TOPIC AREA 7: TOWN GOVERNANCE, PUBLIC FACILITIES AND SERVICES AND FISCAL CAPACITY

OBJECTIVE 7.3: PROVIDE ADEQUATE MUNICIPAL SERVICES IN AN EFFICIENT MANNER						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
Ensure our wastewater treatment plans and services are consistent with our land use plan, continued		Monitor septic systems and enforce 3 year pump out requirements (consider an ordinance to require this)			LEAD: Wastewater Treatment Department PARTNER: septic companies	ON-GOING
7.3.4. Ensure our plans for the provision of water are consistent with our land use plans	***Water System Master Plan*** York Watershed Protection District	Support the Water District in its efforts to implement the ***Water Supply Master Plan*** . **SEE END NOTE 7.3.4.A.**		ALSO SEE Topic Area 8.0 Land Use	LEAD: Kittery Water District PARTNER: York Water District	ON-GOING
		Consider consolidating water supplies with York Water District. **SEE END NOTE 7.3.4.B**				1
		Consider connection to the South Berwick Water District			PARTNER: South Berwick Water District	1
		Continue to explore the possibility of relocating the Water District's Administrative offices				ON-GOING
		Continue to support water quality monitoring			LEAD: Town Council, Conservation Commission	ON-GOING

TOPIC AREA 7: TOWN GOVERNANCE, PUBLIC FACILITIES AND SERVICES AND FISCAL CAPACITY

OBJECTIVE 7.3: PROVIDE ADEQUATE MUNICIPAL SERVICES IN AN EFFICIENT MANNER						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
Ensure our plans for the provision of water are consistent with our land use plans, continued		Provide information regarding options to residents, especially those living on waterfront with failing septic systems **SEE END NOTE 7.3.4. C.**	State loans available			ON-GOING
		Continue to monitor water usage at the PNS (the largest user)			PARTNER: PNS (Shoreland Resource Officer)	ON-GOING
7.3.5. Continue to reduce or eliminate polluted Stormwater runoff to the extent practicable	*5-year Stormwater Program Management Plan* *York County Stormwater System Plan*	Continue to enforce the six goals for the York County Stormwater System **SEE ENDNOTE 7.3.5.**		ALSO SEE 8. Land Use	LEAD: Stormwater Coordinator, DPW	ON-GOING
		Consider completing a Stormwater Utility Feasibility Study to determine if appropriate as a mechanism to finance Stormwater improvements			LEAD: Stormwater Coordinator, DPW	2
		Consider connection to the South Berwick Water District				1

TOPIC AREA 7: TOWN GOVERNANCE, PUBLIC FACILITIES AND SERVICES AND FISCAL CAPACITY

OBJECTIVE 7.3: PROVIDE ADEQUATE MUNICIPAL SERVICES IN AN EFFICIENT MANNER						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
7.3.6. Provide services in a manner that results in attracting desired economic development in appropriate locations		Explore the creation of a municipal Tri-generation Plant to provide power (heat, steam, electricity, and hot water) to connect to micro-grid.		This may be attractive to potential users of the Business Park ALSO SEE Topic Area 4.0 Economy	LEAD: Wastewater Treatment Department	3
		Support extending utliies and services in areas deemed desirable for additional economic activities and uses				ON-GOING
		Conduct a thorough assessment of needs and impacts of devlelopment.			LEAD: Planning Board	ON-GOING

TOPIC AREA 7: TOWN GOVERNANCE, PUBLIC FACILITIES AND SERVICES AND FISCAL CAPACITY

OBJECTIVE 7.4: MAINTAIN AND RESPONSBLY INCREASE FISCAL CAPACITY						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
7.4.1 Continue to align fiscal capacity and capital investment plans		Take into account need assessment, anticipated growth, and economic development			LEAD: Town Manager, Town Council, Department Heads	1
7.4.2. Continue to explore ways to increase fiscal capacity	Title 16 Land Use and Development Code for Kittery. Economic Development Website.	Increase commercial tax base with desirable uses in key locations	Operating Costs (staff time)	Also SEE Topic Area 4.0 Economy	LEAD: Town Manager, Economic Development Committee, Planning Board, Planning Department	1
		Consider zoning changes that could help attract new commercial development to strategic locations				
		Market existing properties and development opportunities more broadly				

TOPIC AREA 7: TOWN GOVERNANCE, PUBLIC FACILITIES AND SERVICES AND FISCAL CAPACITY

OBJECTIVE 7.4: MAINTAIN AND RESPONSBLY INCREASE FISCAL CAPACITY						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
Continue to explore ways to increase fiscal capacity, continued		Look for additional state and federal funding sources			LEAD: Grantswriter, Planning Department	
7.4.3. Align the Capital Investment Plan with the municipal growth-related capital investments identified in the Comprehensive Plan.		Establish funding priorities			LEAD: Town Manager Planning Department	1
		identify funding sources and mechanisms				
		anticipate municipal capital investments needed to support proposed land uses				

TOPIC AREA 7: TOWN GOVERNANCE, PUBLIC FACILITIES AND SERVICES AND FISCAL CAPACITY

END NOTES

END NOTE 7.1.3.A. Improve Communication with residents. Ideas from the public:
- *Improve internet access*
- *Use Channel 22 to provide "newscast" type of updates: upcoming meetings, results of past meetings*
- *Notification by mail with tax bill*
- *Better website (fewer pdfs, more process description)*
- *Need newspaper*
- *Create an on-line presence similar to "Our Kittery", factual narrative and informative*
- *Answer the telephones*
- *Employ respectful tone in public discourse*

END NOTE 7.1.3. B. Communication Technology: There are a number of ways in which technology can improve connections and communication between Town government and Kittery residents.

Some examples include:
- York has a computerized communication system that connects residents, commissioners and other town officials that makes enforcement easier. It has in place a computer/web-based interface that allows residents to connect to town officials (to their computer or devise) with a logged inquiry regarding specific issues. The system provides for easier and quicker responses and better opportunities for follow up.

- Portsmouth has a "click and fix" application that allows residents to report needs from the app on their cell phone.

END NOTE 7.1.3.C. Communications Plan. A Communications Plan outlines the ways in which a municipality intends to communicate with its residents and business community, including the frequency, modes of communication, protocols, messages, etc. A municipality can use another plan as a reference to make sure it has addressed all the elements or to find creative communications tools that worked in other situations. To be successful, a plan must contain the answers to several key questions[1]:
- What is the organizational outcome or problem to be solved?
- Who do we want to reach?
- What do we want each audience member to know?
- How do our different audiences get their information?
- What are the best tools to reach our audiences with our messages?
- How much time do we need to plan, prepare tools and implement?
- How much money or other resources are needed?
How do we know if we're solving the problem?

For an example of a Communications Plan, see Springwater, Ontario, CA:

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[1] Summerfield and Benninghoven, "Managing More Effectively With a Strategic Communications Plan, Western City Magazine: http://www.westerncity.com/Western-City/September-2009/Managing-More-Effectively-With-a-Strategic-Communications-Plan/

TOPIC AREA 7: TOWN GOVERNANCE, PUBLIC FACILITIES AND SERVICES AND FISCAL CAPACITY

http://www.springwater.ca/UserFiles/Servers/Server_229/File/Municipal%20Services/Planning%20and%20Development/Draft%20Communications%20%20Plan%20for%20Development.pdf

END NOTE 7.2.4. Support healthy lifestyle choices and wellness.

The Environmental Protection Agency has programs to support communities by inviting them to apply for technical assistance through programs that support healthy communities and wellness. Three such programs, described below, have the goal to create economic opportunities, make neighborhoods more walkable, help people live healthier lives, and revitalize downtowns and neighborhoods.

Local Foods, Local Places helps communities create walkable, healthy, economically vibrant neighborhoods through the development of local food systems. This initiative is supported by EPA, the U.S. Department of Agriculture, the Centers for Disease Control and Prevention, the U.S. Department of Transportation, the U.S. Department of Housing and Urban Development, the Appalachian Regional Commission, and the Delta Regional Authority.   Learn how to apply for the Local Foods, Local Places Program: https://www.epa.gov/smartgrowth/local-foods-local-places-2016-2017-application

Cool & Connected helps small towns use broadband service to revitalize small-town main streets and promote economic development. The initiative is supported by EPA, the U.S. Department of Agriculture Rural Utilities Service, and the Appalachian Regional Commission.   Learn how to apply for the Cool & Connected Program: https://www.epa.gov/smartgrowth/cool-connected-fall-2016-

application

Healthy Places for Healthy People is a new program to help communities partner with community health centers (including Federally Qualified Health Centers), nonprofit hospitals, and other health care facilities to create walkable, healthy, economically vibrant places. The program is supported by EPA and the Appalachian Regional Commission. Under this program, communities will receive planning assistance to develop action plans focusing on health as an economic driver and catalyst for downtown and neighborhood revitalization. Healthy Places for Healthy People will focus on communities that are economically challenged, including those in rural Appalachia.   Learn how to apply for the Healthy Places for Healthy People Program: https://www.epa.gov/smartgrowth/healthy-places-healthy-people

END NOTE 7.3.1. A. The national average is 2 officers/ 1,000 residents).   Currently Kittery has 20 sworn officers; this is approximately in line with the national average. In Kittery's case however, in addition to the Town's residents, public safety is an issue for employees of the Shipyard, the shoppers patronizing the outlets, and the tourists visiting the beaches and parks increasing the daily population of the Town, especially in the summer months.   This daytime population should be considered when determining the need for police officers.

END NOTE 7.3.1. B While the Town of Kittery will no longer be sharing a Police Chief with the Town of Eliot, there is a grant pending to support expanding regional dispatch currently run out of the Kittery Police Department to serve the Towns of Kittery, Eliot, Berwick and South Berwick.

TOPIC AREA 7: TOWN GOVERNANCE, PUBLIC FACILITIES AND SERVICES AND FISCAL CAPACITY

END NOTE 7.3.1.C. Reportedly, it is becoming increasingly difficult to recruit volunteer fire fighters. Also, if there is any further growth in residential development and/or commercial (in the Foreside, in the Business Park, etc.) in addition to the increase in the elderly population will result in an increase in the number of alarms and calls for service which will become increasingly difficult to respond to with a volunteer force. Apparently, newly trained fire fighters often become successful candidates for paid professional fire fighting positions in other cities and towns and leave Kittery's Department.

As the number of call fire fighters decreases and the number of calls for service increase, the need to transition to a form of paid staff will become necessary. This could be accomplished by hiring per diem fire fighters or by adopting a more complex full-time employee structure. The Gorges Road station was designed with the ability to accommodate a future addition to house sleeping quarters, a requirement of a fulltime fire fighting department. Adding the sleeping facilities could help to recruit volunteers during the transition.

END NOTE 7.3.2. Increase activities for youth. Ideas from the public:
- *Teen hangout spot, Ping Pong, video games, food and drinks, movie night*
- *Develop a Teen Advisory Board to develop programs, promote and recruit users*
- *Add a Teen Center to the KCC*
- *Volley ball*
- *Tennis courts*

- *Swimming pool*

Ideas from Youth Forum (at Traip Academy):
- *Bike racks and bike friendly roads*
- *Strike a better balance between pedestrians and cars in the Outlets area*
- *Clean up abandoned building on Route 1 and turn it into a place for teens*
- *Music venues*
- *Nature trails connecting parts of Kittery*
- *Better connect school to community*
- *Encourage employers to hire teens*

END NOTE 7.3.3. Grey water is the water that comes out of the drains of showers, baths, sinks, and washing machines. It is distinctly different from black water, which is what gets flushed down the toilet. Grey water can be used for watering houseplants, landscaping, or even flushing the toilet, so it's a resource that can be used twice. The problem is that our modern plumbing doesn't distinguish between the two, but instead combines them and sends onward as sewage, so unless we manually divert or capture it, grey water essentially becomes black water, rendering it useless until it goes through the municipal water treatment process. Not all grey water is the same, as the water coming from the kitchen sink or dishwasher can contain a lot of organic matter and has the potential for harboring pathogens (and kitchen sink water, under some codes, is actually considered black water and is not to be used), but a bathroom sink or tub often has minimal amounts of organic matter and soap residue. However, with the proper system, such as a biofilter or mulched basin, using grey

TOPIC AREA 7: TOWN GOVERNANCE, PUBLIC FACILITIES AND SERVICES AND FISCAL CAPACITY

water from the kitchen sink is an accepted practice.[2] For more see: https://en.wikipedia.org/wiki/Greywater
More Examples: http://greywateraction.org/commercial-scale-greywater-systems/
Case Studies (ideas for pilot demonstration project): http://oasisdesign.net/greywater/indoors/

END NOTE 7.3.4 A. The *Kittery Water System Master Plan* lists three main goals for the future:

- To construct a new Water Treatment Facility and to upgrade and repair the system's pipes

- Water Withdrawal Management - Regulation of water withdrawals from surface water supplies will be implemented in the State of Maine over the next 10-year planning period. Determination of the withdrawal capacity of the District's reservoir system during this period will define the size of the treatment facility upgrade needed to meet the needs of the system.

- Portsmouth Naval Shipyard - The long-term viability of this important customer remains a question in the local economy. The District intends to monitor

and observe water-use at the facility over the next 10-years.

END NOTE 7.3.4.B. According to the *Water System Master Plan,* York Water District and the Kittery Water District have held informal discussions regarding the consolidation of their water supplies. Each District retains a separate and distinct reservoir system located in the Town of York. The close proximity of these sources of supply to each other, the contiguous watershed protection and pubic ownership of land surrounding the reservoir system, make the potential for local cooperation between the two utilities possible.

END NOTE 7.3.4.C. State Loans for installing replacement septic systems.

The Maine Department of Environmental Protection (1-800-452-1942) offers several community-based loans and grants. The Maine State Housing Authority offers assistance for low income homeowners ((207) 626-4600 or 1-800-452-4668). Many banks and credit unions offer home improvement loans. Finally, by statute (30-A MRSA, ss 3428(3)(B)), a municipality may install a system on a lot, and recover the costs through a special tax assessment.

For more information go to the Division of Environmental Health website: http://www.maine.gov/dhhs/mecdc/environmental-health/plumb/faq.htm

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[2] How to reuse grey water in the home and yard, Treehugger Sustainability Made Stylish, June 2, 2014
http://www.treehugger.com/green-home/how-reuse-grey-water-home-and-yard.html

TOPIC AREA 7: TOWN GOVERNANCE, PUBLIC FACILITIES AND SERVICES AND FISCAL CAPACITY

END NOTE 7.3.5. York County Stormwater Improvement Goals:

The following describes the York County Stormwater System (MS4) six major goals or minimum control measures[3]:

1. Public education and outreach on stormwater impacts : among other efforts, the Towns are cooperating on the preparation of a Statewide Public Awareness Plan to raise awareness of stormwater issues such as the path stormwater runoff takes, sources of stormwater pollution and the impact of that polluted stormwater runoff on the community.

2. Public involvement and participation: The York County MS4s will annually host/conduct or participate in at least one public event (either jointly or individually) such as storm drain stenciling, stream clean-up, household hazardous waste collection day, volunteer monitoring, neighborhood educational events with a pollution prevention, water quality or environmental theme, conservation commission outreach program, Urban Impaired Stream outreach program, or adopt a storm drain or local stream program. The target audience will be adults living in the Urbanized Area of the Towns.

3. Illicit discharge detection and elimination: Each of the towns created a watershed-based maps of their MS4 infrastructure. Annually by June 30 each year, the towns will update either the GIS systems or the paper copies of the maps to reflect new infrastructure and changes to the infrastructure.

4. Construction site stormwater runoff control: Implement and enforce a program to reduce pollutants in any stormwater runoff to the regulated small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre.

5. Post-construction stormwater management in new development and redevelopment: During the previous permit cycle, the town of Kittery passed a Post Construction Discharge Ordinance. The town will continue to implement these ordinances.

6. **Pollution prevention/good housekeeping for municipal operations:** During the previous permit cycle, Kittery developed an inventory of all municipal operations conducted in, on, or associated with facilities, buildings, golf courses, cemeteries, parks and open space that have the potential to cause or contribute to stormwater or surface water pollution. The town will review the inventories and update them if necessary to include any new properties that have the potential to cause or contribute to stormwater or surface water pollution.

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[3] *Stormwater Program Management Plan for York County MS4s,* Submitted to Maine DEP: December 2013.

GOAL STATEMENT: To ensure that the town's regulations support desired land uses.

OBJECTIVE 8.1: UPDATE TOWN CODE AND APPLY LAND USE REGULATIONS TO GUIDE DESIRABLE DEVELOPMENT IN APPROPRIATE LOCATIONS						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.1.1 Support the implementation of the Future Land Use Plan		Review and revise Town regulations to align with goals of Future Land Use Plan			LEAD: Town Manager	ON-GOING
		Encourage the protection of open space and landscape features within developments and/or in the no growth/limited growth areas.				
		Periodically (on an annual or bi-annual basis) evaluate implementation plan in accordance with Section 2.7 of Maine's Growth Management Plan.				
		Provide the code enforcement officer with the tools, training and support necessary to enforce land use designations and regulatory and non-regulatory strategies		Ensure that the Code Enforcement Officer is certified in accordance with 30-A M.R.S.A. 4451.		

OBJECTIVE 8.1: UPDATE TOWN CODE AND APPLY LAND USE REGULATIONS TO GUIDE DESIRABLE DEVELOPMENT IN APPROPRIATE LOCATIONS						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
Support the implementation of the Future Land Use Plan, continued		Where possible, support the level of financial commitment necessary to provide needed infrastructure in growth areas.		growth areas are indicated on Future Land Use Map		
8.1.2. Review and revise the Town Code		Consider reducing the number of subzoning categories to reflect existing and desired uses		There are too many similar zoning districts an allowable uses and performance standards do no match with the purpose statements in some districts	LEAD: Planning Board, Planning Department	1
		Review and revise Land Use codes to account for the potential impacts of sea level rise and climate adaptation				
		Consider adopting **contract zoning** to support desirable development in specific locations				

OBJECTIVE 8.1: UPDATE TOWN CODE AND APPLY LAND USE REGULATIONS TO GUIDE DESIRABLE DEVELOPMENT IN APPROPRIATE LOCATIONS						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.1.3. Continue efforts to encourage development to locate in areas where public utilities are already provided	existing water and sewer systems existing transportation infrastructure	Direct new development, where feasible, to vacant or underutilized sites and buildings; direct development away from areas with natural constraints, key wildlife or open space corridors, protected shorelands, and areas where public utilities are not yet available and would be costly to extend			LEAD: Planning Board, Planning Department	ON-GOING
		Encourage sewer and water districts to coordinate any planned service extensions with the Future Land Use Plan				
		Establish efficient permitting procedures, especially in areas designated as "growth areas" in Future Land Use Plan				

OBJECTIVE 8.1: UPDATE TOWN CODE AND APPLY LAND USE REGULATIONS TO GUIDE DESIRABLE DEVELOPMENT IN APPROPRIATE LOCATIONS						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.1.4. Continue efforts to direct new commercial and multi-family residential development to existing commercial, industrial, and urban/suburban residential districts					LEAD: Planning Board	ON-GOING
8.1.5. Encourage the protection of open space and landscape features within developments and/or in the no growth/limited growth areas		Review and revise the Cluster Development requirements to encourage its use Explore Transfer of Develoment Rights (TDR)				ON-GOING
8.1.6. Consider adding provisions to support the adaptive reuse of existing historic structures		Consider adopting a demolition delay ordinance Consider adopting **Adaptive Reuse Ordinance**				1

OBJECTIVE 8.1: UPDATE TOWN CODE AND APPLY LAND USE REGULATIONS TO GUIDE DESIRABLE DEVELOPMENT IN APPROPRIATE LOCATIONS						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.1.7. Consider amending zoning to provide for more affordable housing		Consider adoption of an inclusionary housing ordinance, adjustments to the Accessory Dwelling Unit ordinance, and the adoption of regulations related to co-housing and tiny houses; also, consider lessening square foot per dwelling requirements in some zoning districts where mixed use and multi-family units are desired and encouraged			LEAD: Planning Board Planning Department	1
8.1.8. Direct a minimum of 75% of new municipal growth-related capital investments into designated growth areas identified in the Future Land Use Plan		Align Capital Improvements Plan with Future Land Use Plan	town budget		LEAD: Town Manager Town Council Planning Board Planning Department	ON-GOING

OBJECTIVE 8.1: UPDATE TOWN CODE AND APPLY LAND USE REGULATIONS TO GUIDE DESIRABLE DEVELOPMENT IN APPROPRIATE LOCATIONS						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.1.9. Coordinate land use strategies with other local and regional land use planning efforts where appropriate	Area communities Greater York County SMRPC	Meet with neighboring communities to coordinate land use designations and regulatory and non-regulatory land use strategies. Beaware of regional planning efforts			LEAD: Town Manager Planning Department	ON-GOING

TOPIC AREA 8: LAND USE

OBJECTIVE 8.2: PROTECT THE AREA NORTH OF SPRUCE CREEK						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.2.1. Work with the Kittery Land Trust to create a prioritized list of parcels for open space acquisition	Existing unprotected open spaces and agricultural lands	Engage in a transparent process with the public to prioritize open space and farmland that could be acquired should it come up for sale in the future.	Operating Costs (staff time)	See Natural Reseources and Recreation Section for additional land conservation recommendations.	LEAD: Kittery Open Space Advisory Committee, Kittery Land Trust	1
8.2.2. Revisit the Cluster Ordinance to ensure it is effective in meeting its objectives	Title 16 Land Use and Development Code for Kittery.	Revisit the current Cluster Bylaw and evaluate its effectiveness in maintaining the goals of open space preservation while providing for financially-viable development scenarios.	Operating Costs (staff time)		LEAD: Planning Board, Planning Staff PARTNERS: Property Owners, KOSAC, Kittery Land Trust	1
		Talk with property owners who have recently developed on open space to see what could have been done differently, or why the Cluster Bylaw was not utilized.				

TOPIC AREA 8: LAND USE

OBJECTIVE 8.2: PROTECT THE AREA NORTH OF SPRUCE CREEK						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
Revisit the Cluster Ordinance to ensure it is effective in meeting its objectives, continued		Vary open space and lot size requirements by land use zone in order to support the zone's purpose, obtain its desired density and protect its resources				
		Review the permitting process to ensure it is not a deterrant by creating barriers to entry and a long time frame to permit the project.				
8.2.3. Consider increasing the minimum lot size in the Rural Residential zoning district to help protect additional open space and encourage the clustering of homes.	Title 16 Land Use and Development Code for Kittery.	Determine what impact increasing the minimum lot size would have on developable parcels in the rural zoning districts and if the change would push more property owners to take advantage of a revamped Cluster Ordinance.	Operating Costs (staff time)		LEAD: Planning Board, Planning Staff	1

TOPIC AREA 8: LAND USE

OBJECTIVE 8.2: PROTECT THE AREA NORTH OF SPRUCE CREEK						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.2.4. Explore the feasibility and usefulness of a transfer of development rights bylaw.	Title 16 Land Use and Development Code for Kittery.	Consider the benefits of a TDR program and its financial and political feasible in Kittery.	Operating Costs (staff time)		LEAD: Planning Board, Planning Staff	2
		Identify receiving zones for additional density.				
		Adjust zoning regulations in receiving districts and develop TDR Ordinance.				

TOPIC AREA 8: LAND USE

OBJECTIVE 8.3: SUSTAIN AND BUILD UPON THE VITALITY OF THE FORESIDE DISTRICT						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.3.1. Undertake a study to identify what is needed to support an expansion of the Foreside district.	Title 16 Land Use and Development Code for Kittery.	Study the opportunities and challenges associated with expanding the Foreside area to determine if the zoning district boundaries should change in the future. Identify desired uses. Identify the regulations and infrastructure needed to support an expansion of the area	Operating Costs (staff time)		LEAD: Planning Department, Planning Staff	2
8.3.2. Include parking reduction and shared parking strategies in the Kittery Foreside Mixed-Use zoning district.	Title 16 Land Use and Development Code for Kittery.	Look for opportunities to allow for parking reductions or shared parking in the Foreside.	Operating Costs (staff time)	See Transportation Section	LEAD: Planning Department, Planning Staff PARTNERS: Businesses, Land Owners	1
		Consider parking management strategies before constructing new public parking facilities.				

TOPIC AREA 8: LAND USE

OBJECTIVE 8.3: SUSTAIN AND BUILD UPON THE VITALITY OF THE FORESIDE DISTRICT						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.3.3. Reduce land area per dwelling unit requirements for multifamily housing	Title 16 Land Use and Development Code for Kittery.	To help with the redevelopment or infill development on smaller parcels in the Foreside, consider reducing the current land area per dwelling unit requirements for multi-family housing.	Operating Costs (staff time)		LEAD: Planning Department, Planning Staff PARTNERS: Businesses, Land Owners	1
8.3.4. Explore ways of supporting the financial feasibilty of the redevelopment of smaller parcels.	Title 16 Land Use and Development Code for Kittery.	Consider increasing building coverage requirements for small parcels in the Foreside Mixed-Use district where limited space is available to accommodate buildings, parking, and open space on the same lot.	Operating Costs (staff time)		LEAD: Planning Department, Planning Staff PARTNERS: Businesses, Land Owners	1
		Consider shared open space opportunities among a number of smaller parcels/developments.				

TOPIC AREA 8: LAND USE

OBJECTIVE 8.3: SUSTAIN AND BUILD UPON THE VITALITY OF THE FORESIDE DISTRICT						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.3.5. Look for opportunities to leverage town-owned land or buildings to support town-wide goals for housing and job creation.	Title 16 Land Use and Development Code for Kittery	Continue to evaluate use, age, and quality of town-owned land and buildings to look for opportunities in the future.	N/A		LEAD: Town Council, Planning Department PARTNERS: Planning Board, Economic Development Committee, Other Town Departments	3
8.3.6. Encourage innovative makerspace, (do-it-yourself) DIY spaces that afford artists and small business owners with space to create, invent, and learn in the Foreside, alongside modest retail opportunities for galleries and sales.		Consider adjusting allowable uses in the Foreside mixed-use district to not dissuade maker-space, light manufacturing, and retail sale space for artists or other business owners who need a mix of space in the same building.	N/A		LEAD: Economic Development Committee PARTNERS: Planning Board, Planning Staff, Property and Business Owners	2

OBJECTIVE 8.4: PROTECT THE WORKING WATERFRONT						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.4.1. Increase the long-term viability of the working waterfront through coordination with fishermen and protection of piers and dockside facilities.	See Marine Resources	See Marine Resources	See Marine Resources	See Marine Resources	See Marine Resources	2
8.4.2. Look for ways to allow and/or support unique business ideas along the waterfront that integrate traditional marine-related businesses with new and innovative business ventures.	Title 16 Land Use and Development Code for Kittery.	Ensure that use definitions and permitting processes do not restrict innovative ideas for keeping marine-related jobs and industries financially-viable in Kittery.	Operating Costs (staff time)		LEAD: Planning Board, Planning Staff PARTNERS: Property Owners, Businesses	2

OBJECTIVE 8.4: PROTECT THE WORKING WATERFRONT						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.4.3. Ensure creative and innovative uses in the Shoreland Overlay Zone do not have to go through an onerous approval process if and when they trigger a Special Exception permit.	Title 16 Land Use and Development Code for Kittery.	Review permitting process for recently approved permits/developments in the overlay district. Adjust permitting process as necessary to reduce time in permitting process.	Operating Costs (staff time)	See Marine Resources	LEAD: Planning Board, Planning Staff PARTNERS: Property Owners, Marine Business Community	1

OBJECTIVE 8.5: SUPPORT CREATIVE AND VIABLE REDEVELOPMENT OF THE ROUTE 1 CORRIDOR (OUTLET AREA AND RT. 1 BY-PASS)						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.5.1. Engage in a planning process for the Outlet Mall and the Rt. 1 By-pass areas	See Economic Development	Bring together interested parties to discuss and identify future development opportunities			LEAD: Planning Board, Planning staff PARTNERS: Property owners, businesses, Regional Planning Commission, Economic Development	2
		Consider zoning amendments such as an overlay zone that provides for more flexibility concerning permitted uses.				
		Treat each area (Outlet Mall and By-Pass) differently.				

OBJECTIVE 8.6: EXPLORE FEASIBILITY OF DEVELOPMENT IN THE BUSINESS PARK						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.6.1. Determine what uses would be desirable and marketable in the Business Park and make updates to the base zone that reflect those uses.	Title 16 Land Use and Development Code for Kittery.	Undertake a study to determine what uses would be desirable and marketable in the Business Park. Update zoning accordingly.	Operating Costs (staff time)		LEAD: Planning Board, Planning Staff	1
		Discussion should include consideration of the inclusion of housing among uses in the Business Park. If this is determined to be appropriate for this location, consider changing the name of the district to reflect mix of uses.				

