ATTACHMENT M13

CPA CONNECTICUT MARITIME STRATEGY DOCUMENTATION



CONNECTICUT MARITIME STRATEGY

2018



INTRODUCTION

With three deepwater ports, a multitude of small harbors, rail lines, and interstate highways criss-crossing the state, Connecticut has an abundance of natural marine assets and intermodal transportation options. Additionally, Connecticut is situated within reach of multiple major domestic markets and millions of consumers. Connecticut has an opportunity to leverage these attributes into a thriving network of intermodal transportation that offers companies from around the world customizable transportation solutions and encourages greater use of the state's unique marine features for both commercial and recreational purposes.

ABOUT THE CONNECTICUT PORT AUTHORITY

The Connecticut Port Authority (CPA) is a quasi-public agency in operation since 2016 that is responsible for development of the state's ports and maritime economy.

Working with partners across the state, CPA pursues strategic investments that create jobs, serve our business, recreational, and shipping community and provide benefits statewide. Whether providing dredging at one of our deepwater ports or infrastructure improvements to some of our smaller harbors, the resources directed towards developing our maritime economy are a down payment on Connecticut's future.

Vision

We envision a future where a thriving maritime economy is driving steady economic growth and creating new jobs across Connecticut.

Mission

It is the mission of the Connecticut Port Authority to grow Connecticut's economy and create jobs by strategically investing in the state's three deepwater ports and small harbors to enable each to maximize its own economic potential.

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CONNECTICUT'S MARITIME HISTORY

The United States' agrarian roots became the model for the growth of its ports. Early settlers were mainly farmers. Population settled on or near junctions of rivers and oceans. Food and other farm commodities moved from remote areas to the population centers and, in turn, they were exchanged there for farm related manufactured goods. Connecticut was endowed with raw materials, abundant water and navigable waterways. However, the waterways ran north-south leaving Long Island Sound, rough roads and later railroads, to provide east-west transportation.

Located between the population centers of New York and Boston, Connecticut farmers became a source of those cities' food and building materials. Being shut off from England, pre- and post-Revolution, stimulated farmers' resourcefulness and helped create a fledgling manufacturing sector. By the Civil War, Connecticut supplied Union forces with cannon, rifles and pistols and became known for inventing and manufacturing machines. By the end of World War II, Connecticut had become a major contributor to the arsenal of democracy and its deepwater ports shipped large volumes of war materials to all fronts.

Following WWII, the creation of a national road network modeled after Germany's autobahns, enabled all U.S. manufacturing to move inland closer to the new population centers where land, labor and energy costs were less expensive. The factories, and the jobs they created, moved away from New England. The Cold War

defense industries, mostly focused upon aviation, flourished but were no longer as dependent on Connecticut's ports.

The Interstate Highway System created a network of highways that displaced rail as the predominant transportation mode nationwide. It enabled manufacturing and process industries to reach new markets and improved access to existing markets. The increased volume of traffic on the nation's highways inspired the idea of unitizing shipments which allowed faster loading and unloading of cargoes, lower labor costs, and lower insurance costs for cargo damage and theft.

Thus, the innovation that is called "containerization" of cargo moved by sea was first introduced by a U.S. trucking company. As containerization caught on it became quite evident that more containers/boxes moved per ship resulted in lower costs per unit/box. Containerization thus became a catalyst for the rapid expansion of globalization, as it was quickly recognized that these "economies of scale" provided a distinct competitive advantage, which in turn stimulated the rapid growth of global trade. As a result, container ships have continued to increase in size.

The strength of Connecticut's ports has historically been in shipping break bulk goods. Break bulk goods are those that do not fit into standard shipping containers, and are instead transported individually on a pallet or crate, or in a drum, bag or box. Given the relatively small size of our ports, this has been their most efficient economic use, but opportunity and time may modify the mix in the future.

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CONNECTICUT'S OPPORTUNITY

Future trends including a focus on protecting the environment, efficient land use, reducing highway congestion, and consumer expectations are driving manufacturers and suppliers to look for new solutions to their transportation needs. With the establishment of a statewide Port Authority, Connecticut has enabled itself to grow in a way that links our various maritime assets into a single set of solutions capable of meeting these needs well into the future.

Supply Chain Management Trends

Environmental considerations are getting more important

Tightened exhaust emission standards (fuel sulfur content) are making trucks a more challenging mode of transport. Starting January 1, 2020 a similar standard will also impact ocean shipping. As the reality of global warming grows, the global movement to minimize emissions of greenhouse gases and carbon particulate matter continues to drive the exploration of alternative energy sources, use of hybrid and electric vehicles, and the use of natural gas (versus coal and oil) to generate electricity and to heat our homes and businesses. As states continue to explore alternative energy sources, traffic via the sea and rail may grow in popularity. As a result, thoughtful consideration must be given to future use of land used by existing oil tank farms.

