FY 2013 TIGER Grant Application for

MAIN WHARF EXPANSION

June 2013

Submitted by:
Pease Development Authority
Division of Ports and Harbors
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Name of Project
Main Wharf Expansion

Type of Project
Port

Location of Project
Portsmouth, New Hampshire, Rockingham County, NH, 1st Congressional District

Urban or Rural Area
Urban

TIGER V Grant Funding Request
TIGER Grant Request: $11.2 million
State & Local Match: $5 million
Total Project Cost: $16.2 million

DUNS Number
620094771

Link to Pease Development Authority website for application, letters of support, and other materials: http://portofnh.org/

Link to video of Market Street Marine Terminal Main Wharf: http://youtu.be/InbuzmwcKp8
Executive Summary

The Pease Development Authority Division of Ports and Harbors (PDA-DPH), an agency of the State of New Hampshire, is pleased to submit this application to the U.S. Department of Transportation requesting funding for the rehabilitation and expansion of the main ship wharf at the Market Street Marine Terminal on the Piscataqua River in Portsmouth, New Hampshire. The project extends the wharf length 125 linear feet in order to accommodate ships compatible with the existing navigation project authorized by the U.S. Army Corps of Engineers. The expansion replaces the deteriorating wharf access bridges (one of which has collapsed) by decking the open water area between the existing shoreline and the shore side limit of the existing main wharf. The project provides direct access to ships for the entire length of the main wharf, assuring continued use for ocean commerce and greatly enhancing safety, functionality and operational efficiency. A video is available at http://youtu.be/INbu7mwcKp8 that shows the Terminal and wharf.

Main wharf expansion is estimated to cost $16.2 million, and the State of New Hampshire is committed to providing $5.0 million toward the project, representing 31 percent of the total project cost. TIGER V funding of $11.2 million will complete the financing package for these improvements. Securing this funding is critical because the main wharf’s condition is deteriorating rapidly. In 2011, one of the access bridges to the wharf collapsed, and it remains inoperable. Without improvements, a second access bridge will be closed in the near term and the port will be forced to cease operations at the Terminal. The port director and marine engineers most familiar with the wharf anticipate complete port closure in 2016 without significant main wharf improvements.

Summary of Economic Benefits

<table>
<thead>
<tr>
<th>Economic Category</th>
<th>Benefit Cost Magnitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>State of Good Repair</td>
<td>$11.8 million</td>
</tr>
<tr>
<td>Economic Competitiveness</td>
<td>$85.4 million</td>
</tr>
<tr>
<td>Livability</td>
<td>$11.9 million</td>
</tr>
<tr>
<td>Sustainability</td>
<td>$5.3 million</td>
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<tr>
<td>Safety</td>
<td>$11.3 million</td>
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<tr>
<td>Job Creation</td>
<td>239</td>
</tr>
<tr>
<td>Benefit Cost Ratio</td>
<td>1.9</td>
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</tbody>
</table>

The port supports businesses and promotes public benefits in the region. The ability of businesses to transport their freight via water means fewer trucks on the road and lower levels of vehicle emissions. Pavement maintenance cost and shipper cost savings are supported by the proposed wharf improvement. Finally, there are safety and security benefits associated with the project. Though difficult to quantify, a rehabilitated wharf enables the port to continue to provide emergency services support due to on-board fire, medical emergencies, and oil spills, as well as port security services. A $1 investment in the project supports $1.90 in public benefits and provides 239 short-term construction related jobs.
Project Purpose and Description

Located on the Piscataqua River in Portsmouth, New Hampshire, The Market Street Marine Terminal is the only public access, general cargo terminal on the river. The port is one half mile from Interstate-95 and two miles from Pease International Tradeport’s airport and business parks. Onsite rail access is also available at the port, making the facility accessible by all the major freight transportation modes.

In 2011, the Terminal handled 381,800 tons of bulk and break-bulk cargo, primarily salt, scrap metal, and special projects for upstream and other businesses. PSNH Power Plants, Sprague Energy, National Gypsum, Irving Oil, SEA-3 (LPG terminal), EL Power Plant, Georgia Pacific, Westinghouse Electric, International Salt, Tyco and Grimmel Industries all rely heavily on the port for marine shipping of freight and support. Between 2011 and 2012, tonnage handled at the Terminal has increased by more than 50 percent. While this growth is significant, port activity has actually been constrained due to the length of the main wharf and its general physical condition (see video available at http://youtu.be/INbu7mwcKp8 for detail).

The U.S. Army Corps of Engineers Piscataqua River Federal Navigation Channel, on which the port is located, is designed to accept ocean-going vessels up to 750 feet in length. The Terminal has two berths, the longest being 582 feet. The limited length of the wharf presents a disincentive to some ships currently calling on the port, and for other transport vessels considering the port for its berth. Construction of the nearby Sarah Mildred Long Bridge is expected to impact port operations, essentially eliminating use of the second berth and putting additional strain on the Main Wharf to meet freight transport needs of ships calling on the port.

In addition to the limited number of berths available for use at the facility, the main wharf’s condition is deteriorating. In 2011, there was a partial failure of the wharf, which required the closure of the northern bridge. While other means of access are provided to the north and south of the bridge, the efficiency of the facility is decreased. This impacts cycle time during loading and unloading. The southern bridge is of the same construction and vintage and is in severe condition; without immediate attention this access bridge will need to be closed in the near term. The 1977 pier is 35 years old with crumbling concrete and exposed rebar. The Market Street Marine Terminal is likely to close completely within the next three years, if the wharf is not completely rehabilitated.
Existing port customers are experiencing increased demand for their products and are looking to the Terminal to provide shipping and receiving services to accommodate this business activity. In addition, the Port Director of the Market Street Marine Terminal has been approached by businesses interested in utilizing the port, but concerned about the wharf’s structural integrity and size. Specifically, Gamesa Wind USA, Vectora Transportation and Northeast Marine Development have expressed interest in using the port. ASTRO Crane also approached the port but decided against using the facility, because of the deteriorating wharf condition.

