

US EPA ARCHIVE DOCUMENT

Portfields

*Charting a Course for
Port Revitalization*





Reporting Results

This report outlines the range of benefits provided to the pilots by the Portfields partnership. Many of these approaches may be replicated in other port communities to enhance community revitalization efforts. The report has three goals: 1) highlight the Portfields partnerships; 2) describe the accomplishments; and 3) document best management practices and innovative strategies that can be transferred to other ports.

“If you look for results only in regulations, port community revitalization will seem insurmountable. But, working in partnership with federal agencies and using the Portfields model, New Bedford is moving forward and capitalizing on opportunities never thought of before.”

—Mayor Fred Kalisz, Jr.
New Bedford, Massachusetts





Portfields

Partnerships

- Portfields is a federal interagency partnership addressing brownfields in port communities with an emphasis on the environmentally- and economically-sound revitalization of port facilities.
- Portfields is led by the National Oceanic and Atmospheric Administration (NOAA) and the Environmental Protection Agency (EPA), with support from the U.S. Army Corps of Engineers (USACE), the Economic Development Administration (EDA), and other federal agencies.
- Three ports are designated as Portfields pilots: Bellingham, Washington; New Bedford, Massachusetts; and Tampa, Florida.

In Context

- With an expected doubling of waterborne commerce by the year 2020, and a significant increase in the size of commercial vessels, U.S. ports will need to upgrade their infrastructure to remain competitive in the expanding global marketplace.
- 95 percent of U.S. foreign trade travels through our nation's ports, contributing \$780 billion to the economy and employing 16 million people.
- The U.S. has 95,000 miles of coastline, 25,000 miles of navigable waters, and over 300 ports containing 3,700 marine terminals.
- Port areas are habitat for almost one-half of the nation's protected, threatened, and endangered species.

Goals

- Expedite the redevelopment of port communities in a manner that enhances port infrastructure, protects human health, protects and restores critical habitat, and provides economic opportunity and a better quality of life for communities.
- Focus and leverage the combined resources of federal, state, local, and private partners to support redevelopment and revitalization efforts.
- Actively transfer best practices and lessons learned to other port communities.



Portfields

Working to Benefit the Environment,
Economy, and Communities



The Portfields partnership integrates the goals of protecting human health, preserving healthy ecosystems, and encouraging economic development to achieve community revitalization.

Economic Revitalization and Environmental Protection

Ports play vital roles in our nation's economy and quality of life. Our ports serve as gateways for domestic and international trade, and are home to many valuable environmental resources. The location of our port communities and their essential role in our economy presents a variety of environmental and human health challenges. Economic growth must go hand-in-hand with sustaining marine ecosystems, increasing air and water quality, and restoring natural habitats. The Portfields partnership is dedicated to finding solutions that promote economic revitalization while sustaining natural resources and protecting human health.

Port of Bellingham,
Washington



Accomplishing the Portfields Mission Through Partnership

NOAA, EPA, and other federal agencies are partnering with communities to redevelop contaminated lands, known as brownfields, around port facilities. In 2003, the Portfields federal partners selected three port communities to serve as pilots and demonstrate how intergovernmental collaboration can foster innovative solutions that promote economic development while protecting human health and the environment.



The ports of Bellingham, Washington; Tampa, Florida; and New Bedford, Massachusetts are designated as Portfields Pilot Ports. These communities were selected for their commitment to implementing innovative approaches to community revitalization, their unique set of needs, and the potential for federal assistance to enhance successful revitalization.

The strategic partnerships and innovative approaches to community revitalization developed by the Portfields partnership are promoting environmental protection while invigorating community revitalization and improving marine transportation. Portfields mobilizes federal expertise and resources to support local community efforts to implement their visions for revitalization. The Portfields partnership is a model in interagency collaboration for streamlining current processes and implementing new approaches to community redevelopment.



Portfields: Charting a Course for Port Revitalization



Portfields

The Major Federal Partners

Federal Partner	Mission	Available Assistance and Contributions to Portfields
National Oceanic and Atmospheric Administration	NOAA's mission is to conserve and manage wisely the nation's coastal and marine resources, and to describe and predict changes in the Earth's environment to ensure sustainable economic opportunities.	Co-coordinates the implementation of Portfields. Sponsored and facilitated local kick-off meetings at each Pilot Port. Provided \$30,000 to each port to support Portfields implementation and ongoing technical assistance.
Environmental Protection Agency	EPA's mission is to protect human health and the environment. EPA leads the nation's environmental science, research, education, and assessment efforts.	Co-coordinates the implementation of Portfields. Provides funding for Targeted Brownfields Assessments. Provides funding to Portfields communities for revitalization planning and cleanup activities. Coordinates and oversees cleanup activities at Superfund sites.
U.S. Army Corps of Engineers	USACE is responsible for major construction and other engineering support to the Army, Air Force, and other federal agencies.	Provides technical assistance for cleanup and navigational dredging projects. Provides wave energy impact modeling to support ecosystem restoration. Provides assistance in streamlining permitting.
Economic Development Administration	EDA's mission is to generate new jobs, help retain existing jobs, and stimulate industrial and commercial growth through increased private sector investment in economically distressed areas of the nation.	Provides assistance to support redevelopment efforts through planning and strategy grants, and infrastructure improvement grants designed to attract new industry, encourage business expansion, diversify local economies, and generate and retain long-term private sector jobs and investment.
Maritime Administration	MARAD develops and implements standards, laws, regulations, and procedures to protect the environment and redevelop port properties.	Provides expertise in ship scrapping, ballast water treatment, dredging, oil pollution issues, and control of air emissions within port facilities. Provides funding through MARAD Port Security Grants.
Department of the Interior	DOI protects, oversees, and provides access to federally-owned natural and cultural areas.	DOI Fish and Wildlife Service's Coastal Program provides technical expertise to assist coastal communities preserve bays, estuaries, and watersheds.
Department of Housing and Urban Development	HUD aims to increase homeownership, support community development, and increase access to affordable housing.	Provides support for brownfields property acquisition and remediation through the Brownfields Economic Development Initiative (BEDI) grant and Community Development Block Grant (CDBG) programs.