Congestion on I-95 is not sustainable and trucking solutions are limited

It is becoming increasingly expensive to move goods by truck. As a result, suppliers are looking for alternative modes of transportation. New federal regulations limiting the working hours of drivers and requiring truck drivers to use electronic logging devices to track their movements are already creating additional complications to trucking solutions.

Space around the ports is becoming more important

With the increasing use of containers, the demand for storage space around the ports increases – but is in competition with many other land uses, especially in urban areas.

Customers are demanding shorter delivery times

As customers demand shorter delivery times, suppliers are increasingly looking for transportation solutions that avoid highly congested areas.

New industry is emerging that could dramatically change the landscape of ports

A current example of this is the development of wind power as a component of Connecticut's 2018 Comprehensive Energy Strategy. The State has recently awarded a significant power purchase agreement to an offshore energy company. Due to this and other state contracts, there is growing potential for Connecticut's ports and maritime sector to benefit from the planned expansion of multiple offshore wind energy projects off the Eastern Seaboard. This new industry could create a dramatic increase in demand for our State Pier and ports as well as create thousands of jobs in Connecticut and the region.

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STRATEGIC OBJECTIVES

As the Port Authority continues to grow and fulfill its mission of developing Connecticut's broader maritime economy, the following eight strategic objectives will provide a roadmap for investment decisions and resource allocations over the next five years.

1. Manage the State Pier to Increase Utilization and Profitability

BACKGROUND

The State Pier in New London is the largest asset of the CPA and will be instrumental to its long-term future. On July 1, 2016, a care and custody agreement was signed to transfer asset management responsibilities at the State Pier from Connecticut Department of Transportation to CPA. Since then, CPA has managed the lease with the current terminal operator, which has operated the terminal at the State Pier since 1997.

The State Pier comprises almost thirty acres and includes two piers, a deepwater channel, on-dock rail and convenient highway access located at the opening of the Thames River in New London. Located 130 miles north of New York and 115 miles south of Boston, the Port of New London is strategically located between two major markets in the northeast. The facility's access to Interstates 95 and 395, the New England Central Railroad Line and Atlantic Shipping Routes illustrates the port's connectivity to the region.

- Imports through the Port of New London peaked by volume in 2005 (just over 267,600 tonnes) and by value in 2007 (\$676 million), but reached a trough in 2009 (29,000 tonnes, \$8 million).
- Imports have been recovering since then, reaching over 260,000 tonnes or \$112 million in 2017.
- The largest imports by value and volume through New London in 2017 were Iron and Steel (\$88 million and more than 120,650 tonnes).

CPA's principal source of revenue is generated from its lease with the State Pier's terminal operator. Under the current lease, payment is calculated each year as a percentage of the lessee's assessable revenue. In 2017, this equated to a payment total of \$417,194.38. The existing lease term is scheduled to terminate on January 31, 2019.

In June 2018, CPA announced a Request for Proposals (RFP) seeking parties interested in developing, financing and operating State Pier under a long-term operating agreement. The CPA believes State Pier is an under-utilized state asset and has challenged respondents to think ambitiously, as State Pier can be redesigned to accommodate a wider range of opportunities, including the staging of wind turbine components and the introduction of new commodities like conventional cargo.

The redevelopment of State Pier has the potential to create long-term stable jobs and improve Connecticut's transportation system by improving the link between the port, freight rail and highway transportation systems throughout our region. Additionally, New London is the only major port between New York and Maine that is free of vertical obstructions and offshore barriers — a necessity in the assembly of offshore wind turbines.

STRATEGY

The state will be entering into a new contract to manage the State Pier. The contract will be constructed in a way that provides revenues sufficient to maintain the asset to the best of the state's interests, and will endeavor to provide incentive to the new manager to dramatically increase the activity and cargo mix at the pier.

Additionally, the CPA recognizes that the infrastructure of the State Pier must be upgraded and improved if we hope to secure more commercial traffic. Funds have already been set aside to begin needed improvements but more will need to be done over the plan period, and may be accomplished through public/private funding. The CPA also plans to work to ensure key landside assets are available and permitted for port use.

