



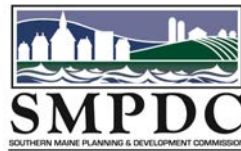
# TOWN OF KITTERY AND PORTSMOUTH NAVAL SHIPYARD **JOINT LAND USE STUDY**

FINAL REPORT - JANUARY 2020



# PORTSMOUTH NAVAL SHIPYARD AND TOWN OF KITTERY JOINT LAND USE STUDY

*This study was prepared under contract with the Town of Kittery, Maine, with financial support from the Office of Economic Adjustment, Department of Defense. The content does not necessarily reflect the views of the Office of Economic Adjustment.*



Five communities, three regional planning commissions, and several local, regional, and state organizations and agencies were active partners working with the Portsmouth Naval Shipyard and Town of Kittery on the collaborative planning effort:

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# 1. INTRODUCTION





# JLUS OVERVIEW

The Town of Kittery and Portsmouth Naval Shipyard Joint Land Use Study (JLUS) represents an opportunity for the Town of Kittery, Southern Maine Planning & Development Commission (SMPDC), regional jurisdictions, States of Maine and New Hampshire, and Portsmouth Naval Shipyard (PNSY) to strengthen their existing partnership, understand and address the issues impacting both the Navy and communities throughout the region – especially traffic congestion – and establish a blueprint for mutually beneficial actions to support military readiness, and continued community growth and economic development. Extensive public outreach and engagement occurred throughout the JLUS planning process.

A JLUS is a collaborative community planning effort among an active military installation, surrounding communities, state and federal officials, residents, business owners, and other stakeholders. Through the study process, communication and coordination is strengthened between the installation and the community. The process encourages them to act as a team to prevent or limit compatibility issues caused by future mission expansion or community growth. The Town of Kittery and SMPDC sponsored the JLUS with funding support from the Department of Defense (DoD) Office of Economic Adjustment. The JLUS was created by the community and for the community.

## From the community perspective, the primary objectives of a JLUS are:

- Protect the health, safety, and welfare of residents and maintain their quality of life.
- Ensure compatible development in the vicinity of military installations that will not interfere with the continued operations of the facilities.
- Provide for sustainable growth in an economically, environmentally, and socially conscious manner.
- Maintain the economic vitality of the community.
- Enhance communication between the community and the military.

## From the military perspective, the primary objectives of a JLUS are:

- Promote the health, safety, and welfare of the military and civilian personnel living and working at or near the military installation.
- Ensure the ability of the installation to achieve its mission, maintain military readiness, and support national defense objectives.
- Preserve the ability of the installation to adjust or expand its mission.

It is important to note that the JLUS is not intended to be a study that rests on the shelf, but a set of recommendations and strategies that are implemented through actions by state and local government, the installation, and private sector. The recommendations from the JLUS are used to help local jurisdictions guide community development that is compatible with military training, testing, and operational missions and seeks ways to reduce operational impacts on adjacent lands and waterways while supporting continued economic development and public health, safety, and general welfare of those living and working near an active military installation. While many recommendations may be acted upon immediately, most are intended to define further studies, identify needed detailed analysis, or support applications for implementation funding.

Throughout the process, local jurisdictions, residents, businesses, and other stakeholders provided their input and support. By accepting the report, they are stating their continued community-based support for future implementation efforts. The intent is to continually ensure that future public and private development around the military installation will be compatible with both the military mission and the needs of the community. The JLUS was conducted through five primary tasks in accordance with the schedule below.

## PROJECT TIMELINE (2019-2020)

The JLUS process is designed to create a locally relevant document that builds consensus and obtains support from the various stakeholders involved.



# PUBLIC INVOLVEMENT

Public Involvement is the backbone of a JLUS, leading to the success of the planning process and subsequent implementation of the recommendations. The community engagement process for a JLUS is focused on the following goals:

**GOAL 1 - Develop a strategy that will allow all individuals and groups interested in the future of the Installation and the process to participate by:**

- Providing initial input on the issues and concerns of the study to be addressed.
- Offering frequent, timely, and meaningful input throughout the study in ways that will help the analysis.
- Staying informed about, and having multiple opportunities to provide comments on, the study and its findings.
- Disseminating current information about the study with their respective constituents.
- Offering an easy-to-access and attractive multi-level approach tailored to the needs of the entire community, ranging from the military and local officials to area residents and other stakeholders.

**GOAL 2 - Provide a variety of engagement options that range from hands-on meetings and workshops to interactive on-line tools to provide options for learning about and having input into the study process.**

## COMMITTEE COLLABORATION

The JLUS Policy Committee and JLUS Working Group helped facilitate the JLUS planning process and development of the document. Each committee participated directly with the project team to provide technical assistance, feedback, and decision-making. These two committees consist of community leaders, PNSY personnel, federal and state agencies, local governments, and other stakeholders. The members serve as the liaisons to their respective stakeholder groups and are responsible for relaying information to their organizations.

### JLUS POLICY COMMITTEE

The Policy Committee is responsible for the overall direction of the JLUS, policy recommendations, and approval of the draft and final written reports. The Policy Committee generally met on a quarterly basis throughout 2019.

### JLUS WORKING GROUP

The JLUS Working Group's main objective is to provide technical expertise and feedback to the JLUS team. They met regularly throughout the course of the study to guide data collection, review findings, deliberate strategies, and review materials shared with the Policy Committee and the public.

## PUBLIC ENGAGEMENT

Local and regional stakeholders were engaged throughout the study process to inform their constituents about the JLUS and involve them in understanding, addressing, and resolving the most important issues. Stakeholders include individuals, groups, organizations, and governmental entities interested in, affected by, or affecting the outcome of the JLUS document.

The general public was engaged repeatedly at each step in the study process, with regular "fact sheet" summaries of the project made available at public events and on the JLUS website, which the SMPDC hosted. In parallel with initial stakeholder outreach, a series of roundtables sought resident input on localized PNSY impacts. An advertised open house in June 2019 brought dozens of residents to learn about early findings and to express their preferences for the types of solutions to be assessed by the consulting team. In July, another open house was held during lunch hours on the PNSY to hear from shipyard workers. Online surveys were launched at that time, with over 500 residents of the region responding, as well as over 2,000 shipyard workers. A final presentation and open house in January of 2020 enabled the public to view and critique recommended strategies for addressing the areas of greatest concern for the PNSY's continued operation in the region.



The JLUS team and Working Group kicked off the study with a tour of PNSY in January 2019



The consultant team met with 5 stakeholder groups in March 2019



The JLUS team conducted a public open house in June 2019 to share information about initial findings



# EVALUATION OF COMPATIBILITY FACTORS

To assess issues that may have an adverse impact upon continued military operations at PNSY, or community growth and economic development for the host communities, a series of 24 Compatibility Factors were evaluated. In coordination with the project stakeholders, each factor was investigated to identify possible issues for either PNSY, the host communities, or both. Dialogue with the project stakeholders helped determine where 1) no significant compatibility issues exist, 2) compatibility issues identified but appropriate parties are addressing, or 3) compatibility issues identified and require further study and/or action.

COMPATIBLE (no significant finding)	COMPATIBILITY ISSUES (parties are adequately addressing)	COMPATIBILITY ISSUES (requiring further study / action)
<ul style="list-style-type: none"><li>• Air Quality</li><li>• Anti-Terrorism / Force Protection</li><li>• Coordination + Communication</li><li>• Cultural Resources</li><li>• Dust, Smoke and Steam</li><li>• Energy Development</li><li>• Infrastructure Extensions / Capacity</li><li>• Legislative Initiatives</li><li>• Light and Glare</li><li>• Marine Environment</li><li>• Public and Military Base Safety</li><li>• Safety Zones</li><li>• Spectrum Impediment</li><li>• Vertical Obstructions</li></ul>	<ul style="list-style-type: none"><li>• Land / Air / Sea Spaces</li><li>• Noise and Vibration</li><li>• Threatened Species</li></ul>	<ul style="list-style-type: none"><li>• Climate Adaption</li><li>• Land Use</li><li>• Local Housing Availability</li><li>• Natural Features</li><li>• Road Capacity / Congestion</li><li>• Scarce Natural Resources</li><li>• Water Quality and Quantity</li></ul>

A more detailed discussion of the Compatibility Factor analysis, findings and recommendations is presented in Section 3.

## COMPATIBILITY FACTORS EXPLAINED

### PEOPLE-CENTERED FACTORS



#### COORDINATION + COMMUNICATION

Military installations and agencies that oversee their jurisdictions should maintain open lines of communication for shared issues.



#### PUBLIC + MILITARY BASE SAFETY

Population growth and increased recreational activity near installations can lead to safety issues.



#### LEGISLATIVE INITIATIVES

Federal, state, or local laws and regulations may have impact an installation's ability to conduct missions because of development limitations.



#### CULTURAL RESOURCES

The presence of cultural resources (including Native American resources) may prevent or restrict military development.



#### LAND/AIR/SEA SPACES

Adequate supply is necessary for the military to accomplish effective training, testing and operational missions.



#### AIR QUALITY

To achieve operations safely, air quality with the lowest level of pollutants possible (as Federally and State-regulated) is required.

### NATURAL RESOURCE FACTORS



#### SCARCE NATURAL RESOURCES

Valuable natural resources (oil, natural gas, minerals, water) which may be located on military installations can impact land utilization and military operations.



#### RESILIENCE

Sea level rise and other events resulting from climate fluctuations may present operational and planning challenges.



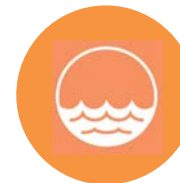
#### THREATENED SPECIES

Threatened species and their habitats may require special development considerations for PNSY.



#### MARINE ENVIRONMENT

Regulatory or permit requirements protecting marine and ocean wildlife may impact the military's ability to conduct water-based operations, training exercises, or testing.



#### WATER QUALITY + QUANTITY

Adequate supply of good quality water should be available for use by the installation and surrounding communities as the area develops.



#### NATURAL FEATURES

The likeliness of natural events, such as floods may require special development considerations and should be included early in the planning process.

## COMPATIBILITY FACTORS EXPLAINED

### DEVELOPMENT-RELATED FACTORS



#### ROAD CAPACITY + CONGESTION

Interaction among military installations, jurisdictions, and land, resource management agencies and conservation authorities requires communication regarding compatibility issues.



#### LIGHT + GLARE

Light sources adjacent to the installation may impact certain operations requiring unobstructed visibility.



#### LOCAL HOUSING AVAILABILITY

Adequate housing supply in a variety of options and prices is essential to support the growing PNSY workforce. Housing should be available near the installation, when possible.



#### ENERGY DEVELOPMENT

Energy developments from oil/gas, solar, wind, geothermal and/or biofuels, could pose compatibility issues related to vertical obstructions, or water quality/quantity.



#### INFRASTRUCTURE CAPACITY

Interaction among military installations, jurisdictions, and land, resource management agencies and conservation authorities requires communication regarding compatibility issues.



#### SPECTRUM INTERFERENCE

Frequency capacity is critical for maintaining existing/future missions. Electronic signals can be impeded by structures or objects, or competing frequencies.



#### DUST/SMOKE/STEAM

If sufficient in quantity, emissions may reduce visibility during flight operations or cause equipment damage (including from artillery exercises or industrial activities).



#### NOISE AND VIBRATION

Noise generated from operations on PNSY as well as from its traffic may have impact on people in adjacent areas of the community as well as animals.



#### SAFETY ZONES

Areas which support PNSY activities that pose higher risks to public safety (both on land and in water) should be restricted to development. Examples include weapons firing range safety zones and explosive safety zones.



#### ANTI-TERRORISM/FORCE PROTECTION

PNSY personnel, facilities and its secure information require protection from outside threats, ranging from cyber-threats to protection during external emergency events to encroachment of PNSY boundaries through development.



#### VERTICAL OBSTRUCTIONS

Obstructions by buildings or structures such as cell towers may encroach upon sightlines required by the installation for flight operations.



#### LAND USE

Federally-owned land is not subject to local zoning or land development regulations, however adjacent land uses may impact continued military operations or pose a public safety issue.



# 2. LOCAL CONTEXT



# INSTALLATION SETTING

PNSY is located on Seavey Island in southeastern Maine on the Piscataqua River, 50 miles north of Boston, Massachusetts and 50 miles south of Portland, Maine. It is bounded to the north by the Town of Kittery and to the south by the City of Portsmouth, New Hampshire. The Installation is accessed by water from the Atlantic Ocean, roughly three miles down river, and by land via only two gate/checkpoint bridges in Kittery's Foreside neighborhood. The Installation comprises 297 acres, including the main island, the two access checkpoints (Gate 1 and Gate 2), and

onsite (26 units) and off-site (approximately 200 units) housing located in Kittery. It has been in operation since 1800, and features 50 buildings listed on the National Register of Historic Places.

Today, PNSY is one of only four remaining U.S. Navy repair shipyards in the United States. It is responsible for the maintenance, repair and modernization of the Navy's fleet of attack submarines. The site includes three dry docks capable of docking active submarines for repair. While submarines are in dock for

anywhere from 12 - 24 months, crews remain near their submarine finding housing in on-island housing and area hotels.

The shipyard employs a little over 7,000 full-time workers in three around-the-clock shifts. During the first daytime shift, approximately 5,000 workers commute to the island. Another 1,000 contractors work on the shipyard and may arrive periodically at different times and days throughout the week, depending on their contract terms and duration.



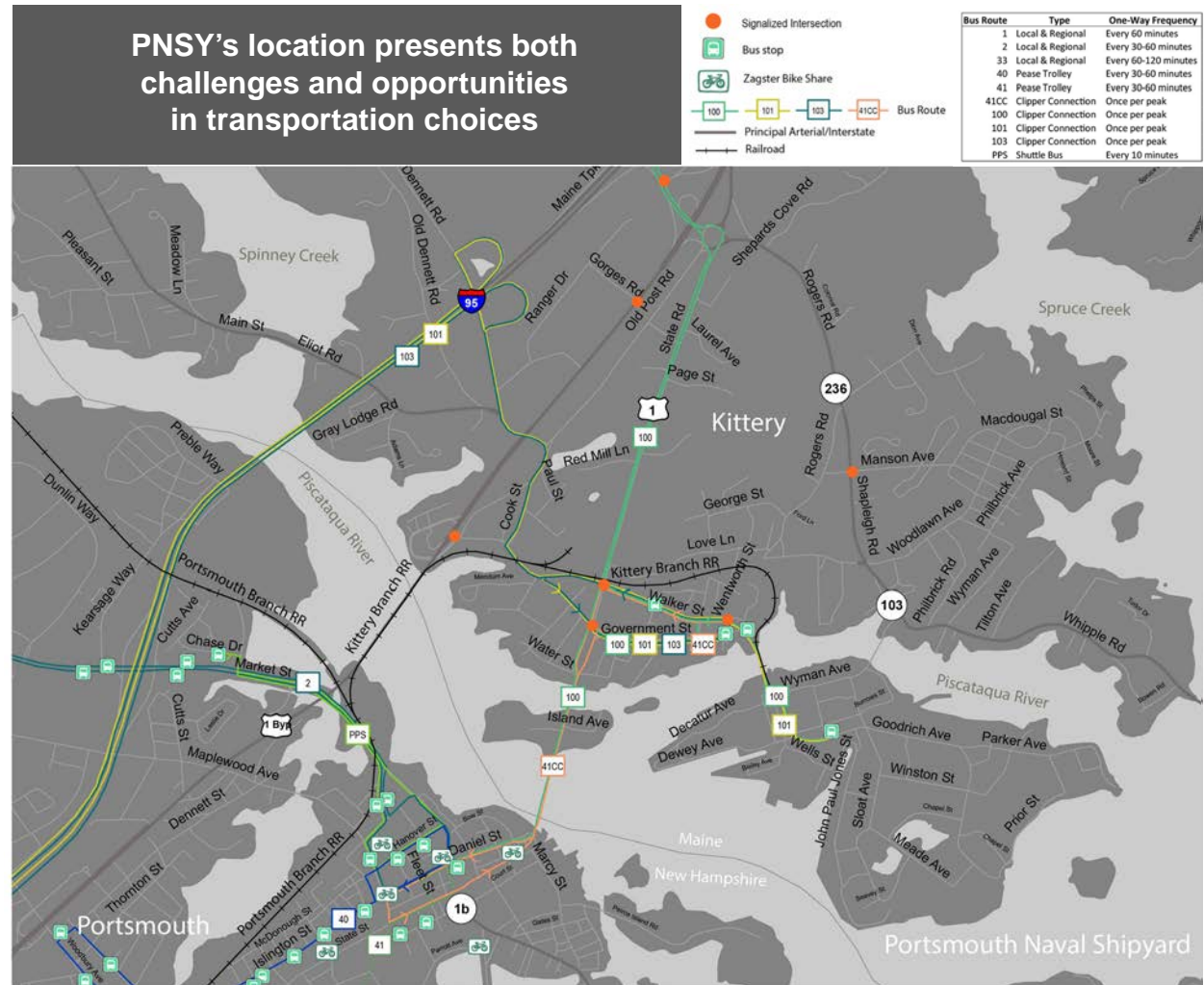
**The Portsmouth Naval Shipyard on Seavey Island within the surrounding context of the Piscataqua River**



# JLUS STUDY AREA

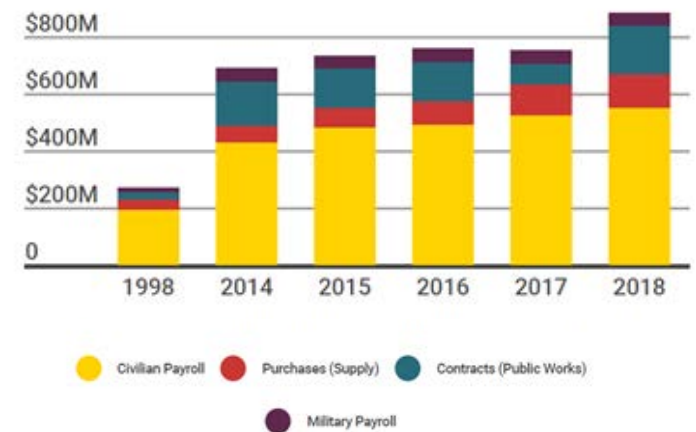
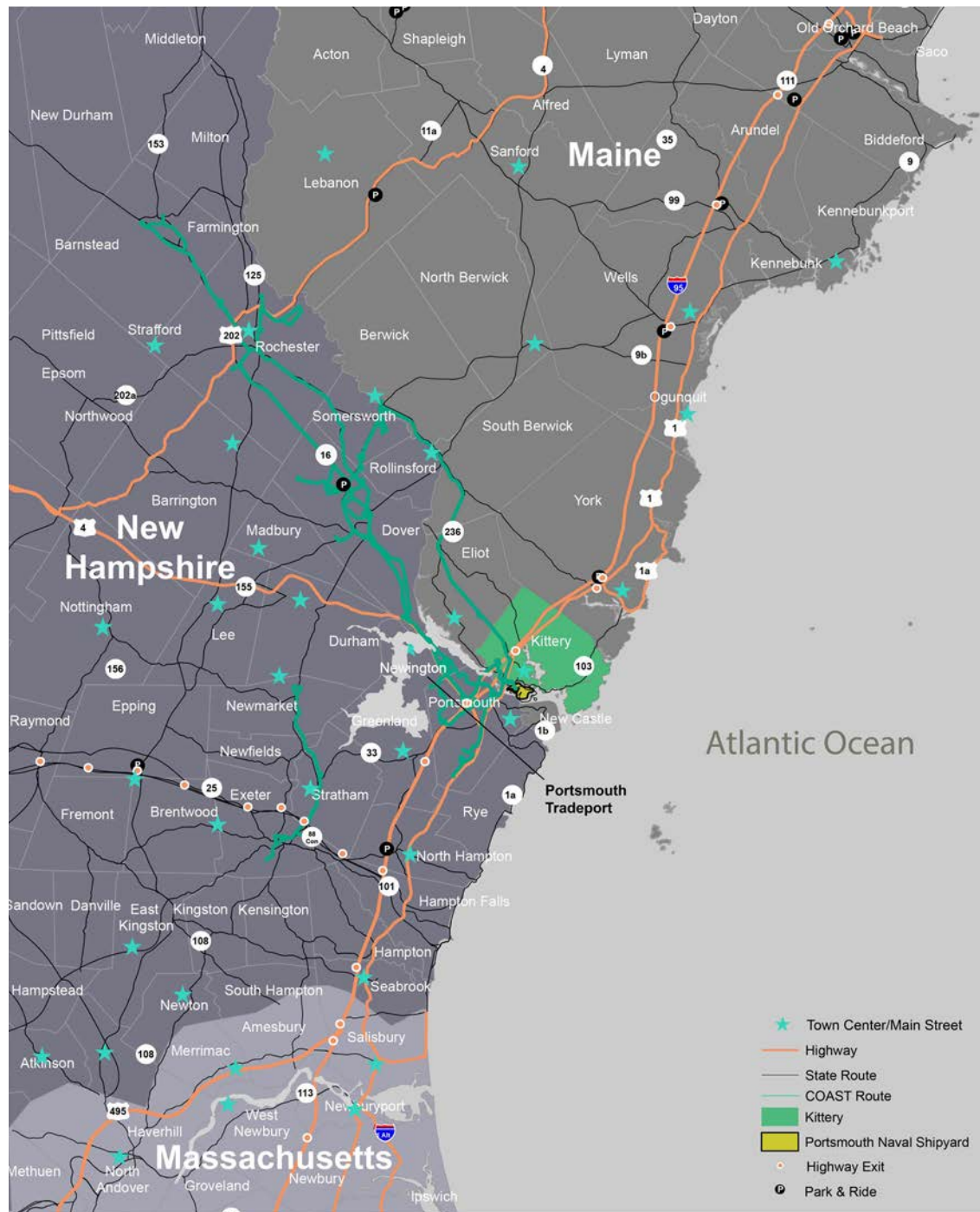
While the study area includes the region from which workers commute on a daily basis (extending to west to Rochester and Newmarket, New Hampshire, north to Sanford, Maine, and south to North Hampton, New Hampshire), the town of Kittery and nearby communities are of primary focus. This area is generally defined by the Route 1 roundabout to the north of PNSY, the Maine Turnpike (I-95) to the west, downtown Portsmouth to the south, and Spruce Creek to the east.

Kittery is home to approximately 9,500 residents and according to the U.S. Census Bureau has around 5,000 jobs (not including those within the shipyard.) Within the Statistical Metropolitan Area (Portland-South Portland-Biddeford, ME) that comprises most of the JLUS study area, there were an estimated 526,000 residents (2013-2017 5-year US Census estimate) and 276,000 jobs (2018, LEHD). PNSY is the region's largest employer and was responsible for \$882M of economic activity in 2018. Its influence has grown steadily for the past five years, growing from 5,500 jobs and \$680M of economic activity in 2014. Workers commute from nearly all of the towns in the study area, with the largest source being Sanford, a 30-mile drive away.



**Figure 1. The JLUS focus area incorporates downtown Kittery, the PNSY installation and immediately adjacent areas.**





**Figure 2. PNSY economic activity 1998-2018**

**PNSY workers live in over 60 cities, towns, and communities in the greater region**

**Figure 3. Kittery and PNSY in context of the region, at large**

# 3. KEY FINDINGS



# COMPATIBILITY ANALYSIS

Over the course of the JLUS, 24 compatibility factors were evaluated within three categories: human-centered, which includes factors such as communications and safety; natural resource-centered, including factors such as resilience and water quality; and development-centered, including factors such as road capacity and housing availability. Early in the process, stakeholders identified development-related factors as their greatest ongoing concern, with traffic and congestion being the primary focus for greater compatibility between the PNSY and the region.

While traffic has been growing along with increased shipyard employment over the last several years, PNSY employment is nowhere near its historic peak of 25,000 during World War II. In recent history, employment declined to a low of 3,700 in 1998 before slowly climbing to the current level of 7,000 workers. With another submarine dry dock planned, up to 1,000 additional workers may be hired in coming years.

However, finding skilled workers has been a growing problem for the PNSY due to two primary trends. First, attractive high-technology employment options have grown outside of Maine, with young workers drawn to growing jobs centers like Boston and many other cities around the country. Second, local housing costs have grown dramatically, making many young workers leave the region for lower-cost parts of the country where similar or greater pay is possible.

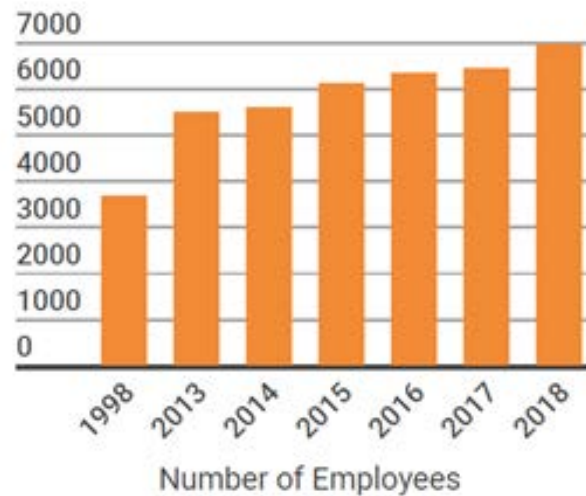


Figure 4.  
PNSY employee growth between 1998-2018

## LOCAL HOUSING AVAILABILITY

This growth in housing cost is arguably the largest contributor to regional congestion impacts from the PNSY. While the majority of PNSY workers once lived within walking distance, **Kittery housing prices today are not affordable for over 70% of its residents.** Less than 7% of shipyard workers live in Kittery today, with thousands pushed toward inland towns with lower housing costs, such as Sanford, Berwick and Rochester, NH.

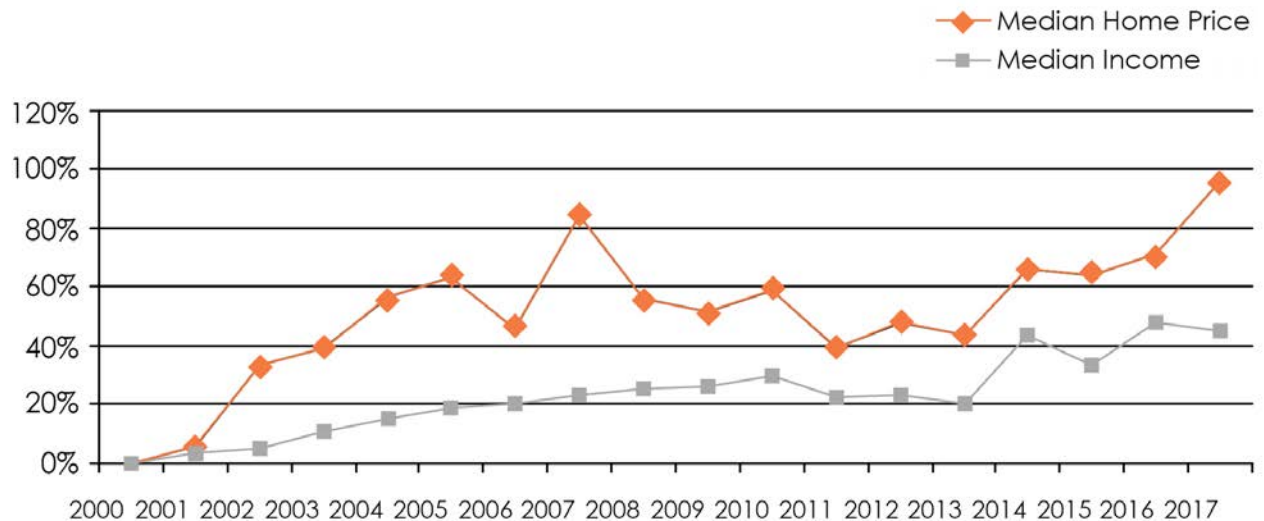
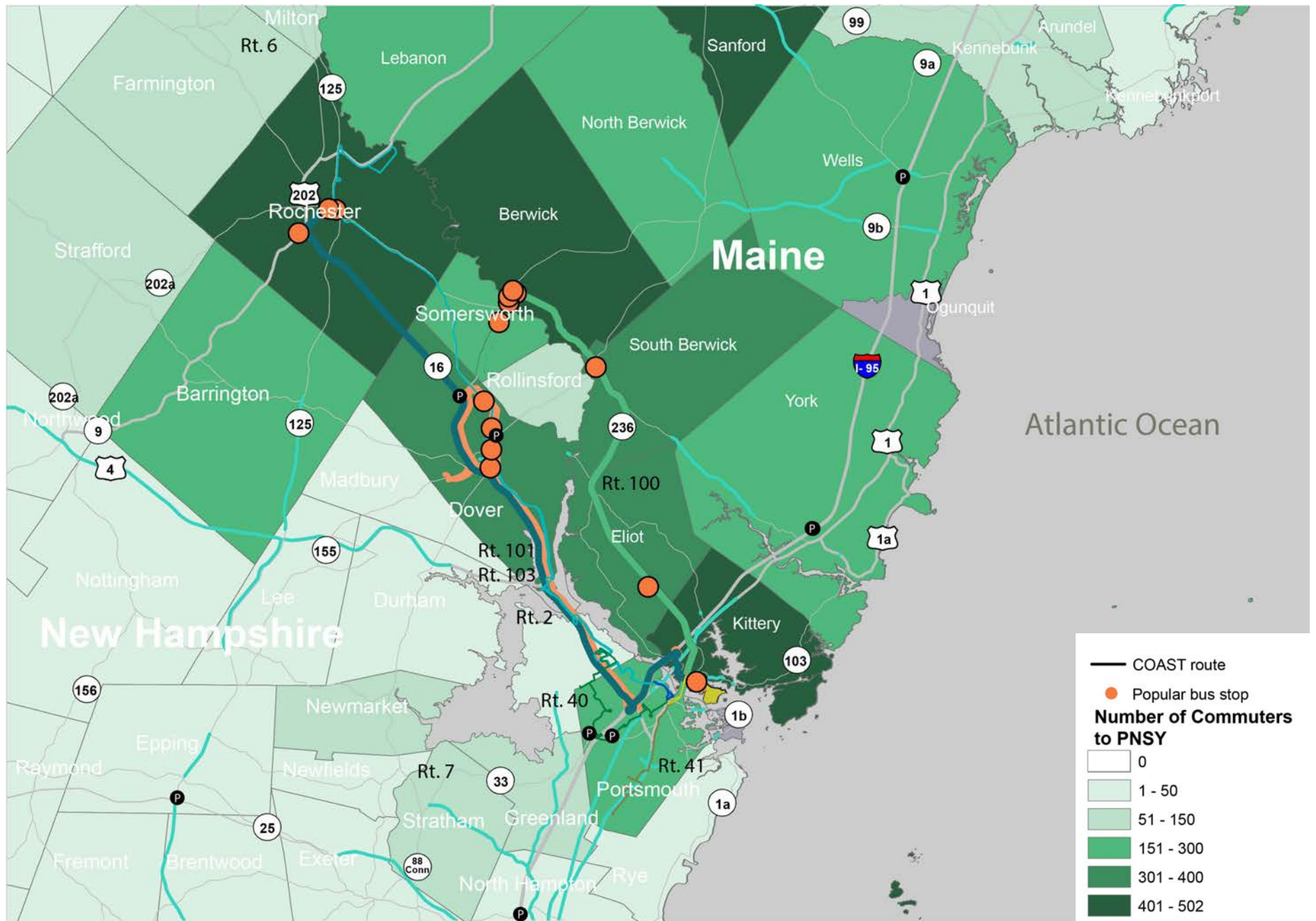