Other growth opportunities include the expansion of the Panama Canal. Its completion will mean more water cargo on the east coast of the United States. This is likely to generate opportunities for the Market Street Marine Terminal, as shippers and receivers reevaluate their port options after the expansion. While the Terminal is not equipped to handle some of the larger vessels that will be looking for a port-of-call, it is very well positioned to receive any small to medium-sized vessels. This TIGER grant application requests funding to bring the wharf up to a state of good repair and increase its length and capacity for large vessels. Rehabilitation and expansion of the main wharf will enable it to accommodate contemporary Panama class vessels, support heavier cargo, and improve operational efficiency by providing better wharf access from both the water and land sides. The port’s ability to accommodate this additional marine activity should enhance U.S. economic competitiveness by enabling vessels to continue to use U.S. ports, rather than be diverted to Canadian or other international ports. To do this, however, the port’s main wharf must be in a state of good repair and expanded.

Finally, Short Sea Shipping provides another growth opportunity for the port. With increased road congestion and increases in trade volume expected with the expansion of the Panama Canal, U.S. ports and businesses are seeking alternatives to move cargo via port facilities and closer to their final destinations. Short Sea Shipping provides an alternative to truck and rail transportation by using barges and smaller container vessels (up to 750 feet) for freight shipments. Shipping begins at the larger import/export ports and is then distributed to smaller, strategically located ports for final delivery. The Market Street Marine Terminal could accommodate this class of vessels.

Positioning the port to support the increased activity anticipated in the near-term is of vital interest to the state, region and nation as a whole. The project represents a real opportunity to sustain current, and generate new, economic activity, but timing is of the essence. The main wharf’s physical condition is significantly deteriorated and must be addressed quickly, or the Market Street Marine Terminal will be forced to close and the economic activity described above will represent an opportunity lost.
To accommodate growth, The Pease Development Authority, Division of Ports and Harbors, is requesting TIGER V grant funds for use toward the rehabilitation of the main wharf, as well as its expansion. The project will improve the structural integrity of the existing wharf and facilitate current operations. It is also designed to increase operational opportunities and extend the useful working life of the longest berth at the terminal.

The project will expand the wharf by 125 linear feet, and it will include a 24 square foot offshore mooring dolphin. The 29,000 square foot expansion will replace the deteriorating wharf access bridges by decking the area between the existing shoreline and the back of the current main wharf, as shown in the photograph of wharf design below. This will provide easy and direct access for the entire length of the main wharf, greatly enhancing its safety, functionality and operational efficiency.

**Market Street Marine Terminal Main Wharf Rehabilitation and Expansion**

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**Project Parties**

The Pease Development Authority is a state agency created by NH-RSA 12-G. The PDA is a component unit of the State of New Hampshire, and is discretely presented in the Comprehensive Annual Financial Report of the State. PDA is a body corporate and politic with a governing body of seven members. Four members are appointed by the Governor and state legislative leadership, and three members are appointed by the City of Portsmouth and the
Town of Newington. Pursuant to Chapter 290, Laws of 2001, the New Hampshire State Port Authority, a former department of the State of New Hampshire became a division of the PDA effective July 1, 2001.

The PDA through the Division of Ports and Harbors is charged with the responsibility to: 1) plan for the maintenance and development of the ports, harbors and navigable tidal rivers of the state to foster and stimulate commerce and the shipment of freight; 2) aid in the development of salt water fisheries and associated industries; and 3) cooperate with any federal agencies or departments in planning the maintenance, development and use of the state ports, harbors and navigable tidal rivers.

Pursuant to State and Federal regulations, Airport Revenue received by the PDA for the management and development of the former Pease Air Force Base cannot be used in support of division activities.

Grant Funds and Sources/Uses of Project Funds

The Market Street Marine Terminal main wharf rehabilitation and expansion project is estimated at $16.2 million. The State of New Hampshire will provide a match of $5.0 million, representing 31 percent of the total project cost. Pease Development Authority Division of Ports and Harbors is requesting a TIGER grant of $11.2 million. Detail related to the individual project cost elements, as well as the allocation of both TIGER V funding and State of New Hampshire funding, is provided in the Project Readiness section of this application.

Project Readiness

If awarded funding, the Market Street Marine Terminal project is positioned to receive obligated funds by September 30, 2014. The following section details the readiness levels of the project from technical, financial, and scheduling perspectives. In addition, potential risks are identified, along with mitigation strategies to address the risks.

Technical Feasibility

The proposed project includes the repair and expansion of the Main Wharf at the Pease Development Authority – Division of Ports and Harbor’s Market Street Marine Terminal in Portsmouth, NH. At 30-40 years old, the wharf requires repairs and expansion to continue cargo handling operations and safe berthing of vessels.
The proposed repairs to the Main Wharf include the following:

- Repair deteriorated caissons (install protective jackets and sacrificial anodes) to restore structural integrity and extend service life
- Recoat portions of the steel sheet pile bulkhead to extend service life
- Repair deteriorated concrete superstructure elements to restore structural integrity and extend service life
- Resurface deteriorated concrete deck to restore structural integrity and drainage
- Other miscellaneous top of deck repairs include recoating mooring hardware, replacing mooring hardware and associated concrete pedestals, and replacing deteriorated fender units

The proposed expansion to the Main Wharf includes the following:

- Construct a 130’ +/- long extension at the south end of the wharf to provide additional berth length for vessels
- Remove existing approach bridges and construct a 304’ +/- long structure along the shoreside face of the existing wharf to improve operational flexibility and safety
- Construct a mooring dolphin downstream of the wharf to provide additional safety with mooring and berthing vessels

The proposed expansion will help address limitations resulting from the shallower depth at the northern end of the existing berth, the lower capacity approach bridges, and the limited landside access at the southern end of the wharf. Both the extension and the replacement structure along the shoreside face of the wharf consist of concrete framing members supported by steel caissons and a pile supported concrete curtain wall with riprap along the shore. Similar to the wharf, the mooring dolphin consists of steel caissons with a concrete platform and incorporates a catwalk for personnel access.

The project design has been completed by an engineering firm that specializes exclusively in the inspection and design of marine structures since 1987. The design for this structure is a proven design that leverages local best practices, technology and experience of regional marine construction contractors. To mitigate potential variations in cost and schedule the design has been progressed to the 95 percent stage, thus flushing out the final details of the project that often have a significant impact on cost and schedule.

Historically the existing wharf deck has drained directly to the Piscataqua River through deck scuppers. The wharf overlay has been designed to restore these existing grades and elevations to minimize construction costs. Since this design was completed, shoreside drainage improvements and regrading has been completed that improves treatment of shoreside storm
water. It is now proposed to leverage this improvement by regrading the wharf deck to direct wharf storm water towards these shoreside drainage units. This change would be incorporated into the contract documents prior to solicitation. Detailed construction cost estimates and schedules have been completed and updated for current market conditions.