Building for the Future

Through integrated planning and comprehensive approaches, the Portfields pilot communities are taking steps to expand their facilities and shipping capacity while minimizing the negative effects of economic expansion upon the environment and human health. The Pilot Ports are implementing dredging activities that will deepen and maintain shipping channels, increase port capacities, and improve environmental quality of coastal habitats.

Through the assessment and cleanup of brownfields, once idle properties are returning to productive use as port facilities, recreational areas, and restored wildlife habitats. The Pilot Ports are redeveloping brownfields as part of their comprehensive community-based revitalization plans. Smart growth planning in conjunction with the cleanup and reuse of brownfields promotes air and water quality improvements, the preservation of greenspace, and habitat protection.

The partnerships and successes of Portfields illustrate how innovative approaches are assisting ports in overcoming environmental and economic challenges and promoting community and ecosystem revitalization. These strategies build on the legacy of our nation's ports and simultaneously facilitate revitalization, economic expansion, and environmental protection.

The following case studies illustrate how the Pilot Port communities and the Portfields partnership are leveraging resources and promoting innovative approaches to invigorate and enhance local community revitalization efforts. Many of these projects and approaches may be applicable to the challenges faced by other ports and coastal communities.





Port of Bellingham

Washington

The Port of Bellingham is located on the northeastern edge of Puget Sound, between the major metropolitan areas of Seattle, Washington and Vancouver, British Columbia. The City of Bellingham is home to nearly 71,000 residents. Bellingham's waterfront history includes harbor dependent operations such as lumber, pulp and paper mills, shipyards, commercial fishing, and seafood processing. The Port is the southern terminus for the Alaska Marine Highway Ferry System and serves as a recreational boating center for the scenic San Juan Islands. The Portfields partners are working with the Port to meet its goals for future transportation needs, economic revitalization, and restoration and stewardship of marine habitat through implementation of projects identified in the Port's comprehensive planning efforts.



<http://www.portofbellingham.com>



A New Level of Stakeholder Engagement

The Portfields partnership is assisting the ongoing efforts of the Bellingham Bay Demonstration Pilot. This Demonstration Pilot is a team of 15 state, tribal, federal, and local stakeholders that cooperatively planned the cleanup, source control, and restoration for contaminated sediment sites around Bellingham Bay. These efforts brought the Bellingham Bay Comprehensive Strategy and Final Environmental Impact Statement to fruition to guide future decisions on cleanup, restoration, development, and pollution control around the Bay. The high level of public involvement, cooperative problem solving, responsible business practices, and visioning makes the Port of Bellingham a leader in balancing the goals of redevelopment, social concerns, and environmental protection. Stakeholder success is partly due to organizing a series of committees with tasks and finite work projects. This decentralized approach matched participants to their interests and kept them focused on the task at hand, while also recognizing the complex dimensions of the effort.

Use of Risk Management Tools

The Port works closely with the Washington Department of Ecology and other Portfields partners to design, implement, and fund the cleanup of brownfields. On January 20, 2005, the Port acquired Georgia-Pacific's waterfront property, including its treatment lagoon. Georgia-Pacific exchanged the 137-acre property with the Port under an agreement that the Port would clean up the mill-site property and contaminated marine sediments in the adjacent federal channel (Whatcom Waterway). To protect both the Port and Georgia-Pacific from potential cost over-runs and unknown

Ideas Worth Borrowing

Risk Management Tools

The Port of Bellingham is using an environmental insurance policy to cap Port liability costs in the cleanup of a privately-owned mill property that the Port recently acquired.

Habitat Restoration Coupled with Infrastructure Development

The Port of Bellingham is redeveloping the central waterfront and creating a new commercial and mixed-use area that will provide new economic opportunities and restore salmon habitat.

Permit Streamlining

The Port of Bellingham is working with Portfields partners, the Lummi Indian Nation, and local partners to streamline the permitting process for planned waterfront and cleanup projects.

Expanded Hydrographic Surveying for Baseline Information

NOAA is working with the Port of Bellingham and other partners to acquire information during upcoming NOAA hydrographic surveys to support Port projects.

"Portfields is absolutely critical in allowing us to move forward and blend . . . economic development with habitat creation, environmental cleanup, and community development."

—Jim Darling, Executive Director
Port of Bellingham

Major Partners in Bellingham Bay Portfields Projects

City of Bellingham

The Port created a partnership with the city that defines responsibilities and supports roles between the two, particularly as it applies to infrastructure management. Partners made commitments to implement the community's vision that includes area-wide master planning, public parks, and infrastructure.

State of Washington Department of Ecology

The Port and state worked to better understand the regulatory requirements for cleaning up the industrial properties for a mixed-use waterfront. The Department of Ecology will provide grants to support sediment cleanup.

Lummi Indian Nation

Bellingham Bay is the traditional fishing area for the Lummi Indian Nation. The Port and tribe are working to define business objectives, cultural resource interests, and strategies for restoring natural resources.

National Oceanic and Atmospheric Administration

Provided funding to support project design; organizing permit streamlining activities; will conduct hydrographic surveys

Environmental Protection Agency

Provided funding that will support permit streamlining efforts and project design and implementation; participating in permit streamlining activities

U.S. Army Corps of Engineers

Assisting with the planning and design of aquatic ecosystem restoration; participating in permit streamlining for navigational dredging; and analyzing deauthorization of navigation channel to facilitate permanent capping of contaminated sediments

liabilities, the parties purchased an environmental insurance product with a 30-year term. Under the terms of the policy, Georgia-Pacific paid a \$5 million premium and the Port will pay half of the estimated \$40 million in cleanup costs. Washington State Department of Ecology grants will help fund the other half of the cleanup. Portfields is continuing to be instrumental in expanding partnerships and providing assistance with the cleanup and revitalization of the Georgia-Pacific property.

