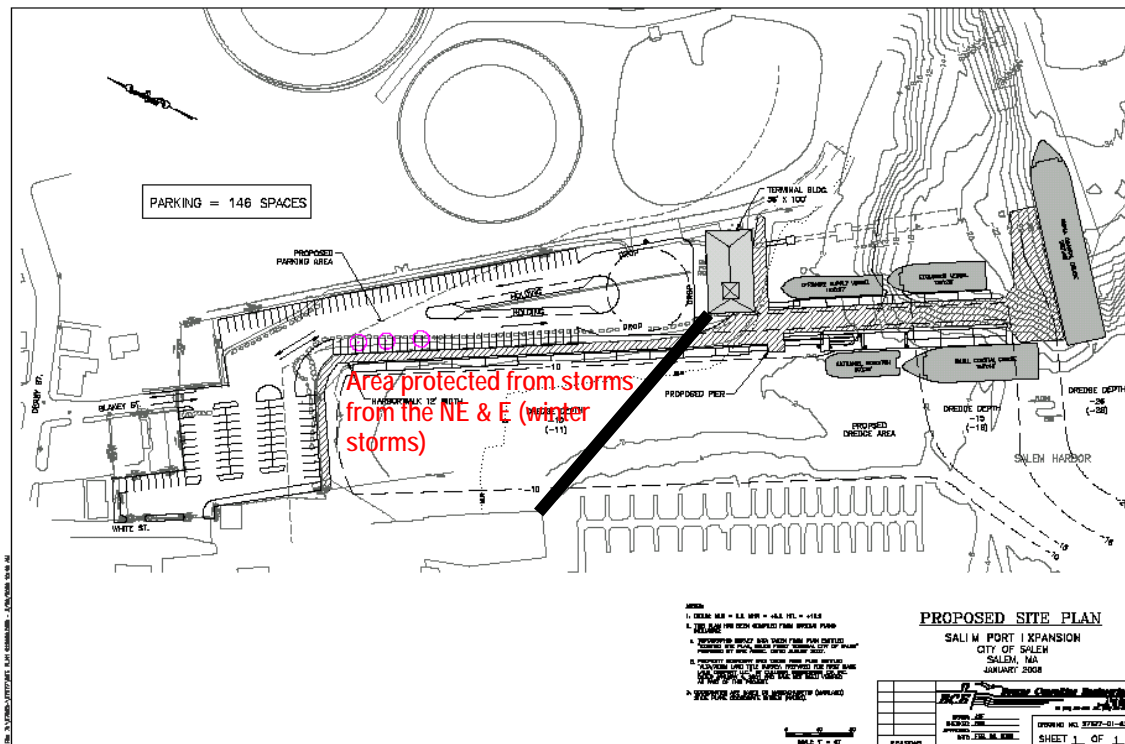
The Associated Press contributed to this report

Appendix D

Boundary of 1:125,000 scale map of Massachusetts Bay.



Appendix E



Appendix F

List of Individuals Interviewed

Michael Sosnowski, Lobster Fisherman, 3/5/08
Jay Michaud, Lobster Fisherman, 3/8/08
Peter Gifford, Salem Harbor Master, 3/12/08
Elaine Cook, Salem Harbor Master's Office
Louis Bochynski, Beverly Harbor Center, Facilities Manager, 3/12-13/08
Ray Shaw, Jodrey State Pier, Gloucester, Facilities Manager, 3/20/08
Shirley Edmunds, Gloucester Harbor Master's Office, 4/2/08
Joe Pelczerski, Massachusetts Coastal Zone Management, 3/6/08
Rockport Harbor Masters, Rosemary Lesch and Scott Story, 3/18/08
Russ Vickers and Ben Copp, Hawthorne Cove Marina, 3/19/08
Tom Moran, Dock master, Pickering Wharf Marina, 3/19&23/08
Michael Costello, Executive Director, Cape Ann Chamber of Commerce
Scott Cavanaugh, U.S. Navy Commander NE Fleet Support, 4/2/08
Malia Griffen, Public Relations, Dominion Energy, Salem 3/28/08
Kevin Cornacchio, Dominion Energy, Salem, 3/28/08
Marine Railways, Gloucester
Captain Jeffery Monroe, Director, Ports and Transportation Department, Portland, ME

APPENDIX III

Market for Office, Industrial and Warehouse Space in Salem and Peabody

Memorandum

To: Ron Bourne, Bourne Consulting Engineering

From: ConsultEcon, Inc.

Date: March 28, 2008

RE: Market for Office, Industrial and Warehouse Space in Salem and Peabody

This memorandum reviews the market for office, industrial and warehouse space in Salem, MA and Peabody, MA as inputs for the Salem Pier planning process. The final plan for Salem Pier may incorporate office and industrial/warehouse uses into a new building on the site. Land-side office and industrial/warehouse uses will primarily support water-side users. Following are descriptions of the economic potential for each use located at the Salem Pier based on a review of commercial real estate listings as of the date of this memorandum and discussions with real estate brokers and managers in Salem. Due to the small number of properties available in Salem, available properties in Peabody are also included in this analysis.