**Financial Feasibility**
The Market Street Marine Terminal main wharf rehabilitation and expansion project is estimated at $16.2 million. The State of New Hampshire will provide a match of $5.0 million and PDA-DPH is requesting a TIGER grant of $11.2 million. The table below presents the individual project cost elements, as well as the allocation of both TIGER V funding and State of New Hampshire funding across each element.

**Project Costs and Funding**

<table>
<thead>
<tr>
<th>Project Costs</th>
<th>TIGER V Funds</th>
<th>State of NH Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expansion</strong></td>
<td></td>
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</tr>
<tr>
<td>Demolition</td>
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<td>Retaining Wall</td>
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<td>Caissons</td>
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<td>Superstructure</td>
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<td>Deck Appurtenances</td>
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<td>Dolphin</td>
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<tr>
<td><strong>Dock Repairs</strong></td>
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<tr>
<td>Caisson repairs</td>
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<td>Bulkhead recoating</td>
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<td>Deck repairs</td>
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<td>Mooring hardware repairs</td>
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<td>Fender system repairs</td>
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<td><strong>Total Construction Cost</strong></td>
<td>$16,223,788</td>
<td>$11,223,788</td>
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The requested TIGER funds, supplemented by the $5.0 million match, will unlock a wealth of opportunities and provide substantial benefits extending beyond the region in which the port is located. The public benefits associated with this project are provided in the Long-term Outcomes section of the application. A discussion of the project’s readiness is provided below.

**Project Schedule**

With approval of this grant application, the Terminal main wharf rehabilitation and expansion will be advertised in October 2013, with a contract award in February 2014. The project will be completed by the end of October 2015. The project schedule is provided below and provides construction detail, along with the environmental approval expected dates and the schedule for soliciting contracts.

**Market Street Marine Terminal Main Wharf Rehabilitation and Expansion Schedule**
Assessment of Project Risks and Mitigation Strategies

With TIGER V funding, the Market Street Marine Terminal main wharf rehabilitation and expansion is fully funded. Risks associated with the funding are very minimal, as the State of New Hampshire has committed the $5.0 million match and the remaining project funding will be provided through the TIGER V program, assuming it is awarded to the project. Technically, the project is completely designed and ready for construction. The primary risks associated with this project are environmental and are described below.

Federal Endangered Species Act
The project requires a Biological Assessment to comply with the Federal Endangered Species Act, because of two federally listed fish species in the Piscataqua River, the Atlantic sturgeon and short-nosed sturgeon. Currently, a bridge project is under construction near the proposed wharf rehabilitation and expansion project location. For the bridge work, in-water work has been restricted to between November 15 and March 15. Whether the wharf project will be subject to a similar restriction is an unknown until the project receives clearance from the National Marine Fisheries Service.

Proposed Mitigation Strategy
To address this potential risk, mitigation for the endangered fish species would be determined in consultation with the National Marine Fisheries Service. Most likely it would involve construction timing in water work to avoid predetermined windows.

Environmental Approvals
The environmental approvals for the Market Street Marine Terminal main wharf rehabilitation Project has NH-DES Environmental permits, and Army Corps of Engineers Permits. In accordance with the General Programmatic Permit, it is anticipated that an EA/FONSI will be issued by February 2014. As a federal action, the TIGER V grant commits PDA to compliance with the National Environmental Policy Act (NEPA). PDA has initiated NEPA coordination and compliance efforts for the proposed work. In accordance with Maritime Administrative Order 600-1, “Procedures for Considering Environmental Impacts,” the project would not normally be a major action significantly affecting the environment, as it is a reconstruction and modification of a structure which will not substantially change the character of the facility. However, the project will involve potentially significant impacts to several sensitive resources.

Because of the uncertainty of significant impacts, it is assumed the Maritime Administration will determine an Environmental Assessment (EA) is necessary to comply with NEPA. Based on a review of project plans and existing resources, it is anticipated that the EA will result in a Finding of No Significant Impact (FONSI) by the Coordinator of Environmental Activities for the Maritime Administration. A formal request for a preliminary analysis of the project has been made to MARAD, to confirm that an EA is the appropriate NEPA document for this project.
PDA has retained McFarland Johnson, the environmental consultants that recently assisted the New Hampshire Department of Transportation in obtaining NEPA clearance for the replacement of the Portsmouth – Kittery Memorial Bridge, directly downstream of the wharf.

A proposed schedule for completion of the NEPA process is included in the overall project schedule, previously provided. As shown in the schedule, the NEPA process is expected to be completed by September 2013.

Long-term Outcomes

A strong multimodal transportation system promotes economic viability, vitality and ultimately more livable communities utilizing the system. Transportation projects have the dual benefit of directly supporting jobs during construction and supporting the local, regional and national economies through the improved movement of goods, services and people over the longer term.

Deficient links in a transportation system restrict travel and can significantly impact economic growth and safety. Ensuring that transportation is in a state of good repair is a critical element in providing opportunities for economic competitiveness and viable economic growth. Rehabilitation and expansion of the Market Street Marine Terminal will ensure that the main wharf is in a state of good repair, which will support economic competitiveness, environmental sustainability, safety, and livability – important goals of the TIGER program.

State of Good Repair

The main wharf at the Market Street Marine Terminal is in overall Poor condition due to continued degradation of the 1964 and 1977 vintage marine structures that comprise the wharf. In 2005, a structural analysis was completed that recommended reductions in live load capacity, along with restrictions and operational limitations. Isolated areas of the structure are in severe condition and include localized structural failures. For example, the northern access bridge of the main wharf unexpectedly failed in 2011 due to deterioration and corrosion of internal reinforcing steel within the bridge planks. This partial failure required the closure of the northern bridge, thus requiring vehicles to traverse to the northern end of the wharf, increasing cycle time of loading and unloading operations. The southern bridge is of a similar vintage and is deteriorating rapidly. It is uncertain how much longer the bridge will remain structurally sound enough to remain open. Loaded trucks are currently restricted from utilizing the bridge. A video of the Market Street Marine Terminal and the Main Wharf is provided at the following link: http://youtu.be/INbu7mwcKp8.
The proposed rehabilitation and expansion project will extend the length of the main wharf by 125 linear feet, add a 24 square foot mooring dolphin, and increase the wharf deck area by 29,000 square feet. The access bridge condition will be addressed by decking the area between the existing shoreline and the back of the current main wharf. Left unrepaired, the continued corrosion of the wharf’s concrete reinforcing steel and steel caissons will require complete closure of the facility in the near future.