OBJECTIVE 8.6: EXPLORE FEASIBILITY OF DEVELOPMENT IN THE BUSINESS PARK						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
8.6.2. Review and revise the Business Park zoning district's dimensional standards in relation to land area per dwelling unit and minimum lot size.	Title 16 Land Use and Development Code for Kittery.	Review and revise as needed the current 120,000 square foot minimum lot size. Determine if it is a deterrent if developers are not choosing to use the mixed use cluster provision.	Operating Costs (staff time)		LEAD: Planning Department, Planning Staff PARTNERS: Economic Development Committee, Town Council, Property Owners/Developers in Kittery	1
8.6.3. Provide clear direction in the Zoning Ordinance with regard to the minimum dimensional standards for development under the Mixed Use Cluster provisions that are applicable to development in the Business Park zoning district.	Title 16 Land Use and Development Code for Kittery.	Provide specific dimensional standards for the mixed use cluster provision in the zoning ordinance. This section of the ordinance requires clarity and certainty to ensure developers know the regulations guiding development in the Business Park.	Operating Costs (staff time)	 Currently, the Planning Board has the discretion to allow or not allow changes in density, dimensional standards, site plans, and design elements. Clarity around this issue will help set expectations for both the Planning Board and any future developer looking to invest in the Business Park.	LEAD: Planning Department, Planning Staff	1

TOPIC AREA 9: COASTAL COMMUNITY RESILIENCE

GOAL STATEMENT: To establish short, medium and long term plans to address the effects of climate change, including increased storm frequency and strength, coastal erosion and rising ocean levels, and transition of both public and private energe consumption to low and zero impact methods

OBJECTIVE 9.1: ESTABLISH PLANS TO ADDRESS THE EFFECTS OF CLIMATE CHANGE						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
9.1.1. Identify, monitor, plan, and mitigate the potential impacts of SEA LEVEL RISE		Establish a new Climate Adaptation Committee			LEAD: Town Council	1
	New England Climate Adaptation Project MIT Science Impact Collaborative UNH faculty and students **SEE END NOTE 9.1.1.A.**	Complete a Climate Adaptation Study **SEE END NOTE 9.1.1.B.**		Also See Topic Area 6: Marine Resources	LEAD: Town Council PARTNERS: Planning Department, Port Authority, PNS	1
	Maine Coastal Management Initiative Maine Department of Environmental Protection Northeast Regional Ocean Council	Join regional coalition of surrounding coastal communities to work together around issues of sea level rise			PARTNERS: New England Climate Adaptation Project partners	1
	Georgetown Wells	Review climate adaptation plans of area coastal towns				1

TOPIC AREA 9: COASTAL COMMUNITY RESILIENCE

OBJECTIVE 9.1: ESTABLISH PLANS TO ADDRESS THE EFFECTS OF CLIMATE CHANGE						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
Identify, monitor, plan, and mitigate the potential impacts of SEA LEVEL RISE, continued	Maine Emergency Management Agency	Develop strategies to protect Town's marine facilities during coastal storms			LEAD: DPW PARTNERS: Port Authority Planning Department Fire and Police	1
	Portsmouth Naval Shipyard staff currently working on these issues	Work with PNS to ensure preparedness for sea level rise and to identify ways of reducing or eliminating outflows of pollutants and hazardous or toxic materials during floods or storms			LEAD: Town Manager, DPW PARTNERS:PNS	ON-GOING
	Maine Coastal Mapping Initiative Maine Department of Transportation **SEE END NOTES**	Identify at risk areas (e.g. infrastructure, marshes, etc.) and identify appropriate adaptation strategies				1
9.1.2. Review and Update the Town's EMERGENCY PLAN in case of extreme storm conditions	Maine Emergency Management Agency	Identify potential future at risk for flooding areas and appropriate emergency management strategies		Updated Flood Plain maps should be used in preparing the Emergency Plan.	LEAD: DPW PARTNERS: Port Authority Planning Department Fire and Police	1
		Update rainfall tables to account for more frequent and more severe storms			LEAD: DPW	1

TOPIC AREA 9: COASTAL COMMUNITY RESILIENCE

Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
OBJECTIVE 9.1: ESTABLISH PLANS TO ADDRESS THE EFFECTS OF CLIMATE CHANGE						
Review and Update the Town's EMERGENCY PLAN in case of extreme storm conditions, continued		Update strategies to protect Town's marine facilities during coastal storms			LEAD: DPW, Port Authority	
		Create a micro-grid connecting the public schools and area hospitals in an energy grid to increase resilience			LEAD: Town Manager	
		Develop a Debris Management Plan including identifying whether existing rules and statutes impede emergency clean up after damaging storm events.		see whether surrounding towns have developed one and whether there can be some sharing of responsibilities and resources	LEAD: DPW PARTNERS:PNS	2
9.1.3. Develop a REGIONAL APPROACH to addressing the potential impacts of climate change	Maine Coastal Management Initiative Maine Department of Environmental Protection SMPDC	Collaborate with neighboring communities to: monitor wildlife in specific locations Consider Kittery initiating the formation of a regional Climate Adaptation Committee			LEAD: Town Council	2

TOPIC AREA 9: COASTAL COMMUNITY RESILIENCE

OBJECTIVE 9.1: ESTABLISH PLANS TO ADDRESS THE EFFECTS OF CLIMATE CHANGE						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
Develop a REGIONAL APPROACH to addressing the potential impacts of climate change, continued	Maine Sea Grant and University **SEE END NOTES**	Consider developing a regional standard regarding the review and controls for shorelands, as well as structures and activities affected by sea level rise			LEAD: Town Manager	2
9.1.4. Monitor, plan for, and mitigate the potential effects of climate change on Kittery's NATURAL RESOURCES		Incorporate data analysis in planning for wildlife, fisheries, and agricultural management. Monitor wildlife in specific locations to identify changes in species presence. Monitor stream flow or lake levels to identify effects of increased Stormwater runoff from rain event. Monitor industrial activity to measure any changes over time in pollutants			LEAD: DPW, Conservation Commission	ON-GOING
9.1.5. Identify potential impacts, monitor, plan for, and mitigate the potential effects of climate change on Kittery's BUILT ENVIRONMENT	Maine Department of Transportation Climate Change Institute at the University of Maine **SEE END NOTES**	Conduct risk assessment studies for infrastructure (culverts, storm drains, bridges, tide gates, etc.) in all Town faciilities, schools, emergency shelters, etc.			LEAD: DPW	1

TOPIC AREA 9: COASTAL COMMUNITY RESILIENCE

OBJECTIVE 9.1: ESTABLISH PLANS TO ADDRESS THE EFFECTS OF CLIMATE CHANGE						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
Identify potential impacts, monitor, plan for, and mitigate the potential effects of climate change on Kittery's BUILT ENVIRONMENT, continued		Consider completing a Stormwater Utility Feasibility Study to determine if appropriate as a mechanism to finance Stormwater improvements		SEE ALSO: 7.3.6. Discuss with other towns that have established such a mechanism to understand costs and benefits	LEAD: Stormwater Coordinator DPW	2
		Continue to monitor and enforce stormwater runoff from new and expanded residential subdivisions and commercial develompments. At a minimum, standards must be consistent with state standards.			LEAD: Stormwater Coordinator DPW	ON-GOING
	See state guidelines and area coastal towns for possible models	Adapt and modify regulations as they relate to shoreline development. Align regulations with state guidelines. Explore precedents from are coastal towns. Consider developing regulations that add submission requirements to projects within 250 feet of a coastal wetland such that the design takes into account sea level rise.			LEAD: Town Manager PARTNER:Planning Department, Planning Board	2

TOPIC AREA 9: COASTAL COMMUNITY RESILIENCE

Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
OBJECTIVE 9.1: ESTABLISH PLANS TO ADDRESS THE EFFECTS OF CLIMATE CHANGE						
Identify potential impacts, monitor, plan for, and mitigate the potential effects of climate change on Kittery's BUILT ENVIRONMENT, continued		Continue to educate and work with owners of existing commercial and residential projects on a voluntary and coooperative basis to retrofit existing stormwater systems, where necessary, to improve the quality of the stormwater discharge.			LEAD: Stormwater Coordinator, DPW PARTNERS: owners of residential and commercial properties	ON-GOING
9.1.6. Identify, mitigate and take advantage of opportunities created by the potential impacts of climate change on Kittery's ECONOMY	Maine Sea Grant and University of Maine **SEE END NOTES**	Consider developing a program to support fishermen in their need to adapt to changes in species distribution and abundance as a result of climate induced environmental variations.			LEAD: Fishermen's Advisory Committee Port Authority	2
	local fishermen local restaurants	Promote Dock to Dish programs connecting local fishermen to local restaurants, strengthening the economy and making the fishing industry more resilient to the impacts to climate change **SEE END NOTE 9.1.6.**			LEAD: Fishermen's Advisory Committee Port Authority	

TOPIC AREA 9: COASTAL COMMUNITY RESILIENCE

OBJECTIVE 9.1: ESTABLISH PLANS TO ADDRESS THE EFFECTS OF CLIMATE CHANGE						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
Identify, mitigate and take advantage of opportunities created by the potential impacts of climate change on Kittery's ECONOMY, continued	Maine Coastal Mapping Initiative **SEE END NOTES**	Consider ways of taking advantage of the longer summer season.			LEAD: Port Authority PARTNERS: Planning Dept. Economic Development Committee PARTNERS: Outlets Association	2
9.1.7. Monitor, plan for and mitigate potential impacts of climate change on PUBLIC HEALTH		Monitor effects of extreme weather conditions/events and insect-born diseases on the health of residents.			LEAD: Town Manager	2
9.1.8. Increase PUBLIC AWARENESS regarding potential impacts of climate change	see area town's websites	Create educational materials (both hard copy and on Town web-site) to inform residents of potential impacts and of Town efforts to monitor and plan. Involve the schools.			LEAD: Planning Department PARTNERS: School Department	2

TOPIC AREA 9: COASTAL COMMUNITY RESILIENCE

OBJECTIVE 9.2: REDUCE ENERGY CONSUMPTION AND TRANSITION TO LOW AND ZERO IMPACT METHODS						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
9.2.1. Develop a plan to transition to low and zero impact energy sources	solar wind water	Identify potential renewable energy sources and outline steps for transitioning to using them. Incentives should be given to both public and private users.			LEAD: Town Council PARTNERS: DPW, Planning Department, Energy Advisory Committee	1
	See Energy Advisory Committees preliminary goals	Develop town-wide goals regarding energy efficiency and related benchmarks for public facilities.			LEAD: Energy Advisory Committee	1
		Conduct an inventory of municipal and school energy use/costs and			LEAD: All town-owned buildings, DPW	1
		Establish a timeline for converting all Town-owned buildings to renewable energy.			LEAD: Energy Advisory Committee	1
	area towns	Collaborate with area towns to develop renewable and sustainable energy sources, technologies, etc.			LEAD: Town Council, Energy Advisory Committee PARTNERS: surrounding towns	2

TOPIC AREA 9: COASTAL COMMUNITY RESILIENCE

OBJECTIVE 9.2: REDUCE ENERGY CONSUMPTION AND TRANSITION TO LOW AND ZERO IMPACT METHODS						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
9.2.2 Consider Town policy changes that encourage the use of renewable energy sources	See area towns for similar ordinance	Consider an ordinance to allow for residential, commercial, and municipal wind and solar energy sources, hydrokinetics, geo-thermal, etc.	Maine Renewable Energy Resource Fund		LEAD: Town Council PARTNERS: DPW, Planning Department, Energy Advisory Committee Schools	1
		Support alternative modes of transportation such as walking and bicycling		Also See Topic Area 5: Transportation	LEAD: DPW, Planning Board	1
9.2.3. Develop a public awareness campaign to focus attention on the need to transition to renewable energy sources	Public Schools	Develop educational materials (hard copy, on-line); involve the schools			LEAD: Town Council PARTNERS: DPW, Planning Department, Energy Advisory Committee	1

OBJECTIVE 9.3: PROVIDE EDUCATION AND INCENTIVES TO PROTECT THE ENVIRONMENT AND IMPROVE QUALITY OF LIFE						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
9.3.1.Develop policies that lessen the effects of the built environment on natural resources	Northeast Climate Hub **SEE END NOTES**	Assess the environmental effects of the built environment on natural resources		See Also Topic Area 2: Natural Resources	LEAD: Town Council PARTNERS: Planning Department, Port Authority	ON-GOING
		Protect the Town's critical open spaces, agricultural lands, forests and wildlife corridors from development		See Also Topic Area 2: Natural Resources	LEAD: Conservation Commission, Planning Department	ON-GOING
		Maximize parking efficiency and explore shared parking opportunities, especially in the Foreside		See Also Topic Area 5: Transportation	LEAD: Planning Board	1
		Consider offering incentives (e.g. tax incentives) for decreased impervious paving			LEAD: Town Council, Planning Board	2
		Encourage use of shared car service (e.g. Zip Car) and carpooling to reduce emissions		See Also Topic Area 5: Transportation	LEAD: Planning Department	1

Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
Develop policies that lessen the effects of the built environment on natural resources, continued	*Sidewalk Conditions Report*			See Also Topic Area 5: Transportation	LEAD: DPW	1
		Support and promote alternatives means of transportation, especially biking and walking				
		Encourage the reuse of upper floors of buildings as housing, especially in the Foreside district		**See Topic Area: 4: Housing and 8: Land Use**	LEAD: Planning Board	1
		Transition to LED lighting (street lights, public buildings)			LEAD: DPW	2
		Promote the adaptive reuse of existing buildings,including historic ones		See Also Topic Area 1: Historic Resources	LEAD: Planning Board	
9.3.2. Explore alternative and additional recycling options	Resource Recovery Facility	Explore ways of increasing amount and range of materials recycled.			LEAD: DPW	1

OBJECTIVE 9.3: PROVIDE EDUCATION AND INCENTIVES TO PROTECT THE ENVIRONMENT AND IMPROVE QUALITY OF LIFE

OBJECTIVE 9.3: PROVIDE EDUCATION AND INCENTIVES TO PROTECT THE ENVIRONMENT AND IMPROVE QUALITY OF LIFE						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
Explore alternative and additional recycling options, continued		Provide recycling bins in public places			LEAD: DPW	1
	existing composting section at Recycling area Schools composting area	Expand the composting section and locate it prominently next to the recycle/trash windows.			LEAD: DPW	2
	Town of Eliot	Consider regionalizing recycling with the Town of Eliot **SEE END NOTE 9.3.2.A.**			LEAD: DPW, Town Council PARTNER: Town of Eliot	1
		Consider a ban on plastic bags and plastic water bottles			LEAD: Town Council	2
		Consider adopting a Pay-As-You-Throw program to encourage recycling			LEAD: DPW	2

OBJECTIVE 9.3: PROVIDE EDUCATION AND INCENTIVES TO PROTECT THE ENVIRONMENT AND IMPROVE QUALITY OF LIFE						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
Explore alternative and additional recycling options, continued		Consider establishing a community workshop and tool lending library to reduce waste, duplication and to promote community connections. **SEE END NOTE 9.3.2.B.**				
		Develop a pilot program to demonstrate ways of reusing greywater for household use **SEE END NOTE 9.3.2. C.**		Also see 7.3.4.	LEAD: Kittery Wastewater Treatment Department	3
9.3.3. Promote ecological practices		Explore the benefits of estabilshing an electric vehicle charging station			LEAD: Town Manager	

OBJECTIVE 9.3: PROVIDE EDUCATION AND INCENTIVES TO PROTECT THE ENVIRONMENT AND IMPROVE QUALITY OF LIFE						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
9.3.4. Continue to encourage businesses to consider more eco-friendly choices in their procedures and the goods and services they use and sell	Naked BullfrogProgram SEE END NOTE 9.3.3.	"Business-to-Business" mentoring and partnering.		🍎	LEAD: Naked Bullfrog, Conservation Commission, Town Council PARTNER: local Chambers of commerce	1
		Educate the public to consider the goods and services they use and encourage more sustainable choices.		🍎	LEAD: Energy Advisory Committee	1
9.3.5. Increase public awareness regarding need to protect the environment for future generations	Energy Advisory Committee UNH students	Increase involvement of schools in environmental stewardship		🍎	LEAD: Energy Advisory Committee PARTNERS: Schools	1

OBJECTIVE 9.3: PROVIDE EDUCATION AND INCENTIVES TO PROTECT THE ENVIRONMENT AND IMPROVE QUALITY OF LIFE						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
Increase public awareness regarding need to protect the environment for future generations, continued		Develop materials regarding ways of reducing energy usage, impacts of fertilizers and lawn care on runoff water, etc.		See whether area towns have developed such materials (or whether some exist at State DEP)	LEAD: Energy Advisory Committee	1
		Provide information on options that would reduce pollutants entering area waters, and other ways of being more mindful of the environment			LEAD: Energy Advisory Committee PARTNERS: Conservation Committee	1
		Consider banning bottled water at all municipal and school meetings			LEAD: Town Council, School Department	1

OBJECTIVE 9.3: PROVIDE EDUCATION AND INCENTIVES TO PROTECT THE ENVIRONMENT AND IMPROVE QUALITY OF LIFE						
Strategy	Existing Resources	Potential Actions Not Limited to the Following	Funding	Notes	Lead & Partners	Priority
Increase public awareness regarding need to protect the environment for future generations, continued		Continue to educate and work with owners of existing commercial and residential projects on a voluntary and coooperative basis to retrofit existing stormwater systems, where necessary, to improve the quality of the stormwater discharge.			LEAD: Stormwater Coordinator, DPW PARTNERS: owners of residential and commercial properties	ON-GOING

TOPIC AREA 9: COASTAL COMMUNITY RESILIENCE

END NOTES

END NOTE 9.1.1.A. The MIT Science Impact Collaborative completed a Stakeholder Assessment Report for Climate Adaptation for the Town of Wells, Maine. See: https://necap.mit.edu/sites/default/files/documents/Wells%20Stakeholder%20Assessment_Finalized_March%202014.pdf

The MIT SIC engages in community- based action research projects, MIT SIC researchers—including doctoral students, masters students, and faculty from the MIT Department of Urban Studies and Planning—train emerging environmental professionals while simultaneously testing the latest environmental planning methods and providing assistance to communities and policy-makers who seek their help. See their website for more information: http://scienceimpact.mit.edu

END NOTE 9.1.1.B. Complete a Climate Adaptation Study. The study should explore such techniques[1] as:
- Wetland restoration
- Open space designation/acquisition
- Designation of "future" flood or wetland areas
- Tidal flow control management
- Emergency access rerouting
- Stormwater improvements
- Adaptation to sea level rise as a design requirement for the elevation and siting of homes
- Dune restoration

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[1] From Maine Geological Survey, Department of Conservation, "Pursuing Coastal Community Resiliency in Southern Maine."

- Beach nourishment
- Selective structure improvement
- Utility relocation

See: ***Projected Storm Surge, Sea-Level Rise, and Extreme Precipitation Study***, New Hampshire Coastal Risks and Hazards Commission Report, March 18, 2016. See: **http://nhcrhc.stormsmart.org/draft-for-comment/**

Also see: ***Climate Change Adaptation Report***, Georgetown, Maine, Georgetown Conservation Commission, 2015. See: http://gtownconservation.com/wp-content/uploads/2015/08/Georgetown-Adaptation-Report-ALL-chapters-FINAL-8.75x11.25-v10forPDFonlineV2.pdf

END NOTE 9.1.6. Dock to Dish Programs. "Dock to Dish Programs connect small-scale fishermen to regional communities in sustainable seafood sourcing cooperatives that build resilience to climate change."
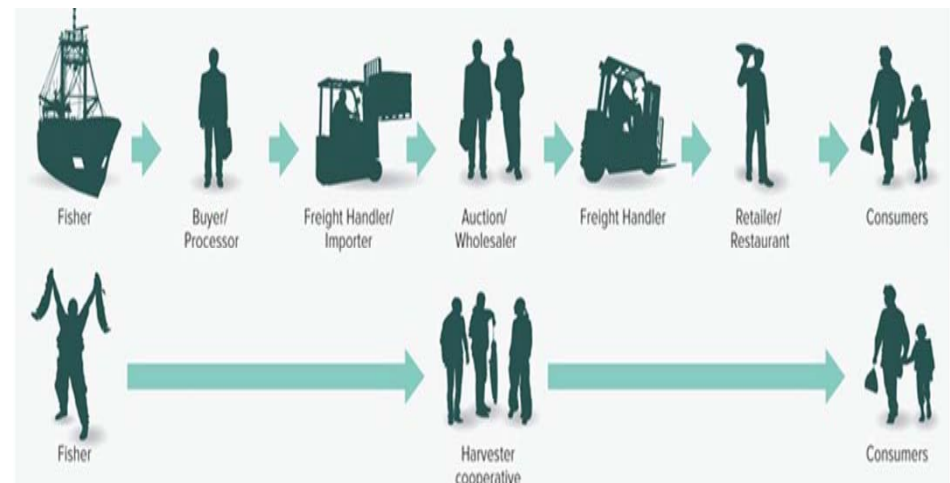
TOPIC AREA 9: COASTAL COMMUNITY RESILIENCE

More more info, see**:** https://docktodish.com

END NOTE 9.3.2.A. The **Transfer Stations of Kittery and Eliot**, respectively, are four miles apart. It may be desirable to specialize in the type(s) of processing or consider merging into one regional facility. In the case of a merger, this may require additional staff due to the fact that there would be an increase in the amount of materials being recycled (staff could be from Kittery and/or Eliot).

END NOTE 9.3.2.B. Tool Lending Library. Many communities are supporting the "sharing economy" to help reduce waste as well to help build community among residents. One example is the Berkeley Tool Lending Library which offers thousands of tools for free to city residents and property owners. Borrowers must be over the age of 18, and no more than 10 items may be borrowed at any one time. First-time borrowers must present photo ID, a Berkeley Public Library card, and a recent utility bill in their name.

For more examples see:
https://www.newdream.org/resources/2011-05-start-a-tool-library-in-your-community

END NOTE 9.3.2.C.. **Grey water** is the water that comes out of the drains of showers, baths, sinks, and washing machines. It is distinctly different from black water, which is what gets flushed down the toilet. Grey water can be used for watering houseplants, landscaping, or even flushing the toilet, so it's a resource that can be used twice. The problem is that our modern plumbing doesn't distinguish between the two, but instead combines them and sends onward as sewage, so unless we manually divert or capture it, grey water essentially becomes black water, rendering it useless until it goes through the municipal water treatment process. Not all grey water is the same, as the water coming from the kitchen sink or dishwasher can contain a lot of organic matter and has the potential for harboring pathogens (and kitchen sink water, under some codes, is actually considered black water and is not to be used), but a bathroom sink or tub often has minimal amounts of organic matter and soap residue. However, with the proper system, such as a bio filter or mulched basin, using grey water from the kitchen sink is an accepted practice.[2] For more see: https://en.wikipedia.org/wiki/Greywater

END NOTE 9.3.3. Green Alliance Program. An organization working in Kittery and Portsmouth to encourage and promote sustainable business practices and to increase awareness in consumers regarding "green" choices**.** See**:** **http://www.greenalliance.biz/about-us**

REFERENCES

[2] How to reuse grey water in the home and yard, Treehugger Sustainability Made Stylish, June 2, 2014
http://www.treehugger.com/green-home/how-reuse-grey-water-home-and-yard.html

TOPIC AREA 9: COASTAL COMMUNITY RESILIENCE

The University of Maine, *Maine's Climate Future: 2015 Update.* Orno, ME.

Maine Geological Survey, "*Pursuing Coastal Community Resiliency in Southern Maine.*"

Maine Department of Environmental Protection, Summary and Recommendations form the Environmental and Energy Resources Working Group. "*Monitoring, Mapping, Modeling, Mitigation and Messaging: Maine Prepares for Climate Change.*" September 2014.

FEMA Flood Insurance Rate Maps (in preparation)

National Climate Assessment sea level rise projections

NOAA/USACE sea level rise projections

PARTIAL LIST OF ADDITIONAL RESOURCES

Northeast Climate Hub: a regional climate resource established by the US Department of Agriculture for adaptation and mitigation coordination in the agriculture and forestry sectors.
Maine Department of Transportation: the Department is evaluating the vulnerability of state-owned roads, bridges, and culverts to rising sea levels.

Maine Sea Grant and University of Maine Cooperative Extension have developed a portfolio of adaptation initiatives for coastal communities in Maine to build resilience to storms, sea level rise, and changing fisheries.

The **Climate Change Institute at the University of Maine** offers a number of tools for collecting information and predicting the effects of climate change on a community.

Maine Coastal Mapping Initiative (MCMI) is a coalition created by the Maine Coastal Program in 2012 that collects and serves critical hydrographic data to assist coastal managers and planners in maintaining vibrant marine ecosystems, expanding offshore economic opportunities, and preparing for environmental changes. www.main.gov/dacf/mcp/planning/mcmi

Sea Level Adaptation Working Group - Road Infrastructure Assessment Report (June 2015)
This report was generated by the Saco Bay Sea Level Adaptation Working Group (SLAWG) for the purpose of identifying and assessing the potential impacts of several different scenarios of sea level rise or storm surge on both public and private roads within the Saco Bay region.

Evacuation Route Signs & Emergency Shelters - Considerations For York County Coastal Communities (June 2016)
This report and accompanying map are intended to be an overview of York County's current evacuation sign system and how it relates to the State-designated evacuation routes and emergency shelter locations. Specific suggestions and observations from SMPDC and the Committee are also included in the report as well as a list of helpful materials.
Click Here To View The Accompanying Map

TOPIC AREA 9: COASTAL COMMUNITY RESILIENCE

Natural Disaster Debris Management Site Planning - Considerations For York County Coastal Communities (May 2016)

This report and accompanying map are intended to be an overview on identifying potential debris management sites an understanding the logistics that surround choosing these sites. Specific suggestions and observations from SMPDC and the Committee are also included in the report as well as a more extensive list of helpful materials.

Click Here To View The Accompanying Map

Sea Level Rise Municipal Comprehensive Plan Chapters

SMPDC offers support and technical assistance for communities who wish to include Sea Level Rise chapters in their Comprehensive Plan updates.

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DEFINITIONS, ABBREVIATIONS AND ACRONYMS

BIG: Boating Infrastructure Grants, a funding opportunity from the U.S. Fish and Wildlife Service for projects that may benefit recreational transient boats 26 feet length (or longer).

Contract zoning is a land use regulation where a local zoning authority accommodates a private interest by rezoning a district or a parcel of land within that district, on the condition that the limitations or restrictions set by the town for those parcels are accepted by the owner. The conditions are not necessarily applied to other similarly zoned parcels[1]. An example of contract zoning would be[2]: If an area is zoned for residential use, but a business wants its land use to be commercially zoned, it would be considered contract zoning if the town government rezoned that particular area as commercial, based on an agreement by the business to restrict their use to avoid some type of operation that the Town deemed to be objectionable to the public, such as emissions from a factory. Another instance of contract zoning is the restrictive agreement that in exchange for the land being given a commercially zoned classification, the business agrees not to build a large parking lot.

CLG: Certified Local Government Program

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[1] from https://en.wikipedia.org/wiki/Contract_zoning
[2] Read more: http://real-estate-law.freeadvice.com/real-estate-law/zoning/contract_zoning.htm#ixzz4Uv7YaBYe

Demolition Delay Ordinance: If the building is listed or eligible for listing on the National Register, a six or twelve or eighteen-month delay is imposed; all other preferably preserved buildings receive a demolition delay of less time. The delay is the central component of the ordinance, and its purpose is to add options to save the building before obtaining of a demolition permit from the city's Inspectional Services Department.

FEMA: Federal Emergency Management Agency, agency responsible for disaster response and floodplain mapping

FIRM: Flood Insurance Rate Maps, produced by FEMA in support of the National Flood Insurance Program (NFIP)
Inclusionary Zoning: refers to municipal ordinances that require a given share of new construction to be affordable by people with low to moderate incomes.

KACTS: Kittery Area Comprehensive Transportation System

KKC: Kittery Community Center

KLT: Kittery Land Trust

KOSAC: Kittery Open Space Advisory Committee

KPA: Kittery Port Authority, municipal body is charge of moorings, floats, docks, other landside facilities, and oversight of the Kittery Harbor Master

MHPC/SHPO: MHCP is the Maine Historic Preservation Commission. The agency also serves as the State Historic Preservation Office (SHPO)

APPENDIX

NFIP: National Flood Insurance Program, which provides flood insurance for flood risk

OBD: Overboard discharge (for solid waste)

NOAA: National Oceanic and Atmospheric Administration; an agency of the U.S. Department of Commerce. NOAA is responsible for creation of maritime navigational charts

No Wake Zone: a section of a waterbody where boat speeds are limited so to avoid creation of a wake behind the vessel.

PNS: Portsmouth Naval Shipyard. A facility of the US Navy, the Shipyard is responsible for the overhaul, repair, and modernization of naval submarines. The Shipyard also serves as the home port for three "medium endurance" US Coast Guard cutters. Shipbuilding in the region began in the late 1600s, with numerous ships build at the Naval Shipyard in the 1800s, and is a major local employer.

SMPC: Southern Maine Planning Commission (regional planning agency)

Transfer of Development Rights (TDR)**:** is a voluntary, incentive-based program that allows landowners to sell development rights from their land to a developer or other interested party who then can use these rights to increase the density of development at another designated location.

WWTP: Wastewater treatment plant

WILSSA: Wood Island Life Saving Station Association

APPENDIX

STATE REQUIREMENTS

07-105   STATE PLANNING OFFICE *(obsolete; the rule chapter has been reassigned to **01 - Department of Agriculture, Conservation and Forestry**)*

Chapter 208:   COMPREHENSIVE PLAN REVIEW CRITERIA RULE

SUMMARY: This chapter establishes the criteria the State Planning Office uses to review community comprehensive plans for consistency with the goals and guidelines of the *Growth Management Act* (30-A M.R.S.A. §§ 4312 - 4350). The Office uses this Chapter to review and comment on proposed comprehensive plans under §4347-A(1) of the Act, and to review the plan component of local growth management programs for which certification has been requested under §4347-A(2).

SECTION 1.   GENERAL PROVISIONS AND PROCEDURES

1.   Purpose

The primary purpose of this Chapter is to establish the process and criteria the State Planning Office uses to review community comprehensive plans for consistency with the goals and guidelines of the *Growth Management Act* (30-A M.R.S.A. §§ 4312 - 4350). If a community requests certification of its growth management program under 30-A M.R.S.A. §4347-A(2), the Office also uses this Chapter to review the comprehensive plan component of that program. This Chapter sets forth a two-part process for the Office's consistency review: 1) a completeness determination for all required elements of a comprehensive plan; and 2) a more in-depth review of the Future Land Use Plan.

The criteria of this Chapter are based on the Act's goals, substantive guidelines, and procedures. They are not intended to prohibit or discourage a community from developing a plan, ordinance, or program that is more specific or detailed, or that covers more subject areas than called for by required elements.

2.   Definitions

The following acronyms are used in this and other sections of the Rule:

MDEP = Maine Department of Environmental Protection

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MIFW= Maine Department of Inland Fisheries and Wildlife

MDMR= Maine Department of Marine Resources

MDOC= Maine Department of Conservation

MNAP= Maine Natural Areas Program MDOC

BwH= Beginning with Habitat Program (MIFW)

SPO= Maine State Planning Office

M.R.S.A.= Maine Revised Statutes Annotated

LURC= Land Use Regulation Commission

The following terms, as used in the Act and this Chapter, have the following meanings unless the context indicates otherwise:

A.   **Act**: "Act" means the *Growth Management Act* (30-A M.R.S.A. §§ 4312-4350.).

B.   **Adopted regional plan**: "Adopted regional plan" means a land use planning document that was drafted no longer than 10 years prior to the applicable comprehensive plan submission and endorsed by the Executive Board of the applicable regional planning organization or adopted by at least 51% of the communities covered by the regional plan.

C.   **Amendment**: "Amendment" means a change to a comprehensive plan that is adopted subsequent to an Office finding that the plan is consistent with the *Growth Management Act*.

D.   **Applicable regional council**: "Applicable regional council" means the council of governments, established under 30-A M.R.S.A. §§ 2311-2316, or regional planning commission, established under 30-A M.R.S.A. §§ 2321-2326, that is the authorized review agency for the regional planning and development district or subdistrict, designated under 30-A M.R.S.A. §§ 2341-2342, within which the community submitting a comprehensive plan or zoning ordinance is located.

E.   **Arterial**: "Arterial" means a highway providing long-distance connections as approved by the Federal Highway Administration pursuant to 23 Code of Federal Regulation, Section 470.105(b)(1999) and as so designated by MaineDOT pursuant to the Maine Highway Driveway and Entrance regulations, 17-229 CMR 299.

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F.   **Business day**: "Business Day" means any day that the Office is open for business.

G.   **Capital Investment**: "Capital Investment" means expending municipal funds of $20,000 or more to purchase assets of land, machinery, equipment, or buildings.

H.   **Capital Investment Plan**: "Capital Investment Plan" (CInP) means a summary list of municipal capital investments anticipated during the planning period in order to implement the strategies in the comprehensive plan.

I.   **Commercial development**: "Commercial development" means for-profit business operations that provide goods, services, or commodities. For the purposes of this Chapter, home occupations are not considered commercial development.

J.   **Community**: "Community" means any municipality or multi-municipal region.

K.   **Comprehensive plan**: "Comprehensive plan" or "plan" means a document or interrelated documents developed by a community in accordance with the procedural provisions of 30-A M.R.S.A. §4324, the substantive requirements of 30-A M.R.S.A. §4326, and contain the required elements identified in section 2 of this chapter.

L.   **Comprehensive Planning Data Set**: "Comprehensive Planning Data Set" means data provided upon request by the Office or it's designee for the preparation of a comprehensive plan. Though additional data may be provided, only the minimum data components needed to meet the minimum requirements of this Chapter are considered the "Comprehensive Planning Data Set".

M.   **Critical natural resource**: "Critical natural resources" means the following natural resources which under federal and/or state law warrant protection from the negative impacts of development:

(1)   Resource Protection District areas as set forth in MDEP Guidelines for Municipal Shoreland Zoning Ordinances (Chapter 1000 § 13.A) pursuant to the *Mandatory Shoreland Zoning Act* (38 M.R.S.A. §438-A, subsection 1);

(2)   Wetlands of special significance as defined in MDEP Wetlands and Waterbodies Protection Rules (Chapter 310 § 4);

(3)   Significant wildlife habitat as defined in the *Natural Resources Protection Act* (38 M.R.S.A. §480-B(10)

(4)   Threatened, endangered and special concern animal species habitat as identified and mapped by MIFW pursuant to the *Maine Endangered Species Act* (12 M.R.S.A., Chapter 925);

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(5)   Significant freshwater fisheries spawning habitat as identified and mapped by MIFW or MDMR;

(6)   Natural communities that are critically imperiled (S1), imperiled (S2) or rare (S3) as defined and mapped by MNAP;

(7)   Areas containing plant species declared to be threatened or endangered by the MDOC.

(8)   Coastal sand dune systems as defined in the *Natural Resources Protection Act* (38 M.R.S.A. §480-B(1));

(9)   Fragile mountain areas as defined in the *Natural Resources Protection Act* (38 M.R.S.A. §480-B(3)); or

(10)   National Natural Landmarks designated by the National Park Service pursuant to its National Natural Landmark Program (36 Code of Federal Regulation, Section 62).

N.   **Critical rural area**: "Critical rural area" means a rural area that is specifically identified and designated by a community's comprehensive plan as deserving maximum protection from development to preserve natural resources and related economic activities that may include, but are not limited to, significant farmland, forest land or mineral resources; high-value wildlife or fisheries habitat; scenic areas; public water supplies; scarce or especially vulnerable natural resources; and open lands functionally necessary to support a vibrant rural economy.

O.   **Critical waterfront area**: "Critical waterfront area" means a shorefront area characterized by functionally water-dependent uses, as defined in M.R.S.A. 38 §436-A(6), and specifically identified and designated by a community's comprehensive plan as deserving maximum protection from incompatible development.

P.   **Floor area**: "Floor area" means the total area covered by all floors in a building, typically measured in square feet or acres.

Q.   **Growth area**: "Growth area" means an area that is designated in a community's comprehensive plan as suitable for orderly residential, commercial, or industrial development, or any combinations of those types of development and related infrastructure, and into which most development projected over 10 years is directed.

R.   **Growth management program**: "Growth management program" means a set of interrelated documents that comprise a comprehensive plan and implementation program, including zoning ordinances, as described in 30-A M.R.S.A. §4326.