Figure 5.  
Change in Maine home prices in relation to income between 2000-2017



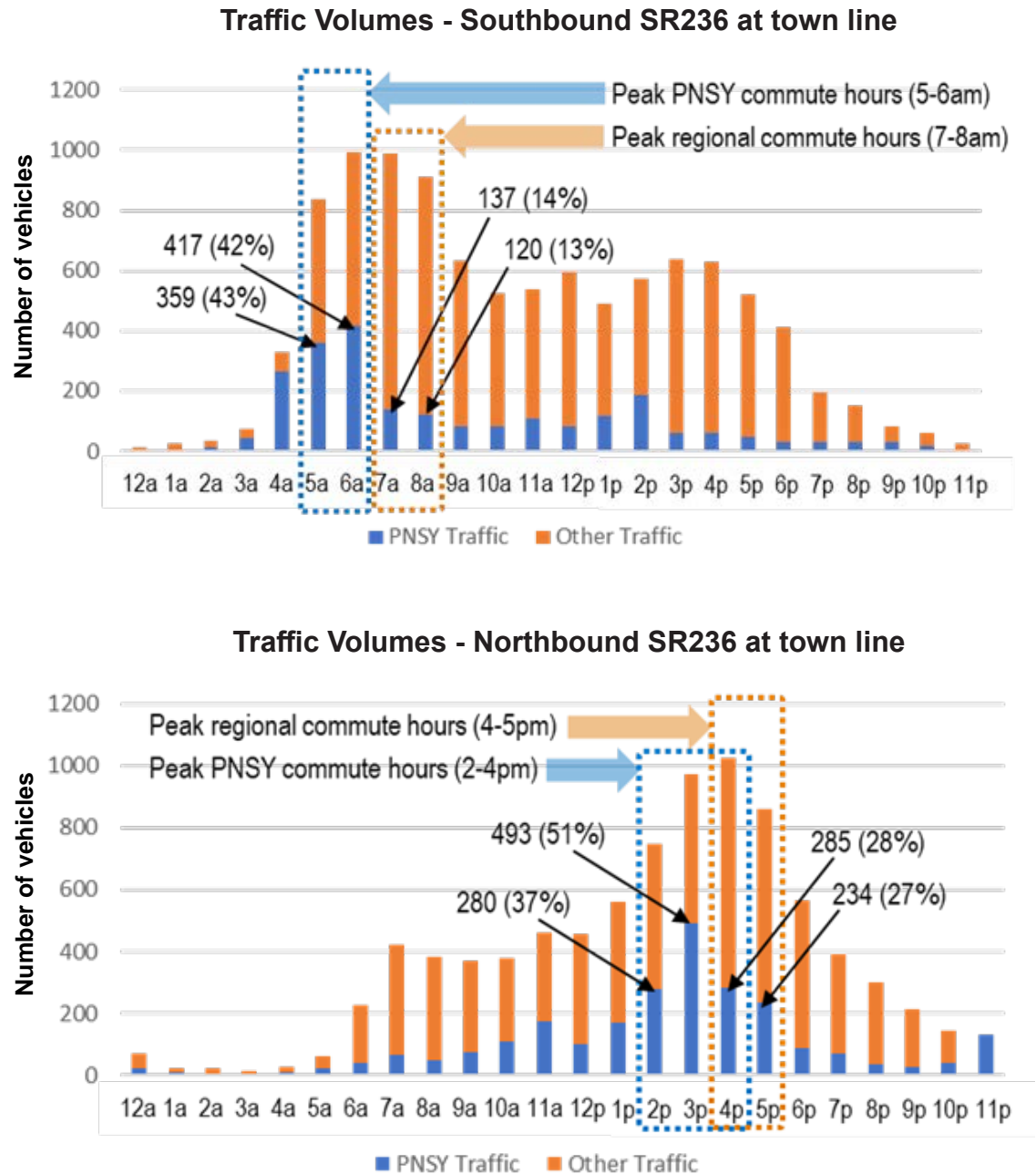


**Figure 6.**  
Density of PNSY workers by location and COAST transit network

## ROADWAY CAPACITY AND CONGESTION

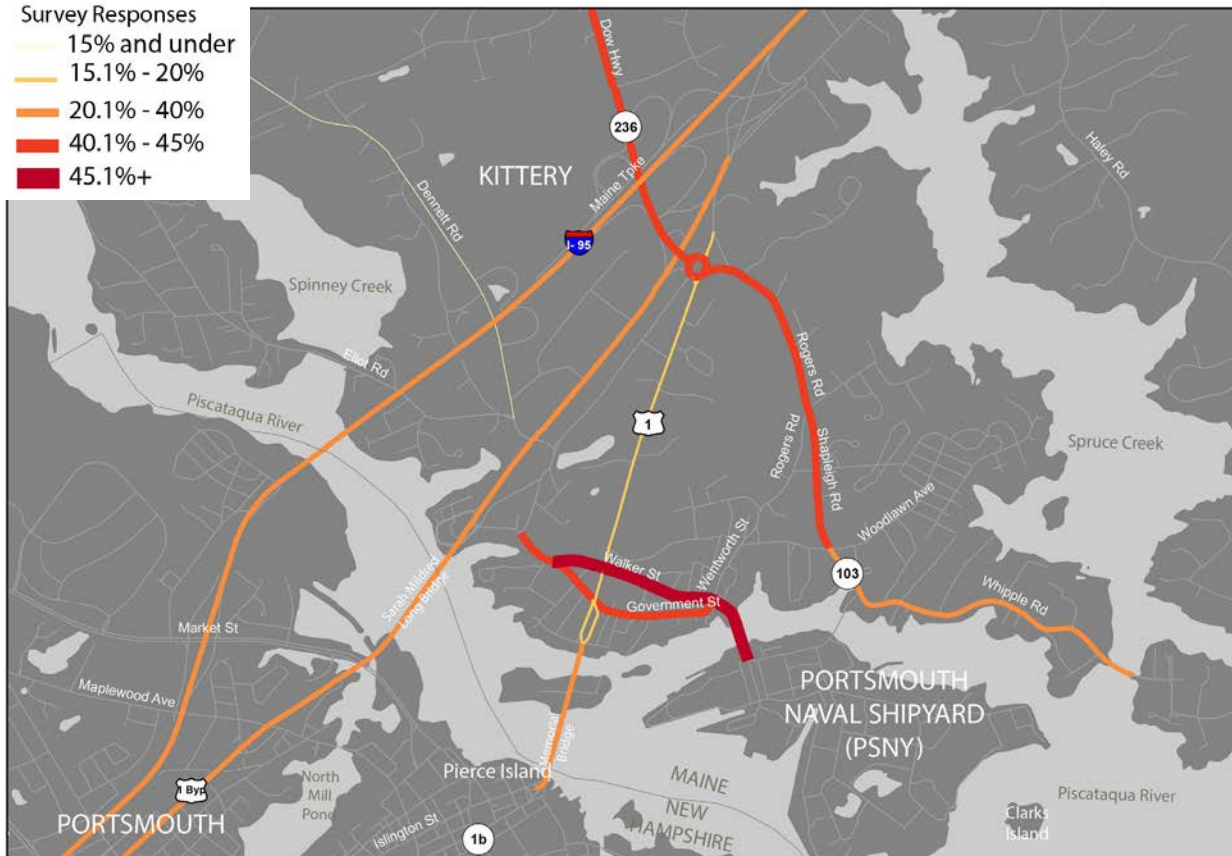
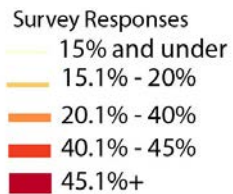
Resulting from the need for affordable housing, PNSY workers have much longer commutes than they did in the past, increasing the number of roadways that experience shipyard-related traffic. While the increment of additional long-distance commutes on highways like I-95 (serving the north and south) and the Spaulding Turnpike (serving the west) has little impact relative to overall regional traffic, smaller arterials have experienced greater impacts. Traffic volumes on State Route 236 (Dow Highway) have grown noticeably in recent years, and the JLUS concluded that PNSY workers constitute 40-50% of hourly traffic at 6AM and again at 3PM. However, the peak traffic on SR 236 occurs at 7AM and 4PM, an hour after most shipyard workers have traveled through on their earlier shift times, so they represent only 10-30% of the observed peak hours of traffic.

PNSY, like any large employer, is responsible for a notable portion of traffic on some regional roadways. Closest to the shipyard on the approaches to its two entry gates, shipyard traffic makes up the majority of cars in the AM and PM peak periods on streets like Walker and Government as well as Shapleigh Road.



**Figure 7. Traffic volumes during a typical day show that PNSY traffic is occurring before peaks of non-PNSY traffic**





## Road Usage for Travel to Kittery

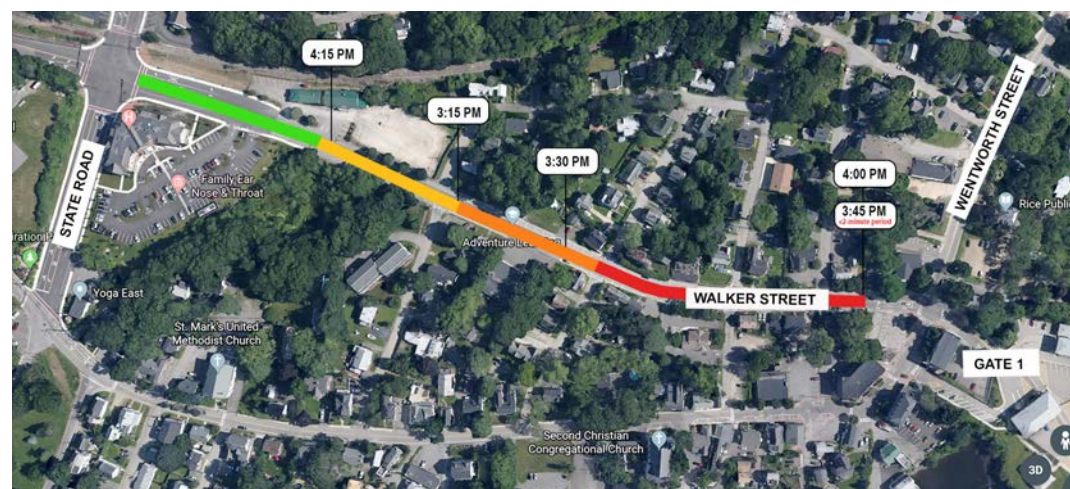
Figure 8.

Rolling lines of cars regularly extend along the lengths of Walker and Government Streets and Shapleigh Road during peak periods

## Typical Queue Lengths at Peak Hour

Figure 9.

The three maps below show the extent of queue lengths at various locations in Kittery during a typical afternoon PNSY rush-hour





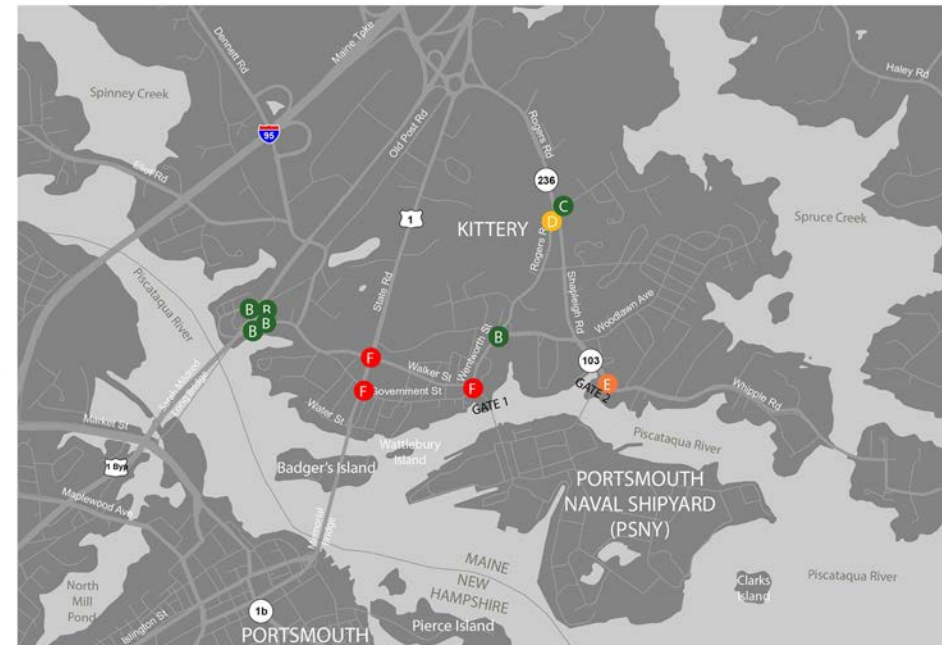
Rolling lines of cars extending up to a mile from each gate are regularly observed, with excessive queues and intersection delays nearest each gate in the AM. In the PM, intersection delays and queues are found at the access points to regional roadways—primarily at the Route 1 rotary and the Route 1 bypass at Bridge Street.

These localized delays mostly impact shipyard workers, though other early period commuters experience similar delays if heading in the same direction as peak shipyard flows. Many drivers will seek small diversions going through streets like Love Lane, Rogers Road, and Woodlawn Avenue, which can experience excessive speeds as drivers seek to avoid the gate queues.

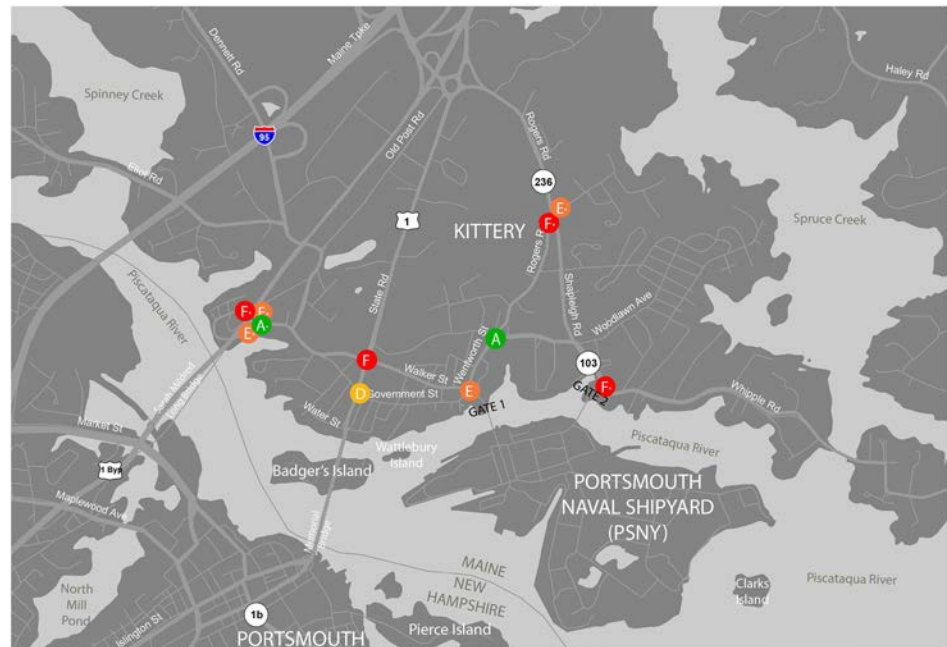
Roadway and intersection capacity is not as much of a compatibility issue as are the physical limitations of Seavey Island and its two access bridges. **Parking supply on the island is at capacity** (around 5,000 spaces, depending on shipyard activity and construction) every workday, and queues of workers' cars seeking a space spill back onto each bridge every morning. In the afternoon, queues from the closest Kittery Foreside neighborhood intersections spill back through each gate to the island's parking facilities. Adding more parking supply would exacerbate these problems, resulting in worsening queues in surrounding neighborhoods. Private, off-base parking in Foreside closest to the shipyard is a heavily-utilized alternative for some workers, but it does not alleviate any off-island congestion.

### Average Total Delay Range (seconds/vehicle) AM

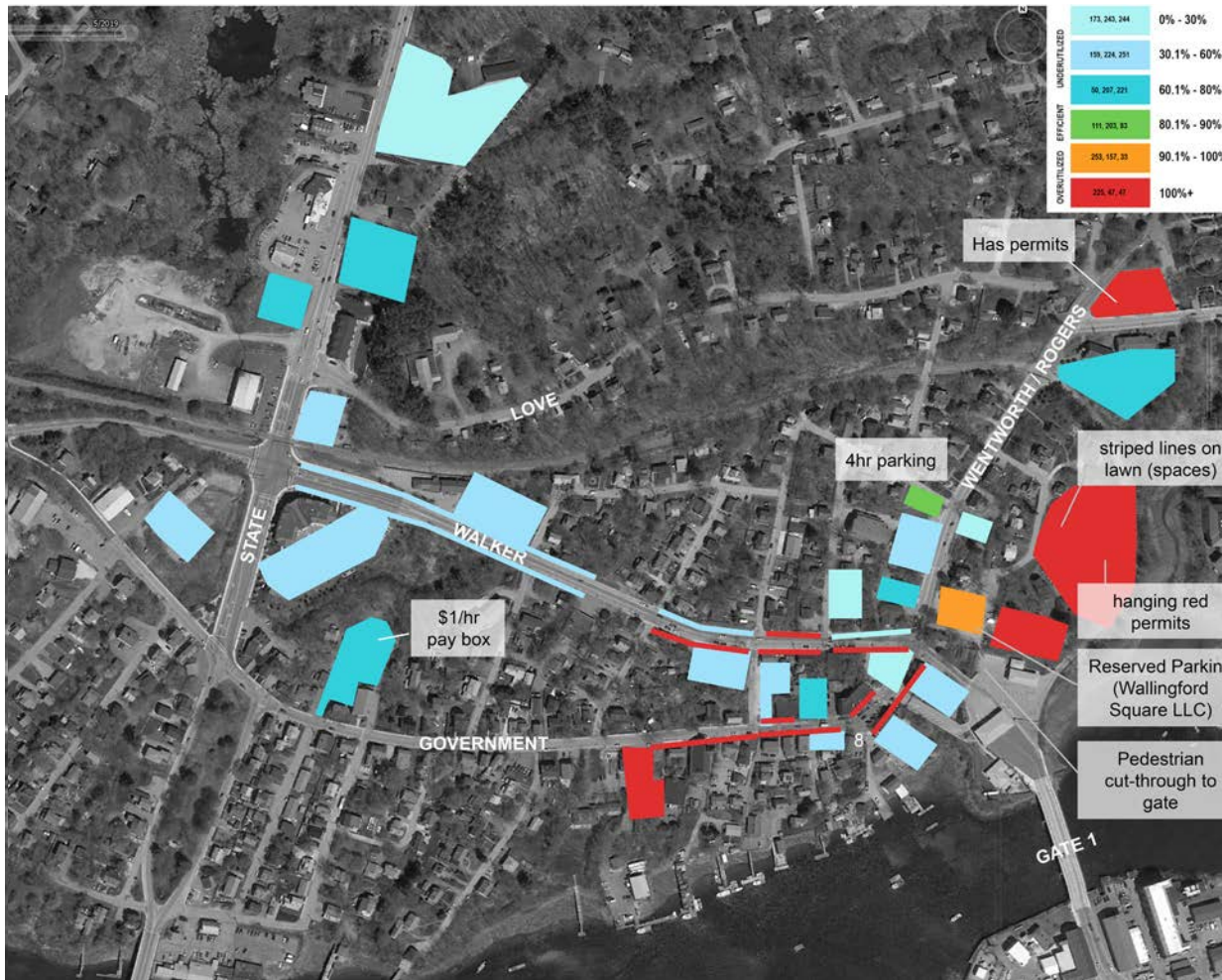
Unsignalized Intersection	Signalized Intersection
A ≤10	≤10
B >10 and ≤15	>10 and ≤20
C >15 and ≤25	>20 and ≤35
D >25 and ≤35	>35 and ≤55
E >35 and ≤50	>55 and ≤80
F >50	>80



### Average Total Delay Range (seconds/vehicle) PM



**Figure 10. Levels of service at intersections nearest PNSY gates are worse in the AM (top) while intersections farther from the gates are worse in the PM (bottom)**

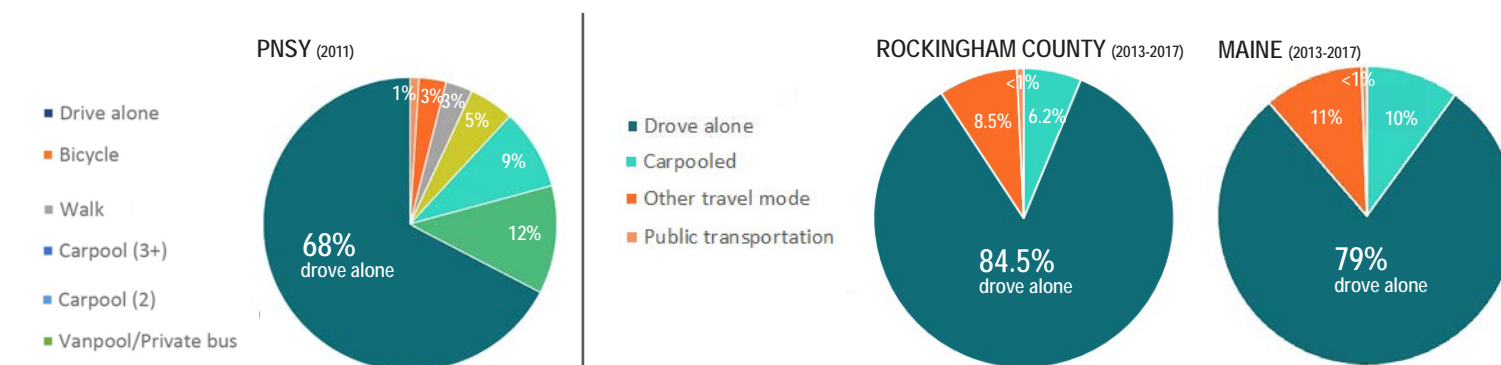


The PNSY has been aggressively tackling these roadway capacity and congestion concerns for many years through a number of resources including the Federal Government's Transportation Incentive Program (TIP). This program provides significant funding to workers seeking alternatives to driving alone to the shipyard. Options include priority carpool parking, subsidized vanpools, telework opportunities, and free transit service from many communities to the shipyard. In addition, many workers walk and bike to their jobs. As a result of these ongoing efforts, the PNSY has one of the better mode shares in the region.

Nonetheless, the convenience of driving—especially given the dispersed supply of housing that workers can afford—makes the use of other modes somewhat limited. Transit routes to the shipyard are well-utilized, but insufficient transit coverage exists to capture more workers.

### Parking Utilization in Kittery

**Figure 11.** Many parking lots and on-street parking spaces within walking distance to PNSY are underutilized during a typical mid-day



**Travelers by Mode**  
**Figure 11.5.** PNSY has 10-15% less number of people who drive alone compared to both Rockingham County and Maine



Nonetheless, the convenience of driving—especially given the dispersed supply of housing that workers can afford—makes the use of other modes somewhat limited. Transit routes to the shipyard are well-utilized, but there are limits in coverage to capture more workers. Similarly, park & ride opportunities exist throughout the region to facilitate carpools and vanpools, but many remain underutilized.

## COAST Routes and Bus Stop Usage

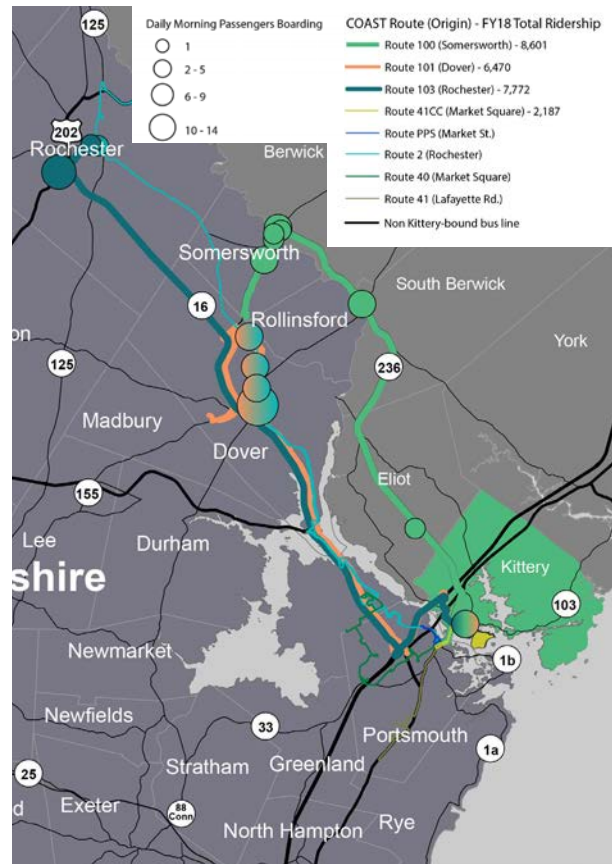


Figure 12. COAST bus stops have higher usage in the Dover area

## Regional Park and Ride Utilization

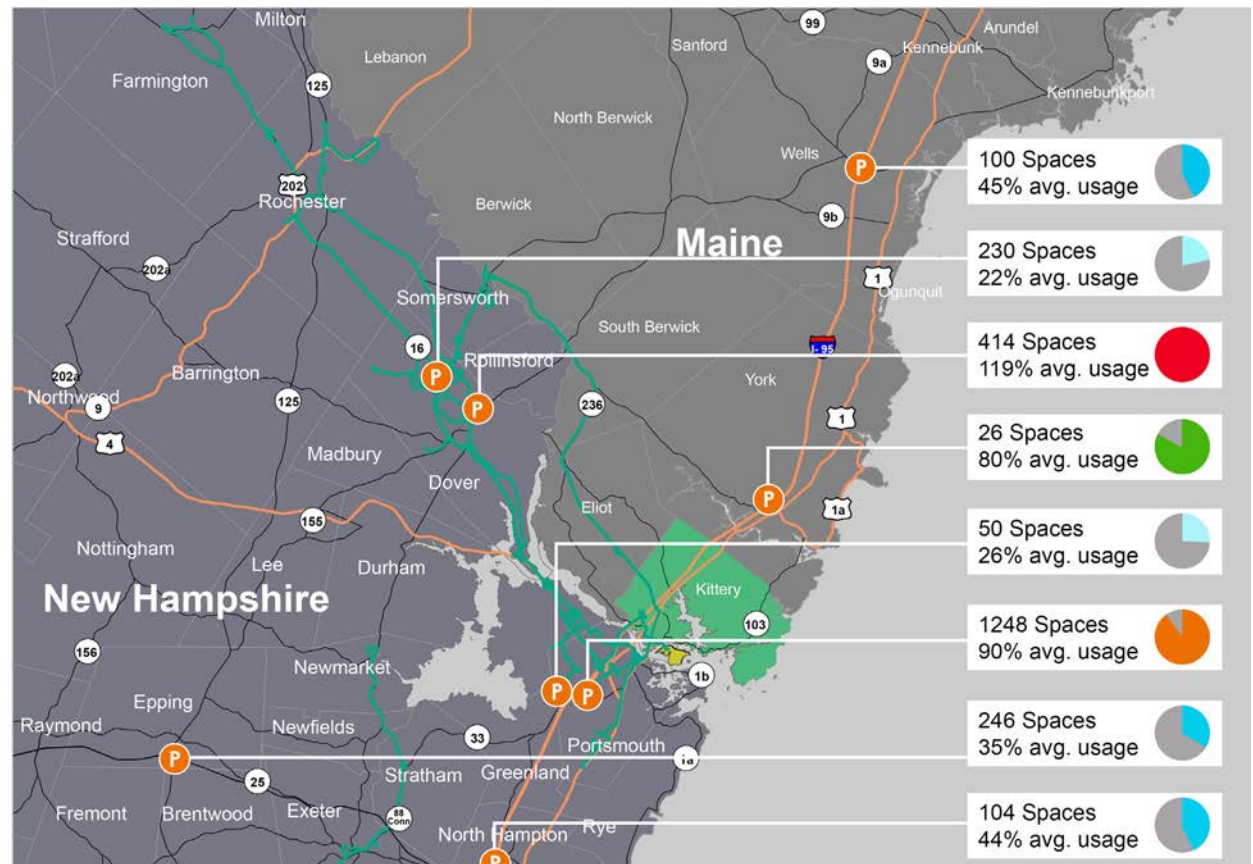


Figure 13. Of eight identified Park and Rides in the vicinity of PNSY, five are underutilized

## OTHER COMPATIBILITY CONCERNS

A majority of the stakeholders mentioned few other areas of concern. Where other topics arose, their significance remained less than those about traffic. Many business leaders and local government representatives raised concern about economic development and potential impacts of a warming climate and resulting sea-level rise. However, PNSY representatives did not demonstrate concern about flooding impacts upon military operations and readiness. Local residents raised issues about noise and light pollution from shipyard activities but concerns and impacts appear infrequent. The assessment of all 24 compatibility factors is discussed below.



## COMPATIBILITY FACTOR ANALYSIS

Compatibility Factors serve to guide the assessment of potential threats to the successful continuation of military installation operations, particularly as they relate to the relationship of the nearby communities. The 24 Compatibility Factors identified on pages 12-13 address three categories of potential issues: human-centered, natural resource-centered, and development-related. The analysis of these compatibility factors helps to identify the most important issues facing the Installation and results in a set of recommended actions to improve existing systems and create solutions to current and potential issues. A summary of the Compatibility Factor Analysis findings is provided in this section.

## HUMAN-CENTERED FACTORS

These factors are controlled by person-to-person interaction. Recognizing that *all* potential areas of incompatibility are controlled in some way by the actors in charge of land use decisions, policies, programs, and day-to-day operations, several human-centered factors have been identified for analysis in a JLUS.



JLUS Policy Committee Meeting



## COORDINATION AND COMMUNICATION

### FACTOR DESCRIPTION:

This is one of the most important factors in the continued successful operation of the Installation. Frequent and thorough communication and coordination between the Installation, local governments, state agencies, and local stakeholder groups can identify and address issues before they can threaten the continued operations of the Installation. In addition, communication and coordination are essential to addressing *existing* compatibility issues.

### EXISTING CONDITION:

The PNSY has long-established lines of communication with the Town of Kittery, as well as the Historical Commission and the Kittery Police Department. The PNSY Community Plans and Liaison officer provides an existing official avenue for Shipyard-Kittery communications.