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2. Build More Volume in Our Commercial Ports

BACKGROUND

In 2017, over 2.2 million metric tons of non-containerized goods were imported through Connecticut's deepwater ports. While other ports in the region have limited capacity for break bulk cargo and have begun to move towards the greater use of containerization of cargo, a majority of the cargo, aside from fuel, going through Connecticut's deepwater ports continue to be of the break bulk variety.

Petroleum products, including motor fuels and home heating oils, represent over half of imports through Connecticut's three deepwater ports by value since 2003, and were 90% of imports by value in 2011 and 2013. While the volatility of petroleum prices is partially responsible for this fluctuation, the consistently high share of petroleum imports highlights the importance of these commodities to Connecticut's ports. Most of these imports enter through the Port of New Haven, including over 70% of home heating products in the state.

In the past, Connecticut's ports were regular distribution points for perishables and other foods. However, limited infrastructure, high costs of utilities in Connecticut, and economic incentives and infrastructure investments by other states, caused this business to shift to other East Coast ports. This changed the calculus of importing perishables and other foods, as shippers are now closer to customers south of New York, but still need to transit the congested I-95 corridor to reach New England consumers.

Due to Connecticut's geographic location, its ports could provide an alternative entry point for perishable and food products headed to the New England market – allowing shippers to avoid the transportation bottleneck of the I-95 corridor when moving goods north from more southern ports.

Finally, containers are increasing in volume world-wide. Connecticut will explore this opportunity to see how they could be managed profitably in the state.

As we work to grow activity in our ports we can continue to build upon our strengths and be open to the changing needs of business, building a diverse and sustainable set of services.

STRATEGY

Capitalize on Connecticut's geographic location between New York City and Boston by expanding and marketing our ports' capacity for break bulk and other goods to attract more commercial traffic, whether through imports, exports or domestic movements of goods.

Support the efforts of the local port authorities and terminal operators at the three deepwater ports to raise awareness of Connecticut's strong position in global trading networks, and build connections with relevant industry organizations to promote the ports' capacities for break bulk shipping.

Engage with Connecticut-based manufacturers to highlight the variety of services our ports offer, and market Connecticut's ports to those currently shipping through out-of-state ports.

Partner with the state's largest manufacturers to better understand their supply chains and determine how Connecticut-based businesses can get the best value from use of our ports.

Evaluate investment opportunities and partnerships for the development of infrastructure necessary to fully leverage Connecticut's unique geographic location and make our ports competitive in this market (including working with business and government partners to ensure access to land in and around our ports).



3. Support Dredging of Connecticut's Ports and Waterways

BACKGROUND

Dredging is not only necessary for safe navigation of ports and waterways, it also has the potential to increase the flow of goods through our ports. Additionally, dredging and other small harbor projects increase the amount of Connecticut waterfront that can be used for commercial or recreational purposes.

Dredging expands market opportunities by allowing larger ships with greater drafts to access our ports with a greater range of goods, which results in transportation cost savings to the shipper. Such savings in transportation costs can result in lower costs to the consumer, and encourage greater use of Connecticut's ports. Routine dredging also allows for greater flexibility in the size range of ships, providing shippers with more options to choose from when soliciting rates. This flexibility produces market competition, which can also lower costs to the consumer.

Dredging is the removal of sediments and debris from the bottom of lakes, rivers, harbors, and other water bodies. It is a routine necessity in waterways around the world because sedimentation—the natural process of sand and silt washing downstream—gradually fills channels and harbors.

Beneficial Uses of Dredged Material

There are many beneficial uses for dredged material, including nourishment of beaches with clean sand, building berms around harbor entrances as defense against storms and sea level rise, and for development of wetland habitats.

In 2018 CPA completed a project that took dredged material from the Housatonic River to nourish approximately one mile (or 260,000 cubic yards) of the eroded beach at Hammonasset Beach State Park in Madison. The dredged material helped to re-build the beach at an iconic state park and at the same time provided a potential new habitat for a fragile native bird species, the Piping Plover. Following the completion of the dredging project, CPA partnered with the Connecticut Audubon Society to monitor the population of Piping Plovers at the beach.