S.   **Habitat connections**: "Habitat connections" means those areas that link large habitat blocks based on a prioritized habitat analysis prepared by Beginning with Habitat.

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T.   **Important Natural Resources**: "Important Natural Resources" means those areas in the community important for strategic conservation planning purposes, and not classified as Critical Natural Resources, comprised of one or more of the following:

(1)   Large habitat blocks as identified by the BwH;

(2)   Habitat connections as identified by the BwH;

(3)   Focus Areas of Statewide Ecological Significance as identified in Maine's Wildlife Action Plan, prepared by the MIFW;

(4)   Exemplary Natural Community locations as defined by the MNAP.

U.   **Industrial development**: "Industrial development" means business operations that manufacture, process, or store goods or commodities. For the purposes of this Chapter, home occupations are not considered industrial development.

V.   **Institutional development**: "Institutional development" means establishments such as governmental facilities, colleges, vocational schools, hospitals, or health care facilities.

W.   **Large habitat blocks**: "Large habitat blocks" means contiguous, undeveloped areas of 500 acres or more as identified and mapped by BwH.

X.   **Low impact development**: "Low impact development" means a process of developing land that combines site design strategies and best management practices to limit the volume and flows of runoff from a developed site and treat and infiltrate precipitation on the site in a way that mimics its natural hydrology.

Y.   **Managed forest lands**: "managed forest lands" means lands managed for any of the following purposes: timber stand improvement, timber or other forest products harvesting, regeneration of forest stands, habitat management, aesthetics, recreation, or water quality protection.

Z.   **Marine transportation facilities**: "Marine transportation facilities" means public and private facilities used for cargo and/or passenger transport that rely on water access, including infrastructure and support facilities such as buildings, piers, docks, parking, and storage.

AA.   **Minimal commercial/institutional development**: "Minimal commercial development" means that there has been less than a ten (10) percent increase in the floor area devoted to commercial and institutional development in the community over the previous ten (10) years.

BB.   **Minimal industrial development**: "Minimal industrial development" means that there has been less than a ten (10) percent increase in the floor area devoted to industrial development in the community over previous ten (10) years.

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CC.   **Minimal residential development**: "Minimal residential development" means that residential development in the community is characterized by:

(1)   Less than five (5) percent population growth over the previous ten (10) years; and

(2)   Less than fifty (50) units of residential housing, including apartment, condominium, and seasonal units, constructed over previous ten (10) years.

DD.   **Mobility corridor**: "Mobility corridor" means an arterial that is a designated "mobility corridor" pursuant to the Maine Highway Driveway and Entrance regulations, 17-229 CMR 299.

EE.   **Multi-function wetlands**: "Multi-function wetlands" means those wetlands found to provide three of more wetland functions as depicted on the Wetlands Characterization Maps developed by the Office.

FF.   **Municipal growth-related capital investment**: "Municipal growth-related capital investment" means investment by the municipality in the following projects, even if privately-owned, using municipal, county, state, federal, or other public funds, in the form of a purchase, lease, grant, loan, loan guarantee, credit, tax credit, or other financial assistance:

(1)   Construction of new transportation infrastructure or capacity;

(2)   Construction or acquisition of newly constructed multifamily rental or affordable housing;

(3)   Development of industrial or business parks;

(4)   Construction or extension of sewer, water, or other utility lines;

(5)   Construction of public, quasi-public, or private service infrastructure, facilities, and community buildings; or

(6)   Construction or expansion of municipal office buildings, municipal educational facilities, and other quasi-public facilities and other civic buildings that serve public clients and customers.

Municipal growth-related capital investment does not include investment in the following: mobile equipment, the operation or maintenance of a municipal facility or program; maintenance of existing transportation infrastructure without significantly expanding capacity; or municipal revenue sharing.

GG.   **Municipal officers**. "Municipal officers" means the selectmen or councilors of a town, or the mayor and aldermen or councilors of a city.

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HH.   **Non-point sources of pollution**. "Nonpoint sources of pollution" means facilities, activities, or any circumstance that cause rainfall, snowmelt, or irrigation water, running over land or through the ground, to pick up pollutants and to deposit them into rivers, lakes, coastal waters, or ground water.

II.   **Office**: "Office" means the State Planning Office.

JJ.   **Planning committee**: "Planning committee" means the committee established by the municipal officers of a municipality, or combination of municipalities, in accord with 30-A M.R.S.A. §4324(2), which has general responsibility for the comprehensive plan.

KK.   **Planning period**: "Planning period" means a minimum of ten (10) years.

LL.   **Regional council**: "Regional council" means the council of governments, established under 30-A M.R.S.A. §§ 2311-2316, or regional planning commission, established under 30-A M.R.S.A. §§ 2321-2326, that is the authorized review agency for the regional planning and development district or subdistrict, designated under 30-A M.R.S.A. §§ 2341-2342.

MM.   **Rural area**. "Rural area" means a geographic area that is identified and designated in a community's comprehensive plan as an area that is deserving of some level of regulatory protection from unrestricted development for purposes that may include, but are not limited to, supporting agriculture, forestry, mining, open space, wildlife habitat, fisheries habitat, and scenic lands, and away from which most development projected over 10 years is diverted.

NN.   **Shoreland zone**: "Shoreland zone" means the same as "Shoreland Area" in the *Mandatory Shoreland Zoning Act* (38 M.R.S.A. §§ 435 - 449 .).

OO.   **Significant freshwater fisheries habitat**: "Significant freshwater fisheries habitat" means any freshwater river, stream, brook, lake, or pond that is identified as:

(1)   a brook trout habitat as depicted on maps developed by the Maine Department of Inland Fisheries and Wildlife; or

(2)   rare, native fish habitat as depicted on maps developed by the MIFW; or

(3)   diadromous fisheries habitat as depicted on maps developed by the Maine Department of Marine Resources.

PP.   **State Transportation System**: "State transportation system" means:

(1)   Maine Department of Transportation and Maine Turnpike Authority administered or supervised state or state aid highways along with associated sidewalks, paths, trails, and/or bridges;

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(2)   Maine Department of Transportation administered or supervised marine highways, airports, and rail lines along with associated sidewalks, paths, trails, and/or bridges; and

(3)   Any associated facilities essential to the safe and efficient operation of those state transportation systems, including but not limited to highway maintenance facilities, transit/rail stations, toll plazas, ferry terminals, cargo ports, intermodal transportation centers, weigh stations, rest areas, visitor information centers, service plazas, and park-and-ride lots, as well as parking lots and other infrastructure serving those facilities.

QQ.   **Stream**: "Stream" means the same as "Stream" in the *Mandatory Shoreland Zoning Act* (38 M.R.S.A. §436-A (12))

RR.   **Strip development**: "Strip development" means a pattern of development, usually commercial in nature, in which individual establishments have direct access to a single arterial or main thoroughfare. Strip developments are generally not in downtown areas and often lack pedestrian facilities, but are characterized by automobile-focused access with multiple curb cuts in relatively short distances.

SS.   **Transit services**: "Transit services" means public or private operations that provide transportation to the public, such as rail and bus operations.

TT.   **Transitional area**: "Transitional area" means an area that is designated in a community's comprehensive plan as suitable for a share of projected residential, commercial, or industrial development but that is neither intended to accept the amount or density of development appropriate for a growth area nor intended to provide the level of protection for rural resources afforded in a rural area or critical rural area.

UU.   **Wetlands**: "Wetlands" means any coastal wetlands or freshwater wetlands as defined below:

(1)   Coastal wetlands means all tidal and subtidal lands; all lands with vegetation present that is tolerant of salt water and occurs primarily in a salt water or estuarine habitat; and any swamp, marsh, bog, beach, flat or other contiguous low land that is subject to tidal action during the highest tide level for the year in which an activity is proposed as identified in tide tables published by the National Ocean Service. Coastal wetlands may include portions of coastal sand dunes.

(2)   Freshwater wetlands include freshwater swamps, marshes, bogs, and similar areas (other than areas considered part of a great pond, coastal wetland, river, stream, or brook) that are inundated or saturated by surface or ground water at a frequency and for a duration sufficient to support, and which under normal circumstances do support, a prevalence of wetland vegetation typically adapted for life in saturated soils. Freshwater wetlands may contain small stream channels or inclusions of land that do not conform to the above defining criteria.

VV.   **Zoning ordinance**: "Zoning ordinance" means a municipal land use ordinance that:

(1)   Divides a community into zoning districts and prescribes the reasonable application of different regulations in each district to encourage orderly growth and development and implement a community's designation of growth and rural areas in its comprehensive plan; and

(2)   Has been developed by the community in accordance with the procedural provisions and the substantive requirements of 30-A M.R.S.A. §§ 4324, 4326, and 4352.

3.   Transition Clause

A.   Communities that have submitted plans or amendments to plans to the Office for review prior to July 1, 2011 but have not yet received a Finding of Consistency have two options:

(1)   Resubmit the plan for review under the provisions set forth in this Chapter. Resubmission resets the comment and findings deadlines set forth in 30-A M.R.S.A. §4347-A(3-A); or

(2)   Continue to be reviewed under the review standards of the earlier version of Chapter 208 (as originally adopted September 20, 2007) until found consistent, provided consistency is determined within 24 months after the initial finding letter is issued pursuant to 30-A M.R.S.A. §4347-A(3-A).

B.   Plans or amendments to plans submitted to the Office for review after July 1, 2011 must comply with the requirements of this Chapter, except that if a community submits a plan or amendments to a plan developed by a planning committee that was formed and held its first meeting prior to the effective date of this Chapter, the community has the option of having the Office review the plan or amendments under the review standards of the earlier version of Chapter 208 (as originally adopted September 20, 2007) or this amended Chapter, provided that the plan is submitted for review prior to December 30, 2011.

4.   Submission Requirements

Plans submitted to the Office for review under this Chapter must be submitted in a manner and on forms prescribed by the Office. The submission must include all of the applicable required elements in Section 2.

5.   Review Process

A.   **Comment Solicitation**

Pursuant to 30-A M.R.S.A. §4347-A(3-A), upon receipt of a comprehensive plan for review, the Office shall request written comments from applicable regional councils, state agencies, all municipalities contiguous to the community submitting a comprehensive plan, and any interested residents of the community or of contiguous municipalities. Comments must be received within twenty-five (25) business days of the Office receiving the plan submittal. The Office shall consolidate all written comments from all sources and forward them to the community and any applicable regional council.

(1)   **State Agency Comments**

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State agencies may comment on a submitted comprehensive plan. If they do so, comments must:

a.   Identify the comprehensive plan being commented on.

b.   Identify the state agency and the name and contact information of its designated review coordinator.

c.   List any missing elements identified during the agency's review.

d.   Conclude whether the comprehensive plan demonstrates the appropriate use of data provided by the agency, how the plan's policies, implementation strategies, and other provisions relate to the agency's objectives and directives, whether the plan supports the agency's programs and policies in carrying out the goals of the Act, and, if necessary, what goal of the Act is not adequately addressed.

e.   Suggest what additional measures, if any, the community might take to improve the quality or effectiveness of its comprehensive plan.

(2)   **Regional Council Comments**

Regional councils may comment on a submitted comprehensive plan. If they do so, comments must:

a.   Identify the proposed comprehensive plan being commented on.

b.   Identify the regional council and the name and contact information of its principal reviewer.

c.   List any missing elements identified during the council's review.

d.   Evaluate whether the comprehensive plan addresses identified regional needs and policies, supports existing, adopted regional plans, and whether the plan supports the adopted or proposed comprehensive plans of contiguous municipalities.

e.   Solicit and provide comments to the Office from contiguous municipalities.

f.   Suggest what additional measures, if any, the community might take to improve the quality or effectiveness of its comprehensive plan.

B.   **Notification of Completeness**

Upon receipt of a comprehensive plan for review for consistency with the Act, the Office will review the plan for completeness; consider any comments received pursuant to Section 1.5(A); and, within thirty-five (35) business days of receiving the plan submittal, either issue a Notification of Completeness or notify the community in writing if there are any missing elements. The Office will issue a Notification of Completeness and begin its focused review of the Future Land Use Plan if the comprehensive plan:

(1)   Is submitted in a manner and on forms as prescribed by the Office;

(2)   Includes a vision statement that summarizes the community's desired future community character;

(3)   Includes a summary of the public participation process undertaken in accordance with the 30-A M.R.S.A. §4324;

(4)   Includes a regional coordination program is included in accordance with Section 2.3;

(5)   Includes the minimum required analyses, condition and trend data, policies, and strategies from Section 3;

(6)   Includes a Future Land Use Plan with associated maps and narrative;

(7)   Includes an implementation section; and,

(8)   Provides for future periodic evaluation of the plan and its implementation.

A Notification of Completeness means that portions of the plan other than the Future Land Use Plan have been accepted by the Office as consistent with the Act.

If missing elements are identified during the completeness review, the Office will notify the community in writing of the missing elements. If a community submits additional information to the Office in response to a notification of missing elements within ninety (90) business days, the Office will review the additional information and, within ten (10) business days of receipt, notify the community in writing if the missing elements have been adequately addressed. If the missing elements have been adequately addressed, the Office will issue a Notification of Completeness.

A new completeness review process begins if a community submits additional information to the Office in response to a notification of missing elements more than ninety (90) business days from that notification.

The deadline for issuing a Notification of Completeness may be extended upon mutual written agreement between the Office and the community.

C.   **Notification of Consistency**

Following the issuance of a Notification of Completeness, the Office will review a community's Future Land Use Plan under Section 4 of this Chapter, taking into account any comments received pursuant to Section 1.5(A). Within ten (10) business days of issuing a Notification of Completeness, the Office will notify the community by certified mail, return receipt requested, whether its plan has been found consistent with the *Growth Management Act*. This deadline may be extended upon mutual written agreement between the Office and the community.

The Office shall issue a Finding of Consistency for the comprehensive plan if:

(1)   A Notification of Completeness has been issued; and

(2)   The Office finds that the Future Land Use Plan conforms to Section 4.

The Office shall issue a Finding of Inconsistency if it finds that the comprehensive plan is not consistent with the *Growth Management Act*. A Finding of Inconsistency must identify:

(1)   The goal(s) of the *Growth Management Act* that is (are) not adequately addressed;

(2)   The specific section(s) of this Chapter that is not adequately addressed; and

(3)   Recommended measure(s) needed for a Finding of Consistency.

If the Office issues a Finding of Inconsistency, a community may submit revisions to address the inconsistencies in the findings within 24-months of the date of the Finding of Inconsistency. These revisions need not address new review standards that are established during that 24-month review time interval.

Within ten (10) business days of receipt of revisions, the Office will notify the community whether or not the revisions have addressed the inconsistencies. If the inconsistencies have been addressed, the Office will issue a Finding of Consistency. If not, the Office will issue a new Finding of Inconsistency.

If revisions are not submitted within twenty-four (24) months of the original Finding of Inconsistency, the community will need to resubmit its plan in accordance with section 1.4, if it wishes to pursue a finding of consistency.

A community may appeal the Office's Finding of Inconsistency to the Director of the Office pursuant to Section 1.6.

6.   Appeal of a Finding of Inconsistency

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A.   **Making an Appeal**

A community whose comprehensive plan is found inconsistent with the *Growth Management Act* may appeal that finding to the Director of the Office, hereinafter referred to as the Director, as follows:

(1)   Any appeal of a Finding of Inconsistency must be made by the municipal officers of the community and must be received no later than twenty (20) business days after such a finding is received.

(2)   Such appeal must be made by filing with the Director a written notice of appeal specifying which portion or portions of the finding is being appealed, and on what grounds, in accordance with Section 1.6(B).

B.   **Grounds for Appeal**

The grounds for an appeal are limited to and must specifically address one or more of the following:

(1)   errors of fact made during the review;

(2)   failure to apply and follow the process and criteria of this Chapter or the Act; or

(3)   arbitrary or capricious decision.

C.   **Procedure on Appeal**

The Director may delegate the appeal to another senior staff person outside of the Office's Land Use Team who was not involved in the consistency review; hereinafter referred to as the Designee.

Upon being notified of an appeal, the Land Use Team Director shall transmit to the Director or Designee all of the papers constituting the record of the decision being appealed.

In considering an appeal, the Director or Designee shall:

(1)   examine relevant portions of the comprehensive plan submission, the relevant requirements of the Act and this Chapter, and the Finding of Inconsistency by the Land Use Team;

(2)   determine, on the basis of the entire record presented, whether the Land Use Team followed the required process and reasonably interpreted the facts to reach the conclusion(s) upon which the Finding of Inconsistency under appeal was based; and

(3)   determine whether there are grounds for the appeal of the Finding of Inconsistency pursuant to Section 1.6(B).

D.   **Decisions of the Director and Appeals to Superior Court**

(1)   **Remand**

If the Director or Designee finds, based on the record presented, that there are ground(s) for appeal under Section 1.6(B), the Director or Designee shall remand with recommendation(s) all or a portion of the finding to Land Use Team Director for reconsideration. The decision of the Director or Designee to remand is not final agency action by the Office and is not appealable to Superior Court.

In the case of such a remand, the Land Use Team Director shall reconsider the original finding and issue a new finding based on the recommendation(s) of the Director or Designee within ten (10) business days. The Office will notify the community of the new consistency finding by certified mail, return receipt requested. The new consistency finding constitutes final agency action.

(2)   **Decision finding no grounds for appeal**

If the Director or Designee finds no grounds for appeal, he/she will issue a notice of decision so stating. The Office will notify the community of the new consistency finding by certified mail, return receipt requested. The notice of decision finding no grounds for appeal constitutes final agency action.

(3)   **Notice of right to appeal to Superior Court**

The Office's new finding or the Director's notice of decision finding no grounds for appeal must include an explanation of the community's right to judicial review of final agency action under 5 M.R.S.A. §§ 11001 -11008.

7.   **Duration of Consistency Findings**

A Finding of Consistency under this Chapter is deemed valid for twelve (12) years from the date of issue. A Finding of Consistency issued under Chapter 202 is deemed valid until December 31, 2012 or twelve (12) years from the date of issue, whichever is later. An expired Finding of Consistency does not automatically make a plan inconsistent with the Act and this Chapter.

8.   **Review of Amendments to Approved Comprehensive Plans**

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If a community proposes or adopts amendments to a comprehensive plan that previously has been found consistent with the Act, the community may submit the amendment(s) for review to determine if the changes affect the consistency finding. The Office will review the submitted amendments in the same manner as provided in this Chapter commensurate with the scope of the amendments. A state agency may be asked to comment if amendments are relevant to its topic area. Once the review process is complete, the Office will issue a finding in accordance with Section 1.5(C).

Communities need not submit amendments that do not affect the substance of the plan, such as typographical or grammar corrections. Such non-substantive corrections do not affect the consistency status of a community's comprehensive plan. Communities need not submit amendments that implement specific plan improvements suggested by the Office in a Finding of Consistency. Changes that implement such suggestions do not affect the consistency status of a community's comprehensive plan

A Finding of Consistency for amendments does not reset the duration of the original plan consistency finding for the purposes of Section 1.6.

SECTION 2.   REQUIRED ELEMENTS

1.   **Vision Statement**

The plan must include a vision statement that summarizes the community's desired future community character in terms of economic development, natural and cultural resource conservation, transportation systems, land use patterns and its role in the region.

2.   **Public Participation Summary**

The plan must include a summary of the public participation process used by the planning committee in developing the plan pursuant to 30-A M.R.S.A. §4324. The summary must indicate how information gathered during the public process was used to guide the plan's vision statement, analyses, policies and strategies.

3.   **Regional Coordination Program**

Pursuant to 30-A M.R.S.A. §4326(4), a regional coordination program must be pursued with other communities (or LURC if the community abuts land under its jurisdiction) to manage shared resources and facilities, including but not limited to lakes, rivers, aquifers, and transportation facilities. The plan must identify any shared resources and facilities, describe any conflicts with neighboring communities' policies and strategies pertaining to shared resources and facilities and describe what approaches the community will take to coordinate management of shared resources and facilities. In addition, the plan must include a summary of regional coordination efforts from all applicable topic areas.

4.   **Future Land Use Plan**

The plan must include a Future Land Use Plan that meets the requirements set forth in Section 4. The Future Land Use Plan will be the focus of the Office's in-depth review for consistency with the Act.

5.   Topic Area Components

In order to be found consistent with the *Growth Management Act*, the plan must contain the state goal, analyses, condition and trend data, policies, and strategies for each of the required topic areas in Section 3. These minimum requirements in no way limit a community from expanding its plan to include additional information, analyses, policies, and strategies. A comprehensive plan submission may replace a Topic Area Component as described in Section 3 with an adopted regional (multi-municipal) plan (e.g. regional housing plan, regional transportation plan, etc.) so long as the regional plan meets the minimum required analyses, conditions and trend data, policies, and strategies from Section 3, the regional plan is included as an appendix in your comprehensive plan, and the regional plan was drafted within 10 years of the comprehensive plan submission.

A.   State Goals

The plan must indicate the state goal or goals relevant to each topic area as identified in Section 3. Local goals may be added but are not required.

B.   Analyses

The plan must identify the issues facing the community using the series of questions for each of the topic areas in Section 3. These questions get to the heart of the issues a community must plan for to address the state goals. A community must address each of these questions in its plan's narrative, unless determined not to be applicable per Section 2.6.

C.   Conditions and Trends

To provide a basis for the analyses, the plan must include sufficient data necessary to identify current conditions and future trends for each of the topic areas in Section 3. Some of the data requirements will not be applicable in a given community and therefore will not be required in accordance with Section 2.6. Much of the data will be provided by state agencies. Some data are only available from local sources. All data should be verified locally, if possible.

Data provided by state agencies for each of the topic areas are compiled into comprehensive planning data sets. The comprehensive planning data sets are provided by the Office upon request from a community, regional council, or consultant on behalf of a community. If a community or regional council has requested a comprehensive planning data set and not received it within eight months of the request, then those state data components and associated analyses are not required for a Notification of Completeness or a Finding of Consistency.

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Data included in the comprehensive planning data sets are considered the most current data available and will be considered current for comprehensive plan reviews for three (3) years. Communities taking longer than three years to prepare a plan should request a new state data set from the Office and update the plan accordingly prior to submitting it to the Office for a consistency review.

If a community obtains data directly from a state agency by any means other than the request of a comprehensive planning data set from the Office then that data will also be considered current for comprehensive plan reviews for three (3) years from the date the data was received from its source.

If a community chooses to replace a topic area component with an adopted regional plan as defined and described in Section 2.5 then the topic area data components are exempted from the three (3) year age limit.

D.   **Policies**

The minimum required policies for each topic area in Section 3 must be incorporated into a plan for it to be found consistent with the *Growth Management Act*. The language may be altered to better suit a community, but the specific intent of the minimum policy must remain. Altered policies must reflect the desired future direction of the community as stated in the community's vision statement.

E.   **Implementation Strategies**

The strategies describe what actions the community will take to carry out its policies. Minimum required strategies identified in Section 3 for each topic area must be included unless sufficient alternative strategies are included. Alternative strategies will be considered by the Office to determine if they, in combination with the other strategies in the plan, address the goals of the Act. Strategies must identify the responsible party, anticipated timeline, and be developed pursuant to 30-A M.R.S.A. §4326(3).

6.   Applicability

If a required element is determined by the community to not be applicable, an explanation for that determination must be provided in the comprehensive plan submission. Some items, such as the applicability of marine resources in inland communities, will require only a simple explanation or notation. Other items will require more detailed explanation. This provision is not intended to allow communities to circumvent the requirements for consistency with the Act. During its review of a comprehensive plan, the Office will make a final decision on the applicability of a required element by considering the following criteria:

A.   Does the information provided in the plan support the community's explanation of non-applicability?

B.   Does the exclusion of the required element create a gap in the information needed to support the Future Land Use Plan?

7.   Evaluation

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The plan must include an outline describing how the community will periodically (at least every five years) evaluate the following:

A.   The degree to which future land use plan strategies have been implemented;

B.   Percent of municipal growth-related capital investments in growth areas;

C.   Location and amount of new development in relation to community's designated growth areas, rural areas, and transition areas (if applicable)

D.   Amount of critical natural resource, critical rural, and critical waterfront areas protected through acquisition, easements, or other measures.

If the community's evaluation concludes that portions of the current plan and/or its implementation are not effective, the community is encouraged to propose changes as needed.

8.   Certification

A plan submitted for review under this Chapter must include the original signature(s) of the municipal officer(s) of the community under the following certification:

I (we) certify that this comprehensive plan was prepared with the intent of complying with the *Growth Management Act* (30 M.R.S.A. §§ 4312 - 4350.), that it includes all of the applicable required elements of the *Maine Comprehensive Plan Review Criteria Rule* (07-105 CMR 208), and that it is true and accurate.

SECTION 3.   REQUIRED TOPIC AREAS

1.   Historic and Archaeological Resources

A.   **State Goal**

To preserve the State's historic and archaeological resources.

B.   **Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.1(C) to answer the following questions.

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(1)   Are historic patterns of settlement still evident in the community?

(2)   What protective measures currently exist for historic and archaeological resources and are they effective?

(3)   Do local site plan and/or subdivision regulations require applicants proposing development in areas that may contain historic or archaeological resources to conduct a survey for such resources?

(4)   Have significant historic resources fallen into disrepair, and are there ways the community can provide incentives to preserve their value as an historical resource?

C.   **Condition and Trends**

Minimum data required to address Analyses:

(1)   The community's Comprehensive Planning Historic Preservation Data Set prepared and provided to the community by the Historic Preservation Commission, and the Office, or their designees.

(2)   An outline of the community's history, including a brief description of historic settlement patterns and events contributing to the development and character of the community and its surroundings.

(3)   An inventory of the location, condition, and use of any historical or archaeological resource that is of local importance.

(4)   A brief description of threats to local historic resource and to those of state and national significance as identified by the Maine Historic Preservation Commission.

D.   **Policies**

Minimum policy required to address state goals:

Protect to the greatest extent practicable the significant historic and archaeological resources in the community.

E.   **Strategies**

Minimum strategies required to address state goals:

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(1)   For known historic archeological sites and areas sensitive to prehistoric archeology, through local land use ordinances require subdivision or non-residential developers to take appropriate measures to protect those resources, including but not limited to, modification of the proposed site design, construction timing, and/or extent of excavation.

(2)   Adopt or amend land use ordinances to require the planning board (or other designated review authority) to incorporate maps and information provided by the Maine Historic Preservation Commission into their review process.

(3)   Work with the local or county historical society and/or the Maine Historic Preservation Commission to assess the need for, and if necessary plan for, a comprehensive community survey of the community's historic and archaeological resources.

2.   Water Resources

A.   **State Goal**

To protect the quality and manage the quantity of the State's water resources, including lakes, aquifers, great ponds, estuaries, rivers, and coastal areas.

B.   **Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.2(C) to answer the following questions.

(1)   Are there point sources (direct discharges) of pollution in the community? If so, is the community taking steps to eliminate them?

(2)   Are there non-point sources of pollution? If so, is the community taking steps to eliminate them?

(3)   How are groundwater and surface water supplies and their recharge areas protected?

(4)   Do public works crews and contractors use best management practices to protect water resources in their daily operations (e.g. salt/sand pile maintenance, culvert replacement street sweeping, public works garage operations)?

(5)   Are there opportunities to partner with local or regional advocacy groups that promote water resource protection?

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C.   **Conditions and Trends**

Minimum data required to address Analyses:

(1)   The community's Comprehensive Planning Water Resources Data Set prepared and provided to the community by the Department of Inland Fisheries and Wildlife, the Department of Environmental Protection and the Office, or their designees.

(2)   A description of each great pond, river, surface drinking water supply, and other water bodies of local interest including:

a.   ecological value;

b.   threats to water quality or quantity;

c.   documented water quality and/or invasive species problems.

(3)   A summary of past and present activities to monitor, assess, and/or improve water quality, mitigate sources of pollution, and control or prevent the spread of invasive species.

(4)   A description of the location and nature of significant threats to aquifer drinking water supplies.

(5)   A summary of existing lake, pond, river, stream, and drinking water protection and preservation measures, including local ordinances.

D.   **Policies**

Minimum policies required to address state goals:

(1)   To protect current and potential drinking water sources.

(2)   To protect significant surface water resources from pollution and improve water quality where needed.

(3)   To protect water resources in growth areas while promoting more intensive development in those areas.

(4)   To minimize pollution discharges through the upgrade of existing public sewer systems and wastewater treatment facilities.

(5)   To cooperate with neighboring communities and regional/local advocacy groups to protect water resources.

E.   **Strategies**

Minimum strategies to meet state goals:

(1)   Adopt or amend local land use ordinances as applicable to incorporate stormwater runoff performance standards consistent with:

a.   Maine Stormwater Management Law and Maine Stormwater regulations (Title 38 M.R.S.A. §420-D and 06-096 CMR 500 and 502).

b.   Maine Department of Environmental Protection's allocations for allowable levels of phosphorus in lake/pond watersheds.

c.   Maine Pollution Discharge Elimination System Stormwater Program

(2)   Consider amending local land use ordinances, as applicable, to incorporate low impact development standards.

(3)   Where applicable, develop an urban impaired stream watershed management or mitigation plan that will promote continued development or redevelopment without further stream degradation.

(4)   Maintain, enact or amend public wellhead and aquifer recharge area protection mechanisms, as necessary.

(5)   Encourage landowners to protect water quality. Provide local contact information at the municipal office for water quality best management practices from resources such as the Natural Resource Conservation Service, University of Maine Cooperative Extension, Soil and Water Conservation District, Maine Forest Service, and/or Small Woodlot Association of Maine.

(6)   Adopt water quality protection practices and standards for construction and maintenance of public and private roads and public properties and require their implementation by contractors, owners, and community officials and employees.

(7)   Participate in local and regional efforts to monitor, protect and, where warranted, improve water quality.

(8)   Provide educational materials at appropriate locations regarding aquatic invasive species.

3.   **Natural Resources**

A.   **State Goal**

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To protect the State's other critical natural resources, including without limitation, wetlands, wildlife and fisheries habitat, sand dunes, shorelands, scenic vistas, and unique natural areas.

B.   **Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.3(C) to answer the following questions.

(1)   Are any of the community's critical natural resources threatened by development, overuse, or other activities?

(2)   Are local shoreland zone standards consistent with state guidelines and with the standards placed on adjacent shorelands in neighboring communities?

(3)   What regulatory and non-regulatory measures has the community taken or can the community take to protect critical natural resources and important natural resources?

(4)   Is there current regional cooperation or planning underway to protect shared critical natural resources? Are there opportunities to partner with local or regional groups?

C.   **Conditions and Trends**

Minimum data required to address Analyses:

(1)   The community's Comprehensive Planning Natural Resources Data Set prepared and provided to the community by the Department of Inland Fisheries and Wildlife, Department of Environmental Protection and the Office, or their designees.

(2)   A map or description of scenic areas and scenic views of local importance, and regional or statewide importance, if available.

D.   **Policies**

Minimum policies required to address state goals:

(1)   To conserve critical natural resources in the community.

(2)   To coordinate with neighboring communities and regional and state resource agencies to protect shared critical natural resources.

E.   **Strategies**

Minimum strategies required to address state goals:

(1)   Ensure that land use ordinances are consistent with applicable state law regarding critical natural resources.

(2)   Designate critical natural resources as Critical Resource Areas in the Future Land Use Plan.

(3)   Through local land use ordinances, require subdivision or non-residential property developers to look for and identify critical natural resources that may be on site and to take appropriate measures to protect those resources, including but not limited to, modification of the proposed site design, construction timing, and/or extent of excavation.

(4)   Through local land use ordinances, require the planning board (or other designated review authority) to include as part of the review process, consideration of pertinent BwH maps and information regarding critical natural resources.

(5)   Initiate and/or participate in interlocal and/or regional planning, management, and/or regulatory efforts around shared critical and important natural resources.

(6)   Pursue public/private partnerships to protect critical and important natural resources such as through purchase of land or easements from willing sellers.

(7)   Distribute or make available information to those living in or near critical or important natural resources about current use tax programs and applicable local, state, or federal regulations.

4.   Agricultural and Forest Resources

A.   **State Goal**

To safeguard the State's agricultural and forest resources from development which threatens those resources.

B.   **Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.4(C) to answer the following questions.

(1)   How important is agriculture and/or forestry and are these activities growing, stable, or declining?

(2)	Is the community currently taking regulatory and/or non-regulatory steps to protect productive farming and forestry lands? Are there local or regional land trusts actively working to protect farms or forest lands in the community?

(3)	Are farm and forest land owners taking advantage of the state's current use tax laws?

(4)	Has proximity of new homes or other incompatible uses affected the normal farming and logging operations?

(5)	Are there large tracts of agricultural or industrial forest land that have been or may be sold for development in the foreseeable future? If so, what impact would this have on the community?