Environmentally-Sound Port Facilities

Portfields partners are actively engaged in planning and implementation efforts with the Port of Bellingham to develop alternatives for the future use of the Georgia-Pacific wastewater treatment lagoon in the Central Waterfront Redevelopment area. Post-remediation alternatives include the creation of a "habitat-friendly" or "clean" marina for recreational boaters using clean building materials and best management practices. The Port envisions converting the remediated lagoon into 28 acres of submerged land, including over 4,000 lineal feet of near shore salmon habitat. The surrounding waterfront area ultimately will become mixed-use development, including parks, multifamily housing, office space, and commercial establishments that are expected to offset the loss of jobs from the closure of the Georgia-Pacific mill.

"Clean" Marina Development

As part of the Port of Bellingham's remediation plan for the Georgia-Pacific wastewater treatment lagoon, the Port seeks to develop a state-of-the-art small boat marina. The plan includes identifying best practices that will be consistent with the federal Clean Oceans Initiative as well as working to define LEED (Leadership in Energy and Environmental Design) certification standards for marina development. The marina will serve as a model for habitat-friendly design, construction, and operation.

Additionally, Portfields partners are assisting the Port of Bellingham with restoration of the Squalicum Creek Delta. The Squalicum Industrial Area includes the Squalicum waterway federal navigation channel adjacent to Bellingham Cold Storage (a major employer). Squalicum Creek, which supports a salmon run, enters Bellingham Bay at the head of the navigation channel through a narrow culvert. The Port is specifically interested in addressing salmon habitat issues and public access in the Squalicum Creek Delta, while allowing for future integration of commercial development involving the federal navigation channel. Preliminary planning is complete, and a proposed project alternative selected. This alternative provides the maximum environmental benefits for the lowest cost. It includes the removal of contaminated pilings and a derelict pier, the installation of boulders, baffles, and a rock arch rapids to address a fish passage barrier, establishment of marsh and woody riparian fringe adjacent to the delta and estuary, and beneficial use of clean dredge materials to connect adjacent inter-tidal habitat.

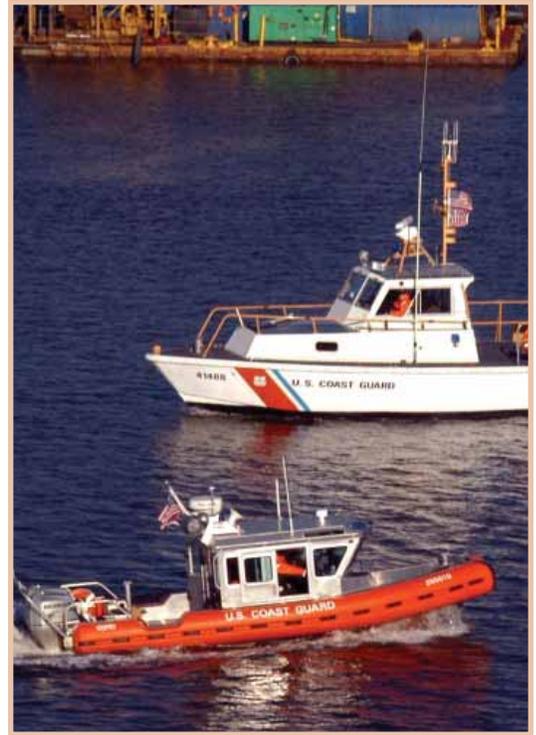


Permit Streamlining

The Port of Bellingham is working together with the federal Portfields partners and local partners, including the Lummi Indian Nation, to facilitate redevelopment projects for waterfront properties and restore habitat. Actions envisioned as part of the cleanup and redevelopment plans include dredging, capping, alterations to the wastewater treatment lagoon, creation of habitat, construction of piers or docks, removing derelict structures, modification of shoreline stabilization, pile driving, and construction of boat ramps. The Portfields partnership will play a critical role in streamlining the permitting process for these waterfront and sediment cleanup projects. Federal and state agencies will continue working with the Port of Bellingham to address the permitting requirements for these projects in a timely and efficient way. Partner involvement will allow the projects to proceed under planned schedules while meeting the needs of all agencies involved in the permitting process, and addressing concerns for endangered species and essential fish habitat.

Hydrographic Surveying

The Portfields partnership is playing a key role in assisting the Port of Bellingham to develop a baseline for revitalization of the waterfront areas. NOAA will conduct hydrographic surveys of Bellingham Bay to improve local nautical charts. The NOAA Ship *Rainier* will conduct high-resolution multi-beam and side scan sonar surveys of the entire bay, in addition to Electronic Navigational Chart (ENC) validation surveys. Bathymetric data will be used by the Port of Bellingham in a circulation model for Bellingham Bay, and will be used by NOAA's Tsunami Research Program to update inundation models.



“The Portfields partnership brings new ideas and resources while being sensitive to our existing redevelopment strategies.”