Safer vessel mooring and berthing operations will result from the project, and the bigger deck will provide a larger area for material lay down and assembly, approximately one acre. The expanded wharf will result in an increased loading capacity as well, which will allow larger cranes and vehicles to operate at the site. These improvements will result in a more efficient and operational marine facility that is better able to provide the marine support services needed by this busy, and growing, seacoast port. More importantly, the improvements will ensure that the Market Street Marine Terminal can remain open for business. In addition to improving the physical condition of the main wharf itself, the project will also reduce pavement wear and tear on roadways, by supporting the diversion of cargo from trucking.

State of Good Repair Benefits
- Generates highway maintenance savings of $7.8 million.
- Creates a residual value of infrastructure after 20 years of wharf use equal to $4 million.
- Improves marine facilities.

Economic Competitiveness
For many regional businesses, the port provides a cost competitive alternative to shipping by truck or rail. Access to this transportation option and the services it offers (e.g., foreign-trade zone status) supports and enhances many of these port-dependent businesses. The port directly serves international exports of significant scrap metal products, provides ship handling for numerous companies, and the combination of port and rail service available at the facility is critical to the cost competitiveness of multiple regional businesses. Improvement of the main wharf would also enable the port to grow. The port has been approached by businesses
interested in re-initiating container service, existing customers interested in expanding operations, and businesses with special projects that require marine shipping. If the wharf is improved, these opportunities can be realized and economic competitiveness enhanced. An improved wharf will position the port to increase its exports and imports, be more productive, and expand existing operations.

Between the project’s maintenance of existing port activity and its ability to facilitate growth in waterborne cargo, the region’s freight shippers and receivers will directly benefit through lower shipping costs (compared to using other modes) with the wharf improvement. Shipper cost savings associated with the project, due to direct port shipments, compared to longer-distance truck, are estimated to be $85.4 million over 30 years, with enhanced productivity an additional benefit of $2.4 million.

Existing Conditions and Economic Role of the Port
The Market Street Marine Terminal receives regular shipments of scrap metal, the State of New Hampshire’s fourth largest export. It also receives highway deicing salt and provides cargo handling for a number of special projects, including power plant components, vacuum tanks, and windmill turbines. In 2012, the Terminal handled approximately 38,000 tons of salt, 132,800 tons of gypsum, and 211,000 tons of scrap metal. Special projects, such as windmill parts and large pieces of equipment were also handled by the facility. Between 2011 and 2012, tonnage increased 50 percent at the facility, from 244,500 tons to 381,800 tons.

A recently demolished warehouse building has expanded port capacity, which has contributed to increased activity. In addition, rail use at the Terminal has grown in the past few years. For example, shredded scrap is now being shipped from Maine to the port on rail cars where it is sent overseas. Currently, this scrap is shipped from Maine on a weekly basis. The current design for the Sarah Mildred Long Bridge, which crosses the Piscataqua River near the port, incorporates rail improvements. This enhanced rail infrastructure will support the port’s existing rail access and augment the facility’s ability to move intermodal rail freight, further supporting existing and future business. Grimmel Industries, the largest scrap metal shipper at the port, has indicated that an improved main wharf is expected to facilitate increased scrap metal activity at the port. Thus, an
improved wharf is anticipated to promote economic activity locally and increase exports.

The port has handled a number of special projects in the past few years as well, though some potential shippers and receivers have expressed concern about the port’s current physical condition and ability to manage shipment of certain heavy and bulky cargo. Nonetheless, 33 windmill turbines and components from Denmark were shipped into the port and transported to northern New Hampshire during the late summer of 2011. There will be similar opportunities available in the future, but only if the main wharf is maintained in a state of good repair. Other windmill manufacturers have approached the port since.

Westinghouse Electric, a port-dependent business, employs 300 plus people in its upstream facility and, as articulated in its letter of support for this project, proximity to a working port is critical to this company because of the size and nature of the components it manufactures. Closure of the Market Street Marine Terminal would have significant ramifications on Westinghouse and other businesses that rely on the Terminal for marine shipping.

Despite the existence of private wharfs upstream (see map below), it is important to note that these are cargo-specific wharfs, designed to handle cargo of the specific businesses that own the wharfs. Much of the special project cargo handled at the Market Street Marine Terminal could not be handled by these other wharfs. Although much of this cargo would still be bound for New Hampshire and the region if the Terminal was not available, it would need to be shipped through alternative ports and then transported by truck (primarily) or rail to its final destination in the region. Completion of the project retains this waterborne cargo, allows for projected growth and the expansion of businesses.
With main wharf improvements, existing businesses are expected to increase their tonnage by an estimated one to three percent annually, depending on the cargo transported. This growth, however, may be conservative, as it is based on historic activity at the port and does not reflect the significant shifts occurring in the marine transportation industry as a whole, as described later in this section.

Adding to the port’s economic competitiveness is its designation as part of Foreign-Trade Zone (FTZ) #81. For the purpose of duty assessment, goods entered into the zone are considered to be outside the commerce of the United States and, therefore, no duty is paid while in the zone. This designation is advantageous, and a number of businesses served by the port utilize the zone. Customers who utilize both the port and the FTZ designation would be significantly impacted by closure of Market Street Marine Terminal.

**Economic Growth Opportunities**

The viability of a proposal for cargo and passenger ferry service between Portsmouth, New Hampshire, and Yarmouth, Nova Scotia, would be enhanced with main wharf rehabilitation and expansion, as demonstrated in the letter of support written by the Yarmouth Port Director. The current wharf configuration is inadequate for the ferry service at the present time, and wharf improvements would move the Market Street Marine Terminal one step closer to establishing a
ferry service between these two countries. The business plan prepared by the ferry service operator estimated that 150,000 passengers per year would utilize a new ferry service at this location. In addition, 30 to 35 tractor-trailers per day would likely travel each way on a ferry between these two ports.

In addition to supporting existing customers, the project will also position the port to receive larger vessels, increasing operational efficiency and throughput capacity for cargo handled at the Market Street Marine Terminal. The additional lay down space (estimated to be one acre) and easier wharf access will contribute to more efficient and productive operations at the port.