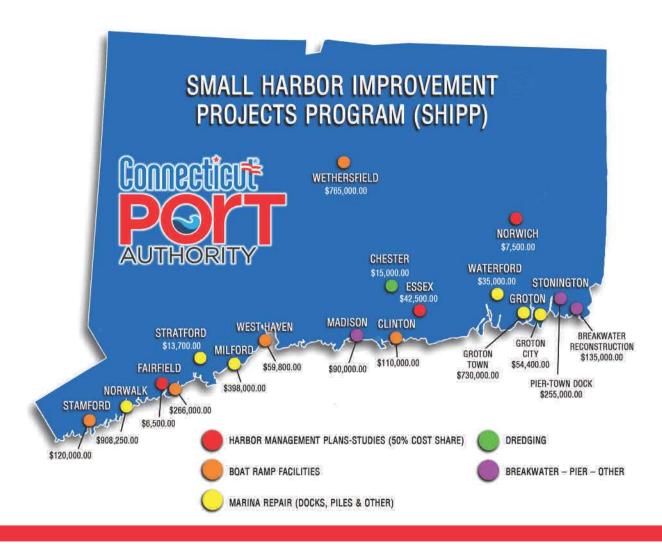
The CPA works with the U.S. Army Corps of Engineers (USACE), local governments, and other partners on large dredging projects along our coastline, as well as smaller dredging projects located on the Connecticut River and other inland bodies, which lie outside the scope of the USACE's work.

STRATEGY

Work with our partners and the U.S. Army Corps of Engineers to invest in and support dredging projects throughout Connecticut that will sustain and increase the use of our ports, waterways and marinas well into the future.

Maintain open working relationship with the State Department of Transportation to ensure highway and rail links remain open and efficient (See intermodal objective below).

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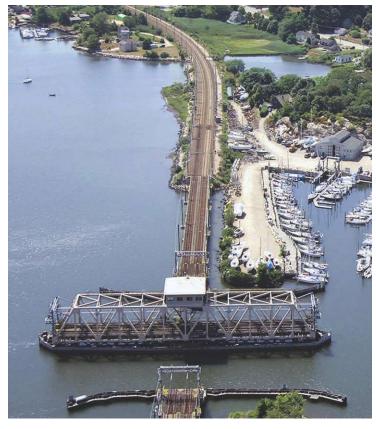
4. Support Small Harbor Improvement Projects Program (SHIPP)

BACKGROUND

SHIPP provides matching grant-in-aid funds to small harbor improvement projects in fulfillment of CPA's mission to strategically invest in development opportunities that enhance the state's recreational marine industry. In 2017, the State Bond Commission approved over \$4 million in funds through SHIPP for 18 projects in 17 towns and cities throughout Connecticut. Projects include: construction and reconstruction of visitors' docks; studies and/or construction of new boat ramps; and updating of local harbor management plans.

STRATEGY

Support our local municipalities and recreational marine industries by continuing support for Connecticut's small harbors through funding requests and operational support for future rounds of SHIPP grants.



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5. Create Intermodal Options

BACKGROUND

Intermodalism is an important component of today's global freight industry. The use of two or more transportation modes to move cargo is used to create efficient shipment points where containerized goods are moved to or from cargo ships, trains, airplanes, and trucks for further transport throughout the supply chain.

The Intermodal Association of North America (IANA) estimates that more than 95% of manufactured goods are intermodally transported at some point prior to their final destination. IANA also notes that the North American intermodal market is the world's largest, valued at over \$40 billion. Neighboring states are making significant investments to capture the increasingly intermodal movement of freight.

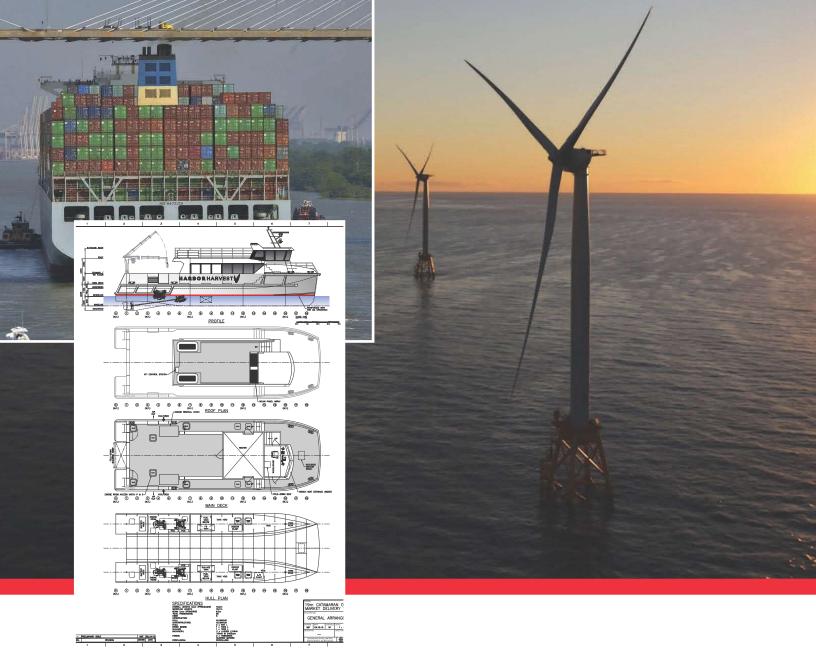
Two main factors have historically led Connecticut away from the handling of containerized goods: the lack of available land around the three deepwater ports that is needed for container storage prior to and after shipment; and the physical needs of larger vessels in our ports and Long Island Sound. As a result, Connecticut's ports are not currently equipped to handle containers.