(6)	Does the community support community forestry or agriculture (i.e. small woodlots, community forests, tree farms, community gardens, farmers' markets, or community-supported agriculture)? If so, how?

(7)	Does the community have town or public woodlands under management, or that would benefit from forest management?

C.	**Conditions and Trends**

Minimum data required to address Analyses:

(1)	The community's Comprehensive Planning Agriculture and Forestry Data Set prepared and provided to the community by the Department of Agriculture, the Maine Forest Service, and the Office, or their designees.

(2)	A map and/or description of the community's farms, farmland, and managed forest lands and a brief description of any that are under threat.

(3)	Information on the number of parcels and acres of farmland, tree growth, and open space enrolled in the state's farm, tree growth, and open space law taxation programs, including changes in enrollment over the past 10 years.

(4)	A description of any community farming and forestry activities (e.g. community garden, farmer's market, or community forest).

D.	**Policies**

Minimum policies required to address state goals:

(1)	To safeguard lands identified as prime farmland or capable of supporting commercial forestry.

(2)   To support farming and forestry and encourage their economic viability.

E.   **Strategies**

(1)   Minimum strategies required to address state goals: Consult with the Maine Forest Service district forester when developing any land use regulations pertaining to forest management practices as required by 12 M.R.S.A. §8869.

(2)   Consult with Soil and Water Conservation District staff when developing any land use regulations pertaining to agricultural management practices.

(3)   Amend land use ordinances to require commercial or subdivision developments in critical rural areas, if applicable, maintain areas with prime farmland soils as open space to the greatest extent practicable.

(4)   Limit non-residential development in critical rural areas (if the town designates critical rural areas) to natural resource-based businesses and services, nature tourism/outdoor recreation businesses, farmers' markets, and home occupations.

(5)   Encourage owners of productive farm and forest land to enroll in the current use taxation programs.

(6)   Permit land use activities that support productive agriculture and forestry operations, such as roadside stands, greenhouses, firewood operations, sawmills, log buying yards, and pick-your-own operations.

(7)   Include agriculture, commercial forestry operations, and land conservation that supports them in local or regional economic development plans.

5.   Marine Resources (if applicable)

A.   **State Goal and State Coastal Policies**

(1)   To protect the State's marine resources industry, ports and harbors from incompatible development and to promote access to the shore for commercial fishermen and the public.

(2)   For coastal communities, the *Growth Management Act* requires that a local comprehensive plan address the state coastal management policies (38 M.R.S.A. §1801). These are:

a.   To promote the maintenance, development, and revitalization of the State's ports and harbors for fishing, transportation and recreation;

b.   To manage the marine environment and its related resources to preserve and improve the ecological integrity and diversity of marine communities and habitats, to expand our understanding of the productivity of the Gulf of Maine and coastal waters and to enhance the economic value of the State's renewable marine resources;

c.   To support shoreline management that gives preference to water-dependent uses over other uses, that promotes public access to the shoreline and that considers the cumulative effects of development on coastal resources;

d.   To discourage growth and new development in coastal areas where, because of coastal storms, flooding, landslides or sea-level rise, it is hazardous to human health and safety;

e.   To encourage and support cooperative state and municipal management of coastal resources;

f.   To protect and manage critical habitat and natural areas of state and national significance and maintain the scenic beauty and character of the coast even in areas where development occurs;

g.   To expand the opportunities for outdoor recreation and to encourage appropriate coastal tourist activities and development;

h.   To restore and maintain the quality of our fresh, marine and estuarine waters to allow for the broadest possible diversity of public and private uses; and,

i.   To restore and maintain coastal air quality to protect the health of citizens and visitors and to protect enjoyment of the natural beauty and maritime characteristics of the Maine coast.

B.   **Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.5(C) to answer the following questions.

(1)   Is coastal water quality being monitored on a regular basis?

(2)   Is there a local or regional plan in place to identify and eliminate pollution sources?

(3)   Has closing of clam or worm flats threatened the shellfishing industry, and are sources of contamination known? If so, are sources point (direct discharge) or nonpoint sources?

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(4)   Are traditional water-dependent uses thriving or in decline? What are the factors affecting these uses? If current trends continue, what will the waterfront look like in 10 years?

(5)   Is there reasonable balance between water-dependent and other uses, and between commercial and recreational uses? If there have been recent conversions of uses, have they improved or worsened the balance?

(6)   How does local zoning treat land around working harbors?

(7)   Is there a local or regional harbor or bay management plan? If not, is one needed?

(8)   Are there local dredging needs? If so, how will they be addressed?

(9)   Is there adequate access, including parking, for commercial fishermen and members of the public? Are there opportunities for improved access?

(10)   Are important points of visual access identified and protected?

C.   **Conditions and Trends**

Minimum data required to address Analyses:

(1)   The community's Comprehensive Planning Marine Resources Data Set prepared and provided to the community by the Department of Marine Resources, and the Office, or their designees.

(2)   A map and / or description of water-dependent uses.

(3)   A brief summary of current regulations influencing land use patterns on or near the shoreline.

(4)   A description of any local or regional harbor or bay management plans or planning efforts.

(5)   The location of facilities (wharves, boat ramps, pump-out stations, etc.), with a brief description of any regional or local plans to improve facilities.

(6)   A description or map showing public access points to the shore. Include a brief description of their use, capacity, physical condition, and plans to improve, expand, or acquire facilities such as parking or toilets.

(7)   A list of scenic resources along the shoreline, including current ownership (public or private) and any protections.

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D.   **Policies**

Minimum policies required to address state goals:

(1)   To protect, maintain and, where warranted, improve marine habitat and water quality.

(2)   To foster water-dependent land uses and balance them with other complementary land uses.

(3)   To maintain and, where warranted, improve harbor management and facilities.

(4)   To protect, maintain and, where warranted, improve physical and visual public access to the community's marine resources for all appropriate uses including fishing, recreation, and tourism.

E.   **Strategies**

Minimum strategies required to address state goals:

(1)   Identify needs for additional recreational and commercial access (which includes parking, boat launches, docking space, fish piers, and swimming access).

(2)   Encourage owners of marine businesses and industries to participate in clean marina/boatyard programs.

(3)   Provide information about the Working Waterfront Access Pilot Program and current use taxation program to owners of waterfront land used to provide access to or support the conduct of commercial fishing activities.

(4)   Support implement of local and regional harbor and bay management plans.

(5)   If applicable, provide sufficient funding for and staffing of the harbormaster and/or harbor commission.

(6)   Work with local property owners, land trusts, and others to protect major points of physical and visual access to coastal waters, especially along public ways and in public parks.

6.   **Population and Demographics**

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A.   **State Goal**

None required.

B.   **Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.6(C) to answer the following questions.

(1)   Is the rate of population change expected to continue as in the past, or to slow down or speed up? What are the implications of this change?

(2)   What will be the likely demand for housing and municipal and school services to accommodate the change in population and demographics, both as a result of overall change and as a result of change among different age groups?

(3)   Does your community have a significant seasonal population, is the nature of that population changing? What is the community's dependence on seasonal visitors?

(4)   If your community is a service center or has a major employer, are additional efforts required to serve a daytime population that is larger than its resident population?

C.   **Conditions and Trends**

Minimum data required to address Analyses:

(1)   The community's Comprehensive Planning Population and Demographic Data Set (including relevant local, regional, and statewide data) prepared and provided to the community by the Office or its designee.

D.   **Policies**

         None required.

E.   **Strategies**

         None required.

7.   **Economy**

A.   **State Goal**

Promote an economic climate that increases job opportunities and overall economic well-being.

B.   **Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.7(C) to answer the following questions.

(1)   Is the economy experiencing significant change, and how does this, or might this, affect the local population, employment, and municipal tax base?

(2)   Does the community have defined priorities for economic development? Are these priorities reflected in regional economic development plans?

(3)   If there is a traditional downtown or village center(s) in the community? If so, are they deteriorating or thriving?

(4)   Is tourism an important part of the local economy? If so, what steps has the community taken to support this industry?

(5)   Do/should home occupations play a role in the community?

(6)   Are there appropriate areas within the community for industrial or commercial development? If so, are performance standards necessary to assure that industrial and commercial development is compatible with the surrounding land uses and landscape?

(7)   Are public facilities, including sewer, water, broadband access or three-phase power, needed to support the projected location, type, and amount of economic activity, and what are the issues involved in providing them?

(8)   If there are local of regional economic development incentives such as TIF districting, do they encourage development in growth areas?

(9)   How can/does the community use its unique assets such as recreational opportunities, historic architecture, civic events, etc. for economic growth?

C.   **Conditions and Trends**

Minimum data required to address Analysis:

(1)   The community's Comprehensive Planning Economic Data Set prepared and provided to the community by the Office or its designee.

(2)   A brief historical perspective on how and why the current economy of the community and region developed.

(3)   A list of local and regional economic development plans developed over the past five years, which include the community.

(4)   Where does the community's population work and where do employees in your community reside? A description of the major employers in the community and labor market area and their outlook for the future.

(5)   A description of any economic development incentive districts, such as tax increment financing districts, in the community.

D.   **Policies**

Minimum policies required to address state goals:

(1)   To support the type of economic development activity the community desires, reflecting the community's role in the region.

(2)   To make a financial commitment, if necessary, to support desired economic development, including needed public improvements.

(3)   To coordinate with regional development corporations and surrounding towns as necessary to support desired economic development.

E.   **Strategies**

Minimum strategies required to address state goals:

(1)   If appropriate, assign responsibility and provide financial support for economic development activities to the proper entity (e.g., a local economic development committee, a local representative to a regional economic development organization, the community's economic development director, a regional economic development initiative, or other).

(2)   Enact or amend local ordinances to reflect the desired scale, design, intensity, and location of future economic development.

(3)   If public investments are foreseen to support economic development, identify the mechanisms to be considered to finance them (local tax dollars, creating a tax increment financing district, a Community Development Block Grant or other grants, bonding, impact fees, etc.)

(4)   Participate in any regional economic development planning efforts.

8.   **Housing**

A. **State Goal / Minimum Policy**

To encourage and promote affordable, decent housing opportunities for all Maine citizens.

B. **Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.8(C) to answer the following questions.

(1)   How many additional housing units (if any), including rental units, will be necessary to accommodate projected population and demographic changes during the planning period?

(2)   Is housing, including rental housing, affordable to those earning the median income in the region? Is housing affordable to those earning 80% of the median income? If not, review local and regional efforts to address issue.

(3)   Are seasonal homes being converted to year-round use or vice-versa? What impact does this have on the community?

(4)   Will additional low and moderate income family, senior, or assisted living housing be necessary to meet projected needs for the community? Will these needs be met locally or regionally?

(5)   Are there other major housing issues in the community, such as substandard housing?

(6)   How do existing local regulations encourage or discourage the development of affordable/workforce housing?

C. **Conditions and Trends**

Minimum data required to address Analyses:

(1)   The community's Comprehensive Planning Housing Data Set prepared and provided to the community by the Maine State Housing Authority, and the Office, or their designees.

(2)   Information on existing local and regional affordable/workforce housing coalitions or similar efforts.

(3)   A summary of local regulations that affect the development of affordable/workforce housing.

D.   **Policies**

Minimum policies required to address state goals:

(1)   To encourage and promote adequate workforce housing to support the community's and region's economic development.

(2)   To ensure that land use controls encourage the development of quality affordable housing, including rental housing.

(3)   To encourage and support the efforts of the regional housing coalitions in addressing affordable and workforce housing needs.

E.   **Strategies**

Minimum strategies required to address state goals:

(1)   Maintain, enact or amend growth area land use regulations to increase density, decrease lot size, setbacks and road widths, or provide incentives such as density bonuses, to encourage the development of affordable/workforce housing.

(2)   Maintain, enact or amend ordinances to allow the addition of at least one accessory apartment per dwelling unit in growth areas, subject to site suitability.

(3)   Create or continue to support a community affordable/workforce housing committee and/or regional affordable housing coalition.

(4)   Designate a location(s) in growth areas where mobile home parks are allowed pursuant to 30-A M.R.S.A. §4358(3)(M) and where manufactured housing is allowed pursuant to 30-A M.R.S.A. §4358(2).

(5)   Support the efforts of local and regional housing coalitions in addressing affordable and workforce housing needs.

(6)   Seek to achieve a level of at least 10% of new residential development built or placed during the next decade be affordable.

9.   **Recreation**

A.   **State Goal**

To promote and protect the availability of outdoor recreation opportunities for all Maine citizens, including access to surface waters.

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B.   **Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.9(C) to answer the following questions.

(1)   Will existing recreational facilities and programs in the community and region accommodate projected growth or changes in age groups in your community?

(2)   Is there a need for certain types of services or facilities or to upgrade or enlarge present facilities to either add capacity or make them more usable?

(3)   Are important tracts of open space commonly used for recreation publicly-owned or otherwise permanently conserved?

(4)   Does the community have a mechanism, such as an open space fund or partnership with a land trust, to acquire important open spaces and access sites, either outright or through conservation easements?

(5)   Does the public have access to each of the community's significant water bodies?

(6)   Are recreational trails in the community adequately maintained? Are there use conflicts on these trails?

(7)   Is traditional access to private lands being restricted?

C.   **Condition and Trends**

Minimum data required to address Analyses:

(1)   The community's Comprehensive Planning Recreation Data Set prepared and provided to the community by the Department of Conservation, and the Office, or their designees.

(2)   A description of important public and private active recreation programs, land and water recreation areas (including hunting and fishing areas), and facilities in the community and region, including regional recreational opportunities as appropriate, and identification of unmet needs.

(3)   An inventory of any fresh or salt water bodies in the community determined locally to have inadequate public access.

(4)   A description of local and regional trail systems, trail management organizations, and conservation organizations that provide trails for all-terrain vehicles, snowmobiling, skiing, mountain biking, or hiking.

(5)   A map or list of important publicly-used open spaces and their associated facilities, such as parking and toilet facilities.

D.   **Policies**

Minimum policies required to address state goals:

(1)   To maintain/upgrade existing recreational facilities as necessary to meet current and future needs.

(2)   To preserve open space for recreational use as appropriate.

(3)   To seek to achieve or continue to maintain at least one major point of public access to major water bodies for boating, fishing, and swimming, and work with nearby property owners to address concerns.

E.   **Strategies**

Minimum strategies required to address state goals:

(1)   Create a list of recreation needs or develop a recreation plan to meet current and future needs. Assign a committee or community official to explore ways of addressing the identified needs and/or implementing the policies and strategies outlined in the plan.

(2)   Work with public and private partners to extend and maintain a network of trails for motorized and non-motorized uses. Connect with regional trail systems where possible.

(3)   Work with an existing local land trust or other conservation organizations to pursue opportunities to protect important open space or recreational land.

(4)   Provide educational materials regarding the benefits and protections for landowners allowing public recreational access on their property. At a minimum this will include information on Maine's landowner liability law regarding recreational or harvesting use, Title 14, M.R.S.A. §159-A.

10.   **Transportation**

Sensible Transportation Policy Act

If a community has adopted a local or applicable regional long-range transportation plan that has been approved by the Maine Department of Transportation as consistent with the *Sensible Transportation Policy Act* (23 M.R.S.A. §73), then the transportation section is deemed complete for the purposes of review

under this Chapter. The transportation section of the comprehensive plan need only include a letter from the Maine Department of Transportation stating that the community's long-range transportation plan is consistent with 17-229 CMR Chapter 103 subchapter 3 and is current in accordance with 17-229 CMR Chapter 103 subchapter 3.2(F).

Absent such approval, the following information, analyses, policies and strategies are required. Regional transportation plans must be consulted in preparing this section.

A.   **State Goal**

To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

B.   **Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.10(C) to answer the following questions.

(1)   What are the transportation system concerns in the community and region? What, if any, plans exist to address these concerns?

(2)   Are conflicts caused by multiple road uses, such as a major state or U.S. route that passes through the community or its downtown and serves as a local service road as well?

(3)   To what extent do sidewalks connect residential areas with schools, neighborhood shopping areas, and other daily destinations?

(4)   How are walking and bicycling integrated into the community's transportation network (including access to schools, parks, and other community destinations)?

(5)   How do state and regional transportation plans relate to your community?

(6)   What is the community's current and approximate future budget for road maintenance and improvement?

(7)   Are there parking issues in the community? If so what are they?

(8)   If there are parking standards, do they discourage development in village or downtown areas?

(9)   Do available transit services meet the current and foreseeable needs of community residents? If transit services are not adequate, how will the community address the needs?

(10)   If the community hosts a transportation terminal, such as an airport, passenger rail station, or ferry terminal, how does it connect to other transportation modes (e.g. automobile, pedestrian, bicycle, transit)?

(11)   If the community hosts or abuts any public airports, what coordination has been undertaken to ensure that required airspace is protected now and in the future? How does the community coordinate with the owner(s) of private airports?

(12)   If you are a coastal community are land-side or water-side transportation facilities needed? How will the community address these needs?

(13)   Does the community have local access management or traffic permitting measures in place?

(14)   Do the local road design standards support the community's desired land use pattern?

(15)   Do the local road design standards support bicycle and pedestrian transportation?

(16)   Do planned or recently built subdivision roads (residential or commercial) simply dead-end or do they allow for expansion to adjacent land and encourage the creation of a network of local streets? Where dead-ends are unavoidable, are mechanisms in place to encourage shorter dead-ends resulting in compact and efficient subdivision designs?

C.   **Conditions and Trends**

Minimum data required to address Analyses:

(1)   The community's Comprehensive Planning Transportation Data Set prepared and provided to the community by the Department of Transportation, and the Office, or their designees.

(2)   Location and overall condition of roads, bridges, sidewalks, and bicycle facilities, including any identified deficiencies or concerns.

(3)   Identify potential on and off-road connections that would provide bicycle and pedestrian connections to neighborhoods, schools, waterfronts and other activity centers.

(4)   Identify major traffic (including pedestrian) generators, such as schools, large businesses, public gathering areas/activities, etc. and related hours of their operations.

(5)   Identify policies and standards for the design, construction and maintenance of public and private roads.

(6)   List and locate municipal parking areas including capacity, and usage.

(7)   Identify airports within or adjacent to the community and describe applicable airport zoning and airspace protection ordinances your community has in place.

(8)   Identify bus or van services.

(9)   Identify existing and proposed marine and rail terminals within your community including potential expansions.

(10)   If coastal communities identify public ferry service and private boat transportation support facilities (may be covered under Marine Resources with cross reference) including related water-side (docks/piers/wharves) and land-side (parking) facilities.

D.   **Policies**

Minimum policies required to address state goals:

(1)   To prioritize community and regional needs associated with safe, efficient, and optimal use of transportation systems.

(2)   To safely and efficiently preserve or improve the transportation system.

(3)   To promote public health, protect natural and cultural resources, and enhance livability by managing land use in ways that maximize the efficiency of the transportation system and minimize increases in vehicle miles traveled.

(4)   To meet the diverse transportation needs of residents (including children, the elderly and disabled) and through travelers by providing a safe, efficient, and adequate transportation network for all types of users (motor vehicles, pedestrians, bicyclists).

(5)   To promote fiscal prudence by maximizing the efficiency of the state or state-aid highway network.

E.   **Strategies**

Minimum strategies required to address state goals:

(1)   Develop or continue to update a prioritized improvement, maintenance, and repair plan for the community's transportation network.

(2)   Initiate or actively participate in regional and state transportation efforts.

(3)   Maintain, enact or amend local ordinances as appropriate to address or avoid conflicts with:

a.   Policy objectives of the *Sensible Transportation Policy Act* (23 M.R.S.A. §73);

b.   State access management regulations pursuant to 23 M.R.S.A. §704; and

c.   State traffic permitting regulations for large developments pursuant to 23 M.R.S.A. §704-A.

(4)   Maintain, enact or amend ordinance standards for subdivisions and for public and private roads as appropriate to foster transportation-efficient growth patterns and provide for future street and transit connections.

11.   Public Facilities and Services

A.   **State Goal**

To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

B.   **Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.11(C) to answer the following questions.

(1)   Are municipal services adequate to meeting changes in population and demographics?

(2)   Has the community partnered with neighboring communities to share services, reduce costs and/or improve services? In what ways?

(3)   If the community has a public sewer system, what issues or concerns are there currently and/or anticipated in the future? Is the sanitary district extension policy consistent with the Future Land Use Plan as required by (38 M.R.S.A. §1163), or will it be?

(4)   If the community has a public water system are any public water supply expansions anticipated? If so, have suitable sources been identified and protected? Is the water district extension policy consistent with the Future Land Use Plan?

(5)   If the town does not have a public sewer or water system, is this preventing the community from accommodating current and projected growth?

(6)   Are existing stormwater management facilities adequately maintained? What improvements are needed? How might future development affect the existing system?

(7)   How do residents dispose of septic tank waste? Are there issues or concerns regarding septic tank waste?

(8)   Is school construction or expansion anticipated during the planning period? Are there opportunities to promote new residential development around existing and proposed schools?

(9)   Is the community's emergency response system adequate? Are improvements needed?

(10)   Is the solid waste management system meeting current needs? Is the community reducing the reliance on waste disposal and increasing recycling opportunities? Are improvements needed to meet future demand?

(11)   Are improvements needed in the telecommunications and energy infrastructure?

(12)   Are local and regional health care facilities and public health and social service programs adequate to meet the needs of the community?

(13)   Will other public facilities, such as town offices, libraries, and cemeteries accommodate projected growth?

(14)   To what extent are investments in facility improvements directed to growth areas?

(15)   Does the community have a street tree program?

C.   **Conditions and Trends**

Minimum data required to address Analyses includes the identification of the following as applicable for the public facilities and services in 3.11 C (5) (a through i):

(1)   location of facilities and service areas (mapped as appropriate);

APPENDIX

(2)   general physical condition of facilities and equipment;

(3)   capacity and anticipated demand during the planning period;

(4)   identification of who owns/manages the systems;

(5)   estimated costs of needed capital improvements to public facilities; and

(6)   the following information related to each of these public facilities and services:

a.   **Sewerage and/or Water Supply** – Identify number and types of users, and percent of households served

b.   **Septage** – Identify any community policies or regulations regarding septage collection and disposal.

c.   **Solid Waste** – Describe the community's solid waste management system. Identify types and amounts of municipal solid waste and recycled materials for the past five (5) years.

d.   **Stormwater Management** – Identify combined sewer overflows. For Municipal Separate Stormwater System (MS4) communities, describe plan and status of the major goals of the MS4 requirements.

e.   **Power and Communications** – Availability of 3-phase power, Internet (including broadband), and cable within the community.

f.   **Emergency Response System** –Average call response times for fire, police, and emergency/rescue.

g.   **Education** – Identify school administrative unit. Include primary/secondary school system enrollment for the most recent year information is available and for the ten (10) years after the anticipated adoption of plan.

h.   **Health Care** - Describe major health care facilities (hospitals, clinics) and other providers serving the community. Identify public health and social services supported by the community through municipal subsidy.

i.   **Municipal Government Facilities and Services** – Describe facilities and staffing for municipal administrative, enforcement, and public works operations.

j.   **Street Tree Program** - Describe the community's street tree program.

D.   **Policies**

Minimum policies required to address state goals:

(1)   To efficiently meet identified public facility and service needs.

(2)   To provide public facilities and services in a manner that promotes and supports growth and development in identified growth areas.

E.   **Strategies**

Minimum strategies to meet state goals:

(1)   Identify any capital improvements needed to maintain or upgrade public services to accommodate the community's anticipated growth and changing demographics.

(2)   Locate new public facilities comprising at least 75% of new municipal growth-related capital investments in designated growth areas.

(3)   Encourage local sewer and water districts to coordinate planned service extensions with the Future Land Use Plan.

(4)   If public water supply expansion is anticipated, identify and protect suitable sources?

(5)   Explore options for regional delivery of local services.

12.   Fiscal Capacity and Capital Investment Plan

A.   **State Goal**

To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

B.   **Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.12(C) to answer the following questions.

(1)   How will future capital investments identified in the plan be funded?

(2)   If the community plans to borrow to pay for capital investments, does the community have sufficient borrowing capacity to obtain the necessary funds?

(3)   Have efforts been made by the community to participate in or explore sharing capital investments with neighboring communities? If so, what efforts have been made?

C.   **Conditions and Trends**

Minimum data required to address Analyses:

(1)   Identify community revenues and expenditures by category for the last five (5) years and explain trends.

(2)   Describe means of funding capital items (reserve funds, bonding, etc.) and identify any outside funding sources.

(3)   Identify local and state valuations and local mil rates for the last five (5) years.

(4)   How does total municipal debt (including shares of county, school and utility) compare with the statutory and Maine Bond Bank recommended limits on such debt?

D.   **Policies**

Minimum policies required to address state goals:

(1)   To finance existing and future facilities and services in a cost effective manner.

(2)   To explore grants available to assist in the funding of capital investments within the community.

(3)   To reduce Maine's tax burden by staying within LD 1 spending limitations.

E.   **Strategies**

Minimum strategies required to address state goals:

(1)	Explore opportunities to work with neighboring communities to plan for and finance shared or adjacent capital investments to increase cost savings and efficiencies.

F.	**Capital Investment Plan**

The comprehensive plan must include a capital investment plan that:

(1)	Identifies and summarizes anticipated capital investment needs within the planning period in order to implement the comprehensive plan, including estimated costs and timing, and identifies which are municipal growth-related capital investments;

(2)	Establishes general funding priorities among the community capital investments; and

(3)	Identifies potential funding sources and funding mechanisms.

13.	**Existing Land Use**

A.	**State Goal**

None required.

B.	**Analyses**

To generate minimum analyses to address state goals, use Conditions and Trends data in Section 3.13(C) and the community's vision statement to answer the following questions.

(1)	Is most of the recent development occurring: lot by lot; in subdivisions; or in planned developments? Is recent development consistent with the community's vision?

(2)	What regulatory and non-regulatory measures would help promote development of a character, and in locations that are consistent with the community's vision?

(3)	Is the community's administrative capacity adequate to manage its land use regulation program, including planning board and code enforcement officer?

(4)   Are floodplains adequately identified and protected? Does the community participate in the National Flood Insurance Program? If not, should it? If so, is the floodplain management ordinance up to date and consistently enforced? Is the floodplain management ordinance consistent with state and federal standards?

C.   **Conditions and Trends**

Minimum data required to address Analyses:

(1)   An existing land use map, by land use classification (such as mixed-use, residential, commercial, institutional, industrial, agricultural, commercial forests, marine, park/recreational, conserved, and undeveloped land).

(2)   A summary of current lot dimensional standards.

(3)   A description or map identifying the location of lots and primary structures created within the last ten years. Include residential, institutional, commercial, and industrial development.

(4)   Provide a brief description of existing land use regulations and other tools utilized to manage land use, including shoreland zoning, floodplain management, subdivision, site plan review, and zoning ordinances.

(5)   Estimate the minimum amount of land needed to accommodate projected residential, institutional, commercial, or industrial development at least ten (10) years into the future.

D.   **Policies**

None Required

E.   **Strategies**

None required

SECTION 4. FUTURE LAND USE PLAN

1.   State Goal

To encourage orderly growth and development in appropriate areas of each community, while protecting the state's rural character, making efficient use of public services, and preventing development sprawl.

2.   Future Land Use Plan Overview

The plan must include a Future Land Use Plan that is consistent with the community's vision and other policies in the plan. The Future Land Use Plan brings together plan elements that affect land use. It is intended to synthesize these elements into a cohesive guide to realizing the community's vision, including the development of land use regulations/ordinances. Use the analysis of conditions and trends data in Section 4, in conjunction with the vision statement, to develop the community's Future Land Use Plan.

The Future Land Use Plan divides the community into geographical areas identified as either most suitable for growth or most suitable for rural uses unless exempted under 30-A M.R.S.A. §4326(3-A), more fully described below. The Future Land Use Plan also incorporates a map of critical natural resources and any designated critical rural and critical waterfront areas within the community. The Future Land Use Plan will be the focus of the Office review for consistency with the Act.

3.   Review Criteria for Future Land Use Plan Designations

A.   Growth Areas

A community's Future Land Use Plan must identify a growth area or areas. The designation of growth areas is intended to ensure that planned growth and development and related infrastructure are directed to areas most suitable for such growth and development. Land areas designated as growth area must be consistent with the following provisions.

(1)   The Future Land Use Plan must designate as growth area those lands into which the community intends to direct a minimum of 75% of dollars for municipal growth-related capital investments made during the planning period.

(2)   Built-out or developed areas that may not have capacity for further growth but require maintenance, replacement, or additional capital investment to support existing or infill development must also be designated as growth areas.

(3)   Growth areas must generally be limited to land areas that are physically suitable for development or redevelopment. Growth areas may include incidental land areas that are physically unsuitable for development or redevelopment, including critical natural resource, however, the plan must addresses

how these areas will be protected from negative impacts of incompatible development to the greatest extent practicable or, at a minimum, as prescribed by law.

(4)   To the greatest extent practicable growth areas should be located adjacent to existing densely-populated area.

(5)   Growth areas, to the greatest extent practicable, should be limited to an amount of land area and a configuration to encourage compact, efficient development patterns (including mixed uses) and discourage development sprawl and strip development.

(6)   Growth areas along roads should be configured to avoid strip development and promote nodes or clusters of development.

B.   **Growth Area Exemptions**

In some communities, conditions may make the identification of specific areas for residential, institutional, commercial, and/or industrial growth inappropriate. These conditions, as described in 30-A M.R.S.A. §4326(3-A) and Section 4.5 of this Chapter, include:

(1)   Severe physical limitations;

(2)   Minimal or no growth; or

(3)   The lack of a village or densely populated area.

Communities with one or more of these conditions may develop a Future Land Use Plan that does not identify growth areas for residential, institutional, commercial, or industrial growth pursuant to the criteria identified in Section 4.5. If a growth area exemption is proposed, the plan's description of existing trends and conditions must support the exemption request. Communities with growth caps or rate-of-growth ordinances are not eligible for a growth area exemption.

C.   **Shared Growth Areas**

Pursuant to and in accordance with 30-A M.R.S.A. §4325, communities may enter into an interlocal agreement with one or more neighboring communities to designate regional growth areas for anticipated residential, institutional, commercial, or industrial growth and/or related services or infrastructure.

D.   **Transitional Areas**

The Future Land Use Plan may designate as transitional area those land areas which the community identifies as suitable for a share of projected residential, institutional, commercial or industrial development but that is neither intended to accept the amount or density of development appropriate for a growth

area nor intended to provide the level of protection for rural resources afforded in a rural area or critical rural area. Designated transitional areas are intended to provide for limited suburban or rural residential development opportunities. Land areas designated as transitional area must be consistent with the following provisions:

(1)   Transitional areas cannot be defined as growth areas for the purposes of state growth related capital investment pursuant to 30-A M.R.S.A. §4301(5-B).

(2)   Development standards in transitional areas must limit strip development along roads through access management, minimum frontage requirements, and other techniques.

(3)   Transitional areas cannot include significant contiguous areas of working farms, wood lots, properties in state tree growth and farm and open space tax programs, prime agricultural and forestry soils, unfragmented habitat, or marine resources identified in the conditions and trends in Sections 3.3, 3.4, and 3.5.

(4)   Transitional areas must be compatible with designations in adjacent communities or provide buffers or transitions to avoid land use conflicts with neighboring communities.

E.   **Rural Areas**

The community's Future Land Use Plan must identify a rural area or areas. The designation of rural areas is intended to identify areas deserving of some level of regulatory protection from unrestricted development for purposes that may include, but are not limited to, supporting agriculture, forestry, mining, open space, wildlife habitat, fisheries habitat and scenic lands, and away from which most development projected over ten (10) years is diverted.

A community's Future Land Use Plan must designate as rural area or areas any portion of the community consistent with the following provisions:

(1)   To the greatest extent practicable, rural areas must include working farms, wood lots, properties enrolled in current-use tax programs related to forestry, farming or open space, areas of prime agricultural soils, critical natural resources, and important natural resources.

(2)   The Future Land Use Plan must identify proposed mechanisms, both regulatory and non-regulatory, to ensure that the level and type of development in rural areas is compatible with the defined rural character and does not encourage strip development along roads.

(3)   Rural areas shall not include land areas where the community actively encourages new residential, institutional, or commercial development.

(4)   Rural areas must be compatible with designations in adjacent communities or provide buffers or transitions to avoid land use conflicts with neighboring communities.

F.   **Critical Natural Resources**

For the purpose of protecting Critical Natural Resources from the impacts of incompatible development, the Future Land Use Plan must distinguish between areas where those resources are present and where they are absent.