Northeastern Marine Logistics has indicated that they would be interested in utilizing the port for container shipments, if the main wharf is rehabilitated and expanded. As noted in their letter of support, the company has clients that will export more than 12,000 containers annually out of the Market Street Marine Terminal. This quantity of container shipping will create 60 to 100 jobs during the first year of operation out of the port. While some of these containers are currently being handled by different ports, approximately half are expected to be new business, and the increase in exports will be achieved more quickly because of the locational and other advantages that the Market Street Marine Terminal provides. Many of the company’s facilities are located in New England, and the Port of New Hampshire is closer to these facilities than the other northeastern ports.

The economic competitiveness benefits of this project are strengthened by prospective customers, several of whom are exporters that have approached the port for marine services in recent years. Because of the main wharf’s condition, however, they have held off operating at the Market Street Marine Terminal. In addition to Northeastern Marine Development, which was discussed previously, a recycling company, Clean Energy, is also interested in using the Market Street Marine Terminal in its exporting operations, as are large equipment manufacturers. The importance of the main wharf improvement to these prospective customers is articulated in the letters of support provided as part of this application. As noted in the letters, these economic opportunities are contingent on a marine facility that is structurally and operationally functional.

**Economic Competitiveness Benefits**
- Shipper cost savings of $85.4 million.
- Productivity benefits of $2.4 million.
- Supports growth of existing customer business.
- Promotes growth of new business, including exporters.

“Northeast Marine Development cannot initiate a short sea shipping project with the current condition of the wharf in Portsmouth. We are positioned to start service when the expansion project is completed” Dale Wood, CEO, NE Marine Development.” Dale Wood, CEO, Northeast Marine Development
Livability
The Market Street Marine Terminal improves the livability of communities located along the Piscataqua River and the surrounding region by providing an international connection to the businesses located there. Commercial, non-industrial users of the Terminal include tour/cruise ship operators, military vessels, environmental research vessels, and charter boats.

Residents of the community also enjoy observing the port’s activities and, in fact, the Market Street Marine Terminal is working with the City of Portsmouth on livability improvements to enhance the ability of residents to do so. Specifically, the port is partnering with the City of Portsmouth to enhance livability along the Market Street Gateway. In addition, Market Street Terminal is the only facility that can, and has accommodated public events, visits and docking of the Tall ships, and tours of the Environmental Protection Agency’s research vessel, among other events.

Both the City of Portsmouth and Town of Kittery also have vibrant downtown areas and well-established neighborhoods within walking distance from the Terminal. Increased economic activity associated with the port will attract more visitors to the region who may take advantage of these downtown areas and the considerable historic character they offer. Numerous restaurants, retail establishments, and historic sites, such as Strawbery Banke, John Paul Jones Park, Prescott Park, to name a few, are all located within walking distance from the Marine Terminal. The economic support the merchants and tourist attractions of both states would receive would be significant.

While quantifying livability benefits is not easily accomplished, an improved wharf will help make the harbor operate more efficiently and more safely overall. It will also result in congestion reduction benefits by facilitating marine cargo transport, rather than truck. This will help to support livability in region as highway congestion, particularly on I-95, continues to increase over time.
Livability Benefits

- Highway congestion reduction benefits of $11.9 million.
- Supports attraction of business and recreational visitors to the City of Portsmouth and Town of Kittery.

Environmental Sustainability

Promoting a more environmentally sustainable transportation system is an important goal of the TIGER program. Rehabilitating and expanding the main wharf at the Market Street Marine Terminal will provide measurable emissions reductions, energy efficiency improvements, and other environmental benefits by facilitating waterborne goods movement.

In addition to these post-construction sustainability aspects, the design of the expansion project itself includes several elements that promote the TIGER goal of environmental sustainability. Specifically, the main wharf expansion project includes the rehabilitation of a section of the wharf, rather than completely replacing it. In addition, the expansion portion of the wharf project is designed with concrete containing recycled fly ash, and the deck is supported with steel caissons that provide larger spans that limit impact to the Piscataqua riverbed.

The Market Street Marine Terminal provides a “green” alternative to commercial trucking. Specifically, marine transportation shipping that uses the Terminal reduces the number of trips and related emissions created by trucks transporting goods on highways by facilitating a marine transportation option. The rail connection available, and utilized, at the port also supports a more “green” method of cargo transportation. A reduction in vehicle emissions, such as VOC (HC), CO, NOX, CO2, SO2 and PM, is a significant benefit of this project.

Environmental Sustainability Benefits

- Emissions Reduction Benefit of $5.3 million.
- Rehabilitation, rather than replacement, of wharf section.
- Limited impact to Piscataqua riverbed.
Safety and Security

The Market Street Marine Terminal main wharf improvements are essential to maintain the current port activity serving local shippers and receivers, thus avoiding longer distance goods movement by truck and the associated increase in VMT. Wharf rehabilitation and expansion is estimated to generate accident reduction benefits of $11.3 million due to reduced truck VMT. While this benefit is important, this project provides more in terms of safety than simply a reduction in vehicular accidents.

The Market Street Marine Terminal coordinates with all agencies involved with security of the port, including the U.S. Coast Guard, NH Marine Patrol, the U.S. Customs, the FBI, the U.S. Navy, NCIS and the Department of Transportation. Specifically, the Terminal provides these entities access to its state of the art camera system, which allows them the ability to reconnoiter or otherwise observe land based facilities, ships in port, and vessels transiting the area between the I-95 and Memorial Bridges. If the port were to close, there would not be sufficient revenue generated to support the staff required to operate this equipment. This could directly impact the security of the port, as well as other facilities located along the river, including the Portsmouth Naval Shipyard.

Should there be a natural or manmade disaster, the Market Street Marine Terminal would be called upon to respond. Upstream terminals (i.e., Sprague, Irving and Sea-3) have enough fuel and energy production capabilities to service their customers for the better part of a week. Beyond that, the Market Street Marine Terminal would likely play a pivotal role by receiving ships carrying home heating oil, wood chips and other equipment and supplies that may or may not be able to be delivered by rail or by road.

The port is also critical to the harbor’s emergency response capabilities from the perspective of assisting marine vessels that are distressed. For example, early in 2013 a marine vessel traveled upstream and collided with the Sarah Mildred Long Bridge, which was subsequently closed for several weeks. The Market Street Marine Terminal was integral in reclaiming the vessel and returning it to the port safely. These types of safety and security functions are critical to the harbor and its commercial and leisure users. The Market Street Marine Terminal is an integral part of the overall emergency planning for the harbor and Piscataqua River areas.