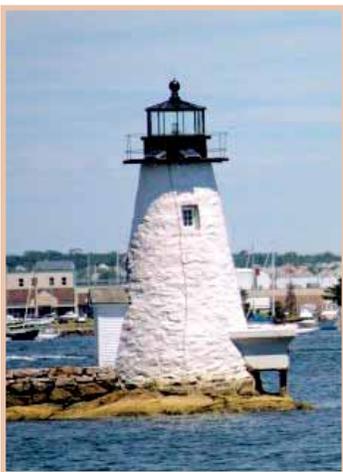
—Mike Stoner
Environmental Director
Port of Bellingham



Port of New Bedford

Massachusetts

The Port of New Bedford is located on Buzzards Bay in southeastern Massachusetts. New Bedford has a long fishing and whaling history and currently is home to 300 fishing vessels, one of the largest active fishing fleets on the East Coast. The Port of New Bedford also provides passenger ferry service and cruise ship docks, and is a center for recreational boating on Buzzards Bay. The Port of New Bedford is a state Designated Port Area, which protects the industrial uses in the lower harbor. The Portfields partnership is assisting the City of New Bedford implement priority projects in the *New Bedford-Fairhaven Harbor Plan* that are enhancing the Port's capacity and environment, improving public access to the waterfront, and revitalizing a waterfront neighborhood.



<http://www.ci.new-bedford.ma.us/ECONOMIC/HDC/index.htm>



Innovative Solutions to Navigational Dredging

Through the Portfields partnership, the City of New Bedford is enhancing the capacity of the Port of New Bedford in a way that also is improving the environmental quality of New Bedford Harbor. New Bedford Harbor includes a large and complex Superfund site. Due to high levels of polychlorinated biphenyl (PCB) contamination in the harbor, navigational dredging did not occur for 30 years. Channels are shoaled to levels above authorized depths, limiting the size of ships and the volume of cargo that can enter the harbor. Navigational dredging of New Bedford Harbor is critical to enable fully loaded freight vessels to berth in the Port and achieve the long-term goals in the *New Bedford-Fairhaven Harbor Plan*.

The Portfields partnership is assisting New Bedford in the implementation of the “state-enhanced remedy” (SER) provision of the New Bedford Harbor Superfund cleanup plan. The SER provides for navigational dredging of sediments from the harbor to be conducted as part of the Superfund remediation. This SER allows for streamlined processing of navigational dredging projects by linking the dredging and disposal of sediments from the harbor’s navigational channels with the Superfund cleanup. By bringing all the partners to the table in a collaborative effort, the Portfields partnership successfully developed creative solutions to streamline the permitting process to implement the SER. In addition, the Commonwealth of Massachusetts provided New Bedford with \$5 million for dredging. Through this collaboration and leveraging of resources, navigational dredging of New Bedford Harbor began in early 2005. Approximately 1.7 million cubic yards of sediment will be dredged from the navigational channels.

New Bedford also is taking clean sand from the navigational dredging and using it as a “clean cap” over PCB-contaminated sediments. This beneficial use of dredge materials is accelerating the productive reuse of the harbor and saving money because the clean sand otherwise would be disposed of at sea. The benefits of linking the navigational and cleanup dredging programs are a streamlined permitting process for disposal of sediments dredged from the navigational channels, coordinated rather than separate

Ideas Worth Borrowing

Innovative Approaches to Navigational Dredging

New Bedford is working with state and federal partners to streamline permitting for navigational dredging that will enhance the capacity of the Port and improve the environment.

Strategies for Waterfront Revitalization

New Bedford is leveraging resources and adopting smart growth strategies to revitalize a waterfront neighborhood.

Brownfields Redevelopment

New Bedford is cleaning up brownfields and creating a waterfront park that will increase public access to the water and restore habitat.

“My experience with the Portfields partnership . . . is that if you think broadly and talk to people . . . then you are going to get a lot of success out of it both in time and money and personal satisfaction.”

—John Simpson, Executive Director
New Bedford Harbor Development Commission



Major Partners in Dredging New Bedford/Fairhaven Harbor

Commonwealth of Massachusetts/ Seaport Advisory Council

Provided \$5 million for dredging based on the recommendation of the Massachusetts Seaport Advisory Council

Massachusetts Department of Environmental Protection

Served as lead oversight and provided technical support

Massachusetts Division of Marine Fisheries

Provided regulatory reviews and information on species of concern throughout the dredging process

Massachusetts Office of Coastal Zone Management

Ensured the dredging project was carried out according to the state's Dredge Materials Management Planning process

Environmental Protection Agency

Provided oversight; legal and technical review; and coordination

U.S. Army Corps of Engineers

Identified performance standards for EPA consideration in evaluating and approving the SER; managing plans and specifications for maintenance dredging; and determining suitability of dredge materials placement at ocean disposal sites

National Oceanic and Atmospheric Administration

Coordinated stakeholders and provided dialogue facilitation, outreach, technical support, and regulatory review

environmental monitoring programs, and increased overall coordination of the two dredging projects. In addition to saving time and money, the SER provides benefits to public health and natural resources by removing additional PCB-contaminated sediments from the harbor. The navigational dredging already is increasing the Port's fish export capacity by \$30 million annually. The navigational dredging of New Bedford Harbor is improving the environmental quality of the harbor, creating jobs, improving the economy, and better positioning New Bedford to be competitive and able to meet future projected growth in maritime trade.

Creating Partnerships to Revitalize a Waterfront Neighborhood

The City of New Bedford is successfully leveraging resources through the Portfields partnership to revitalize a waterfront area called Hicks Logan Sawyer (HLS). The goal is to attract new investment to a large underutilized area in New Bedford to encourage economic development, create housing, and reconnect the neighborhood to the waterfront. The revitalization of HLS provides opportunities for New Bedford to bring new and diversified uses to a distressed area and unlock the potential of this waterfront area.

Hicks Logan Sawyer is a 95-acre underutilized waterfront area characterized by old mill buildings, brownfields, and other properties with low real estate values. The deteriorating condition of many existing structures and infrastructure, the current mix of uses, and the existence of brownfields in the area present barriers to new investment. At the same time, the area has excellent potential for revitalization because of its waterfront location, historic structures, and proximity to a future commuter rail station and intermodal center. New Bedford is capitalizing on the neighborhood's assets by creating a revitalization plan based on smart growth principles that will serve as a framework for redevelopment of this area.