The possibility of establishing an inter-governmental service agreement regarding shared police management is currently under consideration. The Town Manager and Installation Commander maintain informal lines of communication open to address any immediate, shared issues; for example, incidents causing unusually high vehicle backups at PNSY gates that result in temporary, increased traffic conditions in Kittery.

### FINDING:

While informal lines of communication are established and serve to ameliorate temporary issues, more formalized avenues of communication are needed. This formal communication would ensure that information is passing between PNSY and the Town.

### CONCLUSION:

**Compatible (no significant finding)**



## PUBLIC AND MILITARY BASE SAFETY

### FACTOR DESCRIPTION:

The safe operation of military installations is important to both the military personnel at the installations as well as the general public. Access to the Installation should be restricted in order to prevent terrorist attacks and other potential threats. Accidental trespass by the public should be prevented to prevent injury to the public.

### EXISTING CONDITION:

PNSY can only be accessed via two guarded checkpoint gates. Gate 1 (to the west) is open 24/7 unless closed for specific situations (e.g. Kittery Holiday Parade). Gate 2 (to the east) is open from 5:00-7:00 AM and 2:30-5:00 PM, Monday-Friday. Each vehicle or person passing through is subject to requests to provide identification in addition to permits (e.g. as relevant to contractors) for parking. This procedure applies to all visitors, whether regular employees, contractors, or approved visitors. Truck or tractor-trailer deliveries must undergo additional safety inspection procedures before being granted access. Currently, these inspec-

tions take place along the rail spur outside of Gate 1; Gate 2 does not have space for the queuing of trucks without obstructing the road network.

The concentration of worker traffic at these locations contributes to local congestion and in turn has been noted as an area of concern by residents of Kittery regarding public safety. This is especially true at the first intersections outside of each gate, with complaints received about school children facing difficulties crossing at the intersection of Walker and Wentworth, and conflicts with exiting traffic on Whipple Road. While crash data does not suggest negative outcomes, anecdotal and observational evidence suggests that conflicts regularly exist.

PNSY's island position in a scenic waterway between two towns means it shares the waters with a high volume of recreational boaters, particularly in the warmer months. As a result, PNSY maintains a clearly defined perimeter in the river. Vessels that cross into this perimeter are intercepted by security personnel.

Vessels in need of repair at PNSY are in dock for 12 to 24 months; therefore, the Installation does not generate frequent boat traffic. This low and infrequent volume of PNSY boat traffic does not create a significant threat to the public or recreational activity pursued in the river.

The general public is not permitted access to PNSY. Public tours and visits to on-base museums and memorials may be considered if approved and arranged through the PNSY Public Affairs Office.

### FINDING:

PNSY consider the procedures in place to protect the Installation from trespass, both intentional and unintentional, as adequate to protect the safety of the Installation and the public. However, truck inspection locations in addition to those at Gate 1, or changes to the procedures used to inspect these trucks could ease congestion.

### CONCLUSION:

**Compatible (no significant finding)**





## LEGISLATIVE INITIATIVES

### FACTOR DESCRIPTION:

The requirements of local, state, and federal governing bodies can impact the operations of a military installation. These laws and ordinances can encourage the compatibility of the installation with its neighboring jurisdictions through communication and coordination requirements and regulations that limit incompatible development.

### EXISTING CONDITION:

Not applicable

### FINDING:

Not applicable



Kittery Municipal Complex

### CONCLUSION:

Compatible (no significant finding)



## CULTURAL RESOURCES

### FACTOR DESCRIPTION:

The presence of cultural resources within military installation boundaries may limit the areas in which the Installation can operate. In addition, special access by governmental regulatory authorities, Native American tribes, or other entities may impact the Installation's operations.

### EXISTING CONDITION:

Several historic buildings exist on Seavey Island, thanks to its long history, and most are preserved in regular shipyard use. In addition, a number of historic buildings (primarily in the Kittery Foreside neighborhood) and landscapes are located within the Town of Kittery. Some are included on the National Register of Historic Places, including Rice Public Library, John Paul Jones Municipal Park, and various residential structures dating back to the 18th century. Neighboring Portsmouth features a high number of registered places, including the Strawberry Banke Historic District, positioned directly south of Memorial Bridge

### FINDING:

While many cultural and historic resources exist on and near PNSY, on-going preservation and re-use efforts keep this heritage intact. No compatibility issues related to cultural and historic resource have been identified.

Figure 14. Historic District areas near PNSY  
(Source: City of Portsmouth)



### CONCLUSION:

Compatible (no significant finding)





Rice Public Library (Source: Wikipedia)



# NATURAL RESOURCE FACTORS

Regardless of the location of a military installation, the natural environment is impacted by its presence in some way. Military installations can have negative effects on natural resources, both within the Installation's boundary and in the greater region. Many military installations have programs in place to protect habitats and endangered species within and near their boundaries. There are some federally mandated conservation and preservation efforts; preservation and conservation efforts outside of installations can relieve some of the requirements within installations that can impede military operations. Increasing development compatibility with preservation efforts can increase flexibility in installation operations and help to avoid incompatibility issues.

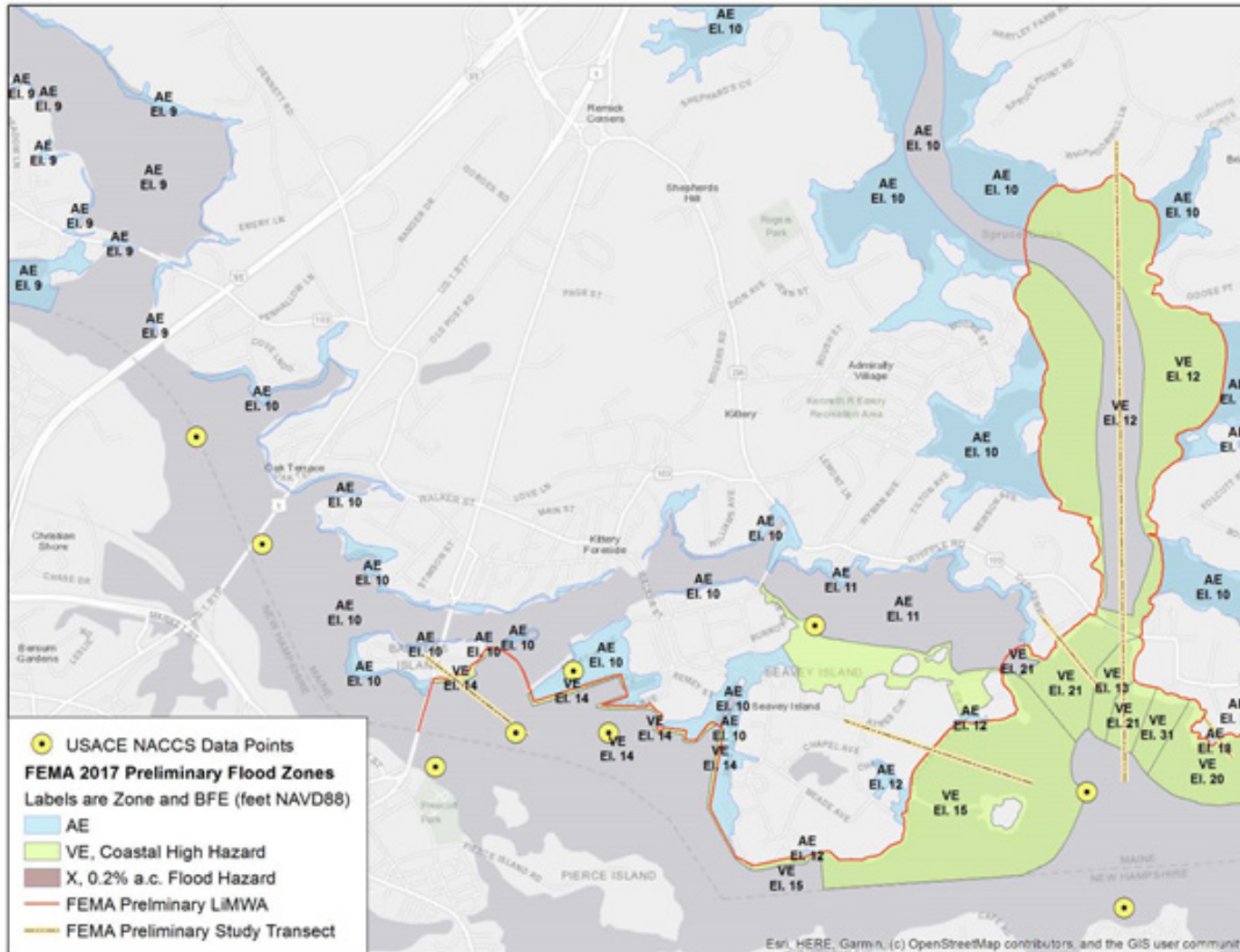


Figure 15. FEMA Preliminary (2017) FIRM Zones and BFEs in the JLUS Study Area



## RESILIENCE

### FACTOR DESCRIPTION:

Resiliency, in terms of compatibility factors, is the ability to mitigate and adapt to changes, specifically relating to changes regarding sea level rise and climate change. Global climate change may directly affect the Installation through sea level rise, increased storm and tidal surges, persistent flooding, heavy rainfall, drought, and wildfires.

### EXISTING CONDITION:

PNSY is located on an island and at low elevation. Current development requirements include consideration of the 100-year floodplain to avoid flooding. Typically, the Piscataqua River's daily tidal fluctuations are between 8'-10' feet (the second highest on the east coast), which can exacerbate the impact of storms.

The recapitalization of Berth 11 and the forthcoming redevelopment of the Dry Dock 1 area has accounted for sea level rise, as required per Military Construction design criteria and standards.

Various studies relating to water levels in the JLUS study area have been conducted

by NOAA's Center for Operational Oceanographic Products and Services (CO-OPS), the Federal Emergency Management Agency (FEMA) Map Service Center (MSC), the United States Army Corps of Engineers (USACE) Coastal Hazards System (CHS) and the Department of Defense (DOD) Coastal Assessment Regional Scenario Working Group (CARSWG). The results of these studies show that portions of Seavey Island, its access points, as well as areas along the coast in Kittery fall within flood zones due to either extreme storm surge stillwater levels (for both 100-year or 500-year return periods), or climate change-induced sea level rise projected through the year 2100. However, there is a range of potential impacts to the remainder of the shipyard, depending on which projection is used. Additional studies performed by industry experts have identified that the Great Bay may absorb some impact of sea level rise according to other studies (See Appendix F for details).

Opportunity may exist for PNSY to partner with the regional jurisdictions, States of Maine and New Hampshire to initiate a resilience planning partnership to identify and address

shared risks and vulnerabilities related to extreme storm events, water and energy. Funding support for such a planning partnership is available from DoD Office of Economic Adjustment to address threats to military resilience. Locally, City of Portsmouth's Climate Change Vulnerability Assessment and Adaptation Plan (2013) provides a comprehensive analysis of projected conditions as well as a series of recommendations and strategies that may also be applicable in the context of PNSY and Kittery. The Kittery Area Comprehensive Transportation System (KACTS) Draft Long Range Transportation Plan (2019) emphasizes the need to establish strong data to support the development of appropriate mitigation and outlines a selection of adaptation strategies to boost the resilience of the region.

### FINDING:

Conservative projections currently noted in available studies demonstrate that areas of PNSY and Kittery may be vulnerable to effects of climate change in the coming decades. The Town of Kittery, SMPDC and PNSY should consider a collaborative approach to identify and address the shared risks and vulnerabilities and identify appropriate actions.

### CONCLUSION:

**Compatibility issues requiring further study / action**



## LAND / AIR / SEA SPACES

### FACTOR DESCRIPTION:

The Installation's activities share space with the surrounding communities. Conflict can arise when two potentially incompatible uses are required to share space on land, in the air, and on the sea.

### EXISTING CONDITION:

The PNSY's primary function as a naval ship maintenance facility does not include air-related exercises or support aircraft movement and transportation. Therefore, no conflicts with the surrounding communities regarding airspace have been identified.

PNSY is located on Seavey's Island, and occupies the entire 278-acre island; therefore, no expansion on the island is possible. However, as necessary, the Navy is building new structures to accommodate operational needs both on and off the Installation. Future conflict is possible depending upon the location and use of structures located off the Installation. The existing water space sufficiently supports the movement and docking of large vessels for maintenance as well as clippers supporting the Coast Guard's service. A designated access corridor for arriving and departing submarines, connecting the Piscataqua River to the Atlantic Ocean, is clearly designated and protected on marine navigation charts.

### FINDING:

There is adequate supply of air and sea spaces for PNSY's needs. Land development constraints result in creative, on-base solutions and the pursuit of off-base development, as needed.

The Shipyard is approaching a time when it can no longer efficiently support the mission within the space constraints of its current fence line. Therefore, it is necessary to continue to explore locations off-base to accommodate storage, parking, and perhaps relocation of certain functions.

### CONCLUSION:

**Compatibility issues but parties are adequately addressing**



### FACTOR DESCRIPTION:

Air quality is regulated at the Federal and State level. For compatibility, primary concerns are pollutants that limit visibility and potential non-attainment of air quality standards that may limit future changes in operations.

### EXISTING CONDITION:

Due to the constrained site and the nature of operations, PNSY has limited point source air quality impacts. Most impacts are mobile sources associated with commuting workers outside the shipyard's gates.

Some of the vessel maintenance performed on the Shipyard takes place outdoors. However, PNSY is not situated within a non-attainment area and air quality does not pose significant risk to worker health. PNSY's Industrial Health and Safety Branch is tasked with issuing stringent air permits and ensuring they are current.

### FINDING:

No concerns about air quality have been raised and procedures are in place for addressing future issues.



Figure 16. Downtown Kittery congestion (Source: Bangor Daily News)

### CONCLUSION:

**Compatible (no significant finding)**



## SCARCE NATURAL RESOURCES

### FACTOR DESCRIPTION:

Valuable natural resources (oil, natural gas, minerals, water) which may be located on military installations, training areas, or on public lands used for military operations can impact land utilization and military operations. The development of renewable power generation facilities (i.e. solar and wind power) can also pose compatibility issues.

### EXISTING CONDITION:

PNSY relies solely on the Town of Kittery's water supply. If the region experiences a drought, PNSY water consumption significantly impacts town supply. PNSY has a water tank reserve on base to support its demand during these times. Climate change may also potentially impact water availability.

### FINDING:

Additional resources of water have been identified, but are not being used due to reliability and sustainability issues. Additional measures should be explored to ensure consistent adequate future water supplies.



Figure 17. York Headwaters  
(Source: David J. Murray)

### CONCLUSION:

Compatibility issues requiring further study / action



## THREATENED AND ENDANGERED SPECIES

### FACTOR DESCRIPTION:

Federal and state listed species and their habitats may be present on military installations and could include areas such as wetlands and migratory corridors. The presence of sensitive biological resources may limit the area available for operations, require special development considerations, and require mitigation plans. These and other activities required to protect threatened and endangered species may reduce the Installation's flexibility in responding and adapting to compatibility issues. Support for preservation of threatened and endangered species habitat off the Installation can lessen the pressure to preserve these areas on the Installation.

### EXISTING CONDITION:

Land within the Town of Kittery hosts 13 rare plant species. Two Habitat Focus Areas have higher concentration of at-risk species and natural communities:

- Brave Boat Harbor Gerrish Island Focus Area. This area begins 2.5 miles east of PNSY and runs along the Atlantic coast into York. Conservation actions for this area have been identified.
- York River Headwaters Focus Area. This roughly 5-square mile area lies at the intersection of Kittery, Eliot and York. Conservation actions for this area have been identified.

Environmental staff located at PNSY maintains a current list of potentially threatened or endangered species. This list is taken into consideration, particularly when performing marine work, and may impact work periods.

### FINDING:

Adequate procedures are in place for the protection of species potentially threatened by PNSY activity which may impact operation productivity.



Figure 18. Rare Species in York Headwaters Focus Area

### CONCLUSION:

Compatibility issues but parties are adequately addressing





## MARINE ENVIRONMENT

### FACTOR DESCRIPTION:

Regulatory or permit requirements protecting marine and ocean resources can cumulatively affect the military's ability to conduct operations, training exercises, or testing in a water-based environment.

### EXISTING CONDITION:

PNSY's primary function as a naval ship maintenance facility does not require scuba diving

exercises or in-water training. The Shipyard permits 3 Coast Guard Cutter ships to berth during half of the year (cumulative). No permit requirements which protect the marine and ocean resources inhibit this need. PNSY regularly coordinates to avoid conflict with mammal and fin migration periods.

Previous concern has been raised by various parties including Kittery residents and the

Seacoast Anti-Pollution League about runoff of chemicals and other maintenance-related byproducts which may enter the water. These have been formally addressed.

### FINDING:

No issues have been raised about marine protection permits impacting PNSY's operation capabilities.

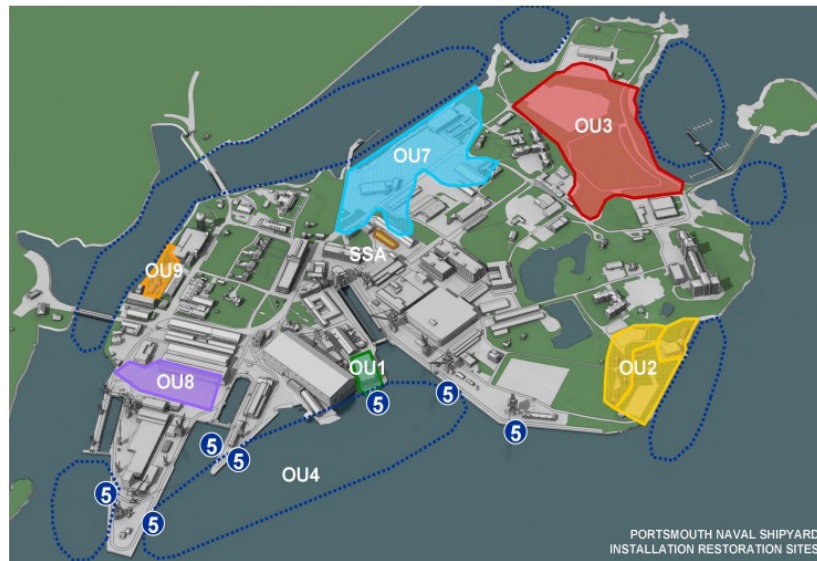


Figure 19. PNSY Installation Restoration Sites included as part of a 2016 initiative of accelerated environmental cleanup of contamination including non-hazardous materials used in shipbuilding. (Source: FY15 SECDEF EV AWARDS)

### CONCLUSION:

Compatible (no significant finding)



## WATER QUALITY AND QUANTITY

### FACTOR DESCRIPTION:

Adequate water supplies of good quality available for use by the installation and surrounding communities are necessary to ensure the continued functioning of the Installation and the continued development of the surrounding area. Adequate water supply for agricultural and industrial uses is also necessary.

### EXISTING CONDITION:

The Town of Kittery has very limited fresh-water resources. Public drinking water is sourced from York surface water resources, including Bell Marsh Reservoir, Middle Pond, Folly Pond, and Boulter Pond. These are used by the Kittery Water District and are supplemented with private residential wells for those unable to connect to public water. Two sand and gravel aquifers underlie the town. Given the existing limited fresh water resources and the uncertainty surrounding future snow and rainfall amounts related to climate change, the Installation should investigate additional fresh water resources in order to ensure that the Installation is able to continue to operate.

### FINDING:

The reliability and sustainability of the Installation's current water resources are adequate for today, but may become inadequate for meeting PNSY's future needs.



Figure 20. Bell Marsh Reservoir

### CONCLUSION:

Compatibility issues requiring further study / action



## NATURAL FEATURES

### FACTOR DESCRIPTION:

The presence of some natural features (such as various vegetative communities, geologic features, or bodies of water) can impact an installation's ability to perform its mission and thus its compatibility with its surroundings.

### EXISTING CONDITION:

PNSY is located on an island within the Piscataqua River. The island location limits the ability of the Installation to expand to accommodate changes in its mission. The river also acts as a barrier to encroachment from neighboring development. Areas around the Installation, located within the River and patrolled by security, prohibits trespassing on the island, helping to keep both military personnel and citizens safe. There are no other natural resource factors that impact the mission of the Installation.

### FINDING:

No compatibility issues have been identified.

Figure 21. Topography (Kittery Comprehensive Plan Update 2016)



### CONCLUSION:

Compatible (no significant finding)



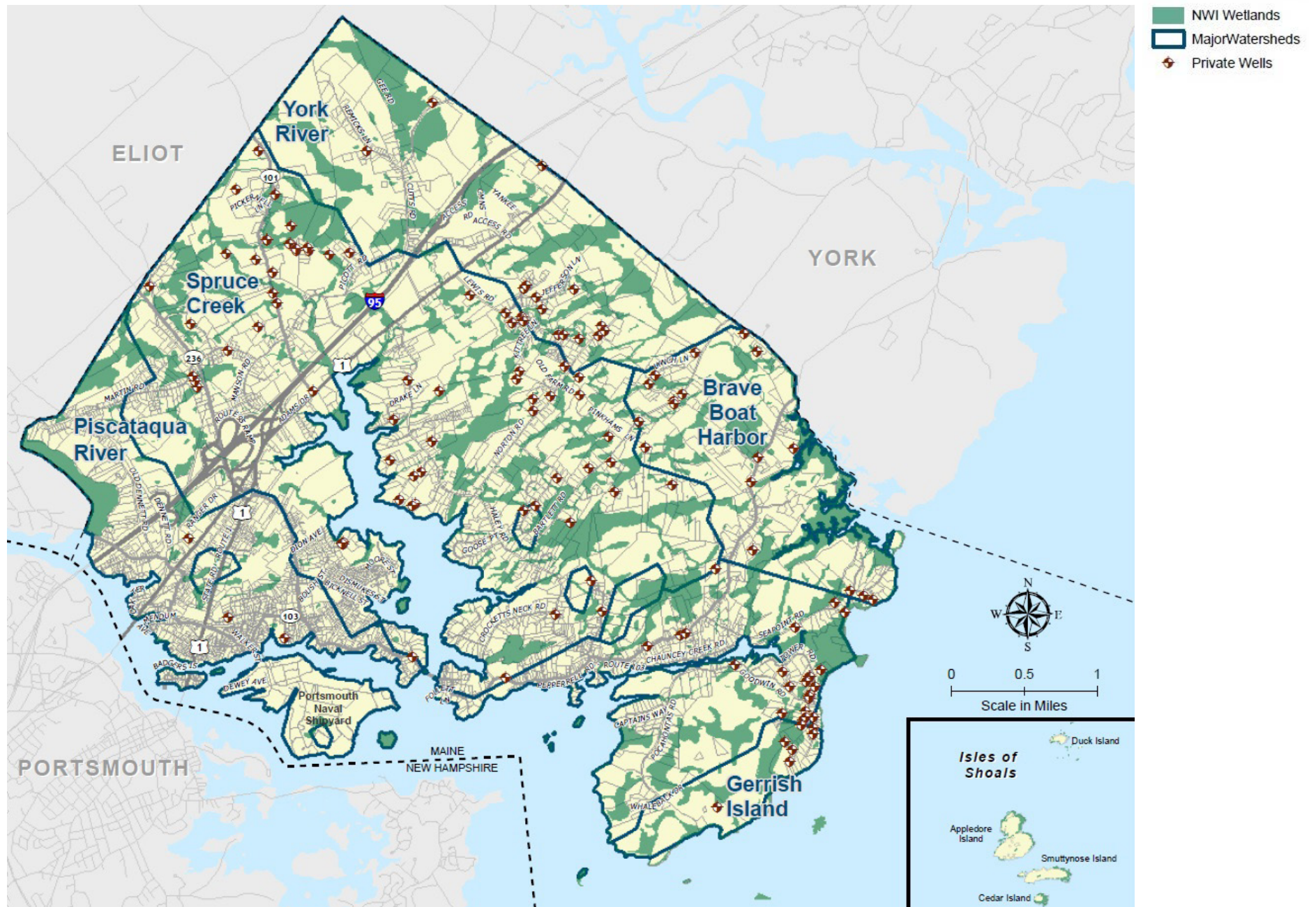


Figure 22. Water Resources (Kittery Comprehensive Plan Update 2016)



## DEVELOPMENT-RELATED FACTORS

Man-made improvements are the most common factors affecting the compatibility of a military installation with its host communities. These factors have to do with the built environment and its impact on the mission of the Installation.



Figure 23. Sarah Mildred Long Bridge Construction in 2018 (Source: Bangor Daily News)



## ROAD CAPACITY / CONGESTION

### FACTOR DESCRIPTION:

Roadway capacity relates to the ability of the existing network of freeways, highways, arterials and other local roads to provide adequate mobility and access between military installations and their surrounding communities.

### EXISTING CONDITION:

Every weekday, rolling lines of cars can be observed on Government and Walker Streets entering the shipyard before 7am and on Bridge Street, Route 1 north, and Shapleigh Road leaving the shipyard before 4pm. While the peak hours of regional traffic are mostly after these lines of cars have dissipated, any non-shipyard traveler driving in or across them will face added delays. Traffic signals cause some of this delay, but the longest queues are actually on-base as workers wait on its bridges to get on or off the island. PNSY has implemented a Transportation Incentive Program that pays for worker's vanpools and transit and promotes carpooling, walking and biking to the shipyard. As a result, PNSY has a much lower rate of driving to work than the surrounding region. Nonetheless, most workers drive, filling island parking capacity every day and often parking in private lots in Kittery's Foreside neighborhood to walk to work.

Due to the importance of this factor and stakeholder concerns, a full traffic analysis was conducted and can be found in Appendix A.

### FINDING:

Numerous issues have been identified that temporarily inhibit the movement of people heading to and from PNSY which, in turn, inhibits the movement of others traveling through Kittery.

A wide range of potential solutions can address some congestion and safety concerns, and many have been detailed in the recommendations of this JLUS. However, most solutions attempt to reduce the total volume of cars coming to PNSY by incentivizing the use of other modes and remote parking locations off-base and at regional park & rides. Working with regional stakeholders, many of the recommended solutions in this report have been successful in other regions at reducing the need to drive to military installations.

### CONCLUSION:

**Compatibility issues requiring further study / action**





## LIGHT AND GLARE

### FACTOR DESCRIPTION:

Light sources and excessive glare from development can impact the use of military night vision devices and air operations. While this factor affects military installations at night, glint and glare from solar power generation facilities can also affect pilot's vision.

### EXISTING CONDITION:

PNSY does not perform military exercises or air operations that may be hindered by light and glare.

Historically, a selection of residents within the Town of Kittery have reported occurrences of being negatively impacted by light and glare emitted by PNSY in the evening. Discussions between both parties resulted in efforts being made to reduce these impacts, when possible, without interrupting PNSY work.

### FINDING:

No significant issues of lighting have been reported relating to PNSY operations.



Figure 24. Portsmouth Naval Shipyard at night (Source: portsmouthnh.com)

### CONCLUSION:

Compatible (no significant finding)



## LOCAL HOUSING AVAILABILITY

### FACTOR DESCRIPTION:

An adequate supply of affordable housing is needed to meet the existing and future demand of the military installation and of the region. The lack of available, affordable housing in an area can impact the ability of the Installation to house military members and families as well as contractors and other installation personnel. Deficiencies in the availability of affordable housing can also exacerbate other compatibility issues, such as traffic and congestion, as personnel are forced to travel greater distances to find adequate housing.

### EXISTING CONDITION:

Of 5,198 homes in the Town of Kittery (as of 2018), 56% were owner-occupied. The median household income of \$66,000 (2018) is \$6,000 more than the York County median household income. However, the annual median income needed to afford purchasing a home in Kittery was \$101,515 (Maine State Housing Authority, 2017). The 2017 median home price in Kittery was \$350,000. As a result, 72% of Kittery households are considered unable to buy a home in Kittery. US Housing and Urban Development (HUD) identifies households that spend more than 30% of their income on housing as being “cost burdened.”

NSY Portsmouth Homes provides housing options for active duty Navy families assigned to PNSY, as well as qualified military retirees, DOD civilian employees and general public applicants. The properties available for lease include 26 on-base single-family homes, and 212 off-base single-family, attached housing units within the Admiralty Village Neighborhood. Both of these rental communities have waiting lists.

Through the portsmouthhousing.com website, shipyard employees have a number of resources for help with housing location, monetary allowances for housing costs for active service members, guidance for lease agreements, and assisting single service members with on-base room assignment and barracks protocols.

### FINDING:

A significant number of households earn significantly less than what is needed to be able to own a home in the Kittery area and many households can be considered “cost-burdened” with housing costs. In addition, the supply of homes offered through the NSY Portsmouth Homes (and depending on eligibility criteria) is unable to meet the demand.

### CONCLUSION:

**Compatibility issues identified requiring further study / action**



## ENERGY DEVELOPMENT

### FACTOR DESCRIPTION:

Energy development from oil/gas, solar, wind, geothermal and/or biofuels could pose compatibility issues related to glint, glare, vertical obstructions, or water quality and quantity.

### EXISTING CONDITION:

The State of New Hampshire is actively pursuing alternative energy sources. In the spring of 2019, an intergovernmental offshore renewable energy task force was established through the Bureau of Ocean Energy Management at the Governor's request. The purpose of the group is to investigate feasibility of offshore wind farms, which may or may not be pursued near waters in use by PNSY. The study will be conducted with a period of 1-2 years for planning, up to 5 years for site assessment, and 2-25 years for construction. No impacts to the protected marine access corridor for PNSY have been identified.

### FINDING:

No definitive energy developments with potential impact on PNSY have been identified. However, a representative from PNSY should be involved in the study to ensure that potential concerns for the Installation are addressed.



Figure 25. Offshore wind farms (Source: phys.org)

### CONCLUSION:

**Compatible (no significant finding)**





## INFRASTRUCTURE EXTENSIONS AND CAPACITY

### FACTOR DESCRIPTION:

Extension or provision of infrastructure can serve operations of the Installation by providing needed infrastructure (e.g. sanitary sewer treatment capacity and transportation systems). However, expansion of this infrastructure may encourage growth in areas incompatible with the Installation's missions.

### EXISTING CONDITION:

The replacement of the Sarah Mildred Long Bridge in 2018 was a significant undertaking that will extend its lifespan. The two-lane bridge is an essential connector on the Route 1 bypass between Portsmouth and Kittery, supporting approximately 12,000 vehicles daily, and the preferred route for many PNSY workers who funnel in from towns to the west and south of Kittery. The lift bridge overlays rail tracks to the Boston & Maine Railroad, which directly leads to PNSY. Freight is delivered to PNSY via rail.

Repairs to the I-95 high-span bridge are expected to cause delays on I-95 and divert some traffic to the Long Bridge. At this time, no known capacity constraints exist.

Regarding electricity infrastructure, PNSY relies on Central Maine for its electricity supply. In instances of temporary outage, the shipyard is able to generate power on-site through the use of a generator.