Portsmouth Naval Shipyards

Security at the Portsmouth Naval Shipyards is elevated at all times. When there is a nuclear submarine docked, the Terminal is utilized to load and unload cargo from foreign flag vessels. This practice maintains some separation of the foreign vessels from the Naval Shipyards for security reasons. In the absence of the main wharf, it is not clear how the Shipyards would maintain this distance and security precaution.
The Market Street Marine Terminal is also used to stage construction equipment and materials for marine projects in the harbor and at other terminals, including the Shipyard. Construction of the Sarah Mildred Long Bridge will require staging at the Terminal.

The Terminal also contributes to the security of the Naval Shipyard by enabling it to move a percentage of its work off site and out of the high security zone. It is important to note that the Shipyard is located on an island and access is limited.

As proposed, the main wharf expansion would create additional dock space to accommodate ships associated with Terminal activities, as well as the Naval Shipyard. Rehabilitation of the main wharf would ensure that the Market Street Marine Terminal could continue to support the Navy by providing wharf space and other marine services not available at the other upstream private wharfs.

**Fire and Oil Spill Safety and Security**

If there is an emergency situation on board a ship, the pilot brings the ship to the Terminal for several reasons. First, it would be illogical and extremely dangerous to take a shipboard fire to the nearby oil/propane terminal, which is a private pier option on the Piscataqua River. Second, it is difficult, if not impossible, to get emergency assets to the ship’s side at the other terminals located along the river.

In addition to providing the physical location for an emergency response, the port also hosts advanced shipboard fire fighting training and is used for oil spill training drills. In the unlikely event of a spill, the Terminal is utilized for staging response equipment. A rehabilitated and expanded main wharf will provide direct access to the wharf along its entire length, increasing access and maneuverability for multiple emergency vehicles. These operational improvements significantly increase the emergency response and safety capabilities of the port. Failure to rehabilitate and expand the main wharf would reduce the efficiency of the wharf, thereby reducing the ability of first responders to effectively provide their critical services.

**Safety Benefits**

- Accident reduction benefits of $11.3 million due to marine use for freight transport, rather than truck.
- Support to Portsmouth Naval Shipyard.
- Fire and Oil Spill Safety and Security.
Job Creation & Near-Term Economic Activity

Investment in the Market Street Marine Terminal main wharf rehabilitation and expansion is anticipated to increase employment and economic activity in the region. The short-term construction activity will provide jobs and labor income in construction, manufacturing, and supporting industries. Most, if not all, project expenditures will be provided domestically.

Job Creation

Based on the project schedule and capital budget for the main wharf improvement, the project is estimated to involve 67 direct on-site employees for the construction, as shown in the table. These direct on-site jobs are only those associated specifically with the construction elements of the main wharf improvements. They do not include jobs that are created when funds are spent on non-labor items, such as materials and equipment and other sub-contractors. Based on the capital budget and using the nationally recognized IMPLAN economic impact modeling system, the total short-term job creation nationwide, including multiplier effects is estimated to be approximately 27 in 2013 and 113 job years in 2014, and 99 jobs in 2015, for a total of 239 job years. The economic impact analysis includes estimates of multiplier and total job impacts based on the direct, indirect and induced impacts of the project. Direct wages are estimated at $5.6 million and, with multiplier effects, the total income impact is $13.8 million. The total Value-Added, or GDP, growth based upon the $16.2 million investment in the main wharf is estimated to be $19.7 million over the construction period.

Another method to estimate job-years from additional government spending uses the Council of Economic Advisors’ (CEA) methodology as presented in a 2009 analysis. This method assumes that for every $76,923 of government spending, one job-year is created. Using the CEA method and assuming an overall main wharf expenditure of $16.2 million, 216 jobs are estimated to be directly created by the investment.

Higher paying jobs are often more desirable for communities, as they generate a greater amount of additional taxes and consumption. At the same time, lower paying wages may be beneficial for communities with a greater proportion of unemployed low-skilled workers. One hundred-four cumulative job years are expected to be created in the short-term due to capital
expenditures in key industries employing low-income people. The majority of these jobs will be created in the Construction sector.

It should be noted that Northeastern Marine Logistics estimates that establishing their container service through the Market Street Marine Terminal will result in 60 to 100 jobs required to support the relocated and expanded business during the first year of operation at the Port of New Hampshire. These new jobs are not reflected in the figures presented above.

Jobs
- 97 direct construction related jobs.
- 142 indirect and induced jobs based on IMPLAN methodology, 211 jobs using CEA method.
- 60-100 jobs to support Northeastern Marine Logistics operations at port, once wharf is rehabilitated and expanded.

Evaluation of Expected Project Costs and Benefits
A comparison of the benefits and costs of a project can provide an indication of whether or not a project is worthwhile. To be deemed economically feasible, projects must pass one or more value benchmarks: the total benefits must exceed the total costs on a present value basis; and/or the rate of return on the funds invested should exceed the cost of raising capital, often defined as the long-term treasury rate or the social discount rate. A fundamental tenet of the benefit-cost analysis approach is that only those benefits that are directly attributable to the construction and operation of the project are included in the estimation of benefits and costs. For this analysis, the cost to build and operate represents the foregone value of an alternative investment. The benefits of the project refer to the improvement in the social well-being delivered by the project.

In the benefit-cost analysis conducted for this application, benefits are estimated for current and future users on an incremental basis; that is, the change in welfare that consumers and, more generally, society derive from the main wharf rehabilitation and expansion, as compared to the current situation. As with most transportation projects, the benefits derived from the implementation of an infrastructure project are actually a reduction in the costs associated with transportation activities. The benefits of a project are the cost reductions that may result from the project’s implementation. These cost reductions may come in the form of average time saved by users, reductions in operating expenses, decreased levels of pollution, or more generally, a combination of multiple effects.

The Benefit-Cost Analysis was conducted by HDR Decision Economics, using methods and parameters consistent with US Department of Transportation and specifically Transportation
Investment Generating Economic Recovery (TIGER) Discretionary Grants guidance. The following principles guide the estimation of benefits and costs in the analysis:

- Only incremental benefits and costs are measured.
- Incremental benefits of the project include transportation cost savings for the users of the main wharf.
- Incremental costs of implementation of the project include initial and recurring costs. Initial costs refer to capital costs incurred for design and construction of the main wharf improvement. Recurring costs include incremental operating costs and maintenance expenses. Only additions in costs to the current operations and planned investments are considered in the analysis.
- Benefits and costs are valued at their opportunity costs.
- The benefits stemming from the implementation of the main wharf expansion are those above and beyond the benefits that could be obtained from the best transportation alternative.
- Annual costs and benefits are computed over a long-run planning horizon and summarized through a lifecycle cost analysis. The main wharf rehabilitation and expansion project is assumed to have a minimum useful life of 30 years.