The city's plan for HLS proposes flexibility in land uses to take advantage of the waterfront and a planned commuter rail station. The plan envisions job creation and economic development through revitalization of the mills, combined with recreational waterfront development that is not allowed in the adjacent Designated Port Area. The revitalization plan for HLS proposes a wide range of land uses in four identified areas:

- **Mill Reuse Transit-Orientated Development Area:** Adjacent to planned commuter rail station and encompasses a mill building suitable for residential and office uses.
- **Port Transition Area:** Waterfront area located directly adjacent to the Designated Port Area that serves as an extension of the working harbor.
- **Marina Area:** Includes public waterfront access, revival and expansion of marinas for recreational vessels, and redevelopment of historic mill structures.
- **Gateway Reinvestment Area:** A mixture of light manufacturing and other small-scale office and technical uses to accommodate manufacturing for the region's growing marine science and technology sector.

The Portfields partnership is playing a critical role in assisting New Bedford develop the revitalization plan for the HLS neighborhood. Through Portfields, the City of New Bedford is leveraging more than \$100,000 from federal and state partners to support this planning effort. The City of New Bedford is contributing \$70,000 and using District Improvement Financing (DIF). The City of New Bedford's vision and leadership along with the Portfields partnership set in motion a creative plan that will transform HLS into a vibrant mixed-use waterfront area.

District Improvement Financing

District Improvement Financing (DIF) is a new tax increment-financing tool for Massachusetts' municipalities. Approved by the Massachusetts legislature in 2003, DIF allows communities to pay for public infrastructure and amenity improvements by bonding against the future tax revenue. To use this financing mechanism, the municipality must designate a DIF District, prepare a financial plan, and be certified by the state Economic Assistance Coordinating Council.

Brownfields Redevelopment

The City of New Bedford is focusing on revitalizing the city by cleaning up and reusing the city's numerous brownfields. The Reliable Truss site, one of more than three dozen brownfields in New Bedford, is a 2.5-acre property that lies on the banks of the Acushnet River. Reliable Truss is a former lumberyard and truss manufacturing center. Through Portfields, the City of New Bedford is working with federal and state partners to clean up lead-contaminated soil at the site, and turn the property into a waterfront park. This public park will provide enhanced public access to the river, create recreational opportunities, and restore habitat.

New Bedford is leveraging a variety of resources to assist in the planning and implementation of the cleanup and reuse of the Reliable Truss property. New Bedford received a \$200,000 Brownfields Cleanup grant from EPA in 2004 to remove lead-contamination soil at the Reliable Truss property. The city is seeking resources from the Commonwealth of Massachusetts earmarked for recreational projects in New Bedford to develop the design plans for the park, and also is planning to use settlement funds from the New Bedford Harbor National Resource Damage Assessment (NRDA) to restore historic salt marsh habitat.

Major Partners in the Revitalization of Hicks Logan Sawyer Neighborhood

National Oceanic and Atmospheric Administration

Gave \$20,000 to the New Bedford Economic Development Council to hold a series of workshops to develop a vision for Hicks Logan Sawyer area

South Coast Development Partnership

Provided \$20,000 to conduct a preliminary inventory and analysis of existing conditions in Hicks Logan Sawyer

Economic Development Administration

Awarded New Bedford a \$60,000 economic adjustment planning grant to support the development of revitalization plan

Massachusetts Executive Office of Environmental Affairs

Provided a grant of \$22,500 for smart growth planning to develop vision for the Hicks Logan Sawyer area

City of New Bedford

Provided \$70,000 to develop revitalization plan for the Hicks Logan Sawyer area using District Improvement Financing

"The Portfields partnership, working together with the federal government and state agencies, allows for thinking out of the box to capitalize on opportunities."

—Mayor Fred Kalisz, Jr.
New Bedford, Massachusetts



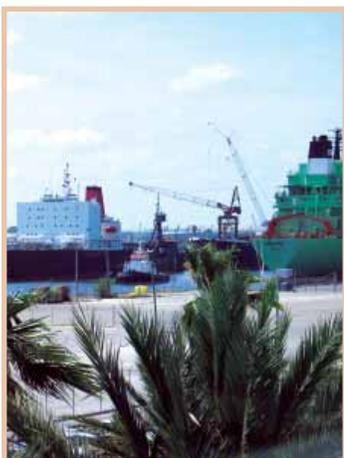
Portfields: Charting a Course for Port Revitalization



Port of Tampa

Florida

As one of the largest tonnage ports in the U.S. and the largest in Florida, the Port of Tampa provides over 100,000 port-related jobs and accounts for \$13 billion in spending. The Port annually handles 3,700 vessels and up to 50 million tons of cargo with phosphate, petroleum, and coal being the top commodities, and also serves as a major cruise ship homeport. Located in a productive estuary, the largest in the State of Florida, subtropical Tampa Bay is fed by over 100 tributaries and is home to manatees, dolphins, birds, and over 200 species of fish. The Tampa Port Authority (TPA), through Portfields, is developing approaches to address increased infrastructure demands while being a good steward of the environment in Tampa Bay. Portfields partners come together with TPA for annual meetings to discuss Port needs and identify roles partners can play in enhancing existing and future TPA projects, ranging from site cleanup to stormwater management and habitat restoration.





Brownfields Redevelopment

Currently, more than 100 acres of brownfields are being assessed or remediated on land owned by TPA. Among these sites is Port Ybor, a 50-acre former Department of Defense site. This site is being redeveloped into a mixed-use multi-modal port development. Additionally, the Port is redeveloping a former ten-acre scrap metal recycling facility and revitalizing the Tampa Bay Shipbuilding and Repair Company facility, billed as the largest and most complete ship repair facility in the southeastern United States. Environmental property assessments are funded through the Port's Capital Improvement Fund and through grants from EPA. Portfields is engaging state partners as well. The Florida Department of Environmental Protection (DEP) is providing onsite technical assistance and awarded the Port a Targeted Brownfields Assessment grant for a five-acre portion of the Port Ybor site currently used by Gulf Marine as a ship repair facility. Although TPA was successful in receiving Targeted Brownfields Assessment assistance, current eligibility criteria regarding responsible parties is limiting TPA's ability to compete for EPA Brownfields Assessment and Cleanup grants. TPA's participation in Portfields can benefit brownfields cleanup by bringing together partners to find solutions to current funding barriers.