### FINDING:

No infrastructure extensions are anticipated which would have a potential impact on PNSY compatibility.

### CONCLUSION:

**Compatible (no significant finding)**

## SPECTRUM IMPEDIMENT / INTERFERENCE

### **FACTOR DESCRIPTION:**

Frequency capacity is critical for maintaining existing and future missions. Electronic signals can be impeded by structures or objects, and the inability to distribute or receive a particular frequency can be caused by the interference of a similar competing frequency.

### **EXISTING CONDITION:**

PNSY has established a spectrum management program to manage potential issues. The coastal topography of the area surrounding PNSY does not currently feature tall buildings, towers, or other structures that could potentially increase vulnerability of transmission capacity.

### **FINDING:**

No spectrum needs beyond normal civilian expectations have been reported.



Figure 26. Cell tower

### **CONCLUSION:**

**Compatible (no significant finding)**



## DUST / SMOKE / STEAM

### FACTOR DESCRIPTION:

Dust, smoke and steam have the potential to impact flight operations through reduced visibility or equipment damage. Examples of activities that produce dust, smoke, and steam of a quantity to impede military operations include: fire, agriculture, construction, or industrial activities.

### EXISTING CONDITION:

PNSY does not conduct flight operations or military exercises at the shipyard. There are no known facilities in the immediately surrounding region that generate significant quantities of dust, smoke or steam emissions as potentially damaging external equipment on-base.

### FINDING:

There are no known issues or identified activities/facilities which might contribute to a compatibility issue.



Figure 27: Modern abrasive blasting equipment and enclosures similar to these eliminate any dust from escaping PNSY facilities.

### CONCLUSION:

**Compatible (no significant finding)**





## NOISE AND VIBRATION

### FACTOR DESCRIPTION:

Noise is generally described as unwanted sound. Sound is a physical phenomenon consisting of vibrations that travel through a medium, such as air or water, and are sensed by the human ear. Sound can also be sensed by sight and touch – when it causes vibration in buildings and other objects. Unwanted sounds can be based on objective effects (such as hearing loss and speech interruptions) or subjective judgments (such as noise complaints and annoyance). Exposure to high noise levels can create a significant impact in adjacent areas.

### EXISTING CONDITION:

In 2018, PNSY conducted an Environmental Assessment for Expansion and Modification of Dry Dock 1. Construction related to this project is projected to take place from 2019-2026. The assessment was conducted in response to the National Environmental Policy Act (NEPA) and includes minimization and mitigation measures to reduce or offset adverse impacts, including noise.

Day to day work and maintenance activity on the shipyard, as well as vehicle-related noise from PNSY traffic may cause noise and vibrations that potentially impact adjacent residential neighborhoods. The Navy makes efforts to comply with noise ordinance standards established by both the City of Portsmouth and Town of Kittery. The Town's noise ordinance limits the noise that can be made between 7pm to 7am. PNSY working hours are later than 7pm and PNSY is exempt from this ordinance. However, the Installation will continue to facilitate dialogue with concerned residents to address any specific issues that may arise; the Installation makes accommodations wherever possible. These efforts include the adjustment of the timing of certain activities and the investigation of potential physical adjust-

ments to mitigate noise-generating equipment and activities. Previous efforts include requiring crane operators to adjust the angles of the crane to reduce noise and mitigation of the sound related to vehicles crossing a bridge. Future efforts include improved sound control in one of PNSY's new facilities.

### FINDING:

PNSY operations will generate varying levels of noise and vibration that might impact people and animals, however adequate measures are in place to help mitigate compatibility issues.

### CONCLUSION:

**Compatibility issues but parties are adequately addressing**



## SAFETY ZONES

### FACTOR DESCRIPTION:

Safety zones are created in areas where development should be more restricted due to higher risks of public safety. Examples of such are potential accident zones, weapons firing range safety zones, and explosive safety zones.

### EXISTING CONDITION:

PNSY's primary function as a naval ship maintenance facility does not require training or exercises that incorporate the use of higher risk weapons, such as explosives or other artillery that may impact public safety.

For submarine access along the navigational channel between PNSY and the Atlantic Ocean, conflicts with commercial shipping, as well as pleasure craft, are possible. Within the Piscataqua River, submarines are guided by tugboats and patrol vessels which help prevent conflicts. Outside of the river, standard maritime navigation and separation rules and technologies are utilized. No past conflicts have been reported.

### FINDING:

Both land and water safety zones have been defined by PNSY and adequate procedures are in place to manage their security.

### CONCLUSION:

**Compatible (no significant finding)**



## ANTI-TERRORISM / FORCE PROTECTION

### FACTOR DESCRIPTION:

The safety of the Installation's personnel, facilities, and information from outside threats is paramount. Development within the communities outside of the Installation can impact its safety and security.

### EXISTING CONDITION:

PNSY has determined adequate security measures are in place to restrict access to the Installation. These measures include guarded checkpoints at the two roadways that provide access to the Installation. The coastal topography of the area surrounding PNSY does not feature tall buildings, towers, or other structures that could potentially breach secured sight-lines.

PNSY has indicated no known compatibility issues relating to the movement of potentially threatening materials via truck on and off the shipyard.

Evacuation procedures for the shipyard are in place and are in accordance with the State of Maine standards and procedures.

### FINDING:

PNSY and Navy procedures are in place to manage the security of the Installation and its operations.

### CONCLUSION:

**Compatible (no significant finding)**





## VERTICAL OBSTRUCTIONS

### FACTOR DESCRIPTION:

Vertical obstructions, such as tall buildings, other structures (e.g. cell towers, wind turbines, drilling rigs), and other features may encroach upon military flight operations, presenting a safety hazard to both the public and military personnel.

### EXISTING CONDITION:

PNYS has no flight operations. There are no buildings in Kittery taller than four stories or in Portsmouth taller than six stories. The highest obstructions within a two mile radius are the river bridges, which exceed 100'.

### FINDING:

No existing structures are identified that may cause adverse impacts to military operations.

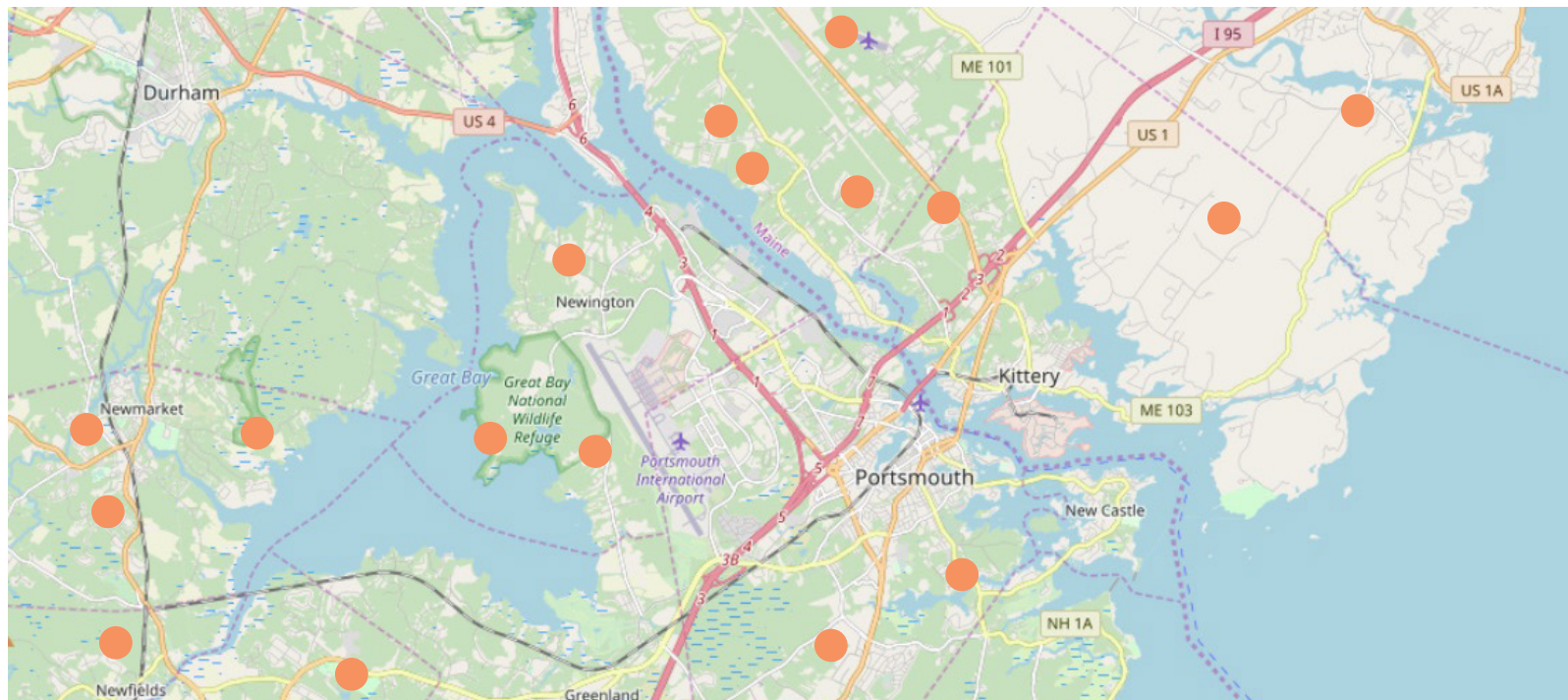


Figure 28. Location of cell towers in relation to PNSY (Source: cell-mapper.net)

### CONCLUSION:

**Compatible (no significant finding)**



## LAND USE

### FACTOR DESCRIPTION:

Local jurisdictions' comprehensive growth policy plans and zoning ordinances can be the most effective tools for avoiding or resolving compatibility issues where the use of one property may impact the use of another (e.g. noise).

### EXISTING CONDITION:

PNSY is indicated as an Industrial area with a surrounding overlay zone of Shoreland – Water Body / Wetland Protection Area and Stream Protection Areas. All abutting areas are zoned for lower density residential or mixed-use development. A business park zone west of I-95 and commercial zones along Route 1 allow uses that are more compatible with shipyard operations

Historically, challenges have arisen as PNSY has pursued the re-zoning of certain areas to support their work. Given its proximity to established neighborhoods, it is unlikely that any shipyard operations can be moved off of Seavey Island to locations in nearby neighborhoods zoned for residential and mixed-use.

### FINDING:

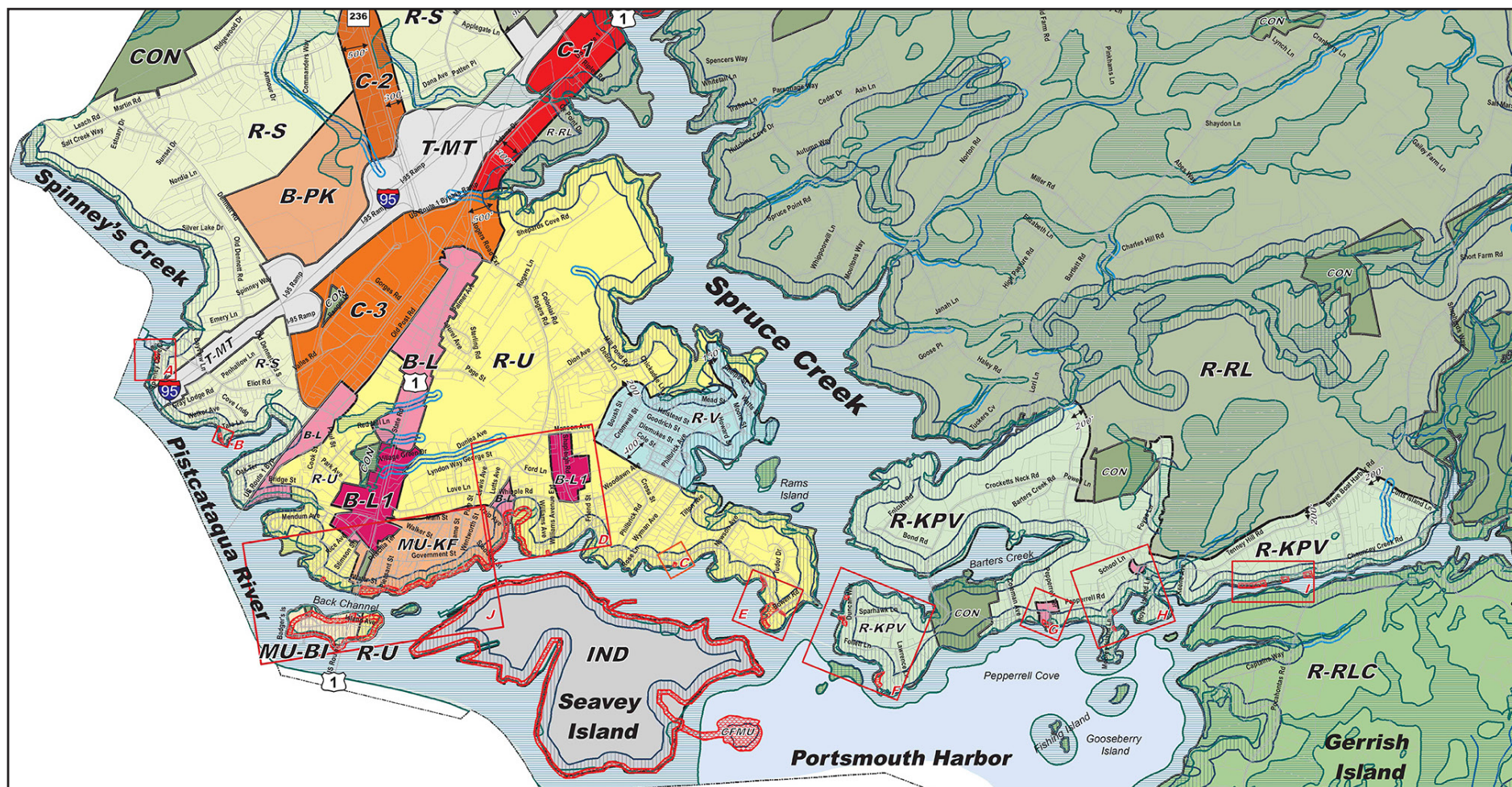
Some PNSY housing is off-base today, but as space constraints on Seavey Island limit shipyard growth, additional uses such as administrative and office functions can only be accommodated remotely.

### CONCLUSION:

**Compatibility issues identified requiring further study / action**



Figure 29. Town of Kittery Land Use Zoning Map (Source: Town of Kittery)



### Base Zones

Residential - Village (R-V)	Commercial 1 (C-1)	Mixed Use - Kittery Foreside (MU-KF)
Residential - Urban (R-U)	Commercial 2 (C-2)	Mixed Use (MU)
Residential - Kittery Point Village (R-KPV)	Commercial 3 (C-3)	Mixed Use - Badgers Island (MU-BI)
Residential - Suburban (R-S)	Industrial (IND)	Conservation (CON)
Residential - Rural (R-RL)	Business - Local 1 (B-L1)	Transportation - Maine Turnpike (T-MT)
Residential - Rural Conservation (R-RLC)	Business - Local (B-L)	
	Business - Park (B-PK)	

### Overlay Zones

- Resource Protection (OZ-RP)
- Shoreland - Water Body / Wetland Protection Area (OZ-SL-250')
- Shoreland - Stream Protection Area (OZ-SL-75')
- Commercial Fisheries / Maritime Uses (OZ-CFMU) are located within the upland area 75 feet of the normal high-water line or to the property boundary line as identified on the Zoning Map.



# 4. RECOMMENDATIONS



Based on the compatibility analysis, and informed by public and worker outreach, survey results, and stakeholder input, the following recommended strategies were developed and reviewed by the Policy Committee and its Working Group in the fall of 2019. These strategies were developed to address each of the identified areas of **significant** incompatibility. The vast majority of strategies were developed for the factor of greatest concern to all parties—roadway capacity and congestion—because the analysis demonstrated that no single strategy would solve all identified






problems. Kittery, PNSY, and the region have already addressed many traffic concerns over the years and implemented many valuable strategies to lessen the PNSY's transportation impacts. However, by working in partnership through this JLUS, many more strategies have been found which might improve compatibility—mostly by incentivizing the use of alternatives to the single-occupant-vehicle. Many proposed strategies require multiple parties to work cooperatively in order to accomplish the intended result.

These strategies have been organized in two categories: *catalytic* and *supportive*. Catalytic strategies are those which scored the highest on a qualitative rating system measuring potential benefits to congestion, travel safety, infrastructure capacity, interjurisdictional coordination and communications, local housing availability, environmental resilience, and the economy. Each catalytic strategy is followed by related supportive strategies. A suggested implementation plan for these strategies—including an early action plan—is included.





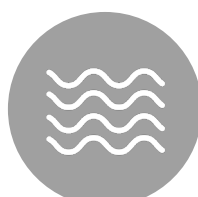


Prioritization and Solution Exercise of Key Issue Areas from June 2019 Public Open House

# KEY ISSUE STRATEGY AREAS EXPLAINED

Compatibility Factor(s)	Key Issue Area	Description
Road Capacity/ Congestion	 <b>TRAFFIC AND TRAVEL SAFETY</b>	<p>This issue relates to the safety of PNSY workers, contractors, and persons making deliveries as they travel to and from the shipyard and interact with the public also utilizing roads within the JLUS study area.</p>
Road Capacity/ Congestion	 <b>CONGESTION</b>	<p>This issue relates to potential time periods and locations of congestion that impact PNSY workers, contractors, and persons making deliveries being able to access the shipyard, as well as potential impact on the public also utilizing roads within the JLUS study area.</p>
Road Capacity/ Congestion	 <b>TRANSIT</b>	<p>This issue relates to the extent, frequency and convenience of transit service available to all PNSY workers to allow them the options of commuting to the shipyard without driving.</p>
Road Capacity/ Congestion	 <b>PARKING</b>	<p>This issue relates to the supply, demand, pricing, and regulations of parking provided on and off base for PNSY worker utilization and how it impacts parking availability for residential/public use in the study area.</p>
Road Capacity/ Congestion	 <b>BIKING AND WALKING</b>	<p>This issue relates to availability of facilities and how comprehensive the existing bicycle and walking networks are in order for PNSY to realistically use alternative modes to access the shipyard.</p>



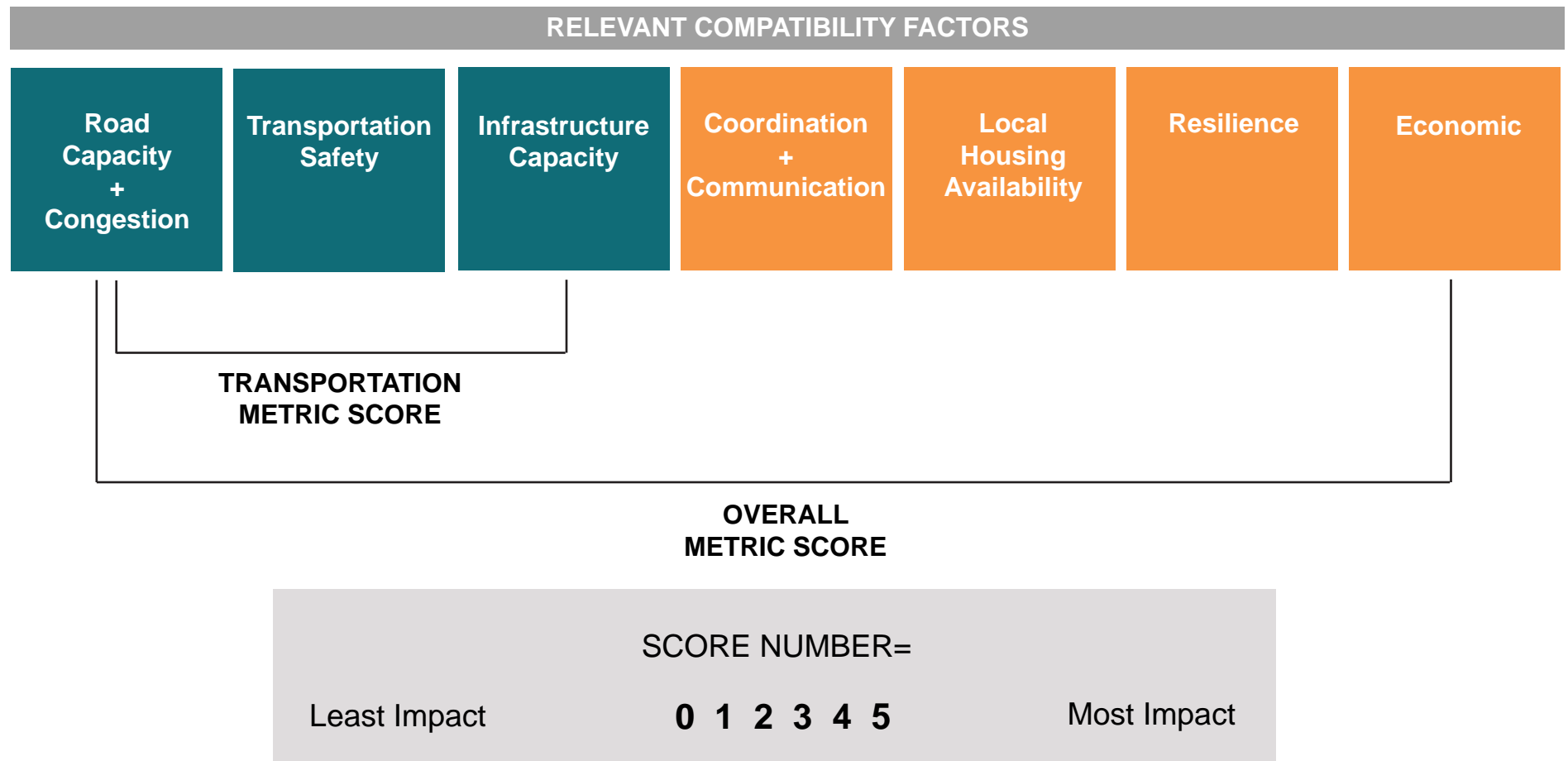
Compatibility Factor(s)	Key Issue Area		Description
Local Housing Availability Land Use		<b>HOUSING</b>	This issue relates to the provision of housing that is both affordable and within a reasonable distance from the shipyard to accommodate PNSY workers, reduce travel time and traffic volumes and congestion through the town of Kittery.
Coordination + Communication		<b>REGIONAL COORDINATION</b>	This issue relates to increasing communication and planning channels across town, county and state borders to identify and utilize shared assets and resources, and to collaborate more efficiently for long-term planning.
Coordination + Communication		<b>COMMUNICATIONS</b>	This issue relates to the transparency and transmission of information among PNSY, the Town of Kittery, and the greater Southern Maine and Northeastern New Hampshire regions which can influence shared impacts and may contribute to a strengthened and unified planning approach for various areas.
Land Use		<b>ECONOMIC RESILIENCE</b>	This issue relates to PNSY's significant contribution to the local, regional and state economies and how they may increase diversified economic opportunities.
Scarce Natural Resources Water Quality + Quantity Resilience Natural Features		<b>ENVIRONMENTAL</b>	This issue relates to considerations of extreme weather events and anticipated change in environmental conditions (particularly regarding sea level rise) and how their predicted impact should be prepared for in order for PNSY operations to continue its mission without interruption.

# COMPATIBILITY SCORES EXPLAINED

A scoring system was developed for the following strategies to

- 1) identify their level of impact on factors in context of transportation-related compatibility factors and impact in context of key compatibility factors on the whole, and
- 2) establish a tool for those who will be responsible for implementing recommendations from this JLUS to aid in prioritizing strategies and action items.

The scores were defined based on analysis of both qualitative and quantitative supporting data related to the particular topic, and were further refined through discussion with both the Policy Committee and Working Group.











## CATALYTIC STRATEGY

### WALKING AND BIKING SAFETY SIGNS



#### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	5	2	1	1	1	2

#### COMPATIBILITY SCORE ANALYSIS

Improvements for biking and walking can encourage greater use of those modes to PNSY, both for workers who live locally and walk/bike from home, or those who walk/bike from remote parking.

This strategy removes conflicts and increases bike/pedestrian visibility, significantly improving safety for all modes. There is a strong correlation between bike safety and measures that encourage slower vehicle speeds, particularly in areas where there is a lack of formal infrastructure.

## COMPATIBILITY NEEDS

There are several areas identified throughout downtown Kittery that are particularly unsafe for bicyclists and pedestrians. Cars have been reported as speeding through crosswalks, and poor sight-lines (such as along Rogers Road) making it challenging for pedestrians to cross safely. Other areas are lacking in pedestrian and bicycle infrastructure to support safe movement.

Wide, straight roads (such as the Bypass) directly equate to speeding vehicles, so improvements to the roads that create a narrowing effect at strategic areas will lead to reduced speeds. These improvements may include bumpouts, speed bumps, and other built improvements (in combination with improved signage) to boost the visibility of existing crosswalks and discourage high vehicle speeds.

## RECOMMENDATIONS

- Curb extensions
- Lane narrowing
- Parking chicanes
- Yield signing and markings



## ACTION AND IMPLEMENTATION STEPS



1. Identify priority areas
2. Conduct a safety study
3. Conduct temporary improvements through a pilot project to gauge impact
4. Implement permanent traffic and safety calming measures

## POTENTIAL FUNDING RESOURCES



1. Kittery Area Comprehensive Transportation System (MPO)
2. Community Development Block Grant (CDBG)

## RESPONSIBLE PARTIES

Initiate - Town of Kittery

Support - MaineDOT





## SUPPORTING STRATEGY INCREASE SPEED AND SAFETY ENFORCEMENT



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
3	4	2	3	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Increases in police enforcement and/or visibility of police presence can support the key issue area of “travel and traffic safety” by discouraging speeding vehicles and unsafe driving behavior that puts people at risk. This in turn makes walking and biking safer and more inviting, while establishing a clear message that safety is paramount to Kittery and PNSY.



## COMPATIBILITY NEEDS

Kittery Police Department currently has 9 full-time patrol officers (including 1 motor officer and 1 bicycle officer) that patrol a total area of approximately 75 square miles. The Department receives approximately 20,000 dispatch calls for services including traffic stops.

Driving conditions in downtown Kittery during PNSY rush periods can perpetuate frustration and often lead to vehicles speeding or dismissing crosswalk markings in order to make up for time lost while waiting at red lights or during peak congestion periods. Daily police presence at these hotspots can deter these problems, however it is not a sustainable solution. This strategy should be investigated in partnership with Strategy No.1 Local Safety and Traffic Calming.

## RECOMMENDATIONS

- Random spot enforcement
- Warning signage
- Advisory warnings before tickets



## ACTION AND IMPLEMENTATION STEPS



1. Meet with Kittery Police Department to review data on speeding tickets and speed-related crashes, and identify locations needing particular attention
2. Determine Police staffing capabilities and limitations
3. Develop a long-term approach using a combination of strategies to address identified locations
4. Conduct periodic reviews to evaluate effectiveness

## POTENTIAL FUNDING RESOURCES



1. Town of Kittery

## RESPONSIBLE PARTIES

Initiate - Town of Kittery

Support - Kittery Police Department



## SUPPORTING STRATEGY WALKING AND BIKING SAFETY SIGNS



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	4	1	1	1	2	1

### COMPATIBILITY SCORE ANALYSIS

Increasing the consistency and frequency of warning signage supports the “travel and traffic safety” issue area by using visual cues to reinforce cautionary driving in areas that are particularly vulnerable to pedestrians and bicyclists. This in turn encourages more walking and biking.



## COMPATIBILITY NEEDS

Areas along some roads in Kittery (particularly on Rogers Road and Wentworth Street) feature winding geography that may limit sight-lines and make it more challenging for vehicles to recognize pedestrian crosswalks ahead of time and exercise appropriate caution.

Currently a MaineDOT-contracted project is underway along State Route 103 (Walker Street and Wentworth Street) for pedestrian facility, access management, safety, and traffic signal improvements. This project is in final preliminary design stage. In addition to improved signage, improvements will include: traffic signal upgrades, new crosswalks, improvements to existing crosswalks, and addition of ADA-compliant ramps and Detectable Warning Surfaces (DWS). In combination, these should significantly improve the safety of pedestrians and cyclists, as well as driver awareness. Other areas in town could benefit from similar improvements.

## RECOMMENDATIONS

- Crosswalk signs
- Advanced yield signs and marking
- Neighborhood gateway signs
- Bike in road signs
- Narrower lane markings



## ACTION AND IMPLEMENTATION STEPS



1. Conduct a needs assessment to identify areas of particular vulnerability to pedestrians
2. Implement a pilot project of temporary improvements until funding for permanent improvements can be secured
3. Evaluate effectiveness of the pilot and refine the approach, if necessary
4. Implement permanent improvements
5. Continue to monitor these areas

## POTENTIAL FUNDING RESOURCES



1. MaineDOT Bicycle and Pedestrian Program Funding

## PRIMARY RESPONSIBLE (JLUS) PARTY

Town of Kittery





## SUPPORTING STRATEGY CLEAR TRUCK ROUTE SIGNAGE



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
1	3	1	2	1	2	1

### COMPATIBILITY SCORE ANALYSIS

Increases in consistency and frequency of truck route signage supports “travel and traffic safety” by discouraging PNSY-bound trucks from using local roads as a bypass which don’t feature sufficient road width or pedestrian infrastructure to ensure safety for all modes. Installing signage to direct trucks well in advance of intersections nearest the gates can also reduce potential congestion by preventing trucks from having to make U-turns or circle through town to get back on route if they are unfamiliar with appropriate access points for PNSY.

## COMPATIBILITY NEEDS

PNSY is supported by approximately 2,000 contractors (per week), many of which arrive via larger service vehicles. In addition, vendors make regular deliveries to the shipyard via truck/tractor-trailer. All trucks must undergo safety inspections, which take place outside of Gate 1 and queue along the rail spur.

Some conflicts have been identified with large truck movement in Kittery, including trucks hopping curbs because of small turning radii, and temporary backups generated partially by trucks trying to make unprotected left-turn movements while trying to bypass traffic or if their intended gate is closed.

A sign placed along Walker Street just prior to its intersection with Wallingford Street directs Navy Yard deliveries, contractors and vendors to turn left. A comprehensive truck signage program that specifically directs PNSY-dedicated vehicles as they enter Kittery from regional access points, is currently not in place. Without direction, some trucks may take spontaneous shortcuts through various side roads in order to avoid perceived backups.