The Future Land Use Plan must include a map or maps depicting Critical Natural Resources and a description of proposed regulations (including ongoing local, state and federal regulations) and non-regulatory measures designed to ensure that these resources are, to the greatest practicable extent, protected from the impacts of incompatible development. (Typically, some of the information contained in a plan's Natural Resources section will be repeated or summarized in the Future Land Use section.)

G.   **Critical Rural Areas and Critical Waterfront Areas**

As an option, the community may identify and designate one or more critical rural areas or critical waterfront areas as defined in this Chapter on the Future Land Use Plan. If the community chooses to make such designations, land areas so designated must be consistent with the following provisions:

(1)   Critical rural areas and critical waterfront areas are those rural and waterfront areas in a community most vulnerable to impacts from incompatible development.

(2)   The Future Land Use Plan must identify current and proposed mechanisms, both regulatory and non-regulatory, to ensure that critical rural areas and critical waterfront areas are, to the greatest extent practicable, protected from the impacts of incompatible development.

(3)   Critical rural areas and critical waterfront areas must be compatible with designations in adjacent communities or provide buffers or transitions to avoid land use conflicts with neighboring communities.

4.   **Required Elements for the Future Land Use Plan**

A.   **Analyses**

(1)   Does the Future Land Use Plan align and/or conflict with the community's vision statement?

(2)   Is the configuration of the growth area(s) shaped by natural opportunities and/or constraints (i.e. the physical suitability or unsuitability of land for development)? The location of public facilities? The transportation network?

(3)   How does the Future Land Use Plan relate to recent development trends?

(4)   Given current regulations, development trends, and population projections, estimate how many new residential units and how much commercial, institutional, and/or industrial development will likely occur in the planning period? Where is this development likely to go?

(5)   How can critical natural resources and important natural resources be effectively protected from future development impacts?

B.   **Components**

The Future Land Use Plan must include:

(1)   A map or maps showing:

a.   Growth area(s) (unless exempted) and Rural area(s) and any land use districts within each;

b.   Critical Natural Resources in accordance with 4.3.F, above

c.   Any of the following optional land use areas, if proposed, along with any land use districts within each: Transitional, Critical Rural, Critical Waterfront.

(2)   A map depicting the constraints to development identified in the plan (may be a combination of maps from other sections).

(3)   A narrative description of each land use district including:

a.   The district's relationship to the community's vision;

b.   The district's natural opportunities and/or constraints;

c.   The types and intensity of proposed land uses, including residential density;

d.   The compatibility or incompatibility of proposed uses to current uses, critical natural resources and important natural resources within and around the district along with any special development considerations (e.g. need for additional buffers, conservation subdivision provisions, architectural design standards, etc.); and

e.   Any anticipated major municipal capital investments needed to support the proposed land uses.

C.   **Policies**

APPENDIX

Minimum policies to address state goals:

(1)   To coordinate the community's land use strategies with other local and regional land use planning efforts.

(2)   To support the locations, types, scales, and intensities of land uses the community desires as stated in its vision.

(3)   To support the level of financial commitment necessary to provide needed infrastructure in growth areas.

(4)   To establish efficient permitting procedures, especially in growth areas.

(5)   To protect critical rural and critical waterfront areas from the impacts of development.

D.   **Strategies**

In addition to the strategies required below, include any strategies as necessary to support the establishment of any rate of growth or impact fee ordinances proposed. These may include strategies found in other sections of the plan.

Minimum strategies required to address state goals:

(1)   Assign responsibility for implementing the Future Land Use Plan to the appropriate committee, board or municipal official.

(2)   Using the descriptions provided in the Future Land Use Plan narrative, maintain, enact or amend local ordinances as appropriate to:

a.   Clearly define the desired scale, intensity, and location of future development;

b.   Establish or maintain fair and efficient permitting procedures, and explore streamlining permitting procedures in growth areas; and

c.   Clearly define protective measures for critical natural resources and, where applicable, important natural resources.

d.   Clearly define protective measures for any proposed critical rural areas and/or critical waterfront areas, if proposed.

(3)   Include in the Capital Investment Plan anticipated municipal capital investments needed to support proposed land uses.

(4)   Meet with neighboring communities to coordinate land use designations and regulatory and non-regulatory strategies.

(5)	Provide the code enforcement officer with the tools, training, and support necessary to enforce land use regulations, and ensure that the Code Enforcement Officer is certified in accordance with 30-A M.R.S.A. §4451.

(6)	Track new development in the community by type and location.

(7)	Direct a minimum of 75% of new municipal growth-related capital investments into designated growth areas identified in the Future Land Use Plan.

(8)	Periodically (at least every five years) evaluate implementation of the plan in accordance with Section 2.7.

**5.	Criteria for Growth Area Exemptions**

A.	**Severe Physical Limitations**

The Future Land Use Plan need not identify growth areas if the plan demonstrates that it is not possible to accommodate future residential, institutional, commercial, or industrial growth because of severe physical limitations, including, without limitation, the lack of adequate water supply and sewage disposal services, very shallow soils, or limitations imposed by critical natural resources.

To be considered for a growth area exemption because of severe physical limitations, the Future Land Use Plan must clearly indicate the physical limitation and the rationale for the exemption, based on one or more of the following three criteria:

(1)	**Water delivery and sewage disposal limitations**. To qualify under this criterion, the Future Land Use Plan shall include descriptions of existing water delivery system(s) and sewage disposal system(s), including an analysis of the current capacity of the system(s) and potential for service expansion or introduction of such services. This discussion must also include descriptions and maps of aquifers in the planning area, and a description of how these aquifers relate to future capacity to serve as water supply.

(2)	**Soils**. Description of soils types and conditions (available from the Natural Resources Conservation Service and the Maine Geological Survey), including the presence of ledge or steep slopes. This discussion must also describe the limitations of these soils related to wastewater disposal [pursuant to Maine Subsurface Wastewater Disposal regulations (10-144 CMR 241)], and describe how these soil limitations make designation of any growth areas in the community with densities in the range of 20,000 to 80,000 square feet impractical.

(3)	**Critical natural resources**. Description of critical natural resources, with accompanying map(s) detailing the location of those resources. Based on this information, this discussion must also include a description of the constraints placed on future development by critical natural resources, alone or in conjunction with other physical limitations.

B.   **Minimal or No Growth**

The Future Land Use Plan is not required to identify growth areas for residential, institutional, commercial or industrial growth if it demonstrates that the community or region has experienced minimal or no residential, institutional, commercial, or industrial development over the past decade and this condition is expected to continue over the planning period. Communities that have adopted growth caps or rate-of-growth ordinances are not eligible for a growth area exemption.

For consideration of a growth area exemption because of minimal residential, institutional, commercial, or industrial development, the Future Land Use Plan must clearly indicate the rationale for the exemption according to the type of exemption, as described below:

(1)   **Residential growth area exemption**. For both the preceding 10-year period and the projected planning period, the Future Land Use Plan must include: the community's population; the number of households; and the average household size. Based on this information, the Future Land Use Plan must demonstrate that the community has experienced minimal or no residential development as defined in Section 1.2(CC) and expects such a trend to continue.

(2)   **Commercial/Institutional growth area exemption**. The Future Land Use Plan must include: information on the type and amount (square footage) of institutional or commercial development that occurred in the community during the preceding 10-year period, and a discussion of the type and amount of institutional or commercial development that is likely during the projected planning period. Based on this information, the Future Land Use Plan must demonstrate that the community has experienced minimal or no commercial/ institutional growth, as defined in Section 1.2(AA), and expects such trends to continue.

(3)   **Industrial growth area exemption**. The Future Land Use Plan must include: information on the type and amount (square footage) of industrial development that occurred in the community during the preceding 10-year period, and a discussion of what type and amount of industrial development is likely during the projected planning period. Based on this information, the Future Land Use Plan must demonstrate that the community has experienced minimal or no industrial development, as defined in Section 1.2(BB), and expects such a trend to continue.

C.   **Lack of a Village or Densely Populated Area**

The Future Land Use Plan is not required to identify growth areas for residential, institutional, commercial, or industrial growth anywhere in the community if it demonstrates that the community or region growth patterns do not include a village center or other densely populated area, and that no such areas are expected over the planning period.

For consideration of a growth area exemption because of the absence of a village or densely populated area, the Future Land Use Plan must discuss the manner in which the community intends to remain a rural community. As part of this discussion, the Future Land Use Plan must describe the rationale for the exemption, and must meet the following three criteria:

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(1)   Except for shoreland zones, the community has no land areas with residential dwelling densities greater than one unit per two acres within an area encompassed by any 500-foot radius; and

(2)   The community has no land areas with village characteristics, such as a compact mix of commercial, civic, and residential development or a mix of housing types; and

(3)   The community has no municipal or quasi-public water or wastewater systems.

STATUTORY AUTHORITY: 30-A M.R.S.A. §§ 4312(4) and 4347-A (3-A)

EFFECTIVE DATE:
     September 20, 2007 – filing 2007-403

AMENDED:
     August 6, 2011 – filing 2011-256

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VOLUME II:
INVENTORY AND ASSESSMENT OF EXISTING CONDITIONS

2017

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Fold Out-Maps

INTRODUCTION

The following is an inventory and assessment of the existing conditions of Kittery's resources. These are presented in the chapters written for each of the Topic Areas listed below.

The Comprehensive Plan is presented in the three (3) volumes. This document is Volume II of the Plan.

> **Volume I:** Presents the Plan, its foundations and recommendations.
>
> **Volume II:** Represents an Inventory and Assessment of Existing Conditions.
>
> **Volume III:** Includes a Summary of Public Input as well as the materials used at   public forums to both educate and inspire participants.

This report, VOLUME II is a compilation of the **INVENTORY OF EXISTING CONDITIONS** of Kittery's resources. It is a "snapshot" in time and represents the conditions and plans for the future that were able to be determined at the time of writing. This document is an appendix to the Comprehensive Plan. It contains:

- A series of **Summary Sheets**, they are a summary of the key points of each of the topic area chapters.

- the complete **inventory of the town's resources** and an **assessment of the existing conditions**

COMPREHENSIVE PLAN TOPIC AREAS

1 - History, Historic/Archaeological Resources

2 – Natural Resources, Water, Agricultural and Open Space and Recreation

3 – Population and Demographics

4 – Housing

5 – Economy

6 – Transportation and Circulation

7 – Public Facilities and Services

8 – Marine Resources

9 – Fiscal Capacity

10 – Land Use

The inventory is based on a review of existing documents, relevant plans, and data, as well as on a significant number of leadership interviews. In some cases what is reported is the opinion of Department Heads and may not necessarily be Town policy. See next page for a partial list.

PARTIAL LIST OF INTERVIEWS CONDUCTED FOR INVENTORY OF EXISTING RESOURCES

- Fire Chief
- Police Chief
- Chair, Port Authority
- Kittery Harbormaster
- Town Planner
- Town Manager
- Commissioner of Public Works
- Stormwater Coordinator
- Shoreland Resource Officer
- Superintendent of Sewer
- Superintendent of Water District
- Wood's Island Project Manager
- Recreation Director and General Manager, Kittery Community Center
- Director of Rice Public Library
- Superintendent of Kittery Schools
- Director of School Curriculum
- Board of Appeals
- Conservation Commission Chair
- Kittery Historical & Naval Museum
- Kittery Art Association
- Kittery Land Trust
- Mt. Agamenticus to the Sea
- Fort McClary
- Kittery Open Space Advisory Committee
- Staff at Portsmouth Naval Shipyard

Sample Interview Questions

- What are their priorities?
- What future opportunities and challenges do they see?
- What are their plans for the immediate and long term future?
- How can we best integrate their plans into the Comprehensive Plan?

Kittery's Historic, Cultural & Archaeological Resources

1

CENTURIES-LONG HISTORY & MANY EXTANT HISTORIC RESOURCES

- Humans have inhabited the Kittery area for centuries, beginning with Native peoples, the Abenakis, who sought shellfish along the coast, and Europeans who came in the early 1600s, establishing the Town of Kittery in 1647 making it the oldest incorporated town in the State of Maine. Many of Kittery's natural features and circulation routes retain Abenaki or early European settlers' names.

- Three major activities have dominated Kittery's economy over its 300+-year history and shaped its landscape -- military fortifications, fishing, shipbuilding and tourism. Forts have stood in Kittery near the mouth of the Piscataqua River since the early 1700s, established first to protect from British invasion, and later domestic and foreign wars. Shipbuilding came to dominate the Kittery economy beginning in the mid-1600s, and continues today in the form of submarine repair and retrofitting at the Portsmouth Naval Shipyard, established in 1800. Beginning in the mid-1800s, Kittery became a tourist destination, with several large hotels built along the coast and one at Appledore Island in the Isles of Shoals. In the late-20th century Kittery became a regional shopping destination, with the addition of the Kittery Outlets along Route 1.

- Kittery retains many historic buildings and landscapes, some dating to the earliest European settlement. The town has listed three districts (First Congregational Church, Isles of Shoals and Portsmouth Naval Shipyard) on the National Register of Historic Places, as well as thirteen individual properties and one monument.

- One of the individually-listed properties -- the Lady Pepperrell House -- also has been designated a National Historic Landmark, one of 44 statewide and one of 5 in York County.

- Two local repositories contain a majority of artifacts documenting Kittery's history, the Kittery Historical and Naval Museum and the Portsmouth Naval Shipyard Museum. The former (a private organization) is open seasonally, and the latter (operated by the U. S. Government) is accessible by pre-arranged tour only. Additional historical materials (primarily documents) are held by the Town Clerk and in the Maine Room of the Rice Public Library.

- Much of Kittery's history lies within historic landscapes scattered throughout the town, including the two forts, Wood Island Life Saving Station, Celia Thaxter's Garden (Isles of Shoals), remains of train and trolley systems, and over 130 cemeteries and burying grounds.

SUPPORT FOR LOCAL ARTS AND CULTURAL ACTIVITIES

- Kittery is home to many working artists and several public and private organizations provide venues for showcasing artists' work.

- The Kittery Community Center, a facility owned and operated by the town, contains the 171-seat STAR Theatre as well as the Morgen Gallery, an exhibit space located in the heart of the center.

- The former Wentworth Dennett Elementary School, located on Government Street, has been successfully renovated to provide artists' studio spaces.

The Lady Pepperrell House, built in 1760, is a National Historic Landmark and one of the most treasured historic properties in the Town of Kittery.

WHAT DOES IT MEAN?

- Kittery's historic and cultural resources possess local, regional and national significance, and therefore merit protection.

- The town lacks an historical commission or other entity to serve as a steward for historic resources and help ensure their protection.

- The town lacks a comprehensive inventory of historic resources and a strategy to preserve and protect them.

- The existing Shoreline Overlay Zone has provided a mechanism for protecting the town's coastline from the impact of new development. Similar approaches to historic resource protection are needed in other parts of town.

- The energized local arts community contributes significantly to the quality of life in Kittery.
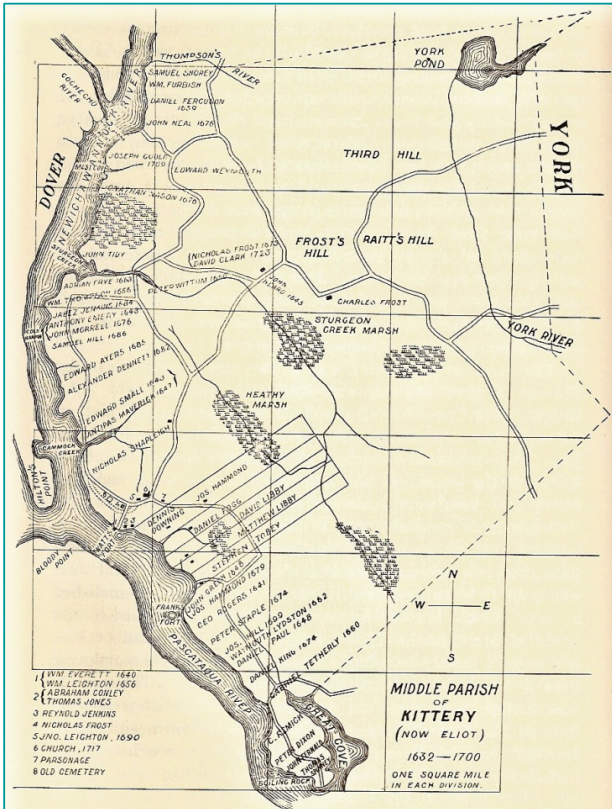
Images of Kittery provide highlights of its past:

- *A map depicting Kittery in the 17th century (far left) illustrates the early settlement's close association with the Piscataqua River*
- *The Isles of Shoals (center top), an early fishing center, later became home to a large hotel*
- *The Portsmouth Naval Shipyard (center middle), established in 1800, continues as a major industry today*
- *The Champernowne Hotel (far right), built in 1890, was one of several late 19th and early 20th century resorts dotting Kittery's coastline*
- *Government Street, ca. 1900 (bottom), served pedestrians, horse-drawn vehicles, and trolleys*

Kittery's Natural Resources, Open Space & Recreation Resources 2

MANY DISTINCTIVE NATURAL RESOURCES

- Geology, topography and soils in Kittery reflect its geographic location along the Atlantic coast. Bedrock closely underlies much of the town, interspersed with pockets of marine soils and glacial outwash.

- Five watersheds cover most of Kittery, with the largest extending along the Piscataqua River and Spruce Creek. Many smaller tributaries feed these waterways.

- The town has relatively few fresh water resources, and much of the public drinking water is supplied by wells.

- Kittery contains very little farmland and supports just three active farms.

- Kittery supports three "natural areas," as defined by the Maine Natural Areas Program, including salt-hay salt marsh, white oak-red oak forest, and dune grassland.

- Two "habitat focus areas," defined by Beginning with Habitat, are located in Kittery. These areas, located in the Brave Boat Harbor-Gerrish Island area and York River Headwaters area, support rare plants, animals and their habitats.

- The town's location at the confluence of the Piscataqua River with the Atlantic Ocean, combined with the many historic buildings and landscape features, give Kittery tremendous scenic quality.

SIGNIFICANT OPEN SPACE RESOURCES

- Of Kittery's 12,000 acres and 30 miles of coastline, approximately 14% of the acreage and 10% of the coastline have been protected through a variety of conservation methods.

- While the State of Maine and Town of Kittery own some of this protected land, the majority has been conserved through the efforts of the Kittery Land Trust (840 acres) and Maine Coast Heritage Trust (408 acres).

- Kittery is also the southern "anchor" of the Rachel Carson National Wildlife Refuge, with its Brave Boat Harbor division, located in northeast Kittery, covering 400 acres.

- Kittery's scenic roads, including Route 103, are some of the town's most treasured assets. Visitors come from far and wide to drive the winding routes and take in historic and sea-facing views.

- The town's Conservation Commission is charged with reviewing protecting the natural resources located within the territorial limits of the town.

- The Kittery Open Space Advisory (KOSAC) is tasked with maintaining an inventory of public open space and making recommendations to the Town Manager about acquiring and/or selling/gifting/transferring this space.

Seapoint Beach, located at the far eastern end of Kittery, is a popular recreation spot, but also a feeding area for several species of migratory birds.

WHAT DOES IT MEAN?

- Kittery's location at the mouth of the Piscataqua and along the Atlantic coast is its most defining natural feature.

- The presence of bedrock underlying most of the town, combined with the many surface waters and associated floodplain areas, limits the extent of new development.

- The town's small number of fresh water resources require public drinking water be supplied by wells or neighboring towns.

- While 10% of Kittery's 30-mile coastline has been protected through efforts of several public and private entities, much of this area remains unprotected.

- The scenic quality of Route 103 is partially protected by the town's Shoreline Overlay Zone regulation. Additional work is needed to protect scenic views and viewsheds.

RECREATION RESOURCES IN MANY FORMS

- Kittery contains 28 acres of federal and state-owned recreation facilities, including both active and passive recreation sites. Two of these sites are open to all.

- The town maintains several historic sites (Fort Foster, Wood Island) which provide recreational opportunities, as well as many athletic fields and playgrounds.

- The Kittery Community Center, opened in 2011 at the former Frisbee Elementary School on Rogers Road, provides active recreation facilities (gymnasium, fitness center) and offers recreation-oriented programs to users of all ages.

- A master plan for Kittery's athletic fields, completed in 2014, outlined the need for greater access to facilities, and need to eliminate overlap of facilities, and the need to rest fields on an ongoing basis.

- Access to the water (Atlantic Ocean, Piscataqua River and Spruce Creek) is limited by the small number of launches, slips, moorings and parking spaces near these sites.

- Kittery contains an extensive network of trails, both at formal recreation facilities, and on conservation lands. While used by many, the trails do not currently connect to one another, and are not widely publicized.

- Sportsmen and women hunt throughout the year, in approximately three-quarters of the town, including some residential areas. Hunting is not permitted in the area to the west of Haley Road and south of Interstate 95.
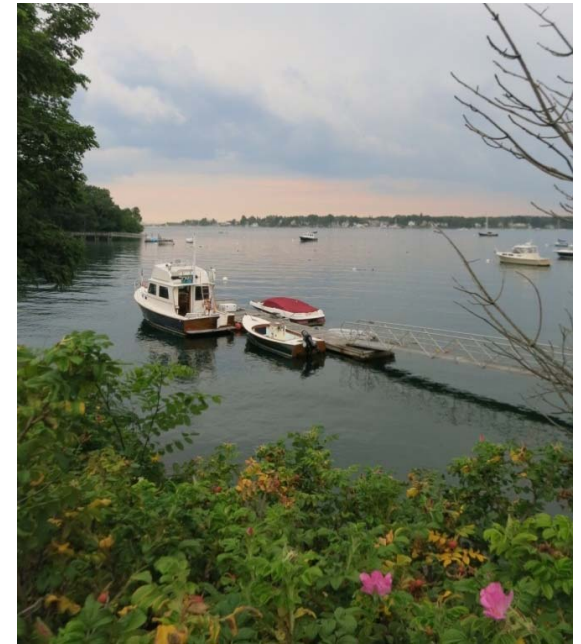
The Piscataqua River provides access to the Atlantic and associated maritime-related recreational activities.

The historic Rustlewood Farm, operated by the Johnson Family, covers 300 acres straddling the Kittery-Eliot line and is protected by a conservation easement.

WHAT DOES IT MEAN?

- The popularity of Fort Foster and Fort McClary as active and passive recreation sites places demands on limited staffing.

- The one regulation size soccer field in Kittery is in very high demand and in general, the town's fields are over utilized (in part because the town does not maintain separate practice fields), complicating maintenance tasks.

- Opportunity exists to better promote the town's system of trails and to create better connections between trail segments.

- Opportunity exists to provide more access to Kittery's waterways.

Kittery's Demographics

POPULATION AND DEMOGRAPHICS

- Total population for Kittery has remained relatively stable since 1970, and that trend is projected to remain stable, possibly declining slightly, through the year 2032 (US Census, State of Maine Projections)

- Kittery is an aging community; between 2000 and 2014, residents ages 55 to 64 increased by 65 percent (US Census)

- The number of family households in Kittery with children under the age of eighteen has declined since 2000 (US Census)

- School enrollment in Kittery has remained stable with the exception of fluctuations due to military families moving to Kittery for short term assignments at the Naval Shipyard. During the 2014/15 school year, approximately 18 percent of children enrolled in the Kittery school system were from military families (Kittery School District)

- The current population in Kittery is very stable, with over 86 percent of residents living in the same home they did a year ago (US Census)

- The median age of those coming from another country to live in Kittery was seventy-two (US Census)

- Since 2000, the median household income in Kittery has grown from $45,067 to $60,205 in 2014 (US Census)

Kittery's estimated population in 2014 was 9,649 (US Census)
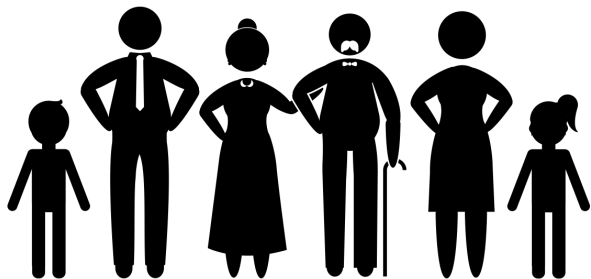
Total population is projected to decline by 6 percent through the year 2032 (State of Maine)

Kittery's Population by Age

Under 5 3.6%
5 to 17 11.1%
18 to 24 10.5%
25 to 34 8.7%
35 to 44 12.7%
45 to 54 17.4%
55 to 64 16.0%
65 to 74 9.5%
75+ 10.6%
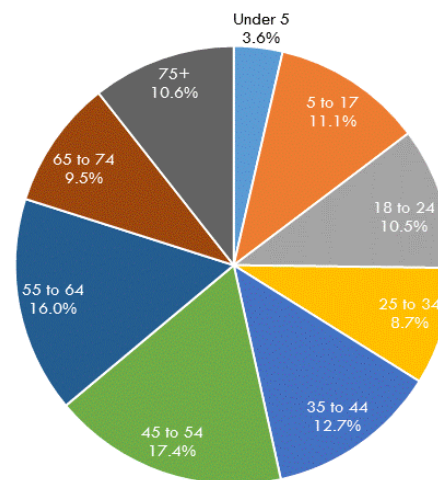
WHAT DOES IT MEAN?

- Kittery's population has not grown in over 45 years, which does not stimulate new housing demand for families

- The senior population is growing as existing residents are getting older, which may require more targeted housing for seniors

- The Town should consider ways to attract and retain a younger population to help fill jobs, support local businesses, and support the town's tax base

Kittery's Housing Resources

4

HOUSING RESOURCES

- For 2014, the American Community Survey estimates the total number of housing units in Kittery to be 5,144 (2010-2014 ACS)

- Sixty-five percent of Kittery's housing stock is owner-occupied which is lower than many surrounding towns with the exception of Portsmouth (2010-2014 ACS)

- Kittery has a relatively young housing stock, with 74 percent of residential structures built after 1940 (2010-2014 ACS)

- The American Community Survey estimates median owner-occupied housing value at $292,200 and median monthly rent of $1,232 (2010-2014 ACS)

- The Town does have several age-restricted housing options for residents over fifty-five

Kittery has a diversified housing stock in a desirable location

Household size is shrinking, and the number of residents over 65 is growing in Kittery.

What implications does this have for future housing needs?

4%

Percentage Kittery's median home values have increased since 2010

7%

Percentage Kittery's median rent values have increased since 2010

WHAT DOES IT MEAN?

- Kittery's housing prices are increasing, making it harder for residents to afford to live in Kittery

- Housing that is affordable for younger single-person and family households is an important component of maintaining the Town's workforce and stimulating economic development

- With a growing senior population, the Town should consider ways to create housing that is affordable, accessible, and located in places with access to amenities

Kittery's Economy

LABOR FORCE

- Total labor force is comprised of 5,624 people, which equals a 68 percent participation rate

- The majority of Kittery residents are employed in educational services, healthcare, and social assistance

- The Naval Shipyard contributes to the professional, scientific, management and administrative services sectors

- Six primary employment sectors are: manufacturing, professional services, public administration, retail trade, food services, educational services, and healthcare

- The average weekly wage in Kittery is $1,404 per week

PRIMARY ECONOMIC DEVELOPMENT AREAS

- Downtown/Foreside:
  - One of Kittery's more unique and interesting commercial areas with a mix of retail, restaurants, and daily service needs
  - Accessible by car, walking, or biking
- Route 1 Bypass Area:
  - Areas is zone Commercial 3 (C-3) and allows for the provision of general retail sales, services, and business space
  - Current businesses include a hardware store, motels, a fitness center, automotive repair shop, brewery, and sewage disposal plant
- Route 236/Dennett Road Area:
  - Currently mostly undeveloped, the business park area does have sanitary sewer line infrastructure already installed
  - Existing uses along Route 236 are small-scale commercial developments such as machine shops, office buildings, and a seafood wholesaler
- Route 1 Outlet Area:
  - Aside from the Foreside, this is one of Kittery's oldest and most successful economic development areas; the outlets generate property tax revenue and draw customers locally and regionally
- Route 1 Mixed Use Area:
  - The area is zoned Mixed Use with the primary purpose of providing office, service, and residential uses
- Gourmet Alley:
  - An interesting mix of restaurants and food markets located along Route 1 in close proximity to the Foreside

Kittery has an eclectic mix of restaurants, retail, and housing.

WHAT DOES IT MEAN?

- Kittery's employment base includes a large number of lower-wage retail, restaurant, hospitality, service, and entertainment workers which are impacted by cost of living increases

- The Town should begin to think about business diversification along the Route 1 corridor as regional competition in outlets grows

- The success of the Foreside and Route 1 Outlet Corridor shows the Town should continue investing in economic development areas

- The Town has many commercial zoning districts. Is this necessary? Should some be consolidated or changed?

Legend:

- Primary ED Areas
- Secondary ED Areas

Primary Areas
1. Foreside
2. Route 1 Bypass
3. Route 236/Dennett Road
4. Route 1 Outlets
5. Route 1 Mixed Use
6. Gourmet Alley

Secondary Areas
1. Kittery Center
2. Badger Island
3. Pepperrell Road
4. Chauncey Creek Road
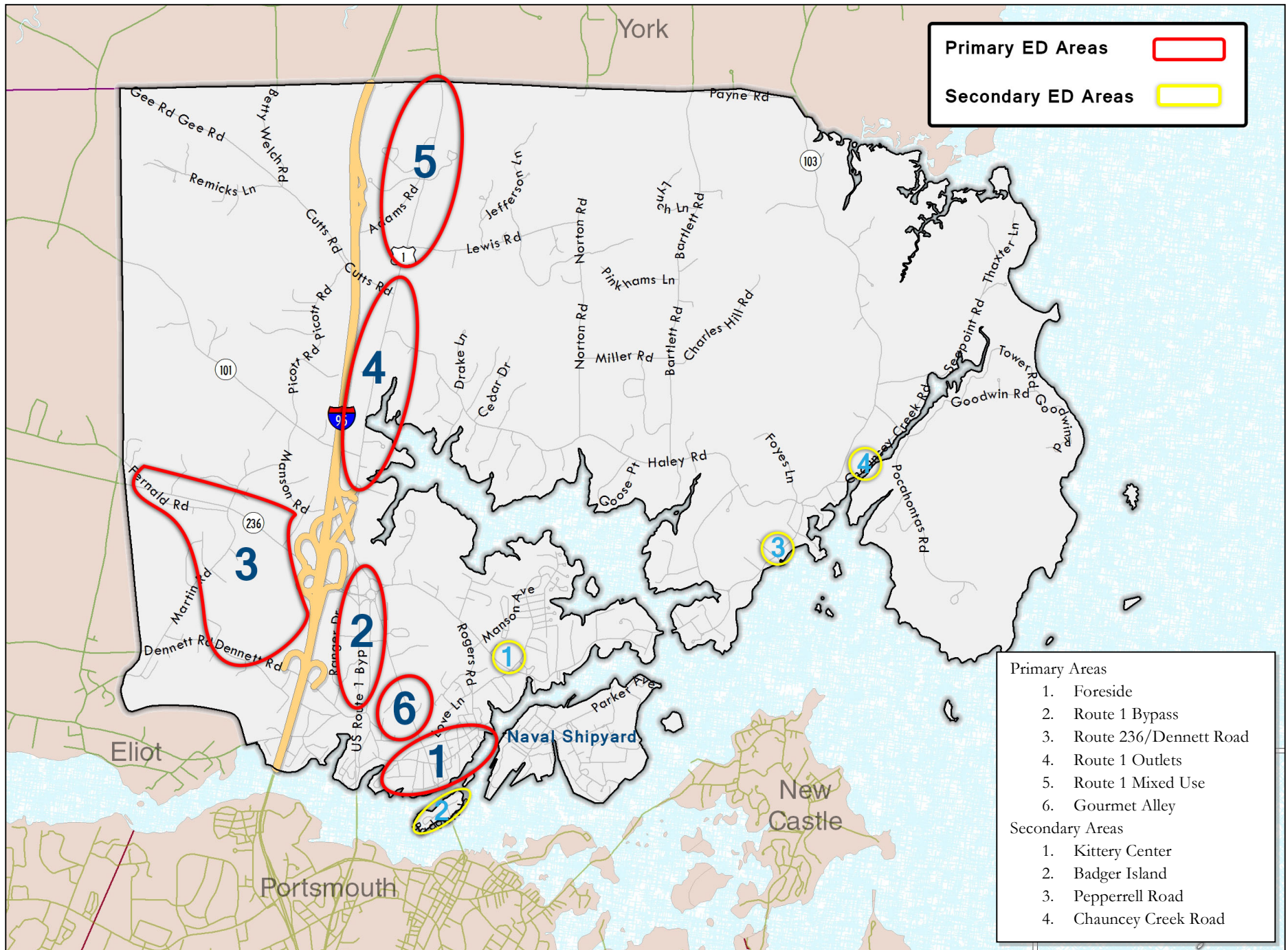
Kittery's Transportation Resources

TRAVEL CHARACTERISTICS

- Kittery is the largest work destination for Kittery and KACTS (Kittery Area Comprehensive Transportation System) community residents.