Innovative Stormwater Management

Stormwater runoff is a major source of pollution to Tampa Bay. The Portfields partners are working with TPA to enhance the Bay's water quality and habitat. Port properties are leased by many tenants who are responsible for their own stormwater permits; however, most stormwater on Port-owned properties is ultimately fed into shared ditch systems controlled and monitored by TPA. TPA is using a Geographic Information System (GIS) to identify opportunities to install best management practices to treat stormwater runoff. The result will be a network of drainage ditches, retention ponds, and filtration wetlands that increase water quality and habitat in Tampa Bay. These improvements are above and beyond TPA's

Ideas Worth Borrowing

Innovative Stormwater Management

TPA is developing a Geographic Information System (GIS) to identify best management practices and enhance the Port's stormwater management infrastructure to increase water quality and coastal habitat.

Habitat Restoration Using Dredge Materials

TPA is using its dredge materials to create and maintain nearly 1,000 acres of disposal islands, which benefit migratory shore and wading bird species.

Use of Observation Technologies

TPA is using the Tampa Bay Physical Oceanographic Real-Time System (PORTS®) to monitor oceanographic and meteorological data while seeking to expand with additional sensors.

"A number of agencies have really come to the table, and that's the key thing we have been able to gain through the Portfields program."

—Bob Musser, Environmental Manager
Tampa Port Authority

Major Partners in Stormwater Management

Hillsborough County Environmental Protection Commission

Awarded TPA a \$45,000 match to NOAA funding from the Pollution Recovery Fund

Southwest Florida Water Management District

Participated in designing the project and is providing critical technical expertise in site selection, best management practices engineering and design, and project implementation and monitoring

Florida Department of Environmental Protection

Providing technical assistance for water quality monitoring following best management practices design and installation

National Oceanic and Atmospheric Administration

Provided \$45,000 for GIS, planning, and design of stormwater improvements; assisting TPA in selecting sites where improvements will be most beneficial

regulatory and National Pollutant Discharge Elimination System (NPDES) permit requirements. Portfields partners provided funding to develop the data layers of the current stormwater drainage system and identify available areas for best management practices implementation. Additional plans for the overall project include incorporating water quality monitoring at the selected sites before and after the selected improvement tactic is in place to measure water quality and habitat advances.

Commitment to Action

TPA successfully convenes annual "Commitment to Action" meetings of federal, state, and local Portfields partners to help partners understand TPA needs and help TPA understand the technical and financial resources available from partners. TPA uses these meetings to present overviews of priority projects, followed by a round table discussion among partners, during which agency "commitments" are recorded as action items and are tracked by the partners. These meetings are unique in format due to the diverse range of partners discussing economic development, community revitalization, and environmental protection issues. In addition, the face-to-face interaction forges a strong working relationship and a sense of camaraderie among partners.

Habitat Restoration from Dredge Materials

Over the 40-mile channel from the mouth of Tampa Bay to the Port of Tampa, regular maintenance dredging results in approximately one million cubic yards of dredge materials annually. The U.S. Army Corps of Engineers created two bay islands (400 and 500 acres, respectively), which are owned and managed by TPA, using these dredge materials. Over time, these islands became habitat for migrating and shore wading birds; of prominence is the American Oystercatcher, a Florida listed Species of Special Concern. This distinctive medium-sized shorebird uses the disposal islands for nesting and foraging. Today, these islands harbor more than ten percent of the state's Oystercatcher nesting population and are some of the most productive bird nesting sites, supporting approximately 40,000 nesting pairs of various species annually.

The intertidal habitat is being further enhanced with \$90,000 from NOAA (a Natural Resources Damage Assessment settlement) to test four types of substrates for effectiveness as oyster reefs that in turn will increase the habitat for the Oystercatcher. Portfields partners are working with TPA to identify additional sources of funding and technical expertise and address regulatory concerns.

TPA also is soliciting Portfields partners to explore the effect of wave energy on seagrasses. Seagrass beds in Tampa Bay are important fish and shellfish habitat and are currently at one-third of their historic levels. Although there are ongoing efforts to reestablish seagrass beds in Tampa Bay, scientists believe that water quality and possibly natural and manmade wave energy, coupled with the hypothetical loss of longshore sand bars, may all play a part in successful seagrass recovery. Partners are beginning to study the



relationship between wave energy, protective longshore bar systems, and existing seagrass beds. The project will provide information needed for long-term habitat management strategies. The goal of this project is to use dredge materials to reconstruct longshore bars to reduce the effects of wave energy and support recovery of seagrass behind restored sand bars.

Observation Systems for Port Management

TPA takes advantage of leading observation technology to better manage port activities. Tampa Bay is home to one of NOAA’s Physical Oceanographic Real-Time Systems (PORTS®), an aid to navigation pursued after the tragic ramming of Tampa’s Sunshine Skyway Bridge in May 1980. PORTS® is a national program that supports safe and cost-efficient navigation through centralized data acquisition and dissemination systems that provide real-time water levels, currents, and other oceanographic and meteorological data to the maritime user community. In addition, PORTS® provides “nowcasts” (immediate forecasting) and other prediction tools. The data are available in a variety of formats, including telephone voice response and Internet. Accurate real-time water level information allows TPA and maritime shippers to make sound decisions regarding loading of tonnage (based on available bottom clearance), maximizing loads, and managing passage times, without compromising safety. PORTS® is critical to environmental and economic protection in the Tampa Bay estuary, helping prevent marine accidents and spills that can impact the Bay’s ecosystem. TPA is working with Portfields partners to explore adding environmental parameters to expand the uses of PORTS® to further protect Tampa Bay’s resources.