## RECOMMENDATIONS

- Signing program
- Website maps
- Outreach to trucking navigation sites



## ACTION AND IMPLEMENTATION STEPS



1. Meet with PNSY to identify service needs (i.e. projected volumes) requiring trucks, clarify required truck checkpoint/inspection procedures
2. Identify appropriate routes from regional connectors into Kittery that most efficiently and safely lead large vehicles to the gates and checkpoint areas
3. Create a formal map of designated truck routes
4. Install signage to support the designated routes
5. Distribute the map through all channels that may use trucks for entering PNSY

## POTENTIAL FUNDING RESOURCES



1. Town of Kittery
2. PNSY

## RESPONSIBLE PARTIES

- Kittery Area Comprehensive Transportation System (KACTS)
- Town of Kittery



## CATALYTIC STRATEGY

### EXPAND CAR/VANPOOL PRICING INCENTIVES



#### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	2	5	2	1	1	1

#### COMPATIBILITY SCORE ANALYSIS

Improving incentives not only for car/vanpool drivers who use their personal cars, but participants of all alternative modes (including for those who bike or walk to work), can encourage greater participation in rideshare options to PNSY. In turn, local congestion can be greatly reduced as less single-person vehicles contribute to daily traffic volumes. Cash incentives are typically the most effective in encouraging a change of mode by employees, although some regional programs offer other rewards.



## COMPATIBILITY NEEDS

PNSY has observed a significant shift in the past few decades from workers arriving mostly in shared vehicles to now arriving mostly via single-person vehicles. Nonetheless, PNSY has the lowest drive-alone rates in the region and seeks to further improve them. The federal government offers a monthly subsidy for federal civilian employees who participate in car/vanpools as a commuting option.

PNSY currently hosts approximately 63 vanpools, in addition to 50 HOV parking spaces allocated on the shipyard for vehicles of 3+ people. These spaces are located in priority areas to incentivize use even further.

Available vanpools are advertised in Periscope and the PNSY monthly newsletter. PNSY also utilize multiple mediums and platforms to promote use and has a specific point of contact for interested participants. In spite of this, some employees surveyed as part of the JLUS project said they were unaware of the TIP program. Similarly, while contractors are not eligible for the TIP program, they do not participate in or are not aware of GO MAINE rideshare programs available to their respective employers.

JLUS PNSY survey takers voiced the desire for vanpools with extended hours outside of primary production (7:00am-3:30pm). Some also vocalized that the limited availability of child care facilities on base (or restricted eligibility) require them to use off-site daycare, making it difficult to participate in a shared ride option.

## RECOMMENDATIONS

- Expand TIP offerings
- Utilize modern software programs
- Consider cash-equivalent perks

# Vanpool Options

## ACTION AND IMPLEMENTATION STEPS



1. Survey employees to understand the most significant gaps hindering participation in ride share.
2. Identify process and options for potential new TIP offerings (e.g. investigate payout incentive for those who turn in their parking permits in order to take an alternative mode)
3. Establish periodic (annual, semi-annual) “open-enrollment” and require employee participation to confirm understanding of alternative transportation options
4. Periodically evaluate participation and identify new influencing factors, if any

## POTENTIAL FUNDING RESOURCES



1. PNSY

## RESPONSIBLE PARTIES

Initiate - PNSY

Support - Dept. of Navy / Dept. of Defense



## SUPPORTING STRATEGY STAGGERED WORK SHIFTS / TELEWORK OPTIONS

Team	Days 1-7	Days 8-14	Days 15-21	Days 22-28	Hours	Shifts
Team 1					168.0	Day Shift (8 Hrs) 7:00 AM-3:00 PM
Team 2					168.0	Swing Shift (8 Hrs) 3:00 PM-11:00 PM
Team 3					168.0	Night Shift (8 Hrs) 11:00 PM-7:00 AM
Team 4					168.0	
Hours	168.0	168.0	168.0	168.0	672.0	



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
4	3	3	3	1	1	2

### COMPATIBILITY SCORE ANALYSIS

Increasing the number of shift times for PNSY workers would help distribute the current demand of traffic along a broader period of time and reduce congestion at current worker peak periods. Less congestion equates to time saved during commutes. This may lead to increased flexibility of workers traveling schedules which may allow for the use of other modes besides a single-person vehicle.

## COMPATIBILITY NEEDS

Responses from the PNSY survey for this JLUS voiced strong interest in investigating an expansion of existing telework options to further stagger worker shifts. Specific groups or areas where this might be feasible have not been identified however initial perceptions are that there is a limited number of jobs which would be feasible for teleworking. PNSY vice PNSY Commander has voiced interest in continuing to identify opportunities where some functions may be relocated off of the shipyard, as well as in securing new locations to support them.

## RECOMMENDATIONS

- Explore expanding existing staggered shift programs
- Further explore expansion of telework opportunities for eligible employees
- Pilot expanded program



Source: Navsea

## ACTION AND IMPLEMENTATION STEPS



1. Categorize various group/department shift periods as either flexible or inflexible
2. Investigate cost and timeline for adjusting flexible areas to improve overall efficiency
3. Carry out a pilot period with proposed changes
4. Conduct periodic evaluations to gauge effectiveness and need for further adjustments

## POTENTIAL FUNDING RESOURCES



1. PNSY

## RESPONSIBLE PARTY

PNSY





## SUPPORTING STRATEGY

### TRAFFIC SIGNALS NEAR THE GATE



#### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
4	3	1	1	1	1	1

#### COMPATIBILITY SCORE ANALYSIS

Adding a traffic signal to reduce confusion between turning lanes and through traffic adds clarity for crossing pedestrians. These improvements don't necessarily incentivize the use of shared modes however, and may actually increase drive-alone rates.

## COMPATIBILITY NEEDS

Intersection enhancements may include peak hour direction changes. Turning movement volumes at the intersection of Woodlawn Ave and Shapleigh Road particularly warrants some level of signal control. Additional turning lane improvements might also be warranted.

## RECOMMENDATIONS

- Traffic counts; warrant analysis
- Interim striping improvements
- Slip lane/turn pocket
- Potential signalization
- Have Kittery Area Comprehensive Transportation System (KACTS) conduct turning movement counts for a signal warrant analysis



## ACTION AND IMPLEMENTATION STEPS



1. Conduct a signal warrant analysis (including turning movement counts)
2. Identify level of improvement through addition of potential slip lane
3. Develop a striping plan
4. Conduct further evaluation for signalization needs

## POTENTIAL FUNDING RESOURCES



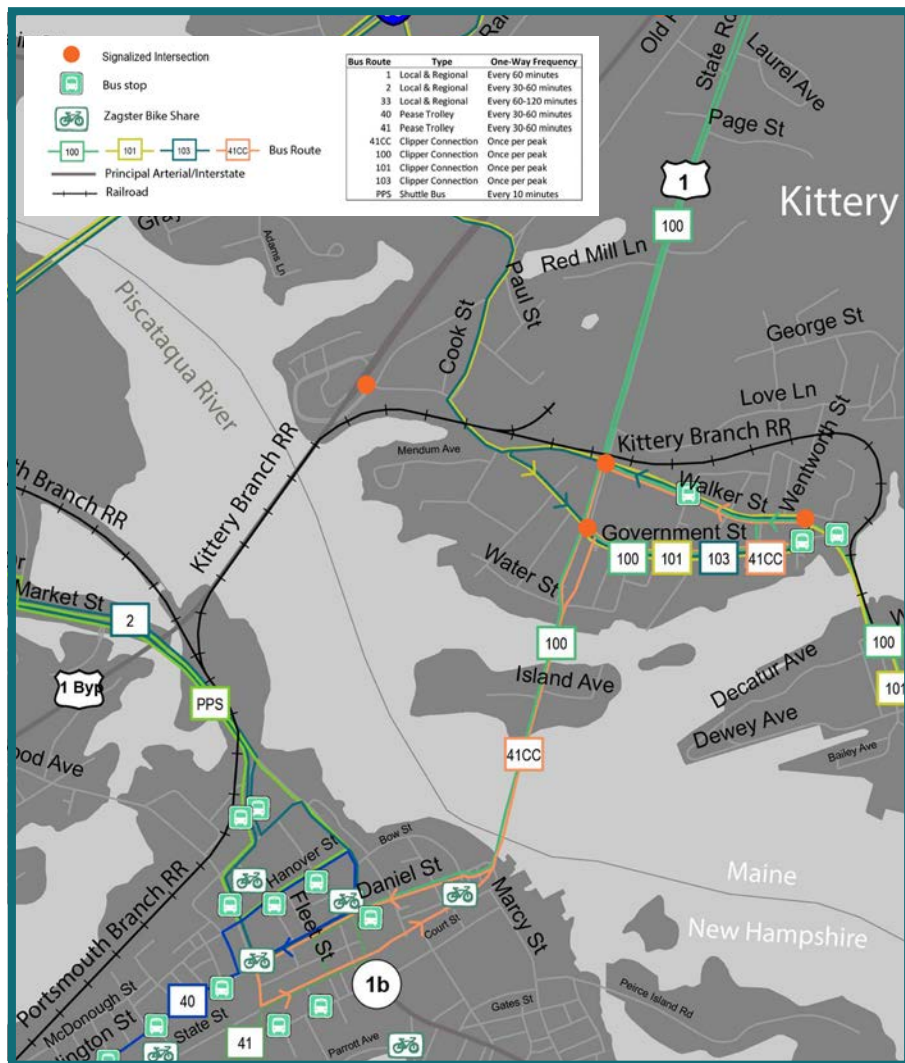
1. MPO (turning movement counts)
2. Community Development Block Grant (CDBG)
3. Kittery Area Comprehensive Transportation System (KACTS)

## RESPONSIBLE PARTY

Town of Kittery



## SUPPORTING STRATEGY BUS-ONLY LANE ALONG WALKER STREET



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	2	4	1	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Improving measures which would allow for free-flow of buses to bypass other vehicle traffic (i.e. decreased overall time on a route) may incentivize some PNSY drivers to consider taking transit as a commuting alternative. However, delay would only be reduced in the Kittery area which forms a small percentage of overall transit routes.



## COMPATIBILITY NEEDS

COAST has experienced a significant decline in ridership in recent years. Three of its standard routes provide service near PNSY and have a generally consistent number of PNSY riders. Its Clipper Connection park and ride transit service ridership is particularly low, however, in spite of providing direct service to PNSY and rides being subsidized through the Transportation Incentive Program (TIP). Passengers boarding at PNSY Gate 1, for example, are as low as 2 people on a typical day, with a ridership high of 14 passengers boarding at the Central Avenue park and ride in Dover.

Currently, roads nearest the shipyard are only two lanes wide, meaning that riding the bus instead of driving a single car does not provide benefits of bypassing typical vehicle traffic and congestion points. This leads to doubt about reliability (i.e. arrival/departure times) of the service schedule for riders who may have strict time commitments outside of PNSY shift hours.

## RECOMMENDATIONS

- Removal of on-street parking
- Striping with periodic stanchion separators
- Periodic enforcement
- Monitor and evaluate permanent colored asphalt



## ACTION AND IMPLEMENTATION STEPS



1. Town work with COAST to develop a pilot project
2. Town work with stakeholders to evaluate needs
3. Evaluate success of the project and refine
4. Analyze enforcement needs

## POTENTIAL FUNDING RESOURCES



1. Kittery Area Comprehensive Transportation System (KACTS) Transportation Improvement Program (TIP) funding

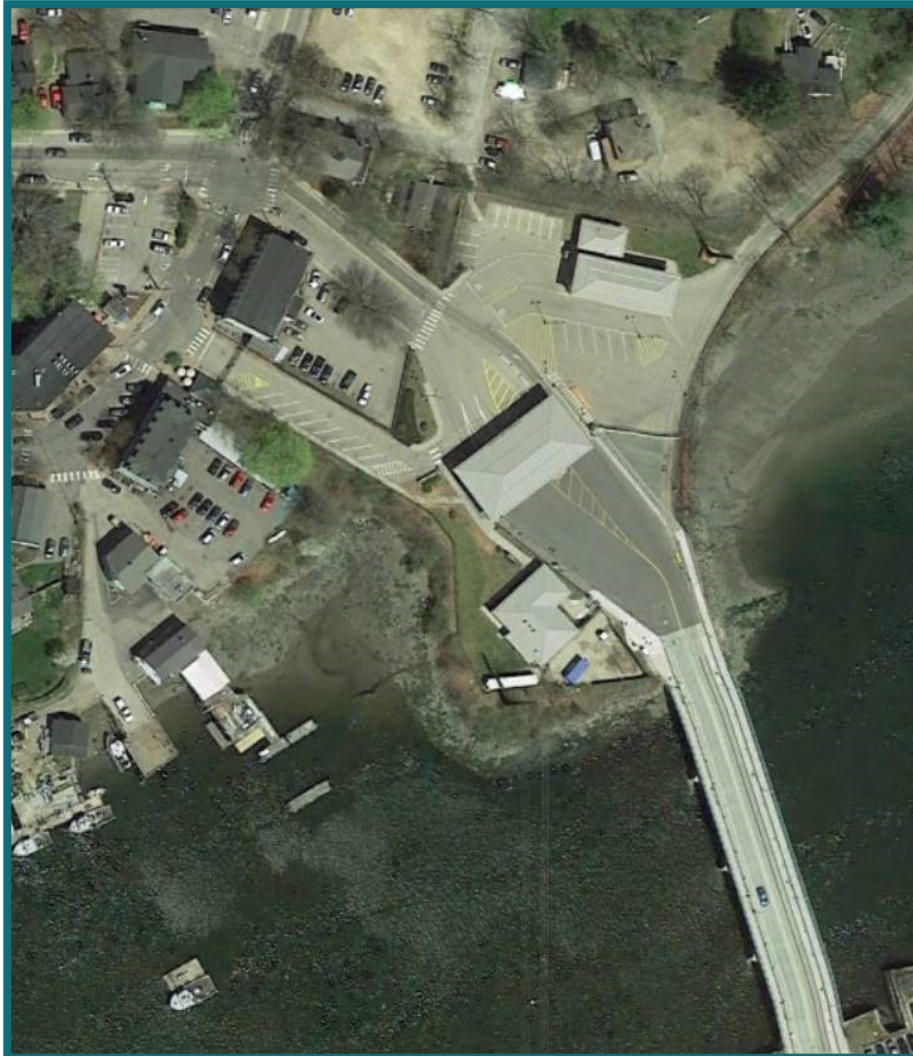
## RESPONSIBLE PARTIES

Initiate - Town of Kittery

Support - COAST  
Stakeholders



## SUPPORTING STRATEGY GATE EFFICIENCY SOLUTIONS



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
4	2	2	1	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Improving measures which allow for more consistent flow of buses dropping off workers near PNSY gates would have an impact on reduced congestion at the nearest intersections of Walker/Wentworth and Woodlawn/Shapleigh. This may improve local safety for all modes however doesn't encourage large shifts towards using other modes and may actually increase single-car driving. This strategy also does not take into account congestion issues within the gates which may have an impact outside of the gates.

## COMPATIBILITY NEEDS

Currently, peak time access to PNSY's gates is as follows:

GATE 1 (three inbound lanes, two outbound lanes)

Entry permitted: 24/7 unless closed for specific situations (e.g. Kittery Holiday Parade)

GATE 2 (three inbound lanes, two outbound lanes)

Entry permitted: 5:00am - 7:30am Departures: 2:30pm - 5:00pm

Procedures relating to how guards check identification and vehicle permits have been established for overall safety of the installation and are at the discretion of the Navy. The checkpoint process does, however, contribute to peak-travel bottlenecks both inside and outside the gate for a variety of reasons, including:

- Time spent per vehicle is inconsistent (e.g. some drivers may not be prepared with their identification; some vehicles may be turned away for various reasons and must maneuver a U-turn to immediately exit)
- Access times aren't entirely in sync with when workers wish to arrive or leave
- Buses must undergo checks of all persons on-board without having priority or fast-access through the gates
- Inconsistency in number of lanes in operation
- Only 1 gate being in operation for 'second shift'

In spite of potential gate-specific improvements, backups caused by on-shipyard vehicle traffic patterns and street design/configurations limit their overall ability in making an impact in off-shipyard congestion.

## RECOMMENDATIONS

- Additional personnel
- Modified inspection procedures
- New inspection facility

## ACTION AND IMPLEMENTATION STEPS



1. Identify elements of the current gate checkpoint process which are flexible
2. Investigate cost and timeline for adjusting where possible areas to improve overall efficiency
3. Create a prioritized list of improvements based on feasibility
4. Secure funding and support (extra staff if possible) to implement
5. Conduct periodic evaluations to measure effectiveness based on overall congestion and flow, and further adjust, as needed

## POTENTIAL FUNDING RESOURCES



1. Navy

## RESPONSIBLE PARTY

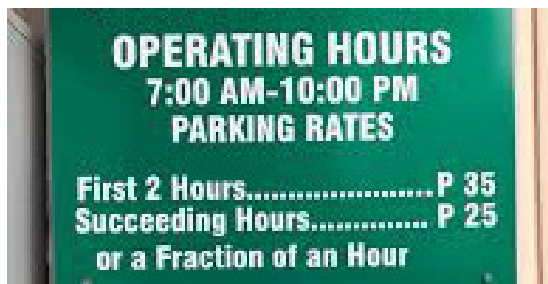
PNSY





## SUPPORTING STRATEGY

### CONTROLS ON CONTRACTOR PARKING AND ACCESS



commuteSMART



S E A C O A S T

### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
3	2	3	2	1	1	2

### COMPATIBILITY SCORE ANALYSIS

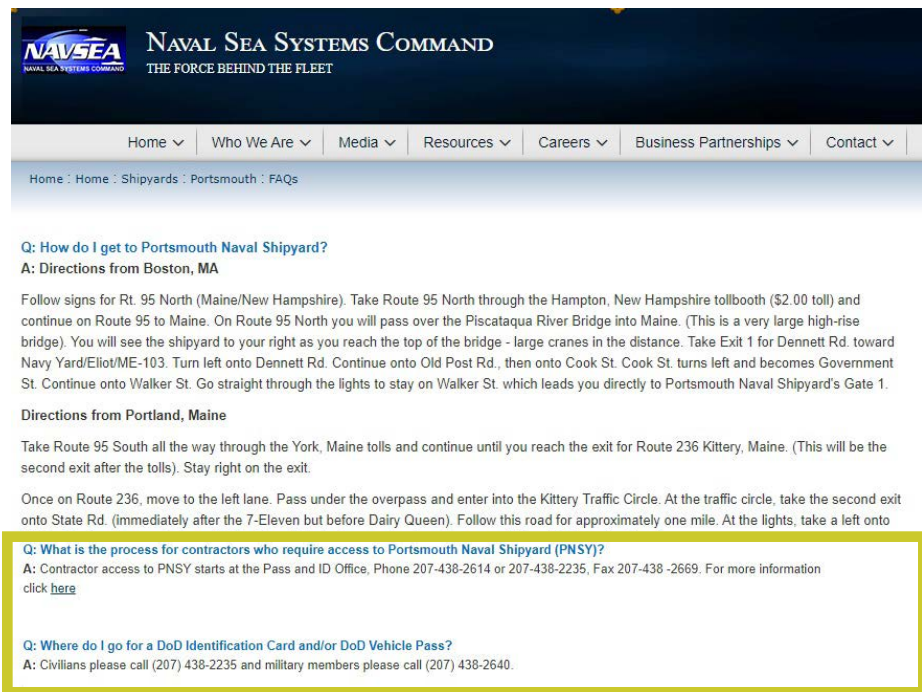
Increasing flexibility that allows contractors to arrive and depart at times different than standard, non-PNSY worker shifts may improve traffic congestion at PNSY peak periods, however contractors who arrive or leave later may contribute to standard local peak traffic periods. In addition, contractors who arrive after workers may be at a disadvantage in securing available parking on base and increase overall time spent arriving or departing from the shipyard.

## COMPATIBILITY NEEDS

Responses from the PNSY survey for this JLUS voiced strong interest in investigating designated periods for contractors to access PNSY gates off-peak from when PNSY employees are trying to enter. Contractors may have more flexibility in times when they are able to perform their work in relation to established worker shifts. In-person interviews with contractors also revealed that gate access process can be inconsistent and varies by gate or personnel.

## RECOMMENDATIONS

- Negotiate contractor terms
- Provide information and signing
- Evaluate penalties
- Establish consistent and clearly-defined gate procedures



The screenshot shows the Naval Sea Systems Command (NAVSEA) website. The header includes the NAVSEA logo and the text "NAVAL SEA SYSTEMS COMMAND THE FORCE BEHIND THE FLEET". Below the header is a navigation menu with links: Home, Who We Are, Media, Resources, Careers, Business Partnerships, and Contact. A breadcrumb trail reads: Home : Home : Shipyards : Portsmouth : FAQs. The main content area features a question: "Q: How do I get to Portsmouth Naval Shipyard?" followed by an answer: "A: Directions from Boston, MA". The answer provides detailed driving instructions from Boston, MA, including Route 95 North, the Piscataqua River Bridge, and Exit 1 for Dennett Rd. It also includes directions from Portland, Maine, and a link to a page about contractor access. A yellow box highlights the contractor access information, which includes a question: "Q: What is the process for contractors who require access to Portsmouth Naval Shipyard (PNSY)?" and an answer: "A: Contractor access to PNSY starts at the Pass and ID Office, Phone 207-438-2614 or 207-438-2235, Fax 207-438-2669. For more information click [here](#)". Another question is visible: "Q: Where do I go for a DoD Identification Card and/or DoD Vehicle Pass?" with an answer: "A: Civilians please call (207) 438-2235 and military members please call (207) 438-2640."

## ACTION AND IMPLEMENTATION STEPS



1. Identify elements of the current contractor gate/checkpoint process which are flexible
2. Investigate cost and timeline for adjusting flexible areas to improve overall efficiency
3. Create a prioritized list based on feasibility and implement
4. Secure funding and support (staff) to implement
5. Conduct periodic evaluations to gauge effectiveness and need for further adjustments

## POTENTIAL FUNDING RESOURCES



1. PNSY

## RESPONSIBLE PARTIES

Initiate - PNSY

Support - Contractors and their organizations



## SUPPORTING STRATEGY REAL-TIME GATE ACTIVITY ALERTS



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	2	1	3	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Providing a way for PNSY drivers to be informed with real-time information about delays and backups at the gates may contribute to the alteration of routes by some drivers (and potential decrease of congestion at certain areas), however wouldn't likely have impact when workers make their decision for how to travel to the shipyard.



## COMPATIBILITY NEEDS

Currently there are no existing PNSY or Town of Kittery-managed real-time platforms for sharing public information on traffic backups or estimated delay times at the gates.

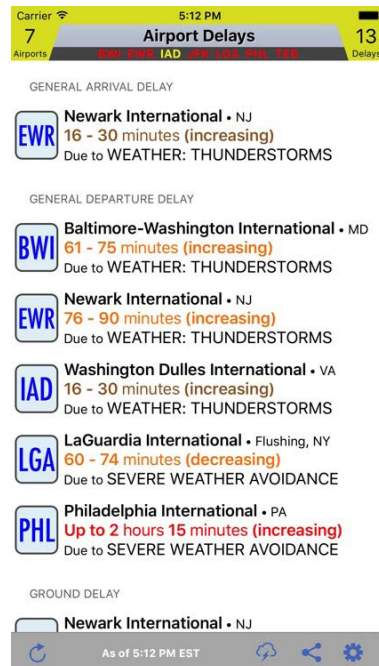
Google Maps provides live traffic conditions, however many drivers to PNSY select their routes towards the checkpoint gates based on perceived traffic as viewed from vantage points along I-95, and either the Sarah Mildred Long or Memorial Bridges. Avoidance of perceived backups persuades drivers to pursue spontaneous, alternate routes, which can lead to unsafe driving conditions.

Platforms such as the Waze app allow drivers on a route to notify on-coming drivers of various conditions however can't provide a thorough and reliable picture of overall conditions.

Airports are an example of facilities that host internally-developed apps for the public to be able to track traffic access/delays.

## RECOMMENDATIONS

- Video detection cameras
- Online live reporting (or texted messages to workers) of delay estimates
- Electronic signs



## ACTION AND IMPLEMENTATION STEPS



1. Conduct a cost analysis of various platforms/apps for display/communication of real-time information
2. Identify potential locations for video cameras and a procedure for observing, disseminating information on traffic volumes
3. Install electronic signs along primary access routes to PNSY to inform drivers of conditions in advance

## POTENTIAL FUNDING RESOURCES



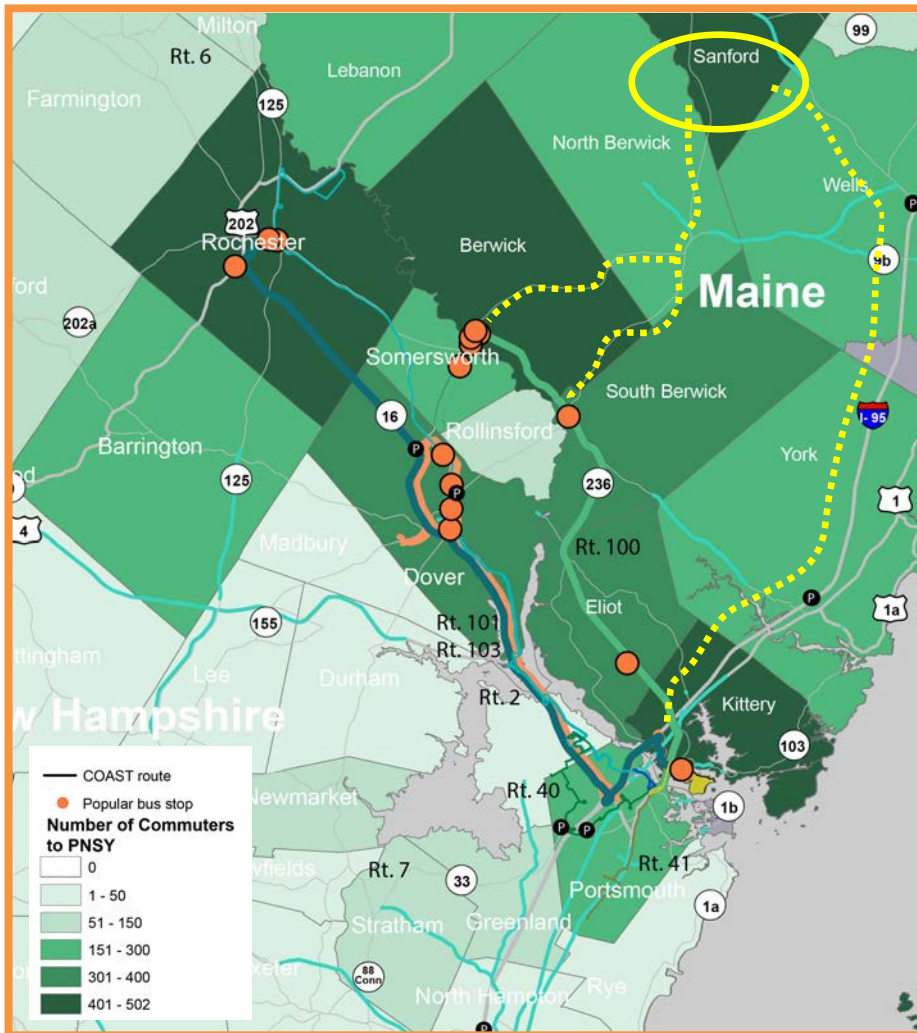
1. PNSY

## RESPONSIBLE PARTY

PNSY



## CATALYTIC STRATEGY EXTEND REGIONAL TRANSIT



### COMPATIBILITY SCORE



TRANSPORTATION  
METRIC AVERAGE  
RATING



OVERALL METRIC  
AVERAGE RATING

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
3	2	5	2	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Connecting transit between larger, regional employers with express/direct routes would incentivize drivers in the region and PNSY drivers to consider taking transit as a commuting alternative. This would have a higher impact on reduction of single-person vehicles and reduce overall congestion near the shipyard.

## COMPATIBILITY NEEDS

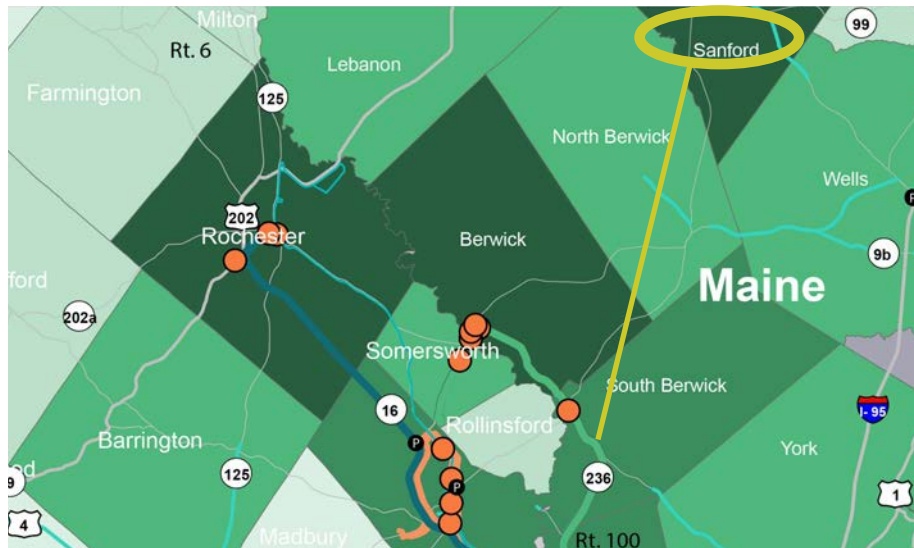
The highest concentration of PNSY workers live in the Sanford, Berwick, and Rochester areas. PNSY is only one of several large employers in the region, including:

- Albany Aerospace
- Hussey Seating (North Berwick)
- LONSA Biologics
- Liberty Mutual
- Pease Tradeport (based in Portsmouth)
- Pratt and Whitney (North Berwick)
- Saffron Composites

A new transit route which directly connects employees to these employers via centralized and easily accessible park and rides incentivizes use of modes alternative to single vehicles.