- 85% of Kittery households have 1 or 2 vehicles compared with state average of 74%. 6% of households in Kittery have no vehicle.

- 71% of Kittery commuters drive alone and 22% use other modes. The number of carpoolers, bicycle trips and walk trips has increased since 2000. Use of bicycle increased from 0.5% in 2000 to 2.4 percent in 2014, which represents 100 additional commuters who biked.

- Average commute time = 21 minutes, shorter than state average. The number of commuters traveling less than 10 minutes has decreased since 2000.

Unsignalized intersection of Shapleigh Road/Whipple Road/Woodlawn Avenue

OPERATING CONDITIONS

- The main source of congestion on local roadway is during shift changes at the Portsmouth Naval Shipyard.

- The unsignalized intersection of Shapleigh Road/Whipple Road/Woodlawn Avenue operates with congestion and long vehicle delays during peak periods.

- I-95: 37,500 vehicles per day (vpd); US Route 1: 17,000 vpd; and SR Route 236: 18,700 vpd; US Rt. 1 Bypass: 15, 700 vpd (Year 2011) have the highest daily traffic volumes.

- Most of the roadway segments experienced decrease in daily traffic volume between 2010 and 2013. Shapleigh Road increased up to 22% during this period.

- The Department of Public Works (DPW) has a policy for local roadway maintenance called the Road Surface Management System. Typically, the roadways with ratings of less than 50 would be on the priority list for maintenance in a given years.

- Kittery has approximately 73 miles of roadways including I-95. Kittery has several scenic roads classified into three categories (1: scenic roads with highest value; 2: scenic roads with very high value; 3: scenic roads with high value).

- Most of the bridges in Kittery received a Federal Sufficiency Rating (FSR) above 50. Viaduct and Sarah Mildred Long Bridge have the lowest ratings of 16.4 and 21, respectively. Memorial Bridge replacement was completed in 2013.

SAFETY

- According to the annual Town report for 2013, Kittery experienced a reduction in accidents by 10% compared to 2012.

WHAT DOES IT MEAN?

- Kittery is served well by I-95, Route 1 and Route 1 Bypass.

- More commuters are biking and walking to their work. New sidewalks, pedestrian safety improvements, and expanded bicycling accommodations could be beneficial.

- When I-95 experiences congestion, particularly during summer months, local roadways experience congestion and are used as cut-throughs.

- Route 103 is a narrow, winding roadway shared by vehicles, motorcycles, and bicyclists, particularly on warm weather weekends.

- There were six high crash locations in Kittery between 2011 and 2013, which are:
  - Intersection of Mason Road, Picott Road and Wilson Road;
  - Intersection of Haley Road/US Route 1 and Trafton Lane;
  - Intersection of New State Road & Rogers Road State Road;
  - Intersection of Ramp off to Rogers Road Extension Road South Bound;
  - End of US 1 Bypass/Intersection of US 1 Bypass & US 1 Bypass South Bound; and
  - Intersection of Entrance to Maine Outlet/Entrance to Shop Center, US SHOP CTR, US 1: Non Int US 1.

PEDESTRIANS & BICYCLES

- Most of the sidewalks in Kittery are along US Route 1 and in the urban downtown area. The DPW maintains a Sidewalk Condition Report.

- Approximately 2.5-miles of the Eastern Trail runs through Kittery from the Maine State Line on the Memorial Bridge to Dennett Road.

- The Route 236 bike route runs through Kittery.

- The KACTS is working with the Town of Kittery on upgrading the Route 1 Bypass to make it more pedestrian friendly.

- Route 103 is included in Tour 8 of MaineDOT's "Explore Maine by Bike" book. Tour 8 provides 3 tour loops that are 12, 17 & 22 miles long.

TRANSIT

- In Kittery, the COAST provides year round fixed-route limited transit services at Portsmouth Naval Shipyard. Out of five COAST routes, four are express commuter routes.

- Paratransit service, ridesharing program and van services are available to Kittery residents through various organizations, including YCCAC, York Hospital, GoMaine, vRide, Enterprise Rideshare, and Kittery Community Center.
  - YCCAC provides "Local Rides" service in Kittery on Fridays, with destinations in Kittery, Portsmouth and Newington.

- A shuttle bus service use to operate on Route 103 in Kittery, but it has not been provided for several years.

- Currently, there is no passenger rail service into Kittery. The nearest stations from Kittery are Dover, New Hampshire and Wells, Maine. There is a freight service to the Portsmouth Naval Shipyard.

PARKING

- There is a shortage of parking spaces in the Foreside area during peak periods.

- Parking at access points to the water during summer months is difficult for both residents and visitors.

Intersection of State Road and Rogers Road, one of the high crash locations.

WHAT DOES IT MEAN?

- Fixed-route bus services in Kittery are only available at Portsmouth Naval Shipyard.

- There is a desire for shuttle service but the demand is not high enough for applying for grant.

- Parking shortages at Foreside area and at access points to the water during the summer.

Kittery's Public Facilities & Services

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WELL MAINTAINED FACILITIES

- The **Municipal Complex/Town Hall** building is in very good condition and has room for expansion if needed in the future.

- **Public meeting space** is available at the Town Hall, the schools, the Library, and Community Center and is adequate.

- Kittery has a variety of indoor and outdoor **recreational resources**
  - The **Kittery Community Center**, run by the Recreation Department provides a wide range of facilities and programs to Kittery residents of all ages (including a gymnasium, fitness room, theater, and classrooms).
  - The **Port Authority** manages 575 moorings (the majority of which are at Pepperrell Cove), four piers and additional moorings in various other locations along the Town's shoreline.
  - There are also a number of **parks, beaches and conservation lands** for Kittery residents to enjoy.
  - Additional **Athletic fields** are needed to meet the needs of the Town's youth.

- **Sustainability**. The Energy Efficiency Committee works with the Town Manager and Council to adopt energy programs, projects and policies to develop more sustainable energy practices.

- Kittery's three **public schools** are adequate in terms of size and condition to meet current needs as well as those in the foreseeable future. Approximately 90% of school-aged children in Kittery attend public schools. There are some fluctuations in enrollment due to military families with short-term assignments at the Shipyard. There is capacity at all three schools for a small increase in enrollment; no significant increase is expected.

- The **Library** is currently operating out of two facilities that do not meet overall space needs and having two buildings is inefficient and causes inconvenience to both patrons and staff.

- The **Police Department**, located next to Town Hall in the Municipal Complex, is more than adequate to meet current and future needs (the second floor shell space could be used for expansion if needed in the future).

- The **Fire Department** operates from two fire stations, both in good condition, with the exception of the fact that nether station has sleeping quarters. The Fire Department is having a harder time recruiting volunteers than in the past.

- **Emergency Medical Service** is provided by American Ambulance New England. They operate out of the former Walker Street Fire Station which is leased to AANE for free; in exchange they provide free Ambulance service to all Town employees. They also serve the Town of Eliot from this location.

- Kittery does not have a Council on Aging. The Community Center provides activities and York County Community Action Corporation partners with Southern Maine Agency on Aging to provide **services to Kittery's seniors**. Between 2000 and 2014, residents age 55 to 64 increased by 65 percent, and the number of elderly residents is expected to continue to increase.

The Municipal Complex houses the majority of the Town's administrative offices.

WHAT DOES IT MEAN?

- The **Library** needs to decide whether to construct an addition to the existing Rice building or to create a new facility on the site of KCC.
- The **Kittery Community Center** may need to increasingly orient future programming to the growing senior population.
- More substantial measures need to be taken to **prepare for climate change** and related rise in sea level.
- Implementing the recommendations of the recently completed *Athletics Field Study* will address the needs for additional fields.
- New **school enrollment projections** are needed in order to monitor potential future changes in student enrollment.
- The **Port Authority** needs to develop a Strategic Plan to help explore ways to increase access and enjoyment of the water.

PROVISION OF QUALITY UTILITIES AND SERVICES

- **Department of Public Works** operates out of several facilities; the garage and administrative offices are in a facility located behind the Municipal Complex which is in good condition and adequately sized, with space for expansion if needed. DPW is responsible for maintenance of the Town's roads, stormwater infrastructure, parks, recreation fields, cemeteries and solid waste and recycling.
  - **Solid Waste and Recycling** is processed at the Town's Resource Recovery Facility which includes a transfer station for material solid wastes, a recycling center and a licensed demolition debris disposal site. Solid waste is transported from this site to EcoMaine in Portland, ME. South Berwick currently brings their paper for recycling to Kittery's Resource Recovery Facility, generating income for the Town. The facilities are adequate for current needs and there is room for future expansion.
  - **Stormwater Management**. DPW recently completed an inventory of the Town's Stormwater infrastructure and determined that it is generally in "very good" condition.
  - **Monitoring of contaminated areas**. Bacterial sources of pollution have been identified in Admiralty Village and other areas in the Spruce Creek Watershed. Clam flats have been close since 2005. Some parts of the Creek have seen improvement.
  - **Parks**. DPW maintains and staffs the Town-owned parks. Fort Foster, a 94-acre town-owned park commands much of the Department's attention, is highly used by both residents and visitors during the summer, and generates income for the Town.

- **Water**. Kittery's water is supplied by the Kittery Water District (KWD), a quasi-municipal corporation. The District also supplies water to parts of York and Eliot.
  - The largest water consumer in Kittery is the Portsmouth Naval Shipyard.
  - KWD currently serves approximately 70% of the Town's residents and 95% of the businesses who pay user fees according to their actual usage.
  - The KWD relies on surface water sources that must be protected from contamination.
  - Of the approximately 96 miles of water mains, most are adequately sized.
  - The District is planning to construct a new Treatment Facility and to continue to upgrade pipes.
  - The District has adequate treatment and pumping capacity to meet additional demand, however there are no planned extensions to the system, in fact, KWD is not able to pay for expansion of mains.
  - Additional regional cooperation with surrounding towns may result in increased cost effectiveness.

- **Sewer**. Wastewater is treated at the Municipal Sewage Treatment Plant.
  - Sewage treatment is provided to 30% of Kittery residents and most of the Town's businesses.
  - The Plant and related infrastructure are all in good condition as they have been upgraded over the last few years.
  - The municipal system, which has additional capacity for expansion, is funded through an enterprise fund; user fees pay for the service.
  - The Town also has a "betterment fee" procedure to help charge property owners that benefit from a sewer extension.

WHAT DOES IT MEAN?

- Regional joint dispatch for **Police** calls (pending grant) is expected to result in efficiencies.
- There may be a need to increase the number of sworn officers to **police** a reflect the actual daytime population taking into account tourists, shoppers and Shipyard employees.
- The **Fire Department** may need to transition to a full-time professional fire fighting staff in the near future.
- It may be more efficient to merge Kittery's **Resource Recovery Facility** with that of Eliot's.
- The Portsmouth Pierce Island Wastewater facility must be updated before the **clam flats** can be re-opened.
- DPW would like to explore becoming a **"Stormwater Utility"** in order to fund future improvements." The first step is to conduct a feasibility study.
- Both the **Kittery Water District** and the **Town sewer system** derive a significant portion of their usage and revenues from the Shipyard. Changes to the status of the Shipyard could affect costs to other users.
- Lack of funding for **expansion of water service** makes it difficult to guide growth through the provision of water.
- If the **Kittery Water District administrative offices** chooses to relocate in the future, the existing site will be available for reuse.
- The recent expansion of the **sewer system** to the Business Park is expected to result in encouraging economic development.
- New technologies will make it feasible to provide **alternative methods of sewage treatment** to Kittery Point and rural areas of Town in the future.
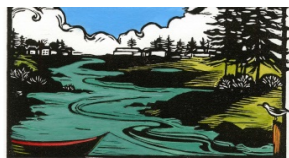
Kittery's Marine Resources

8

KEY WATERWAYS

Kittery's harbor and waterfront areas include approximately 34 miles of shoreline, including rock outcrops, salt marshes, sandy beaches, mud flats, waterfront recreational areas, coves and mooring, commercial marina facilities, and a major federal installation at the Portsmouth Naval Shipyard. The waterfront and marine resources have played an important role in the history and development of Kittery, and the waterways are home to a wide range of commercial and recreational boat traffic. Much of the shoreline is in private ownership, with several large public parks such as Fort Foster and Fort McClary. All moorings, docks, piers, floats, and regulatory enforcement fall under the jurisdiction of the Kittery Port Authority (KPA). Key waterways include:

- **Piscataqua River**: Leading out to Portsmouth Harbor along the Kittery shoreline, the Piscataqua is an authorized federal navigation channel over 6.2 miles of its 13 length. The Piscataqua has multiple users, including freighters and tanker vessels, US military and Coast Guard, commercial fisherman, and recreational boaters.
- **Spinney Creek**: located just north of the Interstate 95 Bridge, this subtidal creek features a commercial aquaculture facility, several private float landings, and a private marina (in Eliot, ME) at the confluence of the creek with the Piscataqua River.
- **Back Channel**: This waterbody, an offshoot of the main Piscataqua River, runs from the western end of Badger's Island easterly to Spruce Creek between the mainland and Seavey Island, the location of the Portsmouth Naval Shipyard. The Back Channel is important for recreational boaters, particularly those docking on the northern side of Badger's Island. The channel is the waterbody closest to the revitalized commercial area in the Kittery Foreside.
- **Chauncey Creek**: The creek runs from the eastern end of Pepperell Cove to Seapoint Beach, and due to its shallow depth, is used primarily by small water craft. Several private docks and a popular waterfront restaurant are located on the creek. Recent work has replaced overboard discharge (OBD) systems with septic systems, improving water quality.
- **Spruce Creek**: this three-square mile tidal saltwater estuary is fed by five freshwater streams that run roughly up the middle of Kittery. At low tide, approximately 2.5 miles of clam flats are exposed. Water quality is affected by non-point source pollution and "first flush" (initial surface runoff) during rainfall events.
- **Pepperrell Cove**: Adjacent to Kittery Point and Fort McClary State Park, this is the primary mooring area in the town.
- **Brave Boat Harbor**: Used primarily by small craft due to shallow depths, with limited private landings and no public facilities. It is located within the Brave Boat Harbor Division of the Rachel Carson National Wildlife Refuge.
- **Key waterfront natural areas** include Seapoint Beach, Rachel Carson National Wildlife Refuge, Fort Foster, Fort McClary, the nearshore islands (including the future Wood Island Life-Saving Museum), and the Isles of Shoals.

OPERATING CONDITIONS AND ACCESS

- Demand for access to the waterfront and for boating access is consistently high, and at key times of the season, is greater than the ability of existing landside facilities and moorings to meet.
- A significant portion of the available parking at Frisbee Pier (a primary parking area for Pepperrell Cove) is in a lot across Pepperrell Road. This lot is in private ownership.

View across Back Channel of the Piscataqua River towards Portsmouth Naval Shipyard

WHAT DOES IT MEAN?

- Kittery has a complex waterfront, with large-scale commercial and military craft, marina and docking facilities, commercial fishing, and recreational boating

- Limitations exist on access to the waterfront from crowded shorefront parking and launching facilities, and long waiting lists for moorings

- Contamination from wastewater treatment outfalls and other sources has affected shellfishing and overall water quality

- Opportunities exist to increase public access to waterfront, and to increase visitation to Kittery by waterborne passengers

OPERATING CONDITIONS AND ACCESS, CONTINUED

- In summer, the parking facilities at Pepperrell Cove can be extremely busy, and can become full. There can be extensive waits for pier/launch space to put dinghies in the water to reach moored vessels.
- Parking shortages also occur at the Traip Academy launching area.
- Other locations for parking and water access along the shoreline are limited, due to extensive private ownership of the shorefront.
- Major anchorages such as Pepperrell Cove have not been dredged in decades, leading to limitations on vessels that can safely moor and transit the area. The Pepperrell Cove anchorage was last dredged in 1916, to a depth of twelve feet. The navigation chart for the area shows depth of 11 to 7 feet at Mean Low Water (MLW), with local sources stating water depths are six to ten feet in half of the anchorage area.
- Storm winds and waves limit opportunities for additional moorings in exposed areas such as Fort Foster. Locations and plans for storage of floats during coastal storms should be evaluated, such as setting moorings in Chauncey Creek for temporary storage of the Pepperrell Cove floats.
- The currents occurring in the Kittery area can pose a hazard to small craft, particularly to human-powered craft such as kayaks.

Government Street Pier in the Kittery Foreside

WATER QUALITY

- Run-off and direct source pollution have led to contamination of area waters and led to shellfishing restrictions and prohibitions in certain areas.
- Major sources affecting the Piscataqua River are wastewater treatment plant (WWTP) outfalls from South Berwick and Kittery in Maine, and from Portsmouth and Newington in New Hampshire. The Portsmouth Naval Shipyard is also a major pollution source.
- Development pressure in Spruce Creek watershed further threatens water quality. The watershed is identified by Maine Department of Environmental Protection as a "nonpoint source pollution priority watershed" due to bacterial contamination, low dissolved oxygen, toxic contamination, and a compromised ability to support commercial marine fisheries".

MUNICIPAL MANAGEMENT OF MARINE RESOURCES

The Kittery Port Authority (KPA) manages the town's marine facilities including piers, docks, and over 500 moorings. Funding is derived primarily from collection of mooring and docking fees, and the Kittery Town Council approves the Port Authority's budget. The KPA employs the Kittery Harbor Master, who oversees operations at the facilities, and provides marine law enforcement, rescue and education services to boaters within the tidal waters of the community. On the 2015 mooring registry, there are a total of 513 registered moorings, with approximately 20% assigned to commercial vessels and the remainder to recreational vessels. There is a twelve to fifteen-year waiting list for mooring spaces in Kittery. Major facilities under the jurisdiction of KPA include Pepperrell Cove and Frisbee Pier, Traip Academy boat launch, Government Street Pier, and the Back Channel.

FLOODPLAIN

- In November 2013, FEMA issued a Preliminary Digital FIRM (DFIRM) for York County, using updated flooding frequency and elevation data and modeling analysis. The mapping shows a larger floodplain area than previously mapped, with approximately 75 structures newly included in the floodplain (65 in the coastal area and the remainder in the interior).
- Due to challenges from Kittery and other coastal communities, FEMA withdrew the Preliminary DFIRM in December 2014. It is anticipated that FEMA will issue a revised Preliminary DFIRM for York County in 2016.

Kittery's Fiscal Capacity and Capital Investment

9

FISCAL POSITION

- Kittery's local valuation increased by 4 percent between 2010 and 2015, in contrast to the state as whole which saw a decrease of 21 percent over the same time period

- Between 2010 and 2015, the local tax rate increased by 10 percent

- Between 2010 and 2015, individual property tax bills increased by an average of $495. For 2015, the average single family property tax bill was $4,929

- Approximately 78 percent of Kittery's valuation is derived from residential properties, with 22 percent coming from commercial, industrial, and personal property

- Federal and state aid to Kittery has been shrinking which increases the reliance on locally-generated taxes

The local government depends on the residential property base to generate revenues for services

BUDGET

- Revenue:
  - Total revenue in Fiscal Year 2015 budget was $27,124,366; property tax accounted for 80 percent of total
  - The State of Maine has a revenue sharing program which helps supplement the budget
- Expenses:
  - In Fiscal Year 2015, the Town spent $27,141,118 on town functions, services and schools; school costs accounted for nearly 55 percent of the budget. Only 9 percent of the budget was spent on governmental administrative expenses
- Debt:
  - The Town has long-term debt obligations of $32,545,880 or 2.17 percent of the State Valuation
- Investments:
  - At the end of Fiscal Year 2014, the Town had an unassigned fund budget totaling $4,345,203, which was an increase of $187,965 over the Fiscal Year 2013
- Capital Improvement Program:
  - A majority of capital improvement funding goes toward standard expenses such as equipment and maintenance, sidewalks, school upgrades, and parks and recreation facilities

WHAT DOES IT MEAN?

- Stewardship of Town budgetary resources is essential toward leveraging greater economic development

- The Town has undertaken debt obligations to finance development, particularly in the Tax Increment Finance Districts; it is imperative that increment on development is generated in order to pay the bonds

- Kittery is highly dependent on residential property taxes and may need to create opportunities to diversify revenues through economic development

Kittery's valuation and tax rate have been increasing since 2010

Legend:
- Kittery Valuation
- Tax Rate

Average Single-Family Tax Bill FY 2015
Average All Communities $4,509

Wells	So. Berwick	Eliot	Kittery	York	Kennebunk*
$3,661	$4,195	$4,526	$4,929	$4,983	$5,000
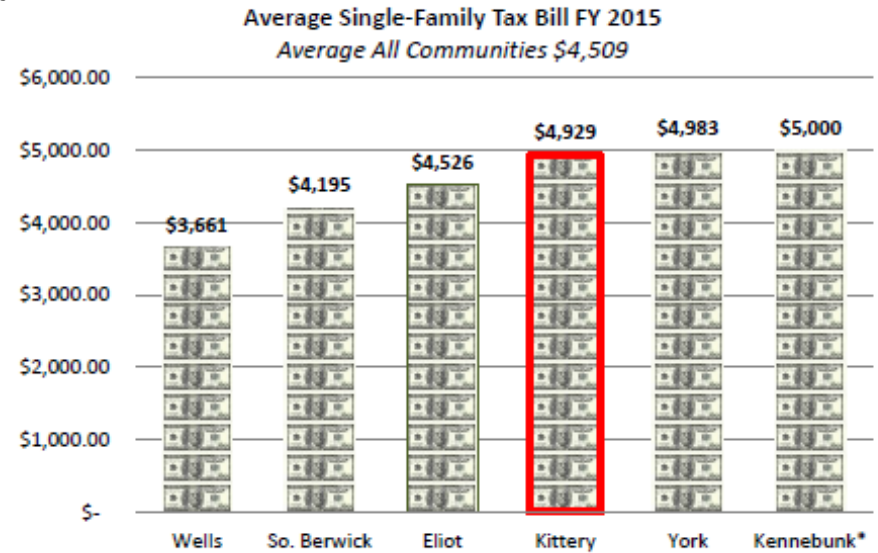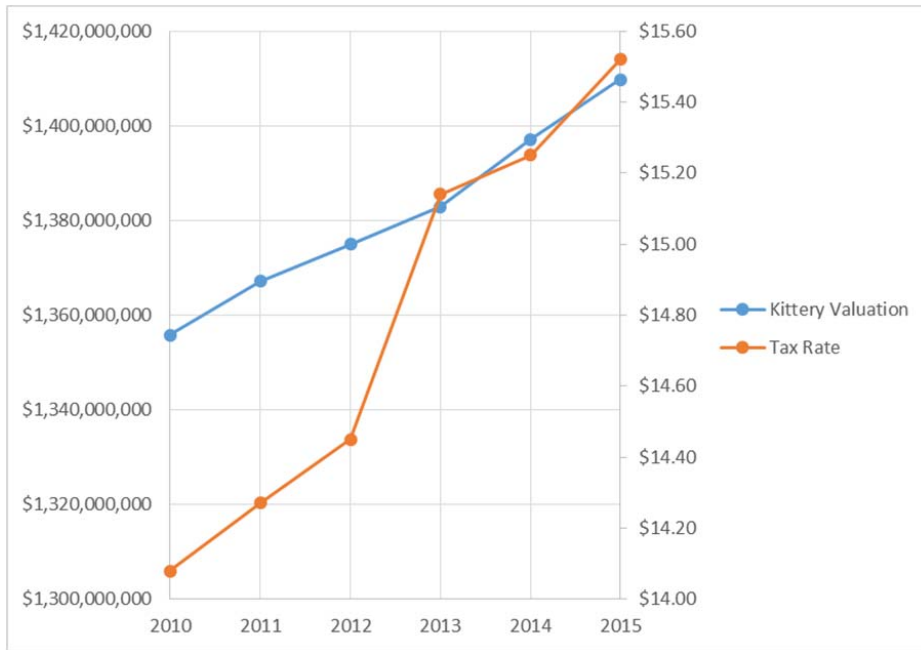
A comparison of revenue sources to expenditure items from the Fiscal Year 2015

Revenue Sources:
- Fees & Permits, 3%
- Excise, 6%
- Rent, 3%
- State Aid, 2%
- Other, 2%
- School Revenue, 5%
- Property Tax, 79%
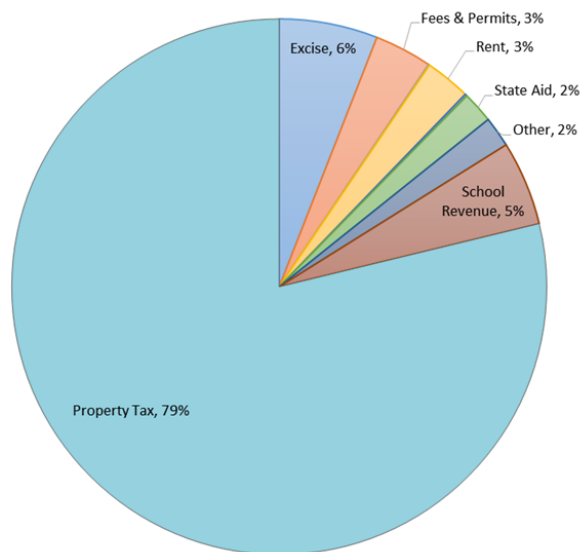
Revenue Sources

Expenditures:
- General Government, 9%
- Public Works, 7%
- Public Safety, 12%
- Leisure Time Activities, 7%
- Other, 5%
- CIP, 4%
- Schools, 55%
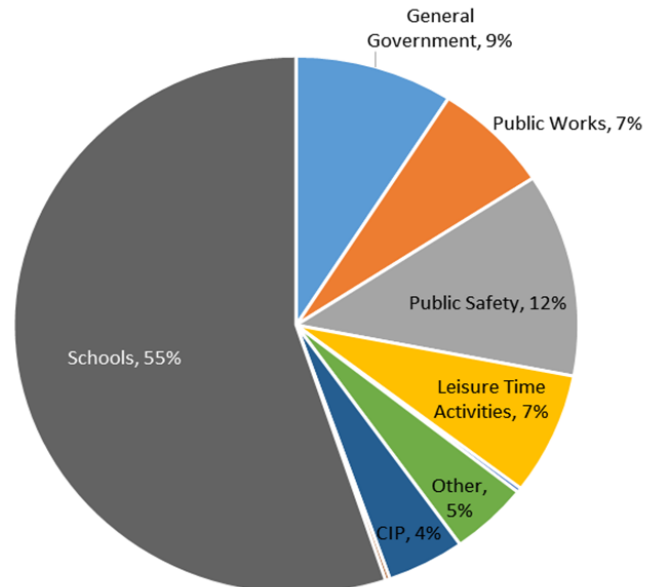
Expenditures

Kittery's Land Use

10

EXISTING LAND USE PATTERNS

- Over 57 percent of the land in Kittery is classified as a residential land use (both single-family, and multi-family); commercial, industrial, and institutional uses make up a combined 8 percent; open space makes up 21 percent; and vacant land is about 10 percent

- The current Land Use and Development code divides Kittery into eighteen base zoning districts with four overlay districts

- Approximately 78 percent of the land in Kittery falls within residential zoning districts, primarily the Residential-Rural (R-RL) district

- Kittery has three business districts, three commercial districts, and three mixed-use districts all allowing different types of commercial uses

- The overlay districts are in place to help the Town protect natural resources and water bodies from the impacts of development, and as a way to promote fishing and maritime uses

Within the Town, there are many different zoning districts each creating opportunities and challenges for the Town.

ISSUES AND CHALLENGES

- Redundancy:
  - Some of the zoning districts that regulate the same type of use (residential, commercial, and mixed-use) have different purpose statements, but very similar uses and dimensional requirements

- Inconsistency:
  - Many commercial districts have same dimensional requirements but differ when it comes to design elements for each
  - Industrial zoning district does not include any dimensional standards or requirements

- Minimum Lot Size Requirements:
  - In some districts where the purpose is to achieve a compact development pattern, minimum lot sizes are very large and challenge the purpose statement for the district
  - Small, single-use structures on large lots in mixed-use zones have less of an economic return when compared to areas that incorporate a compact development design
- Land Area per Dwelling Unit
  - The minimum land area per dwelling unit regulations in some districts limit the ability to create a more compact development pattern

WHAT DOES IT MEAN?

- The comprehensive planning process offers an excellent opportunity to hold community-wide discussions on development goals

- The purpose of the zoning district should reflect what is on the ground today, as well as what the community hopes to achieve in the future

- It is very important to match the desired development goals and aspirations with the zoning that is in place, or could be in place throughout the Town
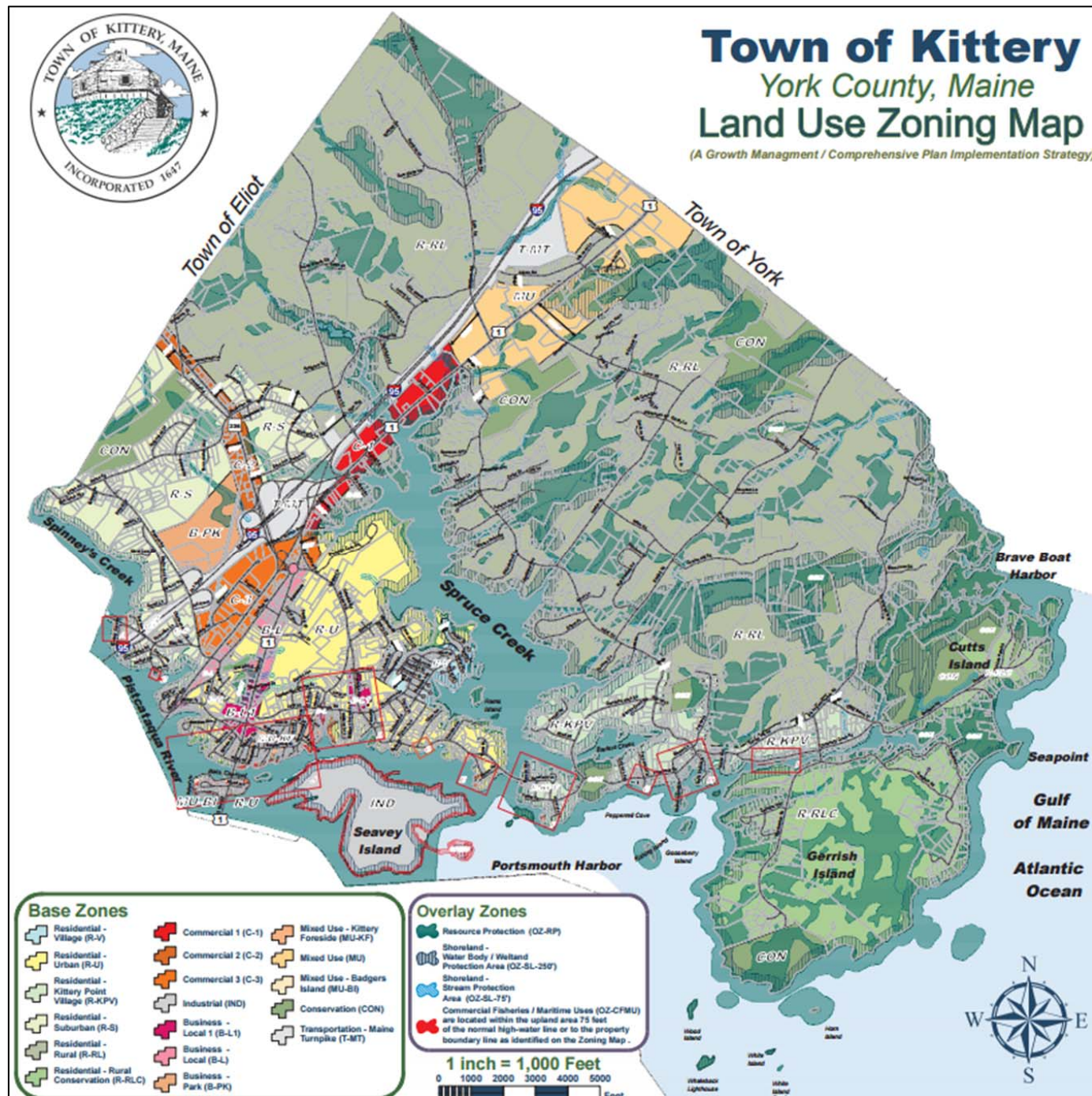
HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES

1

This chapter identifies and describes Kittery's historic and cultural resources and past efforts to preserve, promote and enhance them. Historic and cultural features include both physical resources [buildings, landscape features, landscapes, and archaeological sites (both historic and pre-historic)], as well as non-physical resources (organizations, clubs, programs and events), both of which contribute to the quality of life in the town. The chapter includes:

- A brief history of Kittery and an overview of the town's extant historic resources;
- A synopsis of past efforts to preserve historic and cultural resources; and
- A description of the historical and cultural organizations based in Kittery.