Major Partners in Seagrass/Longshore Bar Project

Coastal Resources Group

Mapped historic bars and is developing a conceptual model of restored seagrass and longshore bar systems

Hillsborough County Environmental Protection Commission

Provided \$125,000 to measure natural and manmade wave energy

Tampa Bay Estuary Program

Served as lead for seagrass and longshore bar studies

Florida Department of Environmental Protection

Provided \$45,000 for seagrass and longshore bar studies

U.S. Army Corps of Engineers

Supports monitoring and assessing wind and boat-generated wave impacts on aquatic habitat; assisting with habitat protection, creation, and enhancement of spoil disposal islands

U.S. Geological Survey

Provided measurements of wave energy in Tampa Bay and provided a sediment transport model



“The Port of Tampa is energized by Portfields, and this leads to economic benefits within the community.”

—Dave Parsché
Environmental Director
Tampa Port Authority

Portfields: Charting a Course for Port Revitalization



Portfields

Identifying Best Practices

A goal of the Portfields partnership is to share the successful approaches implemented in the pilot communities and the lessons learned by the pilots with other port communities facing similar challenges in addressing brownfields and port revitalization. The following “best practices” may be transferable to other port communities.

Leaders and Local Champions

Effective local leadership is essential to developing strong partnerships and addressing community-wide brownfields redevelopment challenges. A strong community leader sets a clear vision and a plan of action, effectively communicates with all stakeholders, and actively engages partners throughout the revitalization process.



Spotlight on Leadership: The leadership, commitment, and enthusiasm provided by the City of New Bedford was key in garnering support from a range of stakeholders. Community leaders articulated their vision of a cleaner and expanded harbor, explained how their vision is essential to the region’s economic development goals, and used the city’s Portfields designation to bring partners to the table to implement an innovative plan for dredging the harbor and revitalizing the waterfront.

Locally-Driven Solutions

Portfields builds upon locally-driven solutions where federal and state agencies provide financial and technical assistance to meet community goals. This “bottom up” approach recognizes the importance of solutions developed by the local community and tailored to meet local needs. Examples of locally-driven solutions that were enhanced through the Portfields partnership include permit streamlining, smart growth planning, and brownfields redevelopment.



Spotlight on Locally-Driven Solutions: Bellingham funded a community visioning process to develop a comprehensive revitalization strategy for the Bellingham waterfront. The Waterfront Futures Group—a diverse set of citizen representatives—developed the vision, which was adopted into the city’s comprehensive planning process. Through this community-driven process, Bellingham increased the likelihood of success, allowing the Port to better tap public and private funding to turn its vision into reality.

Strategic Stakeholder Coordination

The partnerships formed among local, state, and federal agencies, private sector interests, and community-based groups are critical to the success of Portfields. Upfront coordination on complex redevelopment projects and the face-to-face interaction fostered through the Portfields process allows the pilots to leverage financial and technical assistance from a variety of partners.

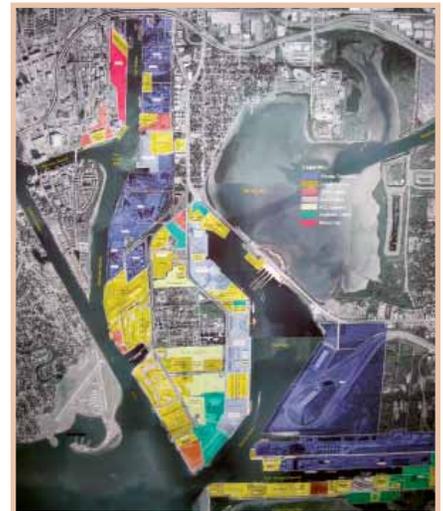
Spotlight on Partnerships: The broad partnerships forged among stakeholders to support New Bedford’s State Enhanced Remedy (SER) under the Superfund program resulted in streamlining the permitting process to initiate dredging of the harbor for both environmental cleanup and economic revitalization of the port.



Innovative Technical Resources

The Pilot Ports are implementing technologies to address environmental enhancements. These tools include the use of Geographic Information Systems (GIS) for stormwater management and the beneficial use of dredge materials to restore coastal habitat.

Spotlight on Technology: The Tampa Port Authority (TPA) is using GIS to identify best management practices and enhance a network of drainage ditches, retention ponds, and wetlands to increase water quality and coastal habitat. TPA also is studying the relationship between wave energy, longshore bars, and restoration of seagrass beds. The goal of this project is to reconstruct longshore bars using dredge materials to support the restoration of seagrass beds.



Financial and Liability Management

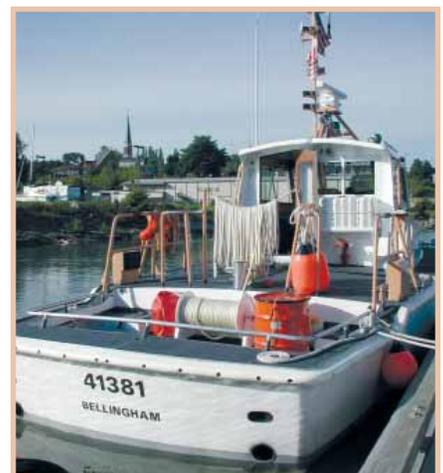
Many ports are large landowners and therefore play a key role in property cleanup and management. A range of financial and risk management tools enable ports to manage property, pay for cleanup costs, and address environmental liability concerns. These tools, coupled with other Portfields approaches, engage private sector partners and give stakeholders confidence to move forward with the cleanup and redevelopment of brownfields.