## RECOMMENDATIONS

- Transit study
- Identify funding partners
- Launch pilot service



## ACTION AND IMPLEMENTATION STEPS



1. Conduct a two-state transit analysis, and identify origins and destinations of employees of large employers in the region
2. Investigate partnerships with employers to fund/incentivize new routes
3. Conduct a pilot service to test viability of proposed routes
4. Identify long-term funding mechanism/approach to secure reliable service

## POTENTIAL FUNDING RESOURCES



1. Maine Multimodal Transportation Fund
2. Employers for part of any Federal grant match

## RESPONSIBLE PARTIES

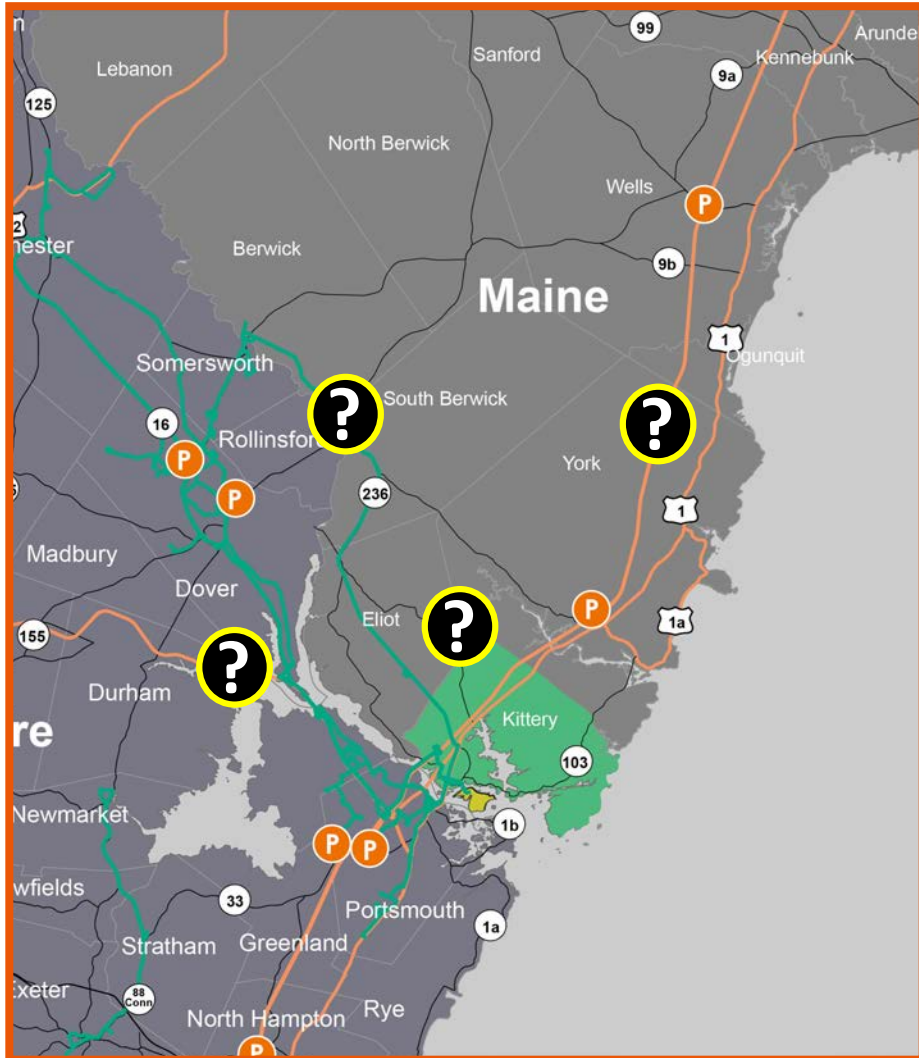
Initiate - RPCs and City of Sanford

Support - Large regional employers, COAST, York County Community Action Corporation (YCCAC)





## CATALYTIC STRATEGY NEW REGIONAL PARK AND RIDES



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
3	2	5	2	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Establishing a new park and ride (with transit access and/or dedicated shuttle service) in an area where there is existing high demand or in an area currently not served by a park and ride (but with known high density of PNSY workers) could incentivize PNSY drivers to consider carpools, vanpools, or transit as a commuting alternative. Improving use of shared modes can significantly reduce vehicle volumes on roads near the shipyard during periods of higher congestion.

## COMPATIBILITY NEEDS

At least eight formal park and rides are available within a 17-mile radius of PNSY, however only two of these are used at or near capacity. Spaces available for these range from 26 - 1,248 spaces. In addition, many locations throughout the region are operating as a park and ride through informal agreements with landowners (such as at retail establishments). These facilities do not have trackable data on usage and it isn't possible to identify what number of spaces are being used specifically by PNSY workers.

Overwhelming responses from PNSY workers in the survey for this study voiced desire for a park and ride with dedicated shuttle service in order to simplify journeys (reduce transfers) and increase reliability of travel time. PNSY has identified considerable success with their worker-driver program, which hires PNSY workers to drive a bus to and from Park and Rides and leaving the vehicle overnight. Shuttle service could also potentially be established through partnership with existing transit providers in the region, such as York County Community Action Corporation. Another approach starting to be tested in other military facilities is the use of automated (AV) shuttles.

Locations which have been vocalized as desirable for a park and ride by various parties, include:

- Along Route 236
- The re-purposing of unused rest areas along Route 1
- A site in Sanford currently being investigated that may support up to 150 parking spaces

## RECOMMENDATIONS

- Identification of compatible locations, ideally with the use of supporting data such as through StreetLight analytics
- Coordination with land owners
- Creation of funding / leasing program

## ACTION AND IMPLEMENTATION STEPS



1. Conduct a worker survey to identify areas in need of a facility that could be supported by demand
2. Identify potential existing locations and partnerships that can fill the gap
3. Organize a meeting with all potential landowners to develop formal agreements, incentive options, and long-term funding/leasing solutions
4. Establish a new Park and Ride
5. Form partnership with a shuttle service provider
6. Advertise the availability of the facility

## POTENTIAL FUNDING RESOURCES

1. To be determined based on proposed location and type of shuttle vehicle utilized

## RESPONSIBLE PARTIES

Initiate - Regional Planning Commissions (RPCs)

Support - COAST, Municipalities, York County Community Action Corporation (YCCAC)



## SUPPORTING STRATEGY

### REGIONAL EMPLOYER PARTNERSHIPS FOR TRANSIT



#### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
3	1	4	4	1	1	1

#### COMPATIBILITY SCORE ANALYSIS

Bolstering existing transit opportunities through shared resources of information, staff, funding and vehicles can help fill gaps in existing needs/options for alternative transportation for PNSY workers, which in turn can potentially attract riders who may have only previously had the option of driving alone.



## COMPATIBILITY NEEDS

The greater region outside of the PNSY and Kittery area includes many resources to meet a variety of particular transportation needs ranging from standard, fixed-route/schedule buses, car/vanpools and databases, paid or complementary door-to-door services for the public and people with special mobility needs, emergency rides home, and seasonal shuttles operating at popular destinations. Providers for these services range from federally-funded to private entities, including:

- COAST
- Maine Department of Transportation and Maine Turnpike Authority
- York County Community Action Corporation
- Commute SMART Seacoast
- GoMaine
- Seacoast Trolley Company

Partnerships between these entities aren't currently established in boosting flexibility or service areas of services to PNSY employees, however may provide opportunities in terms of staff capacity, data sharing, shared vehicles, and funding pursuits.

An evolving option being used by many transit agencies is partnering with rideshare providers (UberPool, Lyftline) or microtransit providers that utilize smart vehicle technology (Via, Chariot).

## RECOMMENDATIONS

- Identify partners
- Develop shared funding
- Explore coordinated TDM program

## ACTION AND IMPLEMENTATION STEPS



1. Arrange a coordination meeting between all potential partners to discuss opportunities/incentives/collaboration potential
2. Identify short and long-term funding solutions
3. Develop a TDM program
4. Establish periodic meetings to evaluate success, identify new needs or adjustments to maintain ridership

## POTENTIAL FUNDING RESOURCES



1. Maine Multimodal Transportation Fund
2. Potential shared funds through some service providers

## RESPONSIBLE PARTIES

**Initiate - Regional Planning Commissions (RPCs)**

**Support - Large employers**  
Commute SMART Seacoast (NH)  
GoMaine  
Other transit service providers



## SUPPORTING STRATEGY

# EXPAND COMMUNICATION CHANNELS OF THE NAVY'S TIP PROGRAM



### Transportation Tuesdays

Host GO MAINE for a day During Way 2 GO MAINE

GO MAINE will come to your place of businesses on Tuesdays during October to celebrate your employees who are taking **Green** commutes and spread the word about how you and your employees can save money, reduce stress, make sustainable choices and have fun all while commuting!



Want us to greet your employees with goodies when they arrive in the morning? We can do that!  
 Want us to hang in the break room and answer questions? We can do that!  
 Want us to do a quick lunch and Learn? We can do that!  
 Have other ideas? Let's talk!

There are 4 Tuesdays in October but spaces will fill up quickly!!

Check out some pictures from last year's events!



# #WAY2GOMaine

## COMPATIBILITY SCORE



TRANSPORTATION  
METRIC AVERAGE  
RATING



OVERALL METRIC  
AVERAGE RATING

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	2	3	4	1	1	1

## COMPATIBILITY SCORE ANALYSIS

Improving measures which encourage knowledge of the Transportation Incentive Program and other regional incentive programs would potentially increase some participation but not impact those who currently have limitations in their ability to participate.

## COMPATIBILITY NEEDS

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The Navy's Transportation Incentive Program (TIP) provides a monthly subsidy for eligible employees who participate in car/vanpools/other mass transit as a commuting option.

PNSY currently promotes shared transit options through a variety of methods, and has a full-time on-site specific point of contact for participants interested in car/vanpool options. The TIP has also been advertised through pop-up information tables at the shipyard. In spite of this, some employees surveyed as part of the JLUS project said they were unaware of the TIP program.

In addition to the TIP, other transportation demand management (TDM) programs exist in the region, which are accessible to PNSY workers as well as the 400-500 contractors arriving on a daily basis. Regional programs, however, are not widely advertised through PNSY platforms and rely on individuals seeking these services out. GoMaine is one option offering points for participants in alternative transportation options. These points can be traded in for various rewards, coupons, retail discounts, etc. A central database advertising these and other transportation opportunities would be beneficial.

## RECOMMENDATIONS

---

- Monthly transportation workshop
- Personalized trip planning
- PNSY rideshare app
- Establish commuter fare with transit service providers

## ACTION AND IMPLEMENTATION STEPS

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1. Identify dates for a monthly workshop to educate new/existing employees on regional transit options
2. Annually, distribute mandatory surveys which confirm that PNSY workers have read and understand options available to them through TIP
3. Identify options/costs for developing/updating/maintaining a rideshare app
4. Identify times/locations to hold a commuter fair with other service providers

## POTENTIAL FUNDING RESOURCES

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1. PNSY

## RESPONSIBLE PARTY

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Initiate - PNSY





## SUPPORTING STRATEGY COMMUTER RIVER FERRY



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	1	2	2	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Establishing a ferry (with Park and Ride) to PNSY could potentially reduce commute journeys for a limited population of people who already travel along a similar route and with easy access to its potential docking location. However, it wouldn't be expected to significantly reduce commute time or convenience, or significantly reduce local vehicle congestion.

## COMPATIBILITY NEEDS

---

Currently there are no passenger ferry services to PNSY via the Piscataqua River or within the region, at large. Some challenges which have been raised regarding this potential mode are the high river currents and daily tidal changes, operational costs, and the challenges in securing a viable location that could support a new park and ride next to a potential ferry dock. Additional security screening might be needed if a stop on the shipyard is preferred.

## RECOMMENDATIONS

---

- Ridership study
- Feasibility study
- Pilot service
- Identify other regional needs and partners

## ACTION AND IMPLEMENTATION STEPS

---



1. Conduct a worker study evaluating need and desire for use of a ferry service
2. Conduct a cost feasibility analysis
3. Investigate potential sites and conduct a site analysis
4. Execute a pilot service and evaluate
5. If feasible, pursue development
6. Reach out to other potential partners that may benefit from the service and investigate partnerships

## POTENTIAL FUNDING RESOURCES

---



1. Shore and Harbor Planning Grant Program
2. Boating Infrastructure Grant (MaineDOT)
3. PNSY

## RESPONSIBLE PARTIES

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Initiate - Regional Planning Commissions (RPCs)

Support - PNSY, Town of Kittery, City of Portsmouth, Town of Dover

## CATALYTIC STRATEGY

### RAIL SPUR PARK AND RIDE



#### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
3	2	3	2	3	1	3

#### COMPATIBILITY SCORE ANALYSIS

Establishing a Park and Ride/Walk within walking distance to PNSY encourages the use of shared modes. This strategy helps reduce the burden of parking demand on the shipyard and therefore also potentially reduces congestion at bottleneck points near/at the gates.



## COMPATIBILITY NEEDS

Currently, the rail spur is utilized very infrequently, for the delivery/removal of materials on PNSY. The rail and right of way is owned by Pan Am. Some challenges which have been raised regarding this strategy are acquisition and a years-long process of planning and approvals before it could be utilized for a new purpose.

Surveys taken as part of this JLUS have revealed that many workers would be willing to consider using a shared mode to commute if there was a nearby park and ride to PNSY. However, absent a dedicated shuttle connection in the near future, this strategy would require improved pedestrian and bicycle facilities to support safe walking and bicycle movement between a park and ride and the shipyard.

Additional survey responses voiced that the procedure of drivers hunting for appropriate identification and vehicle permits sometime caused unnecessary delay at the gates. An influx of pedestrians at the gate can be easily managed as they can be badged in at the pedestrian turnstile, eliminating the need for timely human interaction at the gate.

## RECOMMENDATIONS

- Identify landowners and feasibility
- Coordinate with railroad
- Develop pro formas
- Begin negotiations



## ACTION AND IMPLEMENTATION STEPS



1. Meet with PanAm Railways to discuss possibilities of purchase/lease options of rail line
2. Meet with Northern New England Passenger Rail Authority (NNEPRA)
3. Develop agreements
4. Develop funding plan to build Park and Ride
5. Build once funding is secured
6. Advertise availability to PNSY workers

## POTENTIAL FUNDING RESOURCES



1. MaineDOT

## RESPONSIBLE PARTIES

Initiate - Town of Kittery

Support - Railway landowners

## SUPPORTING STRATEGY

### INCENTIVIZE PARK AND RIDE LANDOWNERS



#### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	2	3	2	1	1	1

#### COMPATIBILITY SCORE ANALYSIS

Improving vehicle security and reliability of parking spaces at informal Park and Rides would encourage their continued use and potentially encourage new users.

## COMPATIBILITY NEEDS

PNSY and its workers have identified that a number of locations both within Kittery and the greater region are being utilized as park and rides through informal agreements with landowners. These locations are most likely secured through handshake agreements, and because no other options are available in a particular area of worker density. These locations may lack procedures regarding vehicle security (incidents have been reported of vehicles being towed), maintenance to ensure safe access and use during inclement weather, or access to transit services.

## RECOMMENDATIONS

- Landowner outreach
- Develop maintenance agreements
- Provide signing and information



## ACTION AND IMPLEMENTATION STEPS



1. Invite landowners to an open discussion to outline benefits and concerns of formalizing a park and ride agreement
2. Secure cash incentives (or other) for landowners of potential park and ride facilities
3. Widely distribute an updated map of available Park and Ride locations to PNSY workers

## POTENTIAL FUNDING RESOURCES



1. MaineDOT (maintenance funding, depending on the proposed locations)

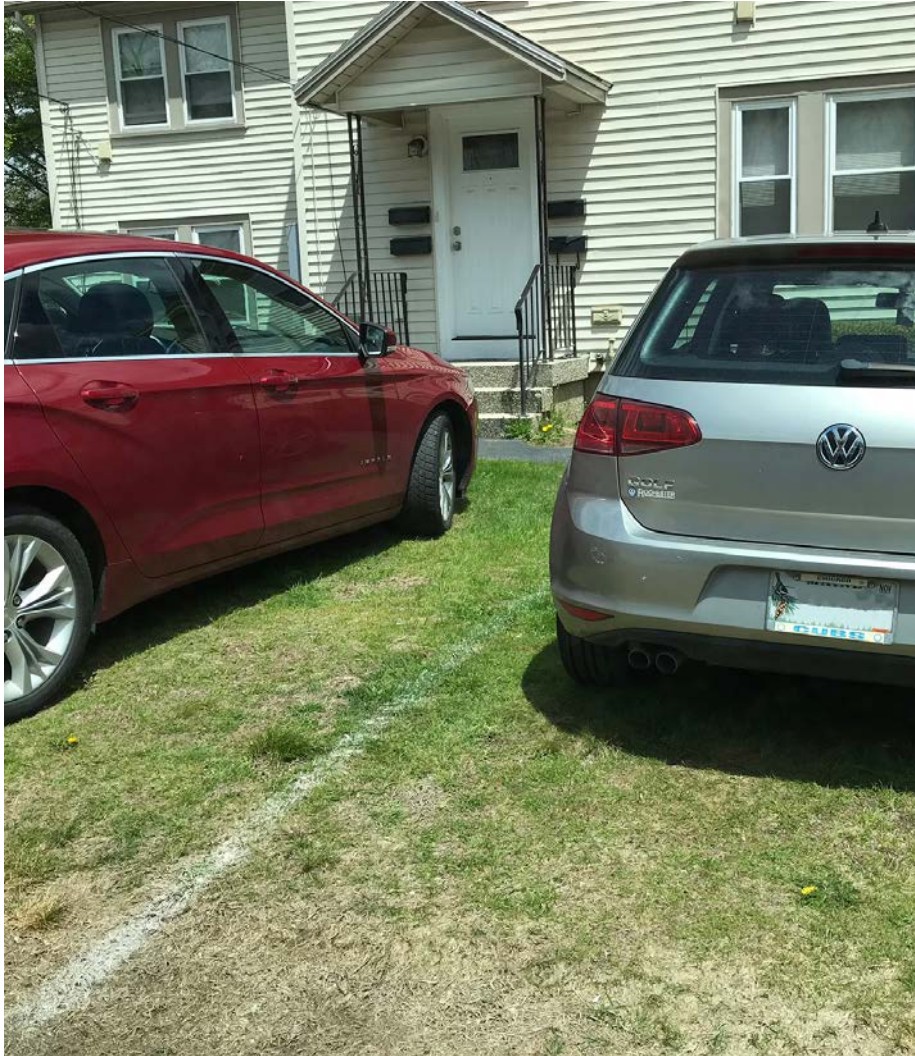
## RESPONSIBLE PARTIES

Initiate - Maine DOT

Support - MaineDOT, Regional landowners, KACTS, SMPDC



## SUPPORTING STRATEGY NEW OFF-YARD PARKING FACILITY



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
3	2	3	2	3	1	2

### COMPATIBILITY SCORE ANALYSIS

Establishing a Park and Ride within walking/biking distance to PNSY encourages the use of alternative modes, helping reduce traffic and parking congestion downtown as well as reduce the burden of parking demand on the shipyard. This strategy also contributes to improved safety of pedestrians and the improved experience of some residential streets that currently deal with informal worker parking. It could be coupled with a new mixed-use development with nearby worker housing.

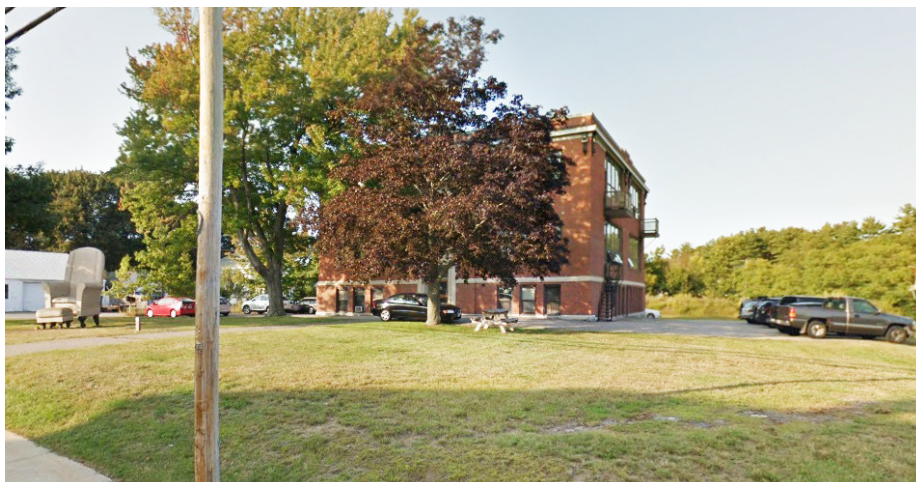
## COMPATIBILITY NEEDS

Supply and demand issues of on-base parking have resulted in a number of unsustainable, creative solutions off-base. Some residents near the gates have gone so far as to spray paint parking lines on their grass, renting space to workers during the day. Informal solutions like these don't address the need that a large, centralized parking facility might satisfy.

Surveys taken as part of this JLUS revealed that many workers would be willing to consider using a shared mode to commute if there was a nearby park and ride to PNSY. Discussions were shared with the JLUS Working Group that potential, feasible locations of a new facility in Kittery are being investigated. Depending on its location, this strategy would also require improved pedestrian and bicycle facilities to support safe walking and bicycle movement between a park and ride and the shipyard.

## RECOMMENDATIONS

- Identify formal partners
- Establish approved regulatory process
- Offer discount maintenance to keep rates attractive



## ACTION AND IMPLEMENTATION STEPS



1. Conduct a worker survey to identify local parking lots/spaces currently utilized vs. locations most in need of a facility
2. Identify potential existing locations and partnerships that can fill the gap
3. Develop a new parking lot or establish a formalized agreement with a landowner of an existing facility
4. Form partnership with a shuttle service provider
5. Advertise the availability of the facility to all PNSY workers

## POTENTIAL FUNDING RESOURCES



1. Depending on the location of a proposed parking lot

## RESPONSIBLE PARTIES

Initiate - Town of Kittery + PNSY

Support - Local landowner(s)



## SUPPORTING STRATEGY DOWNTOWN KITTERY PARKING MAP



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
1	2	2	2	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Improving the clarity and consistency of parking regulations in downtown Kittery could aid parking enforcement and reduce the abuse of high-demand spaces, however wouldn't likely shift single-person vehicle use significantly.



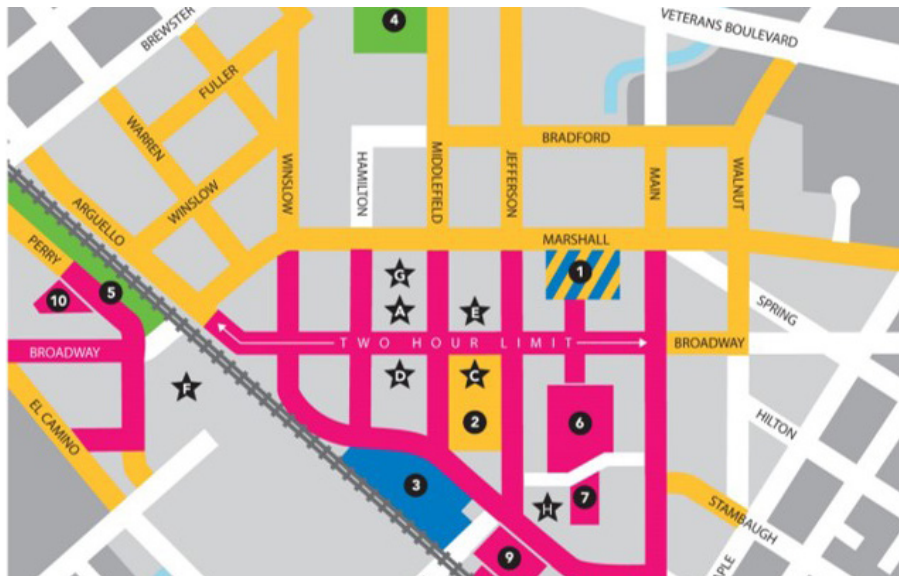
## COMPATIBILITY NEEDS

Downtown Kittery features a mix of parking regulations, ranging from free, on-street parking spaces between 7am-6pm along Wallingford Square, a parking lot of entirely reserved spaces next to the library, the United Methodist Church lot which charges spaces on a hourly basis and a many private “permit-only” lots in town. Less formal options also include spray-painted striping for parking spaces on resident grass lawns.

The array of intertwined public and private parking options is confusing for visitors, leads to complaints about errant scofflaws, and does not encourage a coordinated approach to shipyard workers’ parking needs. A comprehensive parking strategy with a clear map of different parking options would work to accommodate competing demands with less friction and more clarity.

## RECOMMENDATIONS

- Parking study and outreach
- Updated regulations and signing
- Paper and online map; integrate with wayfinding signs



## ACTION AND IMPLEMENTATION STEPS



1. Define an area of downtown that includes all on-street and off-street parking spaces that the Town would like to have advertised for public use.
2. Design a map clearly highlighting regulations and parking by type
3. Make the map available both in paper and online through appropriate channels and for easy public access

## POTENTIAL FUNDING RESOURCES



1. Town of Kittery

## RESPONSIBLE PARTIES

Town of Kittery, KACTS, SMPDC

## SUPPORTING STRATEGY

### ADJUST DOWNTOWN PARKING PRICING



#### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
1	1	2	2	1	1	1

#### COMPATIBILITY SCORE ANALYSIS

Better- managing parking resources in Foreside through time-limits or pricing would limit complaints and more efficiently utilize available parking.

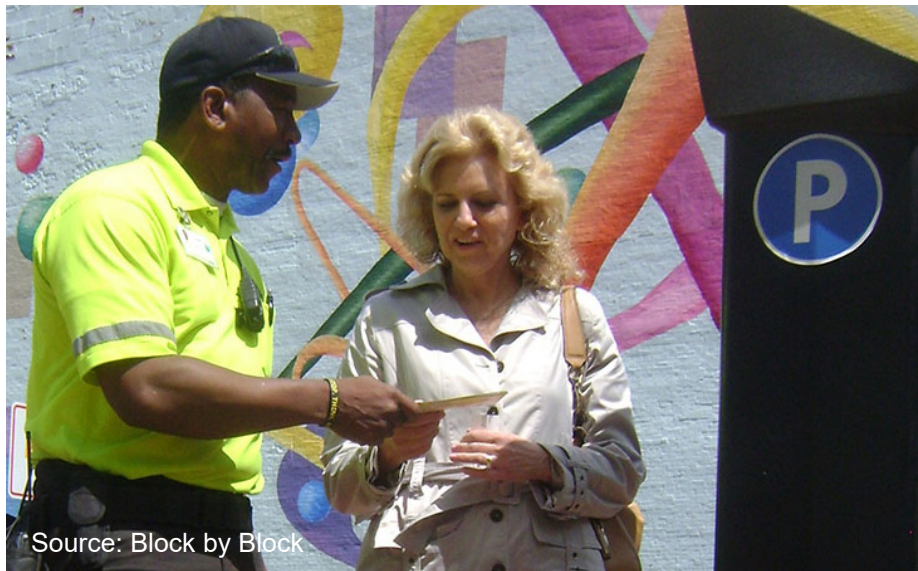
## COMPATIBILITY NEEDS

Kittery Foreside is home to a patchwork of time-limited public and priced private parking available to short and long-term parkers. Priced options -- including permit spaces in private lots -- are well-used but always have some availability while free time-limited options are often full, especially closest to the shipyard.

Long-term parkers have been observed as occupying time-limited spaces intended for business patrons. This free parking within short walking distance to the shipyard creates higher demand than supply can accommodate. This can contribute to increased congestion as workers and customers drive around to hunt for the closest available space. If these prime spaces were priced, cheaper, or free spaces in more remote locations would become better-utilized and open up prime parking for customers

## RECOMMENDATIONS

- Parking study
- Regulations update
- Install meters / pay-by-phone



Source: Block by Block

## ACTION AND IMPLEMENTATION STEPS



1. Define geographic area for parking study
2. Gather data on parking meter and ticket revenue, existing landowner agreements, and hourly demand for identified locations
3. Determine pricing and regulation change based on recommended standards
4. Secure funding for new meters, apps, signage that support the new regulation/pricing structure
5. Follow up with periodic analysis of utilization and demand

## POTENTIAL FUNDING RESOURCES



1. Municipal

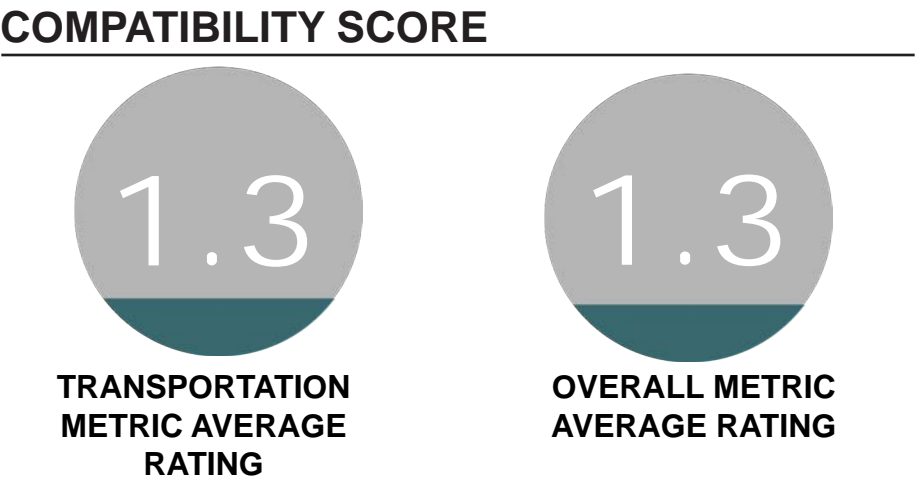
## RESPONSIBLE PARTY

Town of Kittery



SUPPORTING STRATEGY

INCREASE PARKING ENFORCEMENT DOWNTOWN



Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
1	2	1	2	1	1	1

COMPATIBILITY SCORE ANALYSIS

Increasing parking enforcement both for on- and off-street spaces could deter abuse of the most-desirable, central spaces in downtown Kittery by PNSY workers. Parking enforcement isn’t likely to disincentivize single-vehicle use, however.

## COMPATIBILITY NEEDS

Various stakeholders have shared that, based on perception, parking enforcement in downtown Kittery is limited and look-the-other-way practices such as workers utilizing 2-hour spaces all day are regular occurrences. A dedicated parking enforcement officer was reported as being active starting in July 2019. The fees associated with parking tickets issued downtown increased from \$15 to \$50, however data hasn't been gathered as to how this has impacted overall number of tickets on a weekly/monthly basis.

## RECOMMENDATIONS

- Identify funding / staffing
- Increase enforcement



## ACTION AND IMPLEMENTATION STEPS



1. Analyze annual trends in parking tickets issued compared to before the price increase
2. Identify periods when enforcement is most needed and secure staffing to support
3. Follow up with periodic evaluation of levels of enforcement and adjust, where necessary

## POTENTIAL FUNDING RESOURCES



1. Town of Kittery

## RESPONSIBLE PARTIES

Initiate - Town of Kittery

Support - Kittery Police Department

## SUPPORTING STRATEGY NEARBY PARK AND PEDAL PROGRAM

### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	2	4	2	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Improving options that support people wishing to complete the last leg of their journey to PNSY with a bicycle could contribute to a higher impact on mode shift. The supporting Park and Ride would have to be within a location of reasonable distance to the shipyard in order to generate new ridership. The benefits of this strategy are also seasonally-dependent.





## COMPATIBILITY NEEDS

Evidence on PNSY shows a large amount of riders (primarily during warmer months) commute to the shipyard via bicycle. It isn't certain whether these are taken from their points of origin or to connect from a park and ride or transit. It is also unclear whether regional park and rides with high usage by PNSY employees currently feature priority parking or other benefits that incentivize use of bike commuting for current and tentative bicycle riders.