The chapter concludes with a compilation of issues, challenges and opportunities surrounding Kittery's historic and cultural resources to be considered by the town in shaping the Comprehensive Plan.

KITTERY'S HISTORY AND SURVIVING HISTORIC RESOURCES

CONTACT AND FIRST PERIODS (BEFORE 1675)

The Piscataqua Region of southern Maine and the seacoast of New Hampshire have attracted humans for centuries. Native peoples of the Abenaki tribe came to the area to collect shellfish

The Lady Pepperrell House, built in 1760, is a National Historic Landmark and one of the most treasured historic properties in the Town of Kittery.

and hunt game. While physical evidence of the Abenakis is not visible in Kittery, the town retains several place names stemming from this time of Native American settlement.[1] Piscataqua, for

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[1] In 2014, the Maine Historic Preservation Commission (MHPC) released inventory data about prehistoric archaeological sites in Kittery. The report recorded eight known archaeological sites in the Kittery, six on the Shipyard property, one on tidal water, and an eighth on well-drained soils in the interior northeastern part of town. State historic preservation offices typically do not publish precise locations of prehistoric archaeological sites, as a means of securing their protection from vandalism and looting. However, maps showing general locations are available from the MHPC.

SUMMARY OF KEY POINTS

- Humans have inhabited the Kittery area for centuries, beginning with Native peoples, the Abenakis, who sought shellfish along the coast, and Europeans who came in the early 1600s, establishing the Town of Kittery in 1647 making it the oldest incorporated town in the State of Maine.

- Shipbuilding dominated the Kittery economy beginning in the mid-1600s, and continues today in the form of submarine repair and retrofitting at the Portsmouth Naval Shipyard, established in 1800.

- Forts have stood in Kittery near the mouth of the Piscataqua River since the early 1700s, established first to protect from British invasion, and later domestic and foreign wars. Both remaining forts, McClary and Foster, are now prominent historic and recreation sites.

- Beginning in the mid-1800s, Kittery became a tourist destination, with several large hotels built along the coast and one at Appledore Island in the Isles of Shoals.

- In the late-20th century Kittery became a regional shopping destination, with the addition of the Kittery Outlets along Route 1.

- While Kittery retains many historic buildings and landscapes, others have been severely compromised or altogether lost.

example is believed to be derived from Abenaki words for branch (peske) and strong-current-ed river (tegwe).[2]

The first known Europeans to explore the area were from Devon, England. Martin Pring sailed up the Piscataqua in 1603, describing the river as "a notable sheet of water, and of great depth, with beautiful islands and heavy forests along its banks."[3] Captain John Smith, discovered the Isles of Shoals in 1614, also remarked about the river's attributes. The first settlement did not form until 1623, with incorporation following in 1647, making Kittery the oldest incorporated town in Maine.[4] Originally, the town extended from the Atlantic Ocean inland including the towns of Eliot, South Berwick, Berwick and North Berwick. Early settlers engaged in the fishing and timber industries, as well as hunting and trapping, and as early as 1650, the British government selected the area as a spot to build ships for the Royal Navy, hoping to capitalize on its river and oceanfront location, as well as the abundant supply of native timber.

The names of early settlers appear on natural features and streets throughout Kittery. Shapleigh Road, for example, is named for Alexander Shapleigh, who came to the area in 1635. Pepperrell Road honors the Pepperrell family, who came to Kittery around

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[2] http://www.seacoastnh.com/Places-&-Events/NH-History/The-Meaning-of-Piscataqua)

[3] Bardwell, John D., Old Kittery, 7

[4] Kittery was so named for one of the early settlers, Alexander Shapleigh, who came from the manor of Kittery Court, Kingswear, Devon, England. Captain Francis Champernowne, another pioneer, also came from the same region of Devon. (Bardwell, 7)
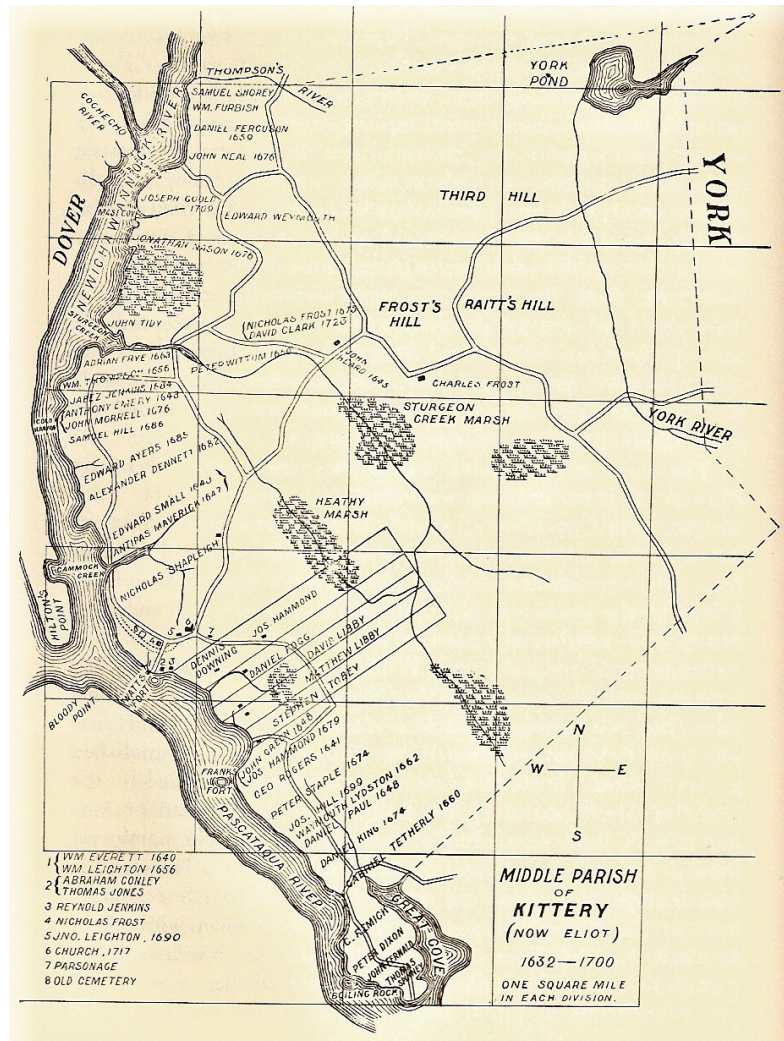
This map of Kittery in the 17th century shows settlement along the Piscataqua River (referred to as Pascataqua at the time). (Stackpole, Old Kittery and Her Families)

The Piscataqua River was first explored in 1603 by an Englishman, Martin Pring, who described it as "a notable sheet of water, and of great depth, with beautiful islands and heavy forests along its banks." (Library of Congress)

the same time, establishing fisheries off the Isles of Shoals. Two notable extant structures date to the Pre-Contact Period. The Bray House was constructed in 1662 on Kittery Point by John Bray, a shipwright.[5] Many early houses in Kittery reflected the garrison style with an overhanging second story to provide a clear view of the surrounding area. The Whipple Garrison, constructed in 1665

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[5] The Bray House is believed to be the oldest extant house in the State of Maine.

Fortifications stood at Kittery near the mouth of the Piscataqua River beginning in the early 1700s. Fort McClary (originally named for William) protected the coastline through several wars.

on Whipple Road, exemplifies this type of structure. The First Congregational Church of Kittery, located on Pepperrell Road in Kittery Point, was organized in 1653, however the original church structure no longer stands (replaced four times). Kittery also retains 288 historic architectural sites, documented by the Maine Historic Preservation Commission. Of these, three date to the First Period, including several shipwrecks and a fishing station.

COLONIAL PERIOD (1675-1775)

Fishing and shipbuilding continued to fuel the Kittery economy into the Colonial Period. Kittery's location at the mouth of the Piscataqua made it vulnerable to maritime invasions, and as early as 1715, the area that would become Fort McClary (originally named Fort William after William Pepperrell) was fortified, in order to protect the coast from attacks by the British. The shipbuilding industry burgeoned, eventually forming the base for American naval shipbuilding.

Several structures from the Colonial Period remain in Kittery. Significant among them are the William Pepperrell House (built in 1682, Pepperrell Cove), the Dodovah Curtis House (built before 1700), and the Lady Pepperrell House, built in 1760 (Kittery Point) and now a National Historic Landmark. The First Congregational Church of Kittery was constructed in 1730, and across Pepperrell Road is the parish's burial ground, holding the graves of many early settlers. In addition to these visible resources, the Maine Historic Preservation Commission has identified historic archaeological sites dating to the Colonial period, including shipwrecks, a farmstead, and domestic properties.

FEDERAL PERIOD (1775-1830)

The naval shipbuilding industry was officially established in the Federal period, making an imprint on Kittery that remains to this day. The United States Navy developed its first yard in 1800 on Seavey Island at the mouth of the Piscataqua, and the "Portsmouth Naval Shipyard" began producing warships in 1815. Early buildings on the Shipyard included Greek Revival style

The Portsmouth Naval Shipyard was established in 1800 and continues to serve the US Navy's maritime needs to this day. (Library of Congress)

The Champernowne Hotel, constructed in 1890, was one of several resorts along Kittery's coast in the late 19th and early 20th centuries. (www.digitalmaine.com)

officers' quarters (built in 1828), a marine barracks (built in 1822), a Shipyard Commander's quarters (1814), all sited along the main Charles Morris and Burrows Avenues. The Shipyard would continue to expand throughout the 19th century and into the 20th century, annexing and merging Seavey's Island with four others -- Pumpkin, Fernald, Jamaica and Clark's, and eventually growing to 288 acres with dozens of buildings.

EARLY AND LATE INDUSTRIAL PERIODS (1830-1915)

In 1842, the Portland, Saco and Portsmouth Railroad came to Kittery linking the town to points north and south, and fostering a

resort community. Following the Civil War, Kittery's economy shifted towards the tourism industry. Businessmen constructed large hotels and resorts on the Isles of Shoals and along the coast on Kittery Point, among these the Appledore House Hotel (1847)[6], the Pepperrell Hotel (1873) the Pocahontas Hotel (1885)[7], and the Hotel Champernowne (1890). Writers, poets, musicians, including Childe Hassam, William Morris Hunt, John Greenleaf Whittier,

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[6] The Appledore House Hotel was one of the first resort hotels built on the New England coast, constructed in 1847 by Celia Laighton Thaxter's father. (http://www.shoalsmarinelaboratory.org/celia-thaxters-garden)

[7] "Welcome to Fort Foster, Kittery Point, Maine." (Town of Kittery brochure)

The Isles of Shoals was an early site of fisheries, operated by some of Kittery's first settlers. Two centuries later, it would become the site of a thriving summer tourist industry. (Library of Congress)

The Rice Public Library, constructed in the Romanesque Revival style and located in the Foreside, is considered to be the most outstanding library structure in the State of Maine (www.digitalmaine.com)

Nathaniel Hawthorne, Henry David Thoreau, came to the area, bemused by its natural beauty. The 1887 opening of the York Harbor Beach Railway, with its expanded passenger service stretching from Kittery Junction to York Beach, bolstered this local tourism economy.[8]

The resort hotels have disappeared, but many Greek Revival and Victorian style buildings still remain in Kittery, providing a snapshot of how the town appeared in the 19th century. Among these are the Robert and Louisa Traip house (ca. 1839), built in

Kittery Foreside in the Greek Revival style;[9] The Mark and Eliza Wentworth House, located on Wentworth Road and built ca. 1830 in the Greek Revival style with Italianate details; and the William Dean Howells house (ca. 1870) built at Kittery Point in the Second Empire style. The Safford School, a one-room Gothic style vernacular structure still standing on Brave Boat Road, was constructed in 1871. Perhaps the most striking of Kittery's

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[8] Friends of the Rice Public Library, Kittery, Gateway to Maine, 31

[9] Early images of the Traip house show the front door facing Wallingford Square, indicating that the house was turned. (Bardwell, 66)

buildings from the Industrial Periods is the Rice Public Library, constructed in 1889 in the Romanesque Revival style with Queen Anne influences. This imposing two-story structure, designed by Boston architect Shepherd S. Woodcock, is known as the most outstanding library building in the State of Maine. Finally, the Whaleback Light Station, located in the Piscataqua River at the entrance to Portsmouth Harbor, was constructed in 1872 to replace an early lighthouse (built in 1829). It consists of an ashlar granite tower, standing 59 feet above the mean high tide level, with an octagonal lantern.[10]

Historic archaeological resources documented by the Maine Historic Preservation Commission from the Industrial Periods include several domestic structures, storehouses, and workshops, as well several additional shipwrecks.

EARLY MODERN & MODERN PERIODS (1915-TODAY)

In 1917, the US government authorized the Shipyard to build a submarine, and since that year, the facility has devoted itself to the construction, retrofit and repair of submarines. In 1958, nuclear energy was introduced as a means of powering the vessels, and the Shipyard pivoted to adopt the new technology. In 1969, the facility shifted its focus again to be responsible for overhauling the US Navy's submarine fleet.

The original Kittery Trading Post was established in the 1930s and operated out of a one-room store on Route 1.

With the advent of the automobile in the early 20th century, bridging of the Piscataqua in the early 1920s, and development of US Route 1, travelers' services emerged, including filling stations, cabins, and snack bars. In the 1930s, the Kittery Trading Post opened along Route 1, originally operating out of a one-room store, and growing to become a full service recreation equipment and apparel store.[11] Warren's Lobster House, located at Memorial Bridge, opened in 1940 as a shack with six stools, constructed on pilings in the Piscataqua River.[12] Bob's Clam Hut, a popular Route

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[10] http://focus.nps.gov (Whaleback Light Station National Register Nomination)

[11] Waters, Erika J., Kittery to Bar Harbor, Touring Coastal Maine, 13.
[12] Waters, 12.

Kittery Comprehensive Plan Update 2016

Map 1.1

HISTORICAL RESOURCES

Kittery, Maine National Register Listings

15. Kittery Fraternal Hall
16. Kittery Town Pound
17. US Route 1 Bypass
18. Wood Island Life Saving Station
19. 14 Stimson Street
20. 16 Trefethen Avenue
21. 124 Whipple Road
1. Bray House
2. Dennett Garrison
3. Fort McClary
4. Frank C. Frisbee Elementary School
5. John Paul Jones Memorial Park
6. Lady Pepperrell House
7. Mark and Eliza Wentworth House
8. Rice Public Library
9. Robert and Louisa Traip House
10. Rock Rest
11. Samuel Badger Monument,
12. Whaleback Light Station
13. William Dean Howells House
14. William Pepperrell House

ELIOT

YORK

PORTSMOUTH

Portsmouth Naval Shipyard

MAINE
NEW HAMPSHIRE

Isles of Shoals

Duck Island

Appledore Island

Smuttynose Island

Cedar Island

Scale in Miles
0   0.5   1

AECOM

This map is for general planning purposes only. The data used to create the map are not adequate for making legal or zoning boundary determinations or delineating natural resource areas. Exercise caution when interpreting the information on this map.
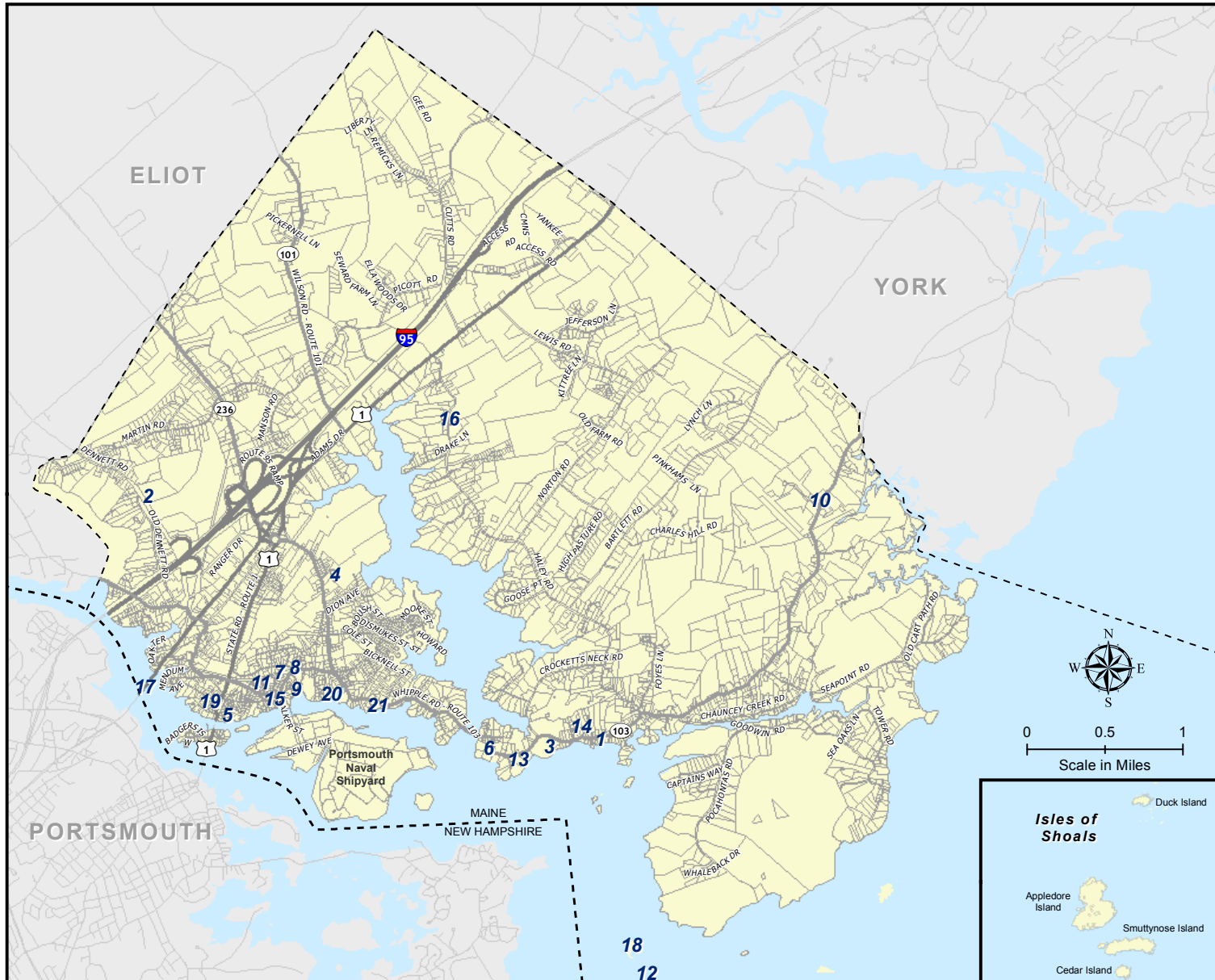
Bob's Clam Hut, established in 1956, has stood at the same site along Route 1 and is a regional dining destination.

1 eatery, opened in 1956. Construction of Interstate 95 later in the 20th century allowed residents to commute out of town for work, and Kittery became somewhat of a bedroom community for Portsmouth, Durham, and later, Boston. In the 1970s, work began on development of a retail center along Route 1 close to the York line. The Kittery Outlets gave the town a national reputation as a shopping destination.

Many homes were constructed in Kittery in the 20th century, including the large housing development known as Admiralty Village, built to accommodate military personnel. In 1946, Hazel

and Clayton Sinclair constructed Rock Rest, a small cottage on Brave Boat Harbor Road, and operated a guest house for African-American tourists to the Kittery area for nearly 31 years.[13]

The Maine Historic Preservation Commission's list of historic archaeological sites contains additional resources from the 20th century, including wrecked vessels as well as some structures at the Portsmouth Naval Shipyard.

PAST EFFORTS TO PRESERVE HISTORIC AND CULTURAL RESOURCES

National Register of Historic Places. According to the Maine State Preservation Commission's inventory data, the Town of Kittery has listed three districts (First Congregational Church, Isles of Shoals and Portsmouth Naval Shipyard) on the National Register of Historic Places, as well as the following individual properties[14]:

- Lady Pepperrell House, Route 103
- William Pepperrell House, Route 103
- Dennett Garrison, 100 Dennett Road
- Rice Public Library, 8 Wentworth Street

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[13] http://focus.nps.gov. (Rock Rest National Register Nomination)

[14] The 1999/2002 Comprehensive Plan provides a description of each of the National Register properties, and also suggests other locally-significant properties to be considered for listing on the register. The Maine Historic Preservation Commission's 2014 list of properties on the register, as well as those that are or may be considered eligible, appears in this section.

<div style="border:1px solid #000; background:#cdd9ee; padding:1em;">

SUMMARY OF KEY POINTS

- While Kittery has listed several properties and districts to the National Register of Historic Places, many more historic buildings and landscapes have not been recognized as such. The town also lacks a comprehensive inventory of historic resources, or a plan for preserving them.

</div>

- Bray House, Pepperell Road
- William Dean Howells House, Pepperell Road
- Whaleback Light Station, Piscataqua River
- Fort McClary, Route 103
- Samuel Badger Monument, behind 16 Otis Avenue
- John Paul Jones Memorial Park, Newmarch Street and Hunter Avenue
- Robert and Louisa Traip House, 2 Wentworth Street
- Mark and Eliza Wentworth House, 9 Wentworth Street
- Rock Rest, Brave Boat Harbor Road
- Frank C. Frisbee Elementary School, Rogers Road

The bulk of the designations occurred from the 1960s through the 1990s, with only two listings secured after 2000. In addition, the Maine State Historic Preservation Commission has designated several other properties and features have been or may be determined eligible for listing:

- Kittery Town Pound, Haley Road
- 16 Trefethen Avenue
- 14 Stimson Street

- US Route 1 Bypass
- 124 Whipple Road
- Kittery Fraternal Hall, Wallingford Square
- Wood Island Life Saving Station

While inclusion on the National Register is largely honorary, listed properties are potentially protected from negative impacts of federally-funded projects (such as proposed highway expansions that infringe on the National Register property).

Lady Pepperrell House, National Historic Landmark. Listed as a landmark in 1966, this High-Georgian style home in the heart of Kittery Point was built in 1759 by Lady Mary Hirst Pepperrell, following the death of her husband, Sir William Pepperrell. The home is privately owned. National Historic Landmark status is a more stringent form of historic resource protection.

Kittery Comprehensive Plan, 1999 (adopted in 2002). The 1999/2002 Comprehensive Plan noted that the town provided *"very weak protection for historic and archaeological resources beyond that provided by state and federal requirements"*. Local protection was limited to a requirement in the town's land use regulations that the planning board review subdivisions and other development proposals to ensure that they do not have an undue adverse impact on historic sites before the project is approved. Furthermore, regulations did not assure protection of the town's archaeological resources. The plan identified several policies that would advance these goals, including organizing volunteers to document historic properties, educating owners of historic

properties about the importance of maintenance, and establishing an historic commission.

Shoreline Overlay Zone (Section 16.3.2.17 of the Kittery Town Code). Kittery has incorporated this code into the development review process for the purposes of protecting archaeological and historic resources, as well as scenic beauty (among many other resources) along the town's coastline from the impact of development.

Kittery Foreside Restoration. The Kittery Foreside, a small mixed commercial, civic, and residential district, evolved in the 19th century around Gate 1 of the Portsmouth Naval Shipyard. Wallingford Square, an open space named for a local World War I soldier, stands at the heart of the Foreside. Over the past decade, this area has seen a rebirth, with several restaurants, galleries and shops opening along its main streets and making it a vibrant place to visit, work, and live. In 2014, the town held the *Foreside Forums*, a series of listening sessions designed to gather public opinion about the restoration, and guide future development in the area. Participants articulated the need to support "organic" growth and protect against "overgrowth. They expressed desire to keep the area walkable and affordable, and to retain its authentic character, while enhancing gateways, park spaces, and connections to the waterfront.[15]

Safford School Redevelopment. Constructed in 1871-1872 at the corner of Brave Boat Harbor Road and Cutts Island Lane, this one-story wood-frame structure was the last remaining one -room

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[15] "The Foreside Forums, Listening Sessions on the Future of Kittery Foreside, 2014"

neighborhood school in the town, operating until the 1940s. As of the writing of this inventory chapter, town officials were deliberating over its future use.

EXISTING HISTORICAL AND CULTURAL ORGANIZATIONS

HISTORICAL ORGANIZATIONS

SUMMARY OF KEY POINTS

- Two historical institutions -- the Portsmouth Naval Shipyard Museum and the Kittery Historical and Naval Museum/Society -- serve as the main repository for artifacts pertaining to the history of the town. The Maine Room at the Rice Public Library holds additional historic books, maps, and genealogical information.

- Several of Kittery's historical organizations are outdoor sites, including two historic forts (McClary and Foster), the Portsmouth Naval Shipyard, John Paul Jones Memorial Park, Celia Thaxter's garden, and over 130 cemeteries and burial sites.

- Kittery's historical organizations and sites help fuel its economy, as they draw tourists interested in military and naval history from across the country.

Portsmouth Naval Shipyard and Shipyard Museum (public-federal). The Shipyard, listed on the National Register of Historic Places, was established in 1800 as a ship-building facility for the US Navy. During World War I, it began constructing submarines, and continued to do so through the 1960s. Today, visitors (with clearance from the US government) can take a walking historical tour of the facility, passing barracks, the US Naval Cemetery, the Thresher Memorial Chapel, the Portsmouth Naval Prison, and several other historic sites (20 in total). The ***Shipyard Museum*** is located near Gate 1 and housed in a former gunpowder magazine-turned-commissary built in 1859. The museum retains artifacts pertaining to Seacoast maritime heritage, as well as the Shipyard itself, dating back to the early 1800s. The institution lends to other museums, but is only open to the public by appointment, and visitors must be accompanied by the curator (or docent).

Town of Kittery Archives. Kittery's Town Clerk maintains an archive historic town documents, including town reports, financial statements, birth, death and marriage records, within the Town Hall building. Older documents are stored in a locked safe, located in the Town Hall basement, while more recent information is available in the Town Clerk's office. The existing storage facilities adequately accommodate existing documents, with extra space for additional materials.

Fort McClary (public-state). Owned, operated and maintained by the State of Maine through its State Park system[16], Fort McClary is both an historic site and a recreation facility located at the mouth of the Piscataqua River. Fortification existed in this area as early

as 1715, to protect the merchants of Massachusetts from duties placed on them by the colony of New Hampshire (Maine was part of Massachusetts at the time). The early fort, known as Fort William (named for William Pepperrell), also served to protect Kittery and Portsmouth from the attacking British during the Revolutionary War. The U. S. government built Fort McClary upon acquiring the site in 1803 before the War of 1812, and expanded it prior to the Civil War. No longer an active fort, the property retains several of its 19th century structures, including a blockhouse, rifleman's house, powder magazine, and many granite walls.

Restoration efforts at the fort have been fueled, in part, by the ***Friends of Fort McClary***, a non-profit, volunteer organization that hosts musical events, encampments and reenactments, as well as raising restoration funds. Admission to the fort is voluntary, and about 30,000 to 35,000 visitors come each year, largely to experience history, but also to take in the "million dollar view" of Pepperrell Cove and Portsmouth Harbor, flanked by Whaleback Light in Kittery and Fort Point Light in Newcastle, New Hampshire.

John Paul Jones Memorial Park/World War I Memorial (public-state).[17] An open space located on U. S. Route 1 at the approach to Memorial Bridge, John Paul Jones Park was developed by the State of Maine and dedicated in 1924 as the principal gateway to

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[16] The Town of Kittery Department of Public Works maintains a portion of Fort McClary.

[17] In 2014, a bill was passed by the Maine Legislature to transfer ownership of the park to the Town of Kittery, but the bill was not signed by the Governor. The town has managed the property through a maintenance agreement with the State of Maine, however as of the writing of this inventory, the agreement has lapsed.

Maine. It serves as both a passive recreation space and the repository for "Sacrifices of War," a bronze bas relief sculpture commissioned by the State of Maine following World War I.[18] Created by female sculptor Bashka Paeff, the 13' by 18' panel depicts a woman protecting her child and two deceased youths.

Fort Foster (public-town). This town-owned property located along the Piscataqua River in Kittery Point dates to the early 1900s.[19] It was named for Major-General John G. Foster, a New Hampshire native who served in the Civil War. Designed to house a full company of officers and enlisted personnel, it was never occupied as such. In the 1940s, the US government updated the fort in preparation for WWII, adding new bunkers, observation towers and guns, but shortly after the war, the fort closed. Originally a recreation area for the Portsmouth Naval Shipyard, it is now a popular Town of Kittery recreation site. (For more information about Fort Foster's recreation facilities, see the *Recreation* and *Public Services & Facilities* chapters of the plan's inventory.)

Wood Island Life-Saving Station (public-town and private non-profit). Owned by the Town of Kittery, the Wood Island Life Saving Station was built in 1908 to accommodate men of the US Life Saving Service (forerunner of the US Coast Guard) who performed rescue missions, via small rowing boats, to mariners in distress. It stands near the entrance to the Piscataqua River and consists of an old structure, two sea walls, and marine railway. A private, non-profit organization, the ***Wood Island Life Saving***

Station Association (WILSSA) has spearheaded efforts to restore the building, seawalls and railway and to build a new pier, with the goal of creating a maritime museum, accessible via tour boats leaving from Portsmouth. Over $750,000 in federal and state funds has been raised to support this effort, and the site is now part of an EPA Brownfield and MDEP/EDC grant to fund a remediation cleanup project in coordination with WILSSA's historic restoration project. It was recently determined eligible for listing on the National Register of Historic Places.

Kittery Historical and Naval Museum/Society (private). This non-profit repository of historic Kittery artifacts is located in a former Department of Public Works garage within the Town Municipal Complex (the organization holds a 99-year lease on the property). The museum was established in 1970 when the Kittery Historical Society (incorporated in 1935) merged with the Kittery Naval Museum. The goal of the museum is to collect and exhibit both naval and Kittery history. Open from April through Thanksgiving (seasonal and off season hours), the museum attracts visitors largely interested in naval history who come to see ship models, a diver's suit, and a model of the "Boon Island Lens," an historic 6' - 1" tall Second-Order Fresnel Lens once fueled by whale oil. The organization also exhibits material pertaining to the 300+ year history of the town, including images and artifacts from the grand hotels. The ca. 1700 Andrews Mitchell Garrison, was gifted to the museum by its owners, Captain Sidney and Beatrice Helliwell, and is housed within the rear of the building. The museum also maintains a small garden on the grounds, dedicated to Celia Thaxter, as well as cemetery records for many of Kittery's 132 burial sites.

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[18] The memorial is also known as the Maine Sailors' and Soldiers' Memorial.

[19] In the 19th century, it was site of the Pocahontas Hotel.

Kittery contains over 130 burial sites and cemeteries, scattered throughout the town. Many contain just a few graves.

USS Thresher Memorial Project Group (private). Established in 2011, this non-profit organization aims to raise and maintain public awareness of the personnel lost with the USS Thresher (SSN 593). Comprised of local civic leaders, Thresher family and crew members, submarine veterans, and other individuals, the group worked with the Kittery Maine Improvement Foundation to develop the memorial (focal point) to the vessel and events surrounding its demise. The memorial includes a 129' flagpole, located within the Kittery traffic circle (renamed "Memorial Circle"). Each foot of flagpole commemorates a soldier lost in the disaster.

Kittery Cemeteries (public and private). One hundred and thirty-two burial sites have been located within the Town of Kittery, ranging in size from a few graves to many acres. The Orchard Grove/Highland Cemeteries, located at the junction of Rogers and Shapleigh Roads, is the town's largest and features a Civil War monument atop its highest point.   Many of the sites bear the names of the families interred within and/or the individuals who originally owned the surrounding properties. A Town Farm cemetery, located in the woods to the east of Haley Road, contains paupers' burials. The First Congregational Church Cemetery, located across Route 103 from the church, was included in the First Congregational Church and Parsonage National Register Historic District in 1997. A complete listing of the cemeteries, with the sites keyed to a map, appears in a finding aid, *Kittery Cemeteries*, compiled by the Kittery Historical and Naval Museum.