The opportunity cost associated with the delayed consumption of benefits and the alternative uses of the capital for the implementation of the project is measured by the discount rate. All benefits and costs are discounted to reflect the opportunity costs of committing resources to the project. Calculated real discount rates are applied to all future costs and benefits as a representation of how the public sector evaluates investments. A seven percent real discount rate is used in the analysis, with a sensitivity test at three percent.

**Build and No-Build Scenarios and Associated Costs**

Two alternatives were compared in the benefit-cost analysis, a build and no-build scenario. The build scenario represents the main wharf rehabilitation and expansion as described in this application. The no-build scenario reflects no improvements in the main wharf and complete closure of the Market Street Marine Terminal by 2016, due to the continued degradation of the facility indicated by localized failures of individual structural components.

For the build scenario, it is estimated that the project will require $16.2 million in capital expenditures. Maintenance after the improvement is estimated to cost $500,000 every ten years. Operating costs are currently $1.1 million annually and anticipated to remain at this level after the wharf is improved.

The no-build scenario is predicated on complete closure of the Market Street Marine Terminal by 2016, but prior to the port’s closure, operating and maintenance costs would be incurred. The no-build scenario assumes $10,000 in maintenance expenditures in 2013 and an additional
$5,000 per year in 2014 and 2015. After closure, no operating or maintenance expenditures are anticipated.

**Estimation of Project Benefits**

The valuation of benefits estimated for this project is based on the United States Department of Transportation (USDOT) guidance on the preparation of TIGER applications. Where USDOT has not provided valuation guidance or a reference to guidance, standard industry practice has been applied. (See Benefit-Cost Appendix for complete summary and backup information).

Variable costs associated with transportation projects are dependent on vehicle-miles traveled. If the port closes, shippers and receivers would seek alternative ports and modes for transporting their goods. While the destinations of the cargo they transport would not change, the alternative ports would be farther away and require additional truck and rail services. This would mean more vehicle miles traveled than currently required to ship this same cargo. VMT reductions due to the main wharf improvement drives many of the benefits described below.

For the analysis, seven categories of benefits were measured: 1) shipper cost savings; 2) accident reductions; 3) emissions reductions; 4) pavement maintenance savings; 5) roadway congestion reductions; 6) residual value of infrastructure after 20 years; and 7) productivity benefits. The following describes these benefits categories and their applicability to the TIGER long-term outcomes primary selection criteria.

**Shipper Cost Savings**

Between the project’s maintenance of existing port activity and its ability to facilitate growth in waterborne cargo, the region’s freight shippers and receivers will directly benefit through lower shipping costs (compared to using other modes). Shipper cost savings associated with the project, due to direct port shipments compared to longer-distance truck, are estimated to be $85.4 million over 30 years, assuming a seven percent discount rate.

**Productivity Benefits**

Freight shippers have many options for transporting their cargo, and each business makes their location and logistics decisions based on a variety of factors. It is presumed that existing port customers are utilizing the Market Street Marine Terminal because it is operationally efficient for them to do so. As specifically stated by existing port customers, expansion of the port could allow them to expand operations and shipping volumes by using the low-cost rail connections and port facilities. If the port were to close, these businesses would either need to limit their expansion plans and/or find an alternative location. This shift would generate a loss in productivity for existing port customers who are forced to rework their logistics and site location away from their preferred site. Thus, maintaining and expanding the port results in estimated productivity benefits for users of the improved facility. The analysis estimates $2.4 million in project-induced productivity benefits.
**Accident Reductions**
To estimate the accident reduction benefits associated with the improved main wharf, the reduction in vehicles on the road is combined with a multiplier, which is a weighted average of fatal, injury, and property damage only (PDO) accidents. These benefits are estimated to be $11.3 million with the wharf rehabilitation and expansion.

**Emissions Reductions**
Emissions reductions are generated by reduced VMT. Emissions are further reduced because transporting cargo by marine vessel results in lower emissions than transporting that same cargo by truck. When the wharf work is completed, reduced VMT will lead to emission savings. Emissions measured include VOC (HC), CO, CO2, NOX, SO2, and PM, varying by auto and truck. The expansion of the main wharf will result in emissions benefits estimated to be 5.3 million.

**Pavement Maintenance Savings and Congestion Reduction Benefits**
Pavement maintenance savings is another benefit of reduced vehicle traffic and decreased congestion. With the wharf improvement, VMT is reduced and wear and tear on highways and the associated maintenance cost is decreased. This category of savings is estimated to be $7.8 million. Congestion reduction benefits are estimated to be another 11.9 million over the 30-year analysis period.

**Residual Value**
For the purpose of the benefit-cost analysis, benefits were estimated for a period of 30 years after the completion of construction on the expanded main wharf. However, the useful life of the expansion project is actually 50 years. In order to capture the un-used value of the investment, a residual value of $4 million has been calculated.

**Summary Benefit-Cost Results for Main Wharf Rehabilitation and Expansion**
There have been recent discussions regarding initiating passenger and freight ferry service between Portsmouth to Yarmouth, Nova Scotia. While this new service is not guaranteed, the expansion of the main wharf will make the Port of NH more suitable for this type of service, as described in the letter of support provided by the Port of Yarmouth. According to preliminary discussions, ferry service would be expected to transport 150,000 passengers per year and 25,000-35,000 automobiles annually. In addition, the ferry would likely carry 30-35 tractor-trailers each day. With each of the 35 trucks hauling 88,000 pounds, the port could experience an increase of 3 million pounds of cargo one way each day of service. Items such as tires, aerospace parts, and fish product that would be delivered to other locations in New England would likely be shipped.