A park and pedal program should be located within 5 miles to increase likeliness of usage. Several areas near Kittery with existing bike connections could easily support this, such as:

- Park and Ride along I-95 near York
- Pease Tradeport
- Along the Route 1 Bypass

## RECOMMENDATIONS

- Identify locations
- Utilize New Hampshire DOT annual bike/pedestrian counts on Memorial Bridge as a potential data source
- Utilize KACTS for conducting potential bike/pedestrian counts on Sarah Long Bridge
- Install clear and consistent signage
- Advertise program



## ACTION AND IMPLEMENTATION STEPS



1. Conduct a study to understand bicycle ridership numbers and trends
2. Evaluate whether current facilities on PNSY support number of current/projected riders
3. Partner with Park and Ride landowners to establish Park and Pedal priority parking/signage
4. Create a formalized program or resources through PNSY that provide information about available routes via various park and rides in the region and offers riding incentives
5. Follow-up ridership study to evaluate success

## POTENTIAL FUNDING RESOURCES



1. MaineDOT Bicycle and Pedestrian Program Funding
2. Kittery Area Comprehensive Transportation System (KACTS)

## RESPONSIBLE PARTIES

Regional Planning Commissions (RPCs)  
PNSY  
Local Municipalities



## COMPATIBILITY NEEDS

Kittery's infrastructure features a wide variation in condition with regard to support for biking and walking. Sidewalks and ADA curb cuts are present in some areas, then abruptly stop. Some streets feature sharrows while others don't. Crosswalk marking and signage are also at various stages of fading and visibility from a distance. Although pedestrian/bike-related crashes in Kittery aren't considered to be at high levels, improved infrastructure can significantly reduce conflicts that put pedestrians and bicyclists at unnecessary risk.

## RECOMMENDATIONS

- Streetscape and bike network studies
- Encourage sidewalk dining
- Integrate green infrastructure
- Provide covered bicycle parking



## ACTION AND IMPLEMENTATION STEPS



1. Conduct a study to identify most vulnerable areas or those in need of updating/general improvement
2. Prioritize locations in order of importance
3. Implement a pilot project to test out improvements and their effectiveness
4. Implement permanent built improvements
5. Coordinate with local businesses/landowners to develop solutions for encouraging more pedestrian/bike activity.

## POTENTIAL FUNDING RESOURCES



1. MaineDOT Bicycle and Pedestrian Program Funding
2. Community Development Block Grant

## RESPONSIBLE PARTIES

Initiate - Town of Kittery

Support - Local businesses, landowners





## SUPPORTING STRATEGY

### LOVE LANE / ROUTE 103

### ROAD DIETS



#### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	4	4	2	1	1	1

#### COMPATIBILITY SCORE ANALYSIS

Narrower lanes are proven to slow traffic. The implementation of a road diet through the addition of sidewalks or other methods would increase the safety of bicyclists and pedestrians and encourage increased use of Park and Rides within walkable distance to PNSY. This strategy also discourages larger vehicles from using residential Love Lane as a bypass route.

## COMPATIBILITY NEEDS

Love Lane is often used as a bypass route for PNSY-bound vehicles (including tractor trailers) trying to avoid delays at Walker Street's intersections with either State Road or Wentworth Street. Love Lane is a peaceful, residential street that has elevation changes, some curving geometry, and does not feature sidewalks. Vehicles are prone to speeding through the street, as well as Route 103 (Whipple Road) partially because large setbacks of properties give the perception of the road being wider.

Similar road diet and supporting features can be applied to parts of Walker Street and Bridge Street where higher vehicle speeds compromise safe walking.

For full effectiveness, this strategy should be implemented in combination with the installation of "No Truck Route" signage.

## RECOMMENDATIONS

- Identify minimum necessary lane widths and radii
- Tactical pilots
- Community outreach and design
- Programming and installation



## ACTION AND IMPLEMENTATION STEPS



1. Identify state requirements for lane widths and turning radii
2. Conduct a cost analysis for potential improvements
3. Implement temporary solutions through tactical projects
4. Evaluate preferred solution through and secure funding to implement
5. Install permanent improvements and programming approach

## POTENTIAL FUNDING RESOURCES



1. MaineDOT Bicycle and Pedestrian Program Funding
2. Community Development Block Grant

## RESPONSIBLE PARTIES

Initiate - Town of Kittery

Support - MaineDOT



## SUPPORTING STRATEGY PROTECTED BIKE LANES ON BRIDGES

### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	4	4	2	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Boosting a bridge's ability to protect bicycles from moving vehicles may significantly improve their use by workers who live within bikable distance, who utilize a Park and Ride within a bikable distance, and particularly for less-experienced riders. This strategy leads to reduced vehicle congestion near the gates and reduced parking demand downtown and on the shipyard. The benefits of this strategy are seasonally-dependent, however.





## COMPATIBILITY NEEDS

Evidence on the shipyard shows a large amount of riders (primarily during warmer months) commute via bicycle. It isn't certain whether these are taken from their points of origin or to connect from a Park and Ride or transit. Currently, bike lanes are painted on both the Sarah Mildred Long Bridge and Memorial Bridge. Once exiting these bridges in Kittery however, roads like Walker Street and Government Street (direct paths to PNSY) lack any bicycle markings or signage.

Creating protected (buffered) bike lanes on both bridges with access to Kittery will boost the safety of riders. However, consideration should be taken into a cohesive system throughout Kittery that has clear and consistent signage and markings to both guide bicyclists and to also improve driver interaction.

## RECOMMENDATIONS

- Develop design
- Coordinate with stakeholders
- Identify maintenance responsibility



Source: City of Corvallis

## ACTION AND IMPLEMENTATION STEPS



1. Develop a design using best practice standards and state requirements
2. Conduct a pilot project
3. Coordinate with stakeholders to support bicycle ridership through programming and education
4. Establish maintenance responsibility/agreements
5. Implement permanent improvements

## POTENTIAL FUNDING RESOURCES



1. MaineDOT Bicycle and Pedestrian Program Funding
2. Community Development Block Grant
3. NHDOT (for Memorial Bridge annual bike count data)
4. MPO (for Sarah Mildred Long Bridge annual bike count data)

## RESPONSIBLE PARTIES

Initiate - Town of Kittery, City of Portsmouth

Support - MaineDOT and NHDOT



## SUPPORTING STRATEGY KITTERY BIKESHARE PROGRAM



### COMPATIBILITY SCORE



TRANSPORTATION  
METRIC AVERAGE  
RATING



OVERALL METRIC  
AVERAGE RATING

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	3	4	2	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Improving accessibility to bikes for people who do not own one, and providing a program that has built-in flexibility for how they are used, may encourage less experienced riders to participate in riding to work. This would increase bike usage by workers who live within bikable distance, who utilize a Park and Ride within a bikable distance, and particularly for less-experienced riders. The benefits of this strategy are seasonally-dependent, however.

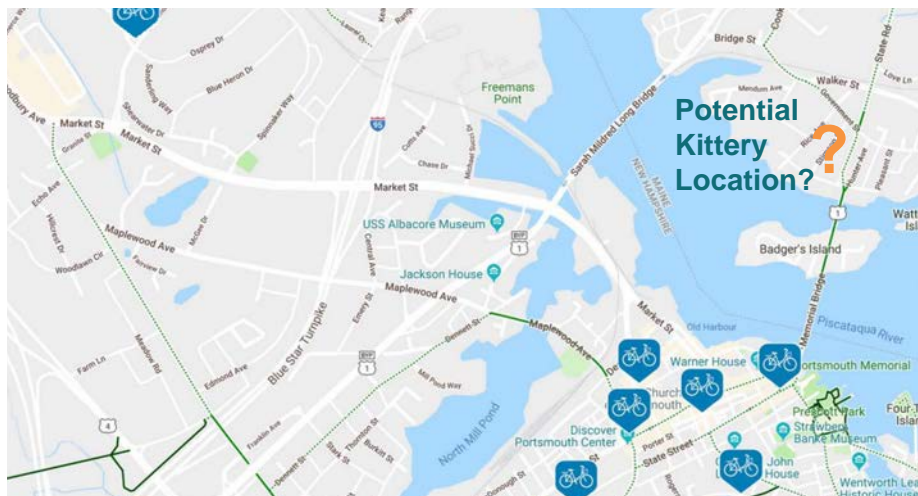
## COMPATIBILITY NEEDS

Currently there is no bikeshare program in Kittery. The Zagster bike-share program was implemented in neighboring Portsmouth in 2017, with a 3-year lease that is anticipated to be replaced with another agreement through competitive bid in 2020. This pilot project includes twelve, sponsored stations, hosting 5 bikes each (with a capacity for 10). Location of stations were influenced by NAACTO guidelines, and are placed within a 5-minute walk of each other.

The highest utilized station (24%) as of the City's 2018 annual report to City Council, is located nearest Memorial Bridge. This location is the closest to PNSY, implying a viable opportunity if a similar program was established in Kittery. Discussions have been held between the Town and the City about potential funding options and the need for an intermunicipal agreement in order to establish a program.

## RECOMMENDATIONS

- Identify location(s)
- Identify funding
- Launch and monitor usage
- Consider additional stations



## ACTION AND IMPLEMENTATION STEPS



1. Identify priority locations
2. Develop educational material on bike health benefits, program details, and other economic benefits to share with potential sponsors
3. Secure funding and maintenance agreement
4. Install facilities
5. Advertise availability of facilities through PNSY and Town communication channels

## POTENTIAL FUNDING RESOURCES



1. Local businesses/large employers

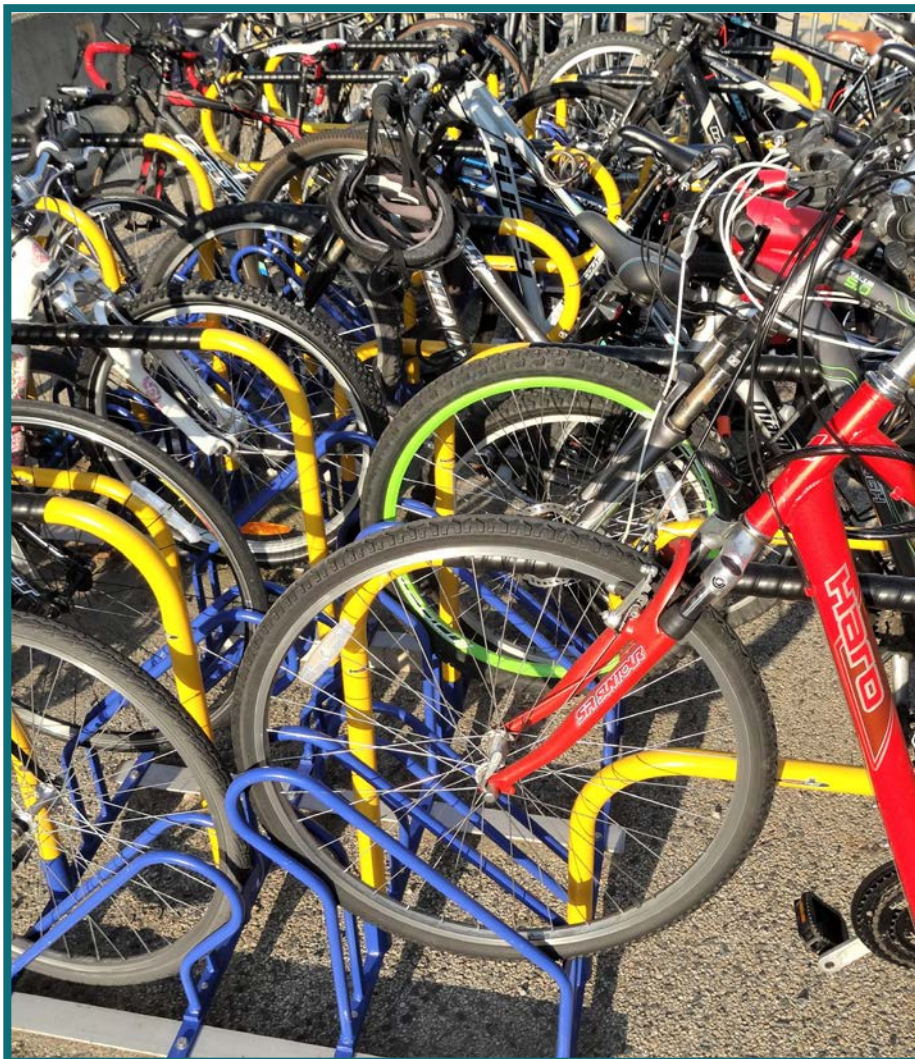
## RESPONSIBLE PARTIES

Town of Kittery + PNSY





## SUPPORTING STRATEGY BOOST BIKE AWARENESS



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
1	4	2	4	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Improving education to people who currently or might be interested in riding bicycles, as well as drivers, can encourage their increased use for commuting. The benefits of this strategy also largely rely on infrastructure and facilities that support the safe use of bicycles either from home or a Park and Ride, and are also seasonally-dependent.

## COMPATIBILITY NEEDS

National studies show that confidence of bicyclists largely has to do with their perception of safety and comfort in riding. This is ultimately influenced by the level of bike facilities offered where they wish to ride as well as perceptions about driver interaction with bicyclists on the road. Although bike lanes are painted on both bridges accessing Kittery from the south, the transition to the roads which lead to PNSY (and don't feature bike-specific markings) can be confusing for both riders and drivers on where the appropriate places to ride are. This can perpetuate behavior that puts everyone at risk.

Cycling trails in the region and their condition are advertised on platforms such as mapmyride. The Kittery Area Comprehensive Transportation System Long-Range Transportation Plan (2014-2040) identifies a Level of Service C for bike trails in the Kittery area, and a series of recommendations and best guide practices for bike facilities and bike interaction.

## RECOMMENDATIONS

- Create materials
- Distribute and promote awareness
- Host recurring education programs



## ACTION AND IMPLEMENTATION STEPS



1. Meet with local/regional bike advocacy organizations to identify existing resources, materials, contacts
2. Develop an outreach/marketing approach with educational materials and resources for current/potential bicyclists
3. Identify opportunities for educational programming/events both on base and in the community
4. Follow-up with analysis of ridership changes

## POTENTIAL FUNDING RESOURCES



1. MaineDOT Bicycle and Pedestrian Program Funding
2. Community Development Block Grant
3. Community Building Grant Program (Maine Community Foundation)

## RESPONSIBLE PARTIES

PNSY + Town of Kittery

Support - Seacoast Area Bicycle Riders (SABR)  
Bicycle Coalition of Maine





## CATALYTIC STRATEGY REZONE TO IMPROVE AFFORDABILITY

### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**

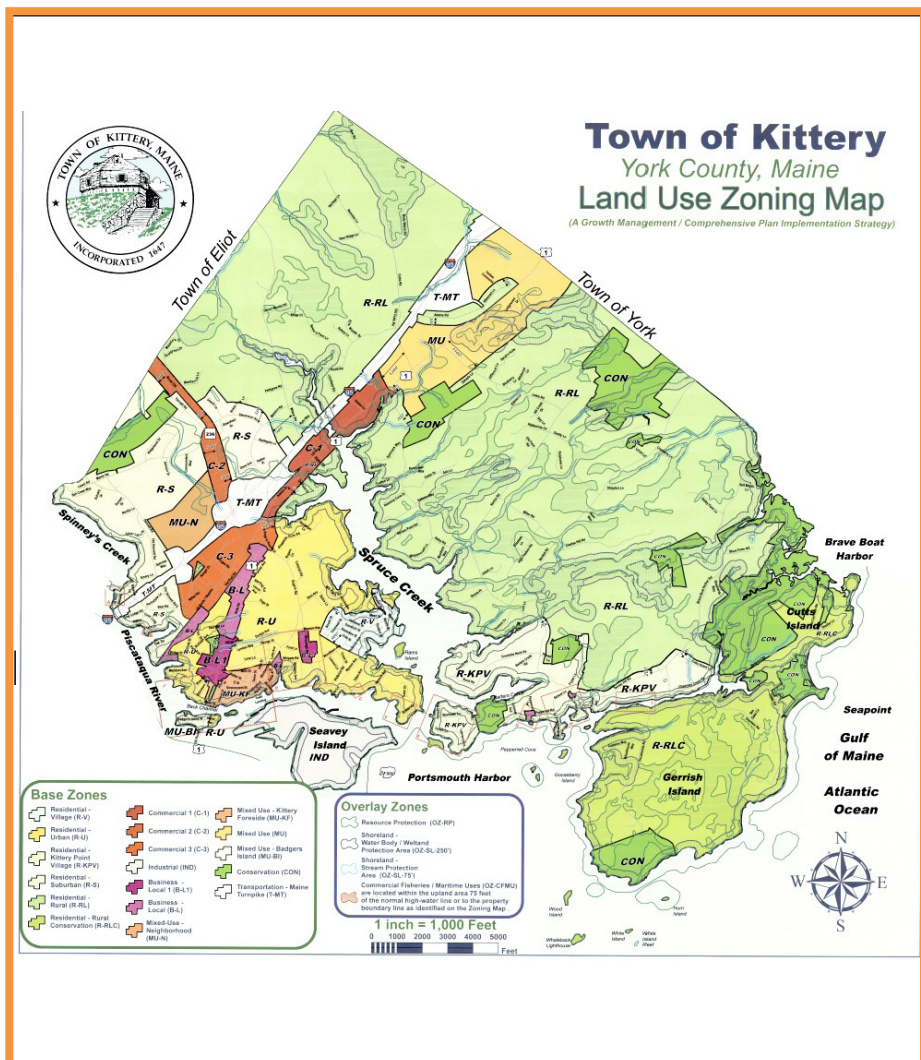


**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
3	2	4	2	5	1	2

### COMPATIBILITY SCORE ANALYSIS

Amending zoning to allow increased density of future development provides the means for developers to offer a wider range of housing prices and options, such as multi-family units. With increased options, PNSY workers could reside in closer proximity to the shipyard and rely less heavily on single-person vehicles to commute. Over a period of time, this could reduce local traffic congestion at peak periods and demand on downtown or shipyard parking.





## COMPATIBILITY NEEDS

The Town of Kittery has been working to create opportunities to expand their supply of affordable housing through amendments to the town's Land Use and Development Code and have recently approved the implementation of Accessory Dwelling Units. To encourage the development of a broad range of housing options in Kittery, additional lands should be rezoned to permit increased housing supply at appropriate densities, in areas which have adequate infrastructure or where infrastructure could be extended to support the development. Priority should be given to sites that could utilize park and rides or rideshare programs.

## RECOMMENDATIONS

- Increase density
- Allow accessory dwelling units (ADUs)
- Implement inclusionary requirement
- Investigate regional approach of all larger towns (within specified distance) to require a percentage of inclusionary housing dedicated to PNSY workers
- SMPDC, in partnership with Town of Kittery, should initiate dialogue with ULI Boston/New England District Council to convene a Housing Forum to develop strategies/incentives to attract investment and construction of attainable housing for regional workforce, including PNSY.
- Engage residential developers to incentivize and address gaps in workforce housing supply



## ACTION AND IMPLEMENTATION STEPS



1. Work with Affordable Housing Committee to identify suitable parcels (i.e. expansion of the MU-N District and suitable sites for up-zoning from the R-2 to the R-U District)
2. Amend zoning maps and ordinances
3. Develop guidelines for developers and residents to densify in keeping with long-term Town goals

## POTENTIAL FUNDING RESOURCES



1. TIF funds for MU-N District
2. Partnering with land owners

## RESPONSIBLE PARTIES

Initiate - Town of Kittery

Support - Local landowners



## SUPPORTING STRATEGY MIXED-INCOME HOUSING PROGRAM



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
3	2	3	1	5	1	1

### COMPATIBILITY SCORE ANALYSIS

Increasing partnerships and funding solutions to support the development of more multi-family housing units near the shipyard can increase options for workers who would prefer a smaller commute and options for traveling to work via other modes. Over a period of time, this could reduce local traffic congestion at peak periods and demand on downtown or shipyard parking. It can also reduce demand on existing housing supply and increase support to the local economy.

## COMPATIBILITY NEEDS

NSY Portsmouth Homes leases homes on-base and off-base. Housing is open to Active Duty military personnel stationed at Portsmouth Naval Shipyard, military retirees, DOD employees and the general public. NSY Portsmouth Homes should consider partnering with land-owner(s) in the MU-N district to develop a multi-family housing program that serves employees at the PNSY and within the Town of Kittery. Portsmouth Housing is another resource serving shipyard workers, and Pease military and civilians to assist with housing referrals.

NOW- PNSY's expanded mission has increased the number of workers needed and increases even greater demand for worker housing. NSY Portsmouth Homes should consider partnering with land-owner(s) or other zone districts (i.e., C-1, C-3 or BL districts) re amending codes to permit redevelopment of strip commercial areas into multi-family developments or mixed use developments.

## RECOMMENDATIONS

- Find sites and development partners
- Identify funding programs
- SMPDC, in partnership with Town of Kittery, should initiate dialogue with ULI Boston/New England District Council to convene a Housing Forum to develop strategies/incentives to attract investment and construction of attainable housing for regional workforce, including PNSY.
- Engage residential developers to incentivize and address gaps in workforce housing supply



Source: Multifamily Properties

## ACTION AND IMPLEMENTATION STEPS



1. Utilize Affordable Housing Committee to identify and prioritize potential development sites that support the goals of the Kittery Comprehensive Plan
2. Identify potential funding programs
3. Amend land use maps / ordinances as necessary

## POTENTIAL FUNDING RESOURCES



1. Maine State Housing Authority
2. Affordable Housing Tax Increment Financing (AHTIF)
3. National Housing Trust Fund Program

## RESPONSIBLE PARTIES

**Initiate - Regional Planning Commission**

**Support - Affordable Housing Committee**  
Land owners  
Town of Kittery  
NSY Portsmouth Homes  
Portsmouth Housing





## CATALYTIC STRATEGY REGIONAL FUNDING PARTNERSHIPS

### Office of Economic Adjustment Announces Federal Funding Opportunity

In Congress/DoD, DC360 August 11, 2019 ADC 468 Views 0 comments



ADC  
AUTHOR

The Office of Economic Adjustment (OEA) is accepting proposals for grant assistance to develop compatible use strategies and/or plans to promote civilian development compatible with continued operational utility of a DOD installation, range, special use air space, military operations area, and/or military training routes from: states, counties, and municipalities; other political subdivisions of a state; special purpose units of a state or local government; other instrumentalities of a state or local government; and tribal nations. In addressing encroachment, grantees may at the same time develop initiatives to enhance the security and resiliency of a military installation.

### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	3	2	4	1	1	2

### COMPATIBILITY SCORE ANALYSIS

Technical and financial resources and expertise exist with federal, state and local governments, non-profits and the private sector to assist Defense communities, workers, and businesses to promote compatible development in support of continued military operations, workforce development and community economic growth. These can provide moderate support in maintaining long-term communication channels between agencies, and in achieving improved compatibility in JLUS recommendations that improve transportation safety.

## COMPATIBILITY NEEDS

---

Upon completion of the JLUS planning process, continued stakeholder engagement and coordination will be necessary to carry out these strategies. Establishing partnerships can increase opportunities of gaining funding to support the implementation of JLUS recommendations that may otherwise be difficult to fund by one party.

## RECOMMENDATIONS

---

- Identify partners
- Identify potential funding sources
- Develop common goals and commitments; then seek Federal assistance



## ACTION AND IMPLEMENTATION STEPS

---



1. Create JLUS Implementation Committee
2. Conduct a charrette with key military installation personnel and surrounding jurisdiction representatives to identify goals and responsibility
3. Develop a communication/coordination manual that incorporates funding strategies
4. Apply for Federal assistance to implement strategies, as relevant

## POTENTIAL FUNDING RESOURCES

---



1. Office of Economic Adjustment (may support staffing needs to carry out JLUS recommendations)

## RESPONSIBLE PARTIES

---

Initiate - Regional Planning Commissions (RPCs)

Support - Federal, State, Local agencies and municipalities



## SUPPORTING STRATEGY REGIONAL COMMITTEE PARTICIPATION



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
1	2	2	4	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Increasing presence of agencies at regional meetings can better inform local decision-making and coordination for issues that have cross-border interests or potential impact, such as regional transportation planning and projects. This strategy prioritizes overall improvement of dialogue and transparency in interests.



## COMPATIBILITY NEEDS

Stakeholders as part of this JLUS have vocalized concern over a general lack of cross-state dialogue, especially for large projects with significant impact.

Advertisement of regional meetings (in addition to local meetings and events) and assigned staff for regular representation at meetings, should be encouraged in order to increase regional perspectives and lay a foundation for potential partnerships. In addition, the JLUS Working Group has suggested outreach for engaging State representatives in regional issues by potentially inviting the recently-elected Governor of Maine to participate in PNSY and regional efforts.

## RECOMMENDATIONS

- Develop objectives and schedule
- Draft MOU
- Designate rotating champion

### Welcome to the Rockingham Planning Commission



## ACTION AND IMPLEMENTATION STEPS



1. Add a PNSY representative to the MPO Boards
2. Establish regular schedule of meetings and overall objectives
3. Encourage PNSY staff to attend MPO project meetings and participate in the Maine - NH Traffic Incident Management Committee
4. Circulate follow-up meeting minutes and action items to State agencies to keep all parties informed of regional efforts

## POTENTIAL FUNDING RESOURCES



1. PNSY (to fund staff time)

## RESPONSIBLE PARTIES

Regional agencies and municipalities



## SUPPORTING STRATEGY QUARTERLY PLANNING MEETINGS



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
1	2	2	4	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Increasing communication between regional commissions can better inform local decision-making and improved coordination for long-range planning for issues with cross-border interests and potential impact. This may improve the cohesion of long-term policies relating to development and transportation that impact a region's ability to support modes besides single-person vehicles.

## COMPATIBILITY NEEDS

Currently, there is little communication between Regional Planning Commissions near Kittery regarding planning issues. Quarterly meetings between agencies can encourage updates on regional issues that help shape long-term planning goals and policies in each RPC, respectively. Decisions and frameworks outlined in regional comprehensive plans, for example, have long-term effects on patterns of development, land preservation, and economic trajectories, all which have the possibility of impacting beyond RPC borders. Similarly, long-range planning has significant impact on transportation systems that cross jurisdictions and other shared assets or resources.

## RECOMMENDATIONS

- Identify dual champions
- Establish MOU
- Frame long-term agendas



## ACTION AND IMPLEMENTATION STEPS



1. Set quarterly meeting dates and designate lead meeting host
2. Establish MOU
3. Establish long-term agendas that include coordinating outreach and public information between the three MPOs to encourage a regional approach and promote activities

## POTENTIAL FUNDING RESOURCES



1. Regional Planning Commissions (RPC's) to fund staff time

## RESPONSIBLE PARTIES

Regional Planning Commissions (RPCs)





## SUPPORTING STRATEGY REGIONAL DATA SHARING

### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
1	2	2	4	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Establishing a data-sharing procedure between municipalities, regional planning commissions and other agencies increases dialogue and transparency in planning to inform regional needs, issues and opportunities.

Source: Getty

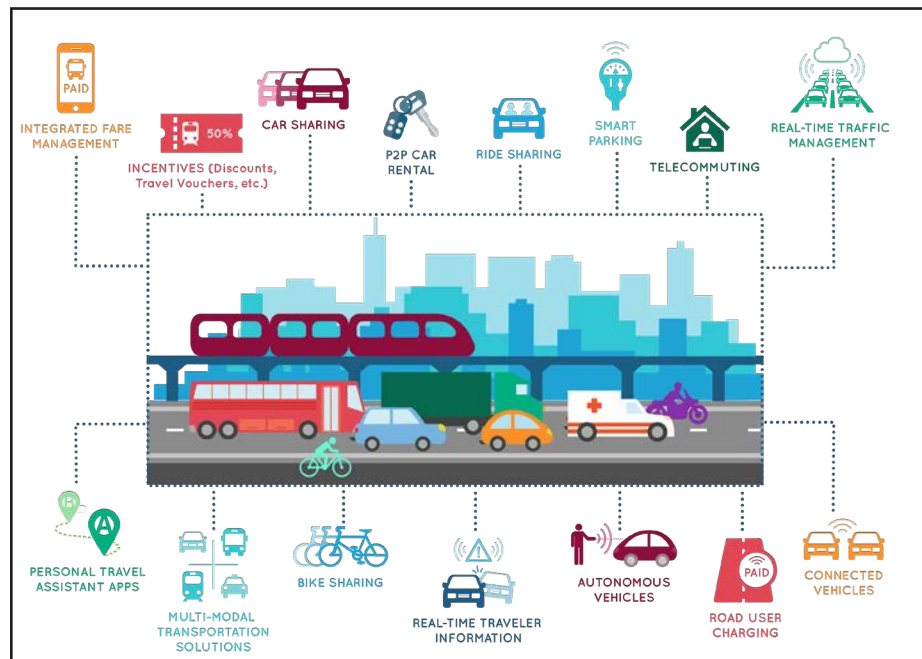
## COMPATIBILITY NEEDS

No existing or proposed processes for data sharing between PNSY and the Town of Kittery or other agencies have been identified during the JLUS process. This provides an opportunity, especially regarding data that provides insight into shared topics raised during the study process, such as:

- Anticipated housing/development
- Economic statistics
- Data from climate studies
- Traffic patterns
- GIS data

## RECOMMENDATIONS

- Data sharing policy
- Cybersecurity agreement and infrastructure
- Privacy agreements



## ACTION AND IMPLEMENTATION STEPS



1. Coordinate data kick-off meeting with all stakeholders to identify current resources and data needs
2. Develop work plan on how data can be collected and shared with supporting policies
3. Formalize privacy agreements
4. Include data updates as a regular agenda item on MPO quarterly coordination meetings

## POTENTIAL FUNDING RESOURCES



1. To be determined. Reliant upon staff time costs and potential licensing of host data programs/platforms

## RESPONSIBLE PARTIES

Initiate - Regional Planning Commissions (RPCs)

Support - PNSY  
Municipalities



## CATALYTIC STRATEGY FORMAL JOINT COMMUNICATIONS PLAN

**Kittery  
MAINE**

HOME ABOUT KITTERY DEPARTMENTS BOARDS & COMMITTEES

Home

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- ☐ Fire Department
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- ☐ Harbormaster
- ☐ Public Works
- ☐ Resource Recovery Facility (Transfer Station)

### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	2	1	4	1	1	1

### COMPATIBILITY SCORE ANALYSIS

Encouraging formalized channels of communication between PNSY and the Town significantly improves opportunities to coordinate in addressing shared issues and opportunities identified internally or through the public. It also ensures that local residents, as well as PNSY workers, are well-informed and have opportunities to fully engage in topics they may be affected by, such as transportation and parking-related issues.



## COMPATIBILITY NEEDS

---

During the JLUS planning process, no formal communication plan between PNSY and the Town of Kittery was identified. Informal lines of communication have been established however, such as between Kittery Public Works, the Town, and PNSY during infrequent occurrences of higher than usual traffic delays originating at PNSY gates. Residents of Kittery however, are generally unaware of the goings-on of the shipyard and vice-versa.

Recognizing elected officials and the PNSY Installation Commander change periodically, and to ensure continuity and constancy of purpose, it is important that senior staff officials from local governments, States of Maine and New Hampshire, and PNSY be designated as process stewards responsible for ensuring continued communications among all parties in regard to a wide variety of issues. Ongoing coordination and consultation among these stakeholders is key to ensuring viability of the overall mission and operations of PNSY, and affected local and state governments.