Spotlight on Financial and Liability Tools: Public ownership of a centrally-located tract of land was necessary to fulfill the community’s vision for the Bellingham waterfront. Environmental insurance played a key role in facilitating the transfer of this property—a 137-acre Georgia-Pacific mill property—to the Port of Bellingham. The \$5 million cost cap policy provides financial protection against cost overruns associated with the cleanup of the property.

Economics, Environment, and Community

Portfields demonstrates that integration of economic development, environmental protection, and community revitalization is a central element of sustainable port revitalization. Each Pilot Port implemented a comprehensive approach to expanding economic opportunities while restoring and enhancing the environment and providing benefits to the community.

Spotlight on Comprehensive Approaches: TPA continues to be a good steward of the environment while balancing the need to maintain and enhance Port facilities. For example, TPA’s use of dredge materials creates additional habitat for the American Oystercatcher, a native species of concern. Over the last 20 years, TPA created over 900 acres of habitat that hosts 40,000 nesting pairs of birds.





“The Portfields Initiative represents a multi-agency federal effort to partner with local communities to help revitalize their ports and improve our nation’s marine transportation system while restoring and protecting our coastal resources.”

—NOAA Administrator Vice Admiral Conrad Lautenbacher, Jr.
U.S. Navy (Ret.)

Next Steps

Building on Portfields Successes and Lessons Learned

Portfields demonstrates the value of a focused and coordinated approach to port revitalization. Building on the successes of Portfields, the partners are looking for opportunities to share the experiences and successes of the Pilot Ports with other port communities. NOAA and EPA will sponsor regional peer-to-peer exchanges to bring together Pilot Ports with other port communities. In addition, NOAA and EPA will develop outreach or training tools to assist in developing effective and efficient solutions to assessing and cleaning up brownfields in port communities.



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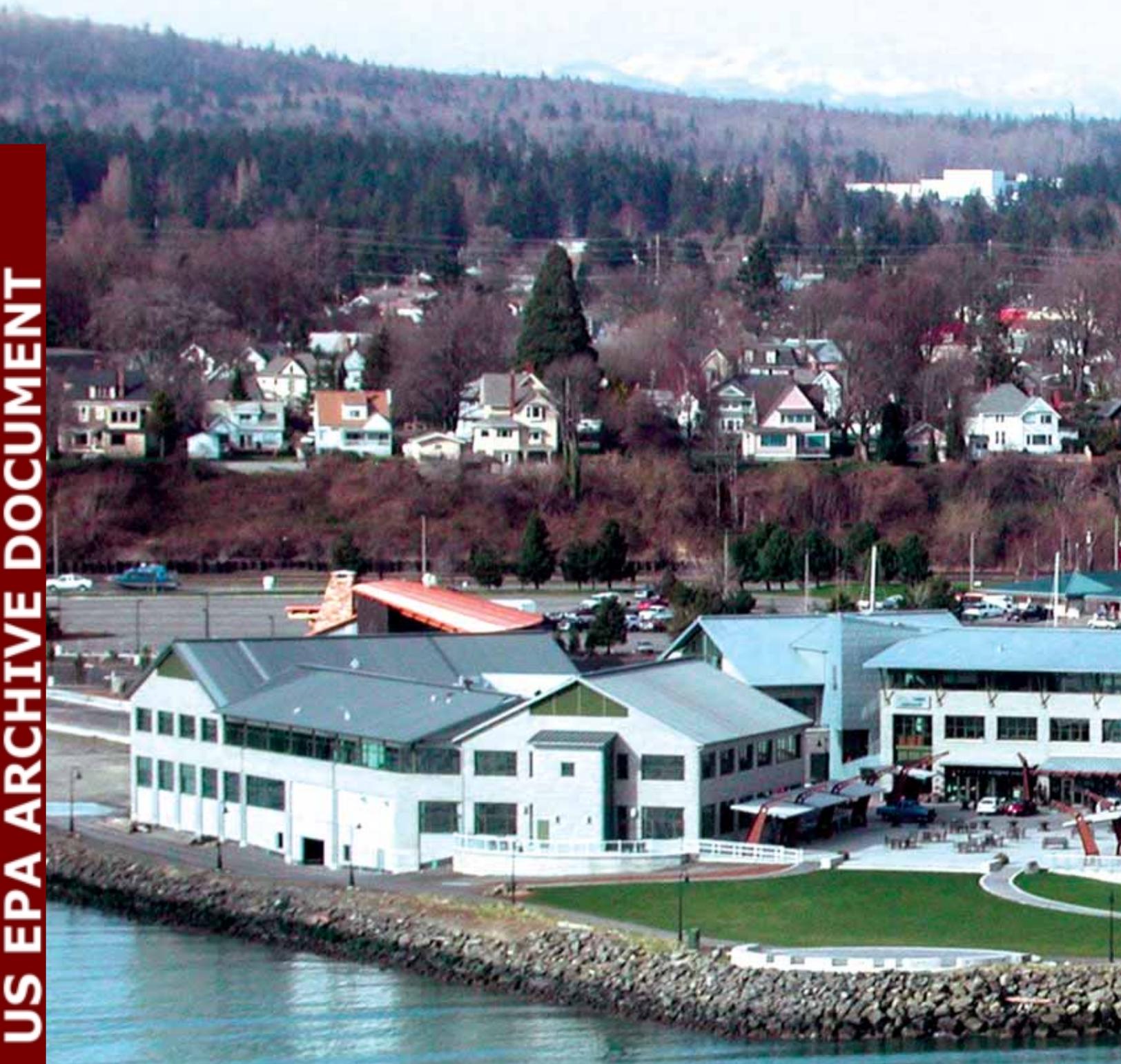
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The attached DVD includes interviews of representatives from each of the three Portfields pilots. The video supplements this report by providing personal accounts of the Portfields partnership.



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Environmental Protection
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