There is the opportunity for other increased port activity as well. Northeastern Marine Logistics is ready to re-initiate container service at the port, but for the main wharf condition. Letters of
intent to use the port for this activity are in hand. If this business chooses to utilize the Terminal once the Main Wharf is rehabilitated and expanded, approximately 12,000 containers are expected to be moved to and from the Port of New Hampshire. Of these, 6,000 containers currently using other northeastern ports will be moved to the Port of New Hampshire because of operational efficiencies. While this business decision reflects a diversion of some containers from other ports, the distance between the Port of New Hampshire and the destinations in New England is shorter than it is from the other ports. As a result, benefits that are generated by a reduction in vehicle miles traveled would be expected. Additionally, Northeastern Marine Logistics anticipates essentially doubling its container business if it moves to the Market Street Marine Terminal, reflecting 6,000 new containers that would be exported through the Terminal. This benefits both the region and the country as a whole in terms of increased economic activity. Because the container service, in particular, seems viable based on discussions with Northeastern Marine Logistics, the benefit-cost analysis includes the container service. The potential ferry service was not incorporated into the analysis.

**Benefit-Cost Summary – Main Wharf Rehabilitation and Expansion**

<table>
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<th>BENEFIT (7% discount rate)</th>
<th>BENEFIT (3% discount rate)</th>
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<tr>
<td>Shipper Cost Savings</td>
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<td>Productivity Benefit</td>
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<th>COSTS</th>
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<tr>
<td><strong>PV of Total Costs</strong></td>
<td><strong>$25.3</strong></td>
</tr>
<tr>
<td><strong>PV of Total Costs</strong></td>
<td><strong>$35.4</strong></td>
</tr>
</tbody>
</table>

| Net Present Value (NPV)    | $22.3                      |
| Net Present Value (NPV)    | $58.8                      |
| Benefit-Cost Ratio (BCR)   | 1.9                       |
| Benefit-Cost Ratio (BCR)   | 2.7                       |
Using the discount rate recommended in the TIGER V Grant program guidance (7%), and assuming new container service at the port, rehabilitation and expansion of the main wharf at the Market Street Marine Terminal will result in:

- Total benefits of $47.6 million in present value terms
- Total costs of $25.3 million in present value terms
- Total net present value of $22.3 million, with a benefit-cost ratio of 1.9.

Assuming a discount rate of three percent yields a BCR of 2.6.

**Summary Benefit-Cost Results for Alternative Scenario**

An alternative scenario was also considered, and the results are provided as a sensitivity analysis to the assumption that container service will be initiated with the improved and expanded Main Wharf. The BCA assumes increases in existing business, but no new business to the facility. In other words, it assumes that container service will not be initiated after the wharf is improved and expanded. Using the discount rate recommended in the TIGER V Grant program guidance (7%), rehabilitation and expansion of the main wharf at the Market Street Marine Terminal in this alternative scenario will result in:

- Total benefits of $50.1 million in present value terms
- Total costs of $27.1 million in present value terms
- Total net present value of $23.1 million, with a benefit-cost ratio of 1.9.

Assuming a discount rate of three percent yields a BCR of 2.7 in this alternative, more conservative, scenario. A complete discussion of the Benefit-Cost Analysis is provided in a Technical Appendix included with this application.

**Innovation**

When the main wharf rehabilitation and expansion was designed, it was a goal of the port to minimize the environmental impact of the improvement. For example, no bulkheads, dredging or back-fill will be placed or occur below the low water line into the tidal zone. In addition, the expansion was designed to utilize caissons to support the deck that significantly increase the spans between supports, while reducing overall impact on the Piscataqua riverbed, compared to traditional pile construction. The tidal zone impact will be limited to the support caissons thereby limiting the footprint in the tidal zone. This will also limit the impacts on tidal currents and the hydrology of the river.
Partnership

The importance of the main wharf rehabilitation and expansion project to the Seacoast region can be determined by the number of parties that have worked cooperatively to develop this planned improvement. The New Hampshire Legislature enacted and continually approved legislation in support of the project. The Pease Development Authority took the lead in developing the design, engineering, permitting and contract plans necessary for this work to proceed once funds were obtained. The New Hampshire Department of Environmental Services and Army Corps of Engineers issued permits approving this work.

In addition, community members, shipping operators, businesses, and elected officials all strongly support the improvements to the main wharf. They can easily recognize the benefits from improved safety, operation, and functionality of the rehabilitated and expanded Marine Terminal. This effort will truly enhance the connectivity of the region and provide an international link to the global community.

The result is an area-wide multi-modal transportation improvement project that addresses the needs of many individuals, businesses, organizations and tourists traveling in the region. It also offers the opportunity to improve economic competitiveness in an environmentally sustainable manner. Letters of support for this project are provided below and at the following link: http://portofnh.org/

Evaluation of Project Performance

Wharf Inspections

Once rehabilitation is complete, inspection of the wharf structures will be performed on a periodic basis in accordance with industry standards and the American Society of Civil Engineers Practice manual No. 101. Wharf inspection reports will be evaluated to gauge project longevity and will be used to coordinate future preservation efforts as needed. The success of the rehabilitation effort will be evaluated as part of this inspection process. In addition, division personnel engaged in day-to-day operations of the wharf will also provide key input into this process. Their constant contact with and operation of the wharf facilities provides keen insight into the success and performance of the wharf rehabilitation.
**Reporting**
Pease Development Authority has successfully implemented federal grants from Federal Aviation Administration, Department of Defense, and Department of Commerce and has met and exceeded their reporting requirements. Similar reporting will be accomplished to meet the TIGER V requirements.

**Labor Compliance Tracking**
All labor compliance tracking requirements associated with this federal grant program will be met.

**State and Local Planning**
The Market Street Marine Terminal main wharf rehabilitation and expansion was initially approved by the New Hampshire Legislature under Chapter 351:5 of the Laws of 1991 and has been continually approved by the Pease Development Authority Board of Directors with concurrence by the New Hampshire General Court’s Capitol Budget Overview Committee. In June 2007, the Pease Development Authority obtained approval for design, engineering, permitting, construction documents, and hydrographic survey. In 2008, approval for submission of NH-DES Standard Dredge and Fill Application was obtained. The legislation will remain in effect until the completion of the project. This application will be submitted for state review in accordance with E.O. 12372.

**Federal Wage Rate Certification**
The Pease Development Authority will comply with the requirements of subchapter IV of chapter 31 of title 40, United States Code (federal wage rate requirements), as required by the FY2013 Continuing Appropriations Act. The Federal Wage Rate Certification is provided with this application.

**List of Attachments**
- Benefit-Cost Analysis Technical Appendix
- Environmental Documentation
- Letters of Support
- Assurances
Submitted by:
Pease Development Authority
Division of Ports and Harbors
555 Market Street
Portsmouth, NH 03801