## RECOMMENDATIONS

---

- Identify platform / technology aids
- Maintain regular updates

## ACTION AND IMPLEMENTATION STEPS

---



1. Outline shared priorities through a MOU
2. Identify procedure/platform for quick and efficient communication of information
3. Create a procedural manual that incorporates, at minimum, description of key agencies, departments, programs and services, contact information for key staff, and schedule for standing meetings.
4. Evaluate the plan annually to make adjustments, as needed

## POTENTIAL FUNDING RESOURCES

---



1. To be determined

## RESPONSIBLE PARTIES

---

Town of Kittery + PNSY



## SUPPORTING STRATEGY SOCIAL MEDIA PUBLIC ENGAGEMENT



Source: Kathy Gunst WP

### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
1	2	1	4	2	1	1

### COMPATIBILITY SCORE ANALYSIS

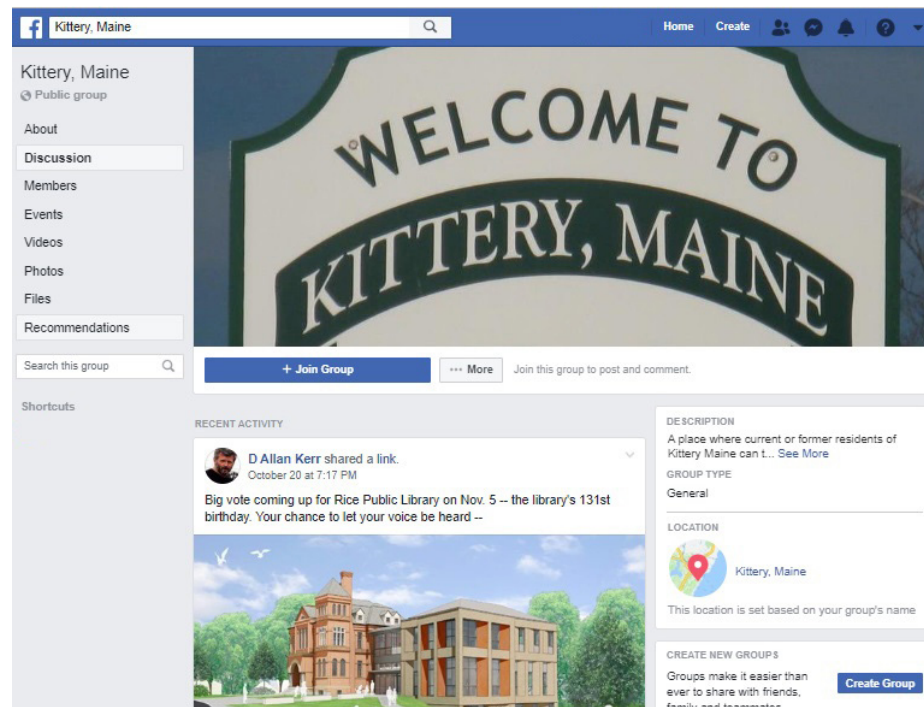
Utilizing all communication platforms available to relay information to the public and creating a place for open dialogue boosts overall engagement and trust in local decision-makers when addressing short and long-term issues.

## COMPATIBILITY NEEDS

Throughout the JLUS planning process, the project website was the primary means of communication. This mode of communication has served the needs of the planning study but must be expanded through other social media tools to ensure continued communication and coordination among PNSY, surrounding communities, and States of Maine and New Hampshire, and outreach to the general public. Informal, existing Facebook groups established by local Kittery residents have a high level of activity and participation, and could be beneficial when engaging or informing the public on a variety of topics.

## RECOMMENDATIONS

- Web page with feedback options
- Links to both on multiple apps
- Frequent updates



## ACTION AND IMPLEMENTATION STEPS



1. Develop a comprehensive strategy of engaging both the Town and PNSY through a variety of platforms
2. Establish responsibility for hosting, updating, and disseminating information received through social media platforms
3. Regularly update the resources
4. Analyze impacts on participation in Town or PNSY efforts

## POTENTIAL FUNDING RESOURCES



1. Municipal

## RESPONSIBLE PARTIES

Town of Kittery + PNSY



SUPPORTING STRATEGY

EMERGENCY COMMUNICATIONS PROGRAM



Source: Seacoastonline

COMPATIBILITY SCORE



TRANSPORTATION METRIC AVERAGE RATING



OVERALL METRIC AVERAGE RATING

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
1	2	1	3	2	1	1

COMPATIBILITY SCORE ANALYSIS

Establishing procedures that prioritize transmission of urgent or important information to PNSY workers and the public increases preparedness and mitigates potential conflicts during emergencies, particularly relating to traffic safety.

## COMPATIBILITY NEEDS

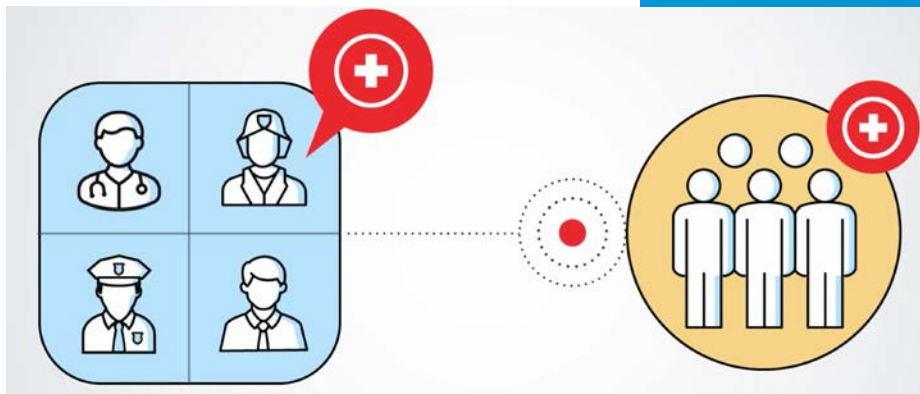
Kittery, Portsmouth, and the States of Maine and New Hampshire may establish emergency communication services (reverse 911) to alert local residents and businesses of time-sensitive emergency information.

CodeRED is an emergency notification service already in operation in the York Communications Center as a Partnership between the Police Department, Fire Department, Department of Public Works, Sewer and Water Districts. The service allows emergency officials to notify residents and businesses by telephone, cell phone, text message, email and social media regarding time-sensitive general and emergency notifications. Only authorized officials have access to the CodeRED system.

The RAVE alert system, currently in use and being operated in Wells, Maine, may be another potential resource for reaching user-identified geographies.

## RECOMMENDATIONS

- Identify platform / technology aids
- Maintain regular updates



## ACTION AND IMPLEMENTATION STEPS



1. Investigate service needs
2. Establish and advertise protocols
3. Pilot
4. Implement

## POTENTIAL FUNDING RESOURCES



1. Town of Kittery and State of Maine

## RESPONSIBLE PARTIES

Town of Kittery + City of Portsmouth

38.



## CATALYTIC STRATEGY PROMOTE MIXED-USE DEVELOPMENT



### COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
2	1	2	4	4	2	4

### COMPATIBILITY SCORE ANALYSIS

Community development that offers a mixture of residential, commercial, cultural, institutional, or entertainment uses in one space can increase a mixture of job offerings, therefore improving a development's ability to withstand fluctuations in economic trends. In addition, mixed-uses can encourage high-quality design, preserve and enhance traditional village centers, provide more housing choices, and lessen dependency on cars.



## COMPATIBILITY NEEDS

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PNSY represents a regional economic driver offering potential economic stimulus for the surrounding region. Mixed-use development strategies and designs can accommodate this related community growth and economic development opportunities to support a variety of housing, small business development, and employment centers near the installation to diversify the regional economy and offer non-vehicular modes of transportation.

A retail gap analysis concluded that a significant amount of local-serving retail and services could be added close to PNSY to provide missing options.

## RECOMMENDATIONS

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- Assess existing zoning to determine compatibility with local retail and service development market.
- Create educational materials about the benefits of local-serving walkable development
- Develop and promote a mixed-use development program

## ACTION AND IMPLEMENTATION STEPS

---



1. Establish working group comprised of groups and funders described below.
2. Develop plans to promote new mixed-use development opportunities in appropriate locations near PNSY

## POTENTIAL FUNDING RESOURCES

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1. Economic Development Administration (EDA)
2. Community Development Block Grant Program (CDBG)
3. Kittery Transportation Improvement Fund (TIF)
4. Maine State Housing Authority (MSHA)

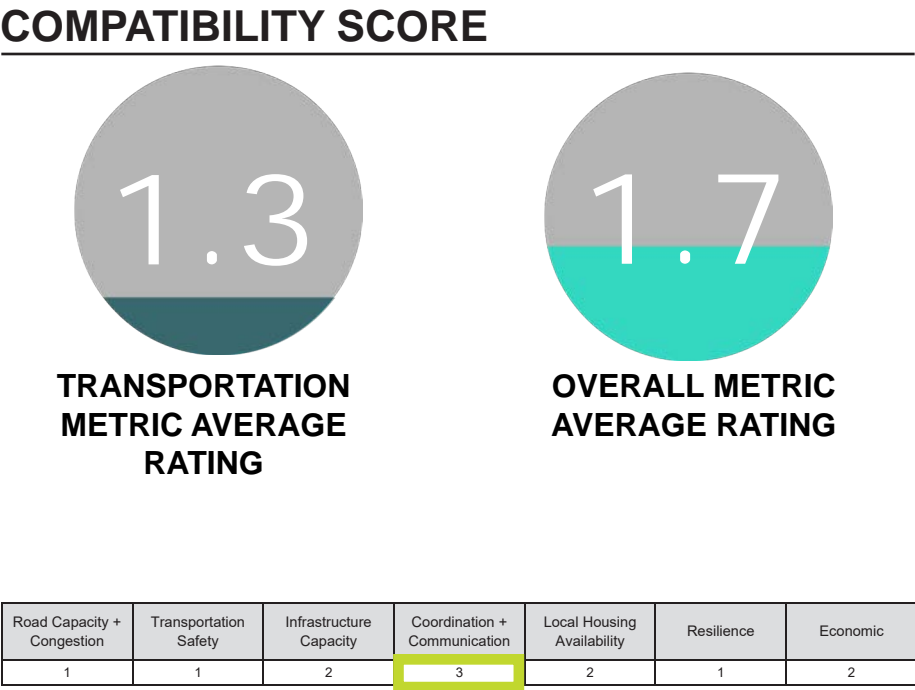
## RESPONSIBLE PARTIES

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Town of Kittery  
SMPDC

SUPPORTING STRATEGY

PROMOTE MANUFACTURING AND  
COMMERCIAL SPIN-OFFS



## COMPATIBILITY NEEDS

PNSY operations provide contracting opportunities for regional small businesses, either directly or through subcontractor relationships with large Defense contractors.

Some of PNSY manufacturing research, technology and processes may provide commercial spin-off opportunities to support non-defense economic development. The DoD Office of Small Business Programs negotiates with the Small Business Association (SBA) to establish annual small business goals for prime and subcontracting. These goals are further refined by each DoD component.

Defense Industry Maine (DIME) is an existing organization that was established to help companies diversify both in and outside the defense industry. Maine International Trade Center (MITC) is funded by the Office of Economic Adjustment, Department of Defense to also assist in conducting market research and administering grant funding. DIME provides access to workforces specializing in advanced manufacturing and the maritime trades and proximity to outstanding institutions and research facilities.

## RECOMMENDATIONS

- Ensure PNSY staff are aware of Maine Technology Institute (MTI) and its ability to financially support commercial spin-off opportunities
- Assess PNSY manufacturing operations to determine which might be utilized in non-defense related manufacturing
- Coordinate with Defense Industry Maine (DIME) to determine opportunities to diversify and needs to support expansion
- JLUS Implementation Committee should work with PNSY to determine what percentage of their contracting should be awarded to small businesses.
- PNSY, in conjunction with the regional Procurement Technical Assistance Center (PTAC), Small Business Administration (SBA) and SCORE should continue to participate in annual workshops to provide information on small business contracting opportunities with PNSY.

## ACTION AND IMPLEMENTATION STEPS



1. Include information about Maine Technology Institute in relevant communications to PNSY workers, including the Periscope.
2. Identify and support small business contracting opportunities linked to programmed shipyard construction and on-base services
3. Host Industry Day forums to facilitate contracting links among large Defense contractors and local/regional small businesses
4. Leverage and expand Small Business Development Center services, including Entrepreneurial Training

## POTENTIAL FUNDING RESOURCES



1. Maine Technology Institute (MTI)
2. Economic Development Administration (EDA)
3. Defense Industry Maine (DIME)
4. Maine International Trade Center (MITC)
5. PNSY
6. State Trade Expansion Program (STEP)

## RESPONSIBLE PARTY

SMPDC



SUPPORTING STRATEGY

INTEGRATE JLUS FINDINGS INTO

CEDS UPDATE

Two Job Fairs Remaining This Year!

Come see us at these remaining events to learn more about available job opportunities:

- PORTSMOUTH, NH - Thursday, November 7, 3 pm-6pm
  - JobsInNH CareerFair at the Holiday Inn Portsmouth (at the traffic circle).
- ELIOT, ME - Wednesday, November 20, 1pm-7pm
  - Regatta Conference Center, Eliot Commons, 28 Levesque Drive
  - PNSJ Job Opportunity Expo – all production trades and most department will be represented.

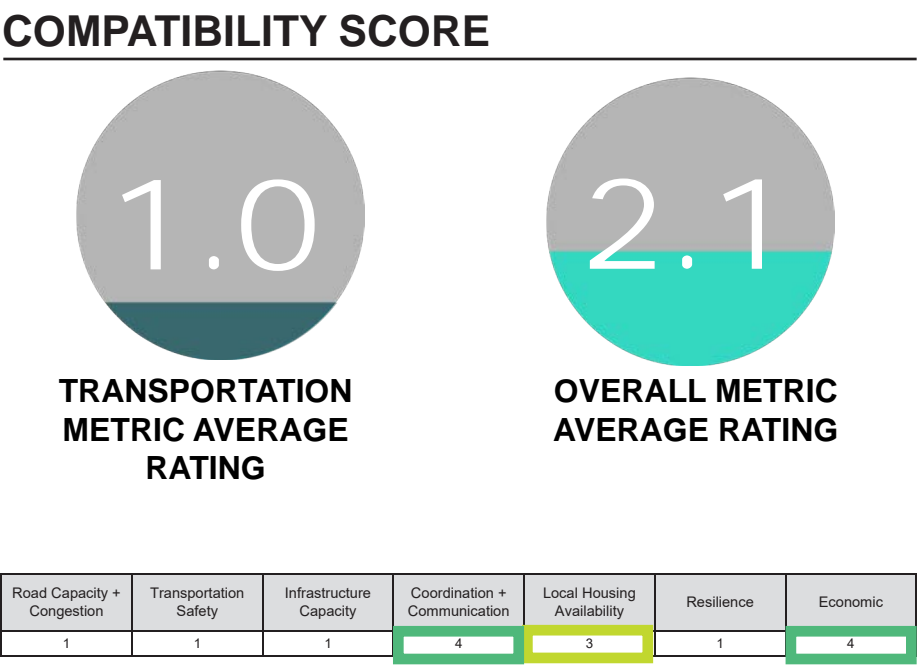
Portsmouth Naval Shipyard is **HIRING** in all production trades!

ATTN: Electricians! There is a special signing bonus available for electricians with MOTOR REWIND experience who provide their resumes prior to December 7, 2019 and qualify for a job offer.

For additional information, employment eligibility, and to preregister and upload a resume, visit:

<http://tinyurl.com/yxhg3e7c>

Portsmouth Naval Shipyard in Kittery, Maine is an equal opportunity employer. [www.opm.gov/equal-employment-opportunity/no-fear-act](http://www.opm.gov/equal-employment-opportunity/no-fear-act)



COMPATIBILITY SCORE ANALYSIS

Incorporating JLUS findings into CEDS can support its purpose in helping improve economic sustainability through access to capital, improved infrastructure, and stable workforce development for increased competition in the region.

## COMPATIBILITY NEEDS

U.S. Economic Development Administration's Comprehensive Economic Development Strategy (CEDS) funding supports regional economic development planning in Maine and New Hampshire to engage community leaders, leverage public sector involvement, and establish a strategic blueprint for regional collaboration and diversified economic prosperity. The CEDS should integrate/leverage other regional planning efforts, to include the JLUS, to advance the region's economy. Compatibility issues identified in the JLUS include leveraging Defense contracting opportunities, and expanding advanced manufacturing and the maritime trades to both support military operations and expand the regional and state economies.

PNSY represents a significant part of the southern Maine and southeastern New Hampshire economies, generating thousands of jobs and millions of dollars in annual economic activity and tax revenue. York County, Maine and Rockingham County, New Hampshire represent the top defense personnel spending locations for each state. Defense spending in Maine represents four percent (4%) of the State Gross Domestic Product, the eighth highest in the United States.

## RECOMMENDATIONS

- Host Federal Agency Roundtable Workshop to support implementation of JLUS strategies
- Develop Defense diversification strategies with inventory of regional assets providing strong sense of community
- Incorporate CEDS Industry Cluster/PNSY workforce training requirements into education curriculum
- Identify shipyard construction/on-base services to expand small business contracting opportunities
- Host Industry Day forums to leverage contracting for local/regional small businesses
- Leverage SBDC services, including Entrepreneurial Training, to support PNSY operations/diversification
- Incentivize business development to meet retail gaps/expand management, business, science and arts sectors.
- Promote business expansion/diversification in targeted geographic areas

## ACTION AND IMPLEMENTATION STEPS



1. **JLUS Implementation Committee should work with PNSY to identify local needs and potential short/long-term opportunities as well as gaps not being addressed in the current CEDS (2018)**
2. **These should be shared with SMPDC who prepares and updates the CEDS on an annual basis**

## POTENTIAL FUNDING RESOURCES



1. **Economic Development Administration (EDA)**
2. **Office of Economic Adjustment (OEA)**
3. **US Department of Housing and Urban Development (HUD)**
4. **Small Business Administration (SBA)**

## RESPONSIBLE PARTIES

- **Town of Kittery**
- **PNSY**
- **SMPDC**
- **New Hampshire Regional Planning Commissions (RPC's)**

CATALYTIC STRATEGY

COMMUNITY - MILITARY

RESILIENCE PARTNERSHIP



COMPATIBILITY SCORE



TRANSPORTATION

METRIC AVERAGE

RATING



OVERALL METRIC

AVERAGE RATING

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
1	1	1	4	1	5	2

COMPATIBILITY SCORE ANALYSIS

Partnering together for an approach that increases resilience, greater positions the community and PNSY to withstand shared impacts resulting from climate-related changes and events.



## COMPATIBILITY NEEDS

---

Sea Level Rise (SLR) and coastal flooding may affect the installation, the community, and external properties, infrastructure, and resources within the community, adversely affecting continued military operations at PNSY.

## RECOMMENDATIONS

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- Develop a community hazard/disaster education and outreach plan
- Update community land use regulations to encourage use of greenwater infrastructure and improved stormwater management
- Identify possibility of offering economic incentives for property owners to implement flood reduction practices
- Leverage expertise and innovative procurement and financing strategies to address infrastructure requirements in support of continued military operations
- Establish a single Resilience Task Force, or quasi-governmental regional entity to build capacity for coordination and collaboration among local, state, federal governments, PNSY, non-profits and private sector
- Partner with local experts/consultants to develop best practices in coastal development and integrate into regional comprehensive plans

## ACTION AND IMPLEMENTATION STEPS



1. Establish Resiliency Task Force
2. Identify critical infrastructure and facilities vulnerable to sea level rise. Assess shared vulnerabilities and potential adaptation actions through a 50-year scenario-based planning horizon to 2070
3. Develop regional infrastructure vision and priorities
4. Create infrastructure recovery plans
5. Identify strategies to protect or relocate historically-significant structure in flood zone areas
6. Link adaptation and resilience efforts to the FEMA Community Rating System

## POTENTIAL FUNDING RESOURCES

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1. Coastal Communities Grant Program
2. Economic Development Administration (EDA)
3. Office of Economic Adjustment (OEA)
4. US Department of Housing and Urban Development (HUD)
5. Small Business Administration (SBA)

## RESPONSIBLE PARTIES

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**Initiate - PNSY + Town of Kittery**

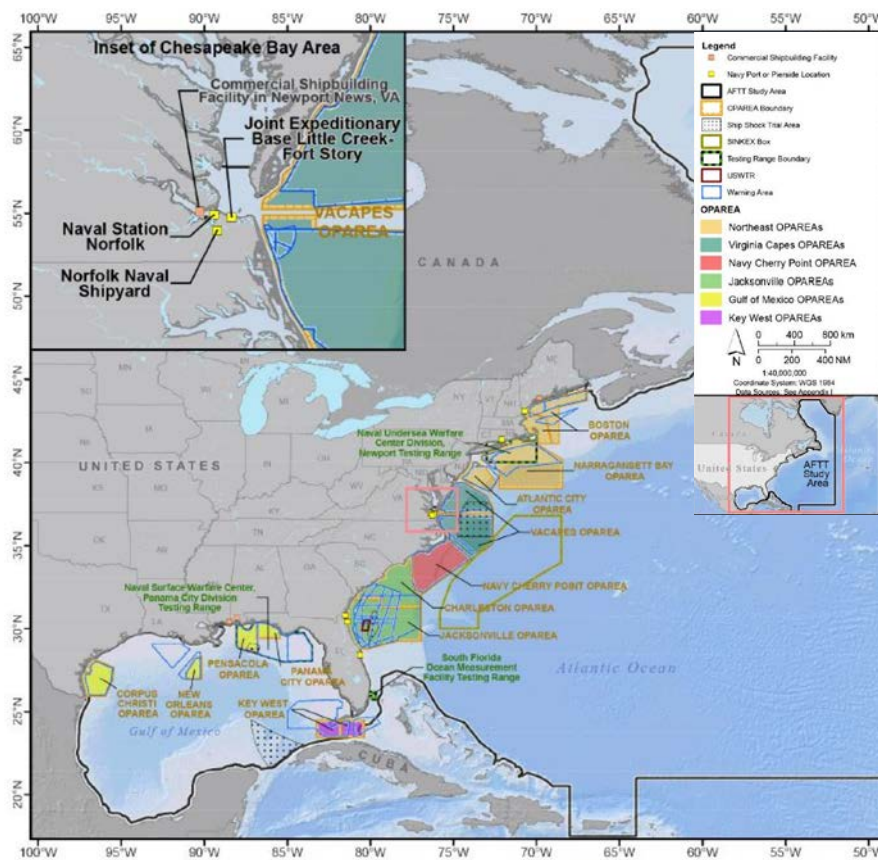
**Support - SMPDC, Rockingham Planning Commission**



## SUPPORTING STRATEGY

# ENSURE COMPATIBILITY OF WIND ENERGY PROJECTS

### Atlantic Fleet Training and Testing Study Area



## COMPATIBILITY SCORE



**TRANSPORTATION  
METRIC AVERAGE  
RATING**



**OVERALL METRIC  
AVERAGE RATING**

Road Capacity + Congestion	Transportation Safety	Infrastructure Capacity	Coordination + Communication	Local Housing Availability	Resilience	Economic
1	1	1	2	1	5	1

## COMPATIBILITY SCORE ANALYSIS

Early dialogue between Military Service and energy developers can minimize potential conflict for continued military operations, including designated corridors for movement of military marine vessels.

## COMPATIBILITY NEEDS

Commercial development of energy projects, both on- and off-shore, may affect unique Department of Defense (DoD) activities and military readiness, especially when located near installations, ranges, within maritime corridors, or on lands beneath designated military training routes or special use airspace.

In January 2019, the Governor of New Hampshire requested that the Bureau of Ocean Energy Management establish an intergovernmental offshore renewable energy task force. The purpose of the organization will be to facilitate coordination with federal and New Hampshire stakeholders to determine the feasibility of offshore wind in federal waters off New Hampshire's coast.

## RECOMMENDATIONS

- Identify what actions need to be taken to participate in the planning and siting of potential projects
- Identify what agencies need to be involved in permitting



## ACTION AND IMPLEMENTATION STEPS



1. State and local governments, in partnership with energy developers, need to ensure proposed energy projects may proceed without compromising DoD's test, training, and military operations, to include radar interference from wind turbines; low-level flight obstructions associated with tall structures; electromagnetic interference from high voltage electrical transmission lines; and glint and glare impacts associated with solar photovoltaic arrays or power tower projects.

## POTENTIAL FUNDING RESOURCES



1. Office of Economic Adjustment (OEA)

## RESPONSIBLE PARTIES

PNSY, local and state government



# 5. IMPLEMENTATION PLAN



# JLUS IN ACTION

The Implementation Framework / Early Action Plan is the culmination of rigorous analysis and discussions with the JLUS Policy Committee and JLUS Working Group. This plan outlines generally the most logical and feasible path towards achieving in full the recommended strategies outlined in this report. As such, each strategy is organized by priority (of highest impact for improving identified compatibility issues) within each of the ten key issue areas identified during the JLUS process. General estimations have been defined for each strategy including their current status of implementation, potential cost, approximate timelines, and most likely parties responsible for executing the strategy.

The plan is intended to be used by these parties and the proposed JLUS Implementation Committee as a foundational guide as specific details relating to responsibilities and strategy-specific tasks are identified and assigned, in due course.








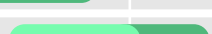




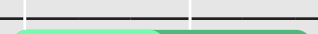





































*Note: The following is the current draft implementation plan as of January 28, 2020. For the most up to date version, please contact either the Town of Kittery or the Southern Maine Planning and Development Commission at [smpdc.org](http://smpdc.org).*










# IMPLEMENTATION FRAMEWORK

## SHORT-TERM STRATEGIES (<1 YEAR)




























ISSUE AREA	#	STRATEGY	COST	STATUS	YEAR 1				RESPONSIBLE
					Q1	Q2	Q3	Q4	
Travel Safety 	3.	Walking and biking safety signs	\$						K P SM ME NH R
	4.	Clear truck route signage	\$						K P SM ME NH R
Congestion 	11.	Real-time gate activity alerts	\$						K P SM ME NH R
Transit 	14.	Regional employer partnerships for transit	\$						K P SM ME NH R
	15.	Expand communication of Navy TIP program	\$						K P SM ME NH R
Parking 	18.	Expand Park and Ride landowners	\$						K P SM ME NH R
	20.	Downtown Kittery parking map	\$						K P SM ME NH R
	21.	Adjust downtown parking pricing	\$						K P SM ME NH R
	22.	Increase parking enforcement downtown	\$\$						K P SM ME NH R
Bike/Walk 	28.	Boost bike awareness	\$						K P SM ME NH R
Housing 	29.	Re-zone to improve affordability	\$						K P SM ME NH R
Regional Coordination 	31.	Regional funding partnerships	\$						K P SM ME NH R
	32.	Regional committee participation	\$						K P SM ME NH R
	33.	Quarterly planning meetings	\$						K P SM ME NH R
	34.	Regional data sharing	\$						K P SM ME NH R
Communications 	35.	Formal joint communications plan	\$						K P SM ME NH R
	36.	Social media public engagement	\$						K P SM ME NH R
	37.	Emergency communications program	\$						K P SM ME NH R
Enviro. 	41.	Community/military resilience partnership	\$						K P SM ME NH R

LEGEND K= Town of Kittery P= PNSY SM= Southern Maine Planning and Development Commission ME= State of Maine agencies NH= State of New Hampshire agencies R= Regional and/or State/Federal agencies  
 No current plans or progress  Some plans or progress made  Significant plans or progress made  Research Phase  Implementation Phase **BOLD indicates catalytic strategy**



# IMPLEMENTATION FRAMEWORK

## MID-TERM (YEARS 2-5) AND LONG-TERM (YEARS 5+) STRATEGIES

Issue Area	#	Strategy	Cost	Status	Years 2-10										Responsible					
					Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10							
Travel Safety 	2.	Increase speed and safety enforcement	\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
	1.	Traffic calming improvements	\$\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
Congestion 	5.	Expand car/vanpool incentives	\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
	10.	Controls on contractor parking and access	\$		<div><div></div></div>										K	P	SM	ME	NH	R
	6.	Staggered work shifts / telework options	\$		<div><div></div></div>										K	P	SM	ME	NH	R
	9.	Gate efficiency solutions	\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
	7.	Traffic signals near the gate	\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
	8.	Bus-only lane on Walker Street	\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
Transit 	13.	New regional park and rides	\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
	12.	Extend regional transit	\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
	16.	Commuter river ferry	\$\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
Parking 	19.	New off-yard parking facility	\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
	23.	Nearby Park and Pedal Program	\$		<div><div></div></div>										K	P	SM	ME	NH	R
	17.	Rail spur Park and Ride	\$\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
Biking and Walking 	27.	Kittery bikeshare program	\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
	24.	Design street for bike/ped appeal	\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
	26.	Protected bike lanes on bridges	\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
	25.	Love Lane/Rte 103 road diets	\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
Housing 	30.	Mixed-income housing program	\$\$		<div><div></div></div>										K	P	SM	ME	NH	R
Economic Resilience 	39.	Promote manufacturing and commercial spin-offs	\$		<div><div></div></div>										K	P	SM	ME	NH	R
	40.	Integrate JLUS findings into CEDS update	\$												K	P	SM	ME	NH	R
	38.	Promote mixed-use development	\$												K	P	SM	ME	NH	R
Enviro. 	42.	Ensure compatibility of wind energy projects	\$												K	P	SM	ME	NH	R

## TOWN OF KITTERY AND PORTSMOUTH NAVAL SHIPYARD JOINT LAND USE STUDY

Three JLUS documents are available to the public, elected and appointed officials, and the military for educational and communication purposes. These documents are as follows:

### **JLUS EXECUTIVE SUMMARY BROCHURE**

The JLUS Executive Summary Brochure can be used as a quick reference to explain the purpose of a JLUS and provides an overview of the JLUS compatibility factors, their analysis and recommended strategies.

### **JLUS REPORT**

The JLUS Report presents an overview of the JLUS planning process, purpose and objectives of the study and the recommended Implementation Plan. The report presents a concise description of the following:

- JLUS project study area
- Population profile and economic overview of PNSY, the Town of Kittery, and the general region
- Summary of the analysis of 24 identified compatibility factors within 10 key issue areas
- Set of recommended strategies and action items to mitigate or prevent incompatibility

### **JLUS FACT SHEETS**

The JLUS Fact Sheets provide a brief summary of progress at various stages of the study, including highlights of data and early analysis, key findings, status of the project timeline, and explanation of the intended team approach and next steps.

*This study was prepared under contract with the Town of Kittery, Maine, with financial support from the Office of Economic Adjustment, Department of Defense. The content does not necessarily reflect the views of the Office of Economic Adjustment.*

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