Office Market

Based on a review of available existing office space, lease rates in Salem and Peabody range from \$13 to \$18 per square foot, generally on a gross basis. Newer office space that is better situated to transportation will fall at the high end of this range, in particular space located close to Route 128. Lease terms vary considerably by property, but most space is available on gross or modified gross terms, in which some or all costs associated with utilities, taxes and common areas are included in the base lease rate. According to one interviewee, taxes for office space are higher in Salem than in other communities, at about \$3 per square foot. In addition, smaller office spaces will achieve higher per square foot rents than larger spaces. Therefore, net revenue to owner is modest after costs for utilities, taxes, common areas and owner maintenance.

Industrial and Warehouse Market

Based on a review of available existing industrial and warehouse space, lease rates in Salem and Peabody range from \$4 to \$16 per square foot, generally on a gross basis. This wide range can be attributed to the quality of the space: industrial space typically has more investment in interior fixtures and finishing than warehouse space. Therefore, industrial space tends to be \$10 to \$14 per square foot, with a few spaces at the top of the range. According to an interviewee, there is good demand for small industrial spaces of 1,000 to 2,000 square feet with an overhead door that have achieved rates between \$10 and \$12 per square foot. Lease terms vary by property and are similar to office properties.

Data in **Table 1** present the location of available properties and their lease characteristics. Shetland Park is segmented from other properties due to the large size of the facility and the

variety of uses. This property is in a waterfront location comparable to Salem Pier, but with significantly more space.

Economic Potential for Office and Industrial Space at Salem Pier

The lease rates for office and industrial space at Salem Pier will be driven by the demand for office and industrial space by marine users, as well as the general market conditions for this space. As an interviewee commented, Salem office rates are not sufficient to support the construction of new space; there is a significant oversupply of office space on the North Shore. Moreover, the net revenue to owner after costs is modest. However, due to the captive market at the Salem Pier, there is the potential to charge higher lease rates because of the demand created by marine users. In addition, there will be a premium in lease rates due to the fact that Salem Pier will be new construction, unlike the older, existing spaces in the region.

Rent premiums may be reflected in higher than market lease rates on a net basis (i.e. tenant pays for costs associated with utilities, taxes, common area charges and maintenance) or a mix of market lease rates and front end capital investments by office and industrial users in the construction of the space.

Table 1
Location and Characteristics of Available Industrial, Warehouse, and Office Space in Salem and Peabody

Address	City/Town	Space Available (in square feet)		Type of Space	Lease Rate	Lease Type	Listed by
Industrial and Warehouse Space							
119R Foster Street	Peabody		6,000	Creative/Loft	\$5.00		Carney & Company
58 Pulaski Street	Peabody		1,000	Industrial/Warehouse	\$7.50		RCG
58 Pulaski Street	Peabody		4,000	Industrial/Warehouse	\$4.50		RCG
58 Pulaski Street	Peabody		11,000	Industrial/Warehouse	\$10.00		RCG
58 Pulaski Street	Peabody		1,000	Industrial/Warehouse	\$4.50		RCG
Summit Industrial Park (Summit Street)	Peabody		30,000	Industrial/Warehouse	\$6.00		True Associates
63 Grove Street	Salem		15,000	Warehouse	\$6.95	Modified Net	The Drumlin Group
Office Space							
2 Front Street	Salem		1,420	Office	\$13.01		Goldberg Properties Management
214 Derby Street	Salem		1,100	Office	\$13.09	Tenant pays utilities	The Drumlin Group
125 Washington Street	Salem		300 to 3,500	Office	\$16.00	Gross (incl. utilities)	The Drumlin Group
76 Lafayette Street	Salem		275	Office	\$13.75	Gross (incl. utilities taxes)	RCG
77 Lafayette Street	Salem		1,000	Office	\$14.40	Gross (incl. utilities taxes)	RCG
78 Lafayette Street	Salem		1,650	Office	\$14.55	Gross (incl. utilities taxes)	RCG
209 Essex Street	Salem		6,500	Office	\$15.00	Tenant pays utilities	The Drumlin Group
84 Newbury Street	Peabody		36,000	Office Class A	\$15.00		Associated Brokerage Group
39 Cross Street	Peabody		1,061	Medical/Office	\$18.00		Hillcrest Properties
83 Pine Street	Peabody		10,750	Office/Institutional	\$8.00		The Drumlin Group
Shetland Park							
Shetland Park - Office	Salem		300 to 20,000	Office	\$14.00 to \$17.00	Modified Gross	Shetland Properties
Shetland Park - Industrial	Salem		300 to 200,000	Industrial	\$9.00 to \$16.00	Modified Gross	Shetland Properties
Shetland Park - Warehouse	Salem		300 to 200,000	Warehouse	Starts at \$4.00	Modified Gross	Shetland Properties

Source: LoopNet.com, Shetland Properties, The Drumlin Group, and ConsultEcon, Inc.