STRATEGY

Explore and develop innovative solutions to enhance intermodal shipping options and identify complimentary cargo flows. This would create efficient and cost-effective opportunities for distributing containerized cargo along Connecticut's coastline and can create more jobs, while decreasing congestion on the crowded I-95 corridor, and providing a link into the Federal Marine Highway System.

Explore creation of one or more "inland ports" that rely upon intermodal transportation options to move smaller amounts of goods more efficiently. An inland port would capitalize on land available outside the port districts for both cargo and container storage, thus avoiding the challenge of larger ships accessing Long Island Sound, and removing hundreds of trucks per day from the I-95 corridor.

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6. Leverage Emerging Opportunities

BACKGROUND

Over time, we expect new opportunities to arise where Connecticut may have an advantage over other areas. The CPA will explore these opportunities as they arise, and make room in our strategy for those that make economic sense.

CPA sees opportunities in expanding cross-sound freight movements as well as use of the Sound to distribute locally grown perishables and possibly move local freight.

Connecticut and several other states have turned to offshore

wind to supply much of their electricity needs, signing contracts for 4-8 gigawatts of power. This will drive new and increased demand for port facilities to support the construction and maintenance of wind farms up and down the east coast.

STRATEGY

Continue to monitor the landscape for port usage and be nimble in responding to potential opportunities.

Explore ways to increase use of Connecticut ports as shipment points, staging or manufacturing sites of components for alternative energy sources, including large future offshore wind projects.

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7. Enhance Ferry Systems and Cruise Coordination Activities

BACKGROUND

Ferry systems based in Bridgeport and New London move millions of passengers, vehicles and cargo each year – and have done so profitably for many years. There are also several day cruises that utilize these and smaller ports along the Connecticut waterfront. These ferries and day cruises bring visitors to Connecticut every day and remove cars from the congested I-95 corridor. The operators of these services are key economic development partners and we want to continue to support their needs.

Cruise ships have occasionally visited Connecticut since 2002, when the first cruise ship in recent times docked in New London. In 2008, nine cruise ships visited New London – the most cruise ships to visit the state in a single year.

Connecticut's unique geographic location offers a fresh option for cruise ship operators looking for new destinations. However, regular cruise visits have been sporadic and limited due to several factors, including a lack of appropriate and centrally located infrastructure, limited coordinated support operations, and lack of a unified marketing strategy. Cruise

- Traditionally, visiting cruise ships have the option of docking at two piers in New London: City Pier and State Pier.
- City Pier's location in downtown New London is ideal; however the size of ships that can utilize the pier is limited due to the length of the pier and depth of the berth.
- The State Pier has been utilized for the majority of cruise ship visits in past years; however it is not an ideal location for loading or offloading passengers and, as an active shipping terminal, there are safety hazards and timing conflicts associated with having passengers on the pier.

ship visits are often booked years in advance, meaning today's challenges create a multi-year delay in scheduling future visits.

STRATEGY

Work to ensure the continued health and expansion of the ferry operators in our ports.

Evaluate ways in which Connecticut could expand its partnership with ferry and cruise service operators and booking agents, while considering the required investment in facilities and infrastructure.

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8. Ensure Future Support of the CPA

BACKGROUND

The creation of the CPA represents a major commitment by the State of Connecticut to invest in its port infrastructure to create jobs and attract private investment to the State. CPA's continued engagement with Connecticut's Congressional delegation, State Legislature, Governor's office, and local government officials is key to CPA's effectiveness in achieving its strategic objectives and in driving economic growth across the state.

STRATEGY

Work with Connecticut's Congressional delegation, State Legislature, Governor's office, and local government officials to:

- Provide information on the progress of the CPA
- Work to resolve key issues (ie tariffs, federal funding, etc)
- Gather input on priorities
- Obtain funds for capital and other improvements

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CONCLUSION

Connecticut is blessed with abundant natural marine assets. This strategy provides a roadmap for strategically investing in the development of infrastructure to enhance their use and to create new long-term economic growth across the state. The Connecticut Port Authority is committed to this vision and will continue working to enhance the maritime economy and create stable, long-term jobs for residents across the state.









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