ARTS & CULTURAL ORGANIZATIONS

Kittery Community Center: STAR Theatre and Morgan Gallery (public). Located in the Kittery Community Center[20], the STAR Theatre is a 171-seat venue that hosts live theatre, performance events, lectures, trainings, workshops, and movies. It features state-of-the-art sound and lighting systems and a 20' x 30' movie screen with HD projector. Patrick Dorow Productions, Inc., an in-

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[20] The Kittery Community Center is located in the former Frank C. Frisbee Elementary School, which, as noted earlier in this inventory chapter, has been determined eligible for listing on the National Register of Historic Places.

residence company, produces many theatre events at the STAR, including a youth series.   The **Morgan Gallery** is an exhibit space located adjacent to the STAR, and host to curated shows featuring work of local and regional painters, sculptors, print-makers and mixed media artists. (For more information about the Kittery Community Center, refer to the *Public Facilities and Services* and *Natural Resources, Open Space and Recreation* chapters of this inventory.)

Rice Public Library (private). Founded by Arabella Rice through a bequest, the Rice Public Library is a private organization overseen by a board of trustees. Its two-story Romanesque Revival style main building, regarded as the most outstanding library structure in Maine, was designed by Boston architect Shepherd S. Woodcock. In 1988, the library purchased the former Southern York County District Courthouse, located diagonally across the street and renovated the building to house the expanding collections. It is known as the Taylor Building annex. Today, the complex retains over 50,000 items, including books, magazines newspapers, audio books, and a "Maine Room" collection of local and state genealogy and history resources. The library offers public programs to both children and adults, including family movie nights, musical performances, book discussions, and computer help programs. (For more information about the library facilities and plans the future, refer to the *Public Facilities and Services* chapter of the plan inventory.)

Celia Thaxter's Garden, Shoals Marine Laboratory (private). Located on Appledore Island, this historic garden commemorates Celia Laighton Thaxter, a 19th century poet a native of Appledore Island. Her father built and operated the Appledore Hotel where many 19th century poets, writers and artists visited and drew

The Morgen Gallery, located outside the STAR Theatre in the Kittery Community Center showcases the work of local artists.

inspiration for their work. Celia established and maintained a cutting garden, providing flowers to the hotel. She also published

"An Island Garden," chronicling her work. Visitors may see the garden in the summer months, when Appledore is accessible via tour boats, leaving from Portsmouth. Staff of the Shoals Marine Laboratory, a station co-managed by the University of New Hampshire and Cornell Universities, maintains the garden.

Kittery Art Association (private). This non-profit, volunteer-run organization was established in 1958 to "promote knowledge of the arts, stimulate interest in the work of local artists, and

Inspiration Park, located at the corner of State Road and Government Street was restored in 2014 by garden club members.

express appreciation for the abundant creativity in the seacoast area." The organization operates an exhibition space on Coleman

Avenue in Kittery Point where non-juried shows are held throughout the year, and offers classes for adults and children. The KAA also administers the *Marsha Abagail Ryder Scholarship Fund,* established in the early 2000s to support students from Traip Academy wishing to pursue studies and careers in the arts.

The Dance Hall Kittery (private). Located on Walker Street (Kittery Foreside) in the former Kittery Grange building, the

Dance Hall hosts music and dance performances from artists around the world. In addition to live events, the non-profit organization offers cross-generational classes and artist residencies and engages in community-based projects. ***Harbourside Garden Club (private).*** Established in 1930, the volunteer-run, membership-driven Harbourside Garden Club is a member of the Garden Club Federation of Maine, Piscataqua District. The club members meet regularly to exchange information about techniques and plant materials, visit gardens, hold and attend workshops, and work in the community to help beautify the town. In the 1950s, the club restored the gardens at the Lady Pepperrell house, and in the 1960s, members planted many flowering crabapple trees throughout the town. In 2014, the club restored a derelict garden located at the corner of State Road and Government, known as "Inspiration Park."

Wentworth Dennett Studios (private). Located at 78 Government Street in the former Wentworth Dennett Elementary School provides studio space to musicians, painters, potters, print-makers, and jewelry artists. It also houses a yoga studio. In 2015, the studios hosted "Art on the Hill," a holiday season-long open studio event, exhibiting the work of artists on three floors of the building.

Private Galleries. Several privately owned and operated galleries provide additional exhibition space for visual artists. ***Buoy Gallery***, located on Government Street in the Foreside, offers visual and performance art space. ***Just Us Chickens Gallery*** is an artists' cooperative located on Shapleigh Road offering space for members to market their work. Other private galleries include the ***Red Door Pottery Studio*** (Government Street) and ***Folk*** (Wallingford Square).

Other Civic Organizations and Clubs. Kittery is home several organizations and clubs that sponsor and carry out community-based activities. Included in this group are ***Cub Scouts*** (Pack 316), ***Boy Scouts*** (Troop 307), ***Girl Scouts,*** the ***Rotary Club*** of Kittery, the Kittery ***Lions Club,*** and the ***Knights of Columbus*** of Kittery, Maine.

IDENTIFICATION OF PRELIMINARY ISSUES, CHALLENGES AND OPPORTUNITIES

The following is a preliminary list of issues, challenges and opportunities posed by the findings of the inventory of existing conditions of Kittery's historic and cultural resources. Please note that these are subject to change with the preparation of goals and objectives, not yet drafted (at the time the inventory was prepared)

- The town has no official single repository for historical materials. Currently, this responsibility is split between the Kittery Historical and Naval Museum and the Portsmouth Naval Shipyard Museum, with town documents held by the Kittery Town Clerk.

- The town has no comprehensive inventory of historic and cultural resources. Such an inventory would help educate residents and newcomers to the town about the significance of the historic buildings and landscapes, and encourage property owners to protect and preserve them.

- The town's ordinances do not include provisions for preventing loss of historic buildings (such as demolition delay). The oldest house in Maine, the Bray House, has recently lost much of its historic fabric through a house renovation project. An exception to this is the Shoreline Overlay Zone Code which protects archaeological and historic resources and scenic beauty along the coastline from the negative impacts of development within shoreline areas.

- The town has not taken advantages of state-sponsored programs (such as the Certified Local Government Program) that promote and fund preservation of historic and cultural resource.

- The town currently has no historical commission or entity to serve as steward of Kittery's historic properties (buildings, landscapes and other historic features). Such an entity would oversee completion of an inventory of historic and cultural resources, and advocate for protection of these resources through National Register designations and amendments to the existing development bylaws.

- The town's ordinances do not regulate fence height and placement. Of particular concern is the placement of fences along sections of roadway rimming the water, where passersby can take in picturesque views.

- The town's military history, a significant part of its past, is not being utilized to its full potential to attract tourists.

- The town's youth are largely uninvolved in efforts to preserve Kittery's historic and cultural resources.

- The Friends of Fort McClary have expressed concern about looting of granite pieces from Fort McClary and would like to see the town become more of a watchdog over this type of illegal activity.

- Large traffic volumes at the entrances to Fort McClary and Fort Foster in summer negatively impact travel along Route 103.

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http://focus.nps.gov

INTERVIEWS

Kim Sanborn, Kittery History & Naval Museum
Dean Gallant, president, Board of Trustees, Kittery Art Association
Gary Hildreth, Portsmouth Naval Shipyard
Joe Gluckert, Portsmouth Naval Shipyard Museum
Gary Best, Maine State Parks and Historic Sites
Glenn Dochtermann, Fort McClary
Dane Parker, Friends of Fort McClary

NATURAL, OPEN SPACE, AND RECREATION RESOURCES

2

"If there is anything lovelier than the scenery of this gentle river I do not know it; and I doubt if the sky is purer and bluer in paradise."

-William Dean Howells, 1902

The rambling, windswept coast of Kittery, and robust waters of the Piscataqua River have attracted humans for over 400 years. The area's first known European discoverer, Martin Pring, described the landscape in 1603, with "a notable sheet of water, and of great depth, with beautiful islands and heavy forests along its banks."[1] Nearly 300 years later, poets, writers and artists regarded the area as their muse, inspired by its extraordinary natural beauty. Today, residents and visitors alike covet the rocky beaches, coastal swamps, and evergreen covered uplands.

This chapter identifies and describes Kittery's natural resources, open space, and recreation resources, and summarizes past efforts to protect, promote and expand them. [2] It also identifies issues, opportunities and challenges surrounding them to be addressed in the recommendations of the Comprehensive Plan.

The headwaters of Spruce Creek lie at the north end of Kittery, at the Eliot town line. As the creek flows southward, it widens and becomes a large, navigable waterway. Clam flats edge the banks, but are not harvestable because of water quality levels.

NATURAL RESOURCES

GEOLOGY, TOPOGRAPHY AND SOILS

Geology. Kittery's geology includes bedrock outcropping, marine silts and clays, and glacial till and outwash. The bedrock dates to 375-450 million years ago, with most concentrated south and east of Interstate 95. Within depressed areas of the bedrock lie the

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[1] Bardwell, John D., Old Kittery.

[2] Much information for the Natural Resources section of this inventory chapter was derived from the 1999/2002 Comprehensive Plan document, updated as required.

hydric marine soils, combined with pockets of glacial outwash. In the northwest end of Kittery lie several drumlins with deep soils.

Topography. Slopes across the town consist largely of upland, gently undulating or flat terrain, varying in elevation between 20 and 80 feet above sea level. In three areas of town, Cutts Ridge, Bartlett Hill, and land to the north of Barter's Creek, the land rises more steeply, with the highest point in Kittery, 140 feet, on Cutts Ridge.

Soils. The United States Soil Conservation Service has established the dominant soils in Kittery to be Lyman (shallow and underlain by bedrock, moderately-rapidly drained), Scantic and Sebago (both deep, level, poorly drained). The most prevalent soils are a combination of Lyman and Scantic, combined with rock outcroppings, extending from Brave Boat Harbor southwestward to encompass all of Kittery Foreside and Seavey Island. The area west of 95 and downslope of Cutts Ridge has areas of prime farmland soils and soils of statewide significance for farming interspersed within the prevailing Scantic and Lyman soils.

WATERSHEDS & SURFACE WATERS

Kittery contains five riverine watersheds, described below.

Piscataqua River Watershed. The Piscataqua runs along the southwest boundary of Kittery, separating the town from Portsmouth, New Hampshire, and dividing New Hampshire and Maine. This watershed includes all of the land in Kittery draining into the Piscataqua River and its estuary. ***Spinney Creek***, a sub-

SUMMARY OF KEY POINTS

- Geology, topography and soils in Kittery reflect its geographic location along the Atlantic coast. Bedrock closely underlies much of the town, interspersed with pockets of marine soils and glacial outwash.

- Five riverine watersheds cover most of Kittery, with the largest extending along the Piscataqua River and Spruce Creek. Many smaller tributaries feed these waterways.

- The town has relatively few fresh water resources, and much of the public drinking water is supplied by wells.

- Kittery contains very little farmland and supports just three active farms.

- Kittery supports three "natural areas," as defined by the Maine Natural Areas Program, including salt-hay salt marsh, white oak-red oak forest, and dune grassland.

- Two "habitat focus areas," defined by Beginning with Habitat, are located in Kittery. These areas, located in the Brave Boat Harbor-Gerrish Island area and York River Headwaters area, support rare plants, animals and their habitats.

- The town's location at the confluence of the Piscataqua River with the Atlantic Ocean, combined with the many extant historic buildings and landscape features, give Kittery tremendous scenic quality.

watershed, lies along the western edge of the Piscataqua River Watershed. The area known as Gerrish Island forms the eastern edge of the Piscataqua River Watershed (with one-third of Gerrish Island draining into the Atlantic).

Spruce Creek Watershed. Spruce Creek runs diagonally from northwest to southeast through the heart of Kittery. Its watershed originates in Eliot and drains the geographic core of the town. Draining the uplands surrounding Spruce Creek and its estuary are seven smaller creeks and brooks -- **Wilson, Chickering, Fuller, Hill, Hutchins, Crocketts and Barters.**

York River Watershed. The area north of the Spruce Creek watershed drains from Cutts Ridge towards the York River. Cutts Ridge Stream, Libby Brook and Johnson Brook all contribute to this watershed.

Brave Boat Harbor Watershed. Land in this watershed lies at the eastern corner of Kittery and drains into Brave Boat Harbor and then out to sea.

Gerrish Island Watershed. This small watershed includes land southeast and seaward of the highest point on Gerrish Island (1/3 of the area) towards the sea.

Chauncey Creek, another significant estuarine surface water body, separates Gerrish Island from the mainland, draining northeastward parallel to the coastline and outflowing into Brave Boat Harbor and the Atlantic Ocean.

Chauncey Creek separates Gerrish Island from the mainland, draining towards the Brave Boat Harbor (and the Atlantic Ocean) to the north. The area depicted above once held a tidal mill.

WATER SUPPLY AND AQUIFERS

Despite the estuaries formed by rivers, the town has comparatively few fresh water resources, and none reaches the state's standards for water quality. The public drinking water is supplied by surface water resources in York (the Bell Marsh Reservoir, Middle Pond, Folly Pond, and Boulter Pond) and is augmented by wells where residents live outside the public water supply areas. Two sand and gravel aquifers underlie the town, both located near Cutts Ridge within the York River watershed.

ELIOT

YORK

PORTSMOUTH

MAINE
NEW HAMPSHIRE

Portsmouth Naval Shipyard

**Kittery
Comprehensive
Plan Update
2016**

TOWN OF KITTERY, MAINE
INCORPORATED 1647

Map 2.1

TOPOGRAPHY

Elevation in Feet

- 0-20 Feet
- 20 - 40
- 40 - 60
- 60 - 80
- 80 - 100
- 100 - 120
- 120 - 140

N
W E
S

0   0.5   1
Scale in Miles

Isles of Shoals

Duck Island
Appledore Island
Smuttynose Island
Cedar Island

AECOM

This map is for general planning purposes only. The data used to create the map are not adequate for making legal or zoning boundary determinations or delineating natural resource areas. Exercise caution when

LIBERTY
REMICKS LN
GERRD
CUTTS RD
ACCESS RD
GMNS ACCESS RD
YANKEE
PICKERNELL LN
101
SEWARD FARM LN
ELLA MOORE DR
PICOTT RD
95
JEFFERSON LN
LEWIS RD
WILSON RD - ROUTE 101
KITTREE LN
236
MANSON RD
MARTIN RD
ADAMS DR
ROUTE 95 RAMP
1
DRAKE LN
OLD FARM RD
LYNCH LN
NORTON RD
PINKHAMS LN
DENNETT RD
OLD DENNETT RD
RANGER DR
HALEY RD
HIGH PASTURE RD
BARTLETT RD
CHARLES HILL RD
1
DION AVE
GOOSE PT RD
FIRST ST
HOOPER ST
EDISHUKES ST - STC
COLE ST
BICKNELL ST
HOWARD
CROCKETTS NECK RD
FOYES LN
SEAPOINT RD
OLD CART PATH RD
CARTER
MENDUM AVE
103
WALKER ST
WHIPPLE RD - ROUTE 103
CHAUNCEY CREEK RD
GOODWIN RD
SEA OAKS LN
TOWER RD
BADGERS ST
DEWEY AVE
FOLLETT LN
103
PEPPERRELL RD - ROUTE 103
CAPTAINS WAY
POCHANTAS RD
WHALEBACK DR
1

Kittery Comprehensive Plan Update 2016

TOWN OF KITTERY, MAINE · INCORPORATED 1647

Map 2.2

SOILS

Legend:

- Biddeford
- Brayton
- Buxton
- Chocorua
- Colton
- Croghan
- Elmwood
- Hermon
- Lyman
- Madawaska
- Marlow
- Naumburg
- Other
- Peru
- Raynham
- Scantic
- Scio
- Sebago
- Skerry
- Sulfihemists
- Udipsamments
- Vassalboro

Map labels (towns): ELIOT, YORK, PORTSMOUTH

Roads/places: GEE RD, LIBERTY LN, REMICKS LN, CUTTS RD, PICKERNELL LN, PICOTT RD, ELLINWOOD DR, SEWARD FARM LN, WILSON RD - ROUTE 101, 101, 236, I-95, US 1, MARTIN RD, MANSON RD, ROUTE 95 RAMP, ADAMS DR, DENNETT RD, OLD DENNETT RD, RANGER DR, STATE RD - ROUTE 1, DION AVE, WALSH ST, HOOPER ST, DISMUKES ST, COLE ST, BICKNELL ST, HOWARD, MENDUM AVE, WHIPPLE RD - ROUTE 103, WALKER ST, 103, BADGERS, DEWEY AVE, FOLLETT LN, Portsmouth Naval Shipyard, JEFFERSON LN, LEWIS RD, KITTREE LN, OLD FARM RD, NORTON RD, LYNCH LN, PINKHAMS LN, HIGH PASTURE RD, BARTLETT RD, CHARLES HILL RD, HALEY RD, GOOSE LN, DRAKE LN, CROCKETTS NECK RD, FOYES LN, PEPPERRELL RD ROUTE 103, CHAUNCEY CREEK RD, GOODWIN RD, SEAPOINT RD, OLD CART PATH RD, SEA OAKS LN, TOWER RD, CAPTAINS WAY, POCAHONTAS RD, WHALEBACK DR, YANKEE, GMMS ACCESS RD, ACCESS RD

State boundary: MAINE / NEW HAMPSHIRE

Inset: Isles of Shoals — Duck Island, Appledore Island, Smuttynose Island, Cedar Island

N W E S — Scale in Miles: 0 — 0.5 — 1

Soils data was retrieved from Gridded Soil Survey Geographic (gSSURGO) by state, January 19, 2016.

AECOM

This map is for general planning purposes only. The data used to create the map are not adequate for making legal or zoning boundary determinations or delineating natural resource areas. Exercise caution when interpreting the information on this map.
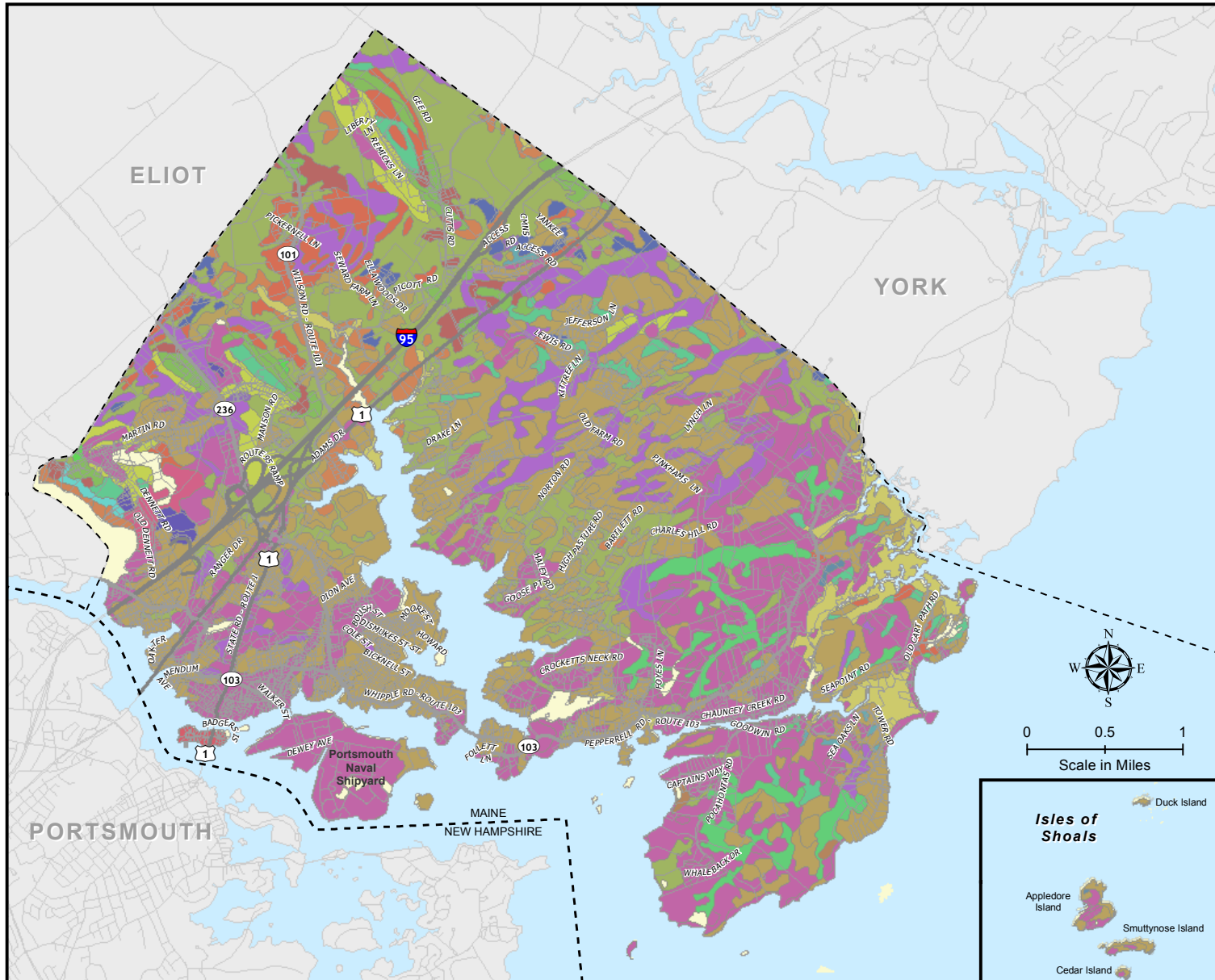
**Kittery
Comprehensive
Plan Update
2016**

Map 2.3

WATER RESOURCES

- Mooring Areas
- Navy Mooring Areas
- NWI Wetlands
- ● Water Quality Sampling Stations
- ★ Waterfront Facilities

1. Spruce Creek
2. Piscataqua River
3. Badgers Island
4. Back Channel
5. Government Street Pier
6. Traip Academy
7. Portsmouth Naval Shipyard
8. Pepperrell Cove
9. Chauncey Creek
10. Fort Foster
11. Wood Island Life Saving Station
12. Crescent Beach
13. Seapoint Beach
14. Rachel Carson NWR
15. Brave Boat Harbor

0   0.5   1

Scale in Miles

*NWI (National Wetlands Inventory) wetlands version 2
was retrieved from the U.S. Fish and Wildlife Service
and published in May 2016.*

*Water quality sampling stations, waterfront facilities, and
mooring areas were provided by Planning Decisions, Inc.
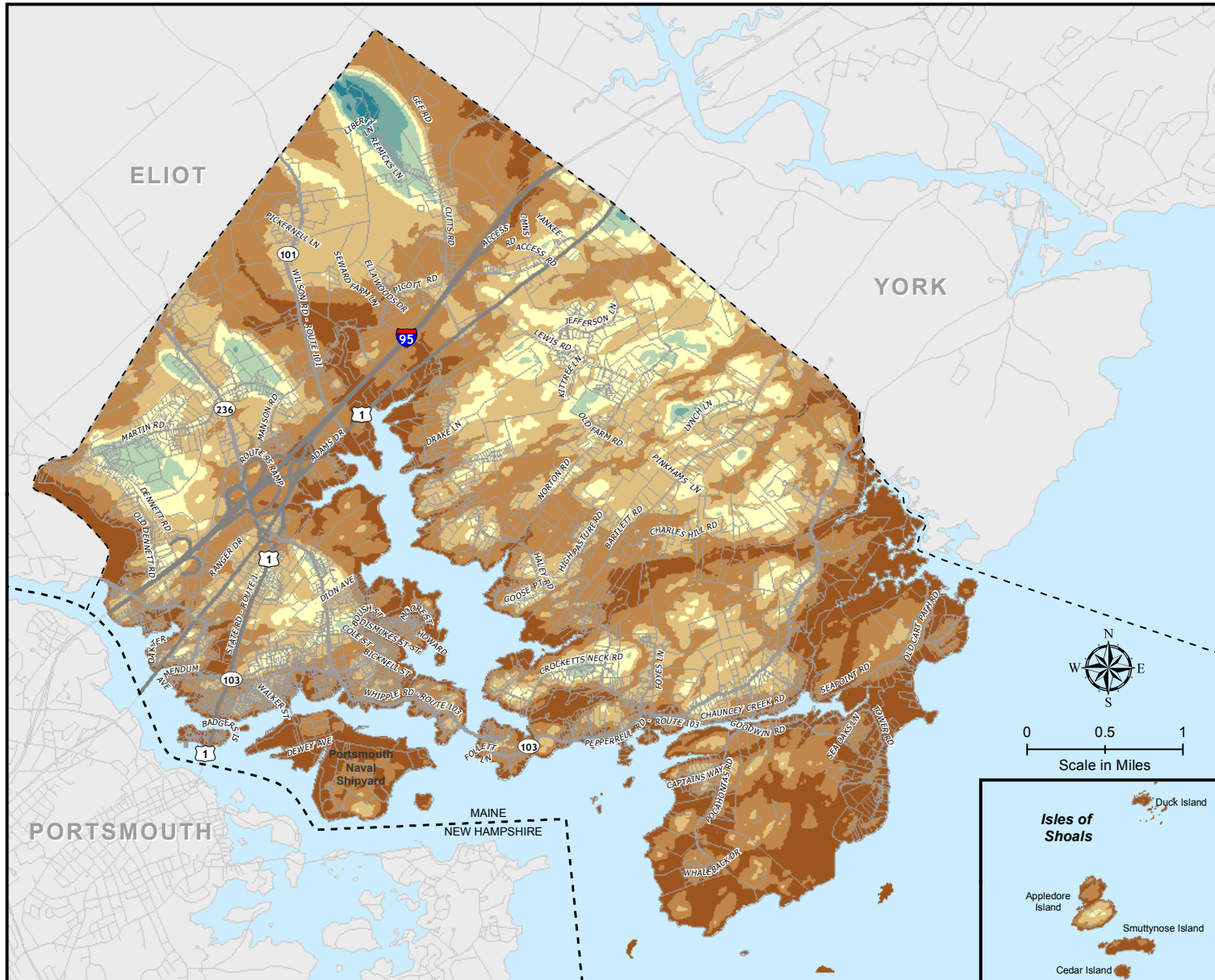and digitized by GRANIT at UNH, October 1999.*

AECOM

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data used to create the map are not adequate for making
legal or zoning boundary determinations or delineating
natural resource areas. Exercise caution when
interpreting the information on this map.
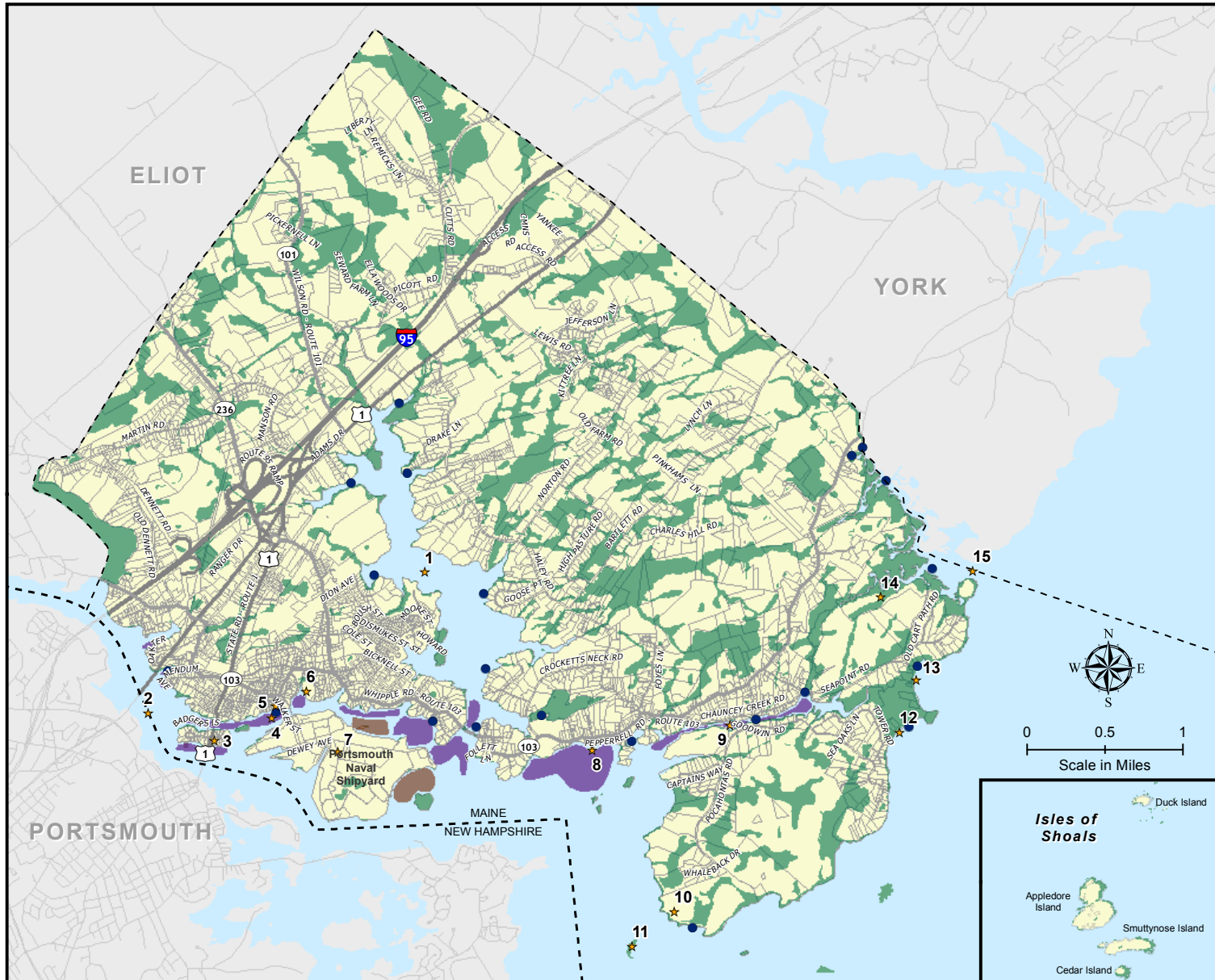
Kittery also likely has bedrock aquifers into which residents tap for private wells. For additional information on water quality, refer to the *Public Facilities and Services* chapter of this inventory.

FLOOD HAZARD AREAS & INCREASING SEA LEVELS

The Federal Emergency Management Agency (FEMA) has mapped the 100-year floodplain and flood hazard areas in the upland areas of Kittery's watersheds. In general, the floodplain and flood hazard boundaries follow the contours of the waterbodies themselves. These areas have a 1% chance of being flooded in any given year. However, at the time of the writing of this inventory chapter, FEMA was in the process of updating its flood hazard risk information, and had prepared new Flood Insurance Rate Maps (FIRMs) which included inland riverine areas. The town was encouraging Kittery residents to review the maps to understand potential impacts on private property. Also, because Kittery is a coastal community and the land is subject to the impact of velocity from the tides, much of the town is or will be affected by impending sea level rise.[3]

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[3] The Maine Department of Conservation predicts that sea level rise will likely occur two times faster in the coming century than it did in the last century ("Maine Coastal Erosion and Hazards," Stephen M. Dickson, Ph.D., State Marine Geologist, Maine Geological Survey, Department of Conservation, Augusta, Maine, 2004)

The Rustlewood Farm, located at the northern end of town and straddling the Kittery-Eliot border, is one of the last remaining large dairy farms in Maine.

WETLANDS

Kittery contains many types of wetlands, scattered throughout the town, with the most common in the form of emergent, forested, scrub shrub wetlands, and vernal pools. Forested wetlands are the most prevalent, with significant representation in the vicinity of Martin Road/Dennett Road, on the interior of Gerrish Island, and east of Wilson Road (south of Cutts Ridge). Scrub shrub wetlands exist along the southwest branch and middle reach of Spruce Creek.   Kittery's largest marshland area

lies along Johnson Brook, and large forested/scrub shrub wetland stands in the northwest corner of town between Gee and Betty Welch Roads.

FOREST LAND

Kittery contains several forested areas in the form of both wetland forests (noted above) and uplands forests. Some of the upland forests are white oak-red oak natural communities (defined below). The town maintains the 72-acre Town Forest, located off Haley Road, and upland deciduous forest. In addition, 90 acres of privately-owned forested land in Kittery receives special assessment through the state's Current Use Protection Program (see *Open Space Resources*, below).

AGRICULTURAL LAND

The large amount of bedrock, combined with shallow, poorly drained soils limits the amount of land in Kittery suitable for farming. Where suitable soils exist, they stand in small pockets, complicating the ability to farm on a large scale. The town does have prime farmland soils (typically comprised of sandy loams) in the following locations:

- North shore of Spinney Creek
- Wilson and Fernald Roads
- Northeast of Lewis Road
- Off McEacherns Way
- Between Bartlett and Norton Roads

- On Gerrish Island near Sisters Point
- North of Adams Road and south of I-95.

Kittery has just a few remaining farms. The 300-acre **Rustlewood Farm,** located in the northeast corner and straddling the Kittery-Eliot line, raises milk cows. The next generation has begun a mixed vegetable operation under the name of **Greenlaw Gardens**. This occupies 5 acres of Rustlewood Farm fields and supplies vegetables to local restaurants, specialty food shops and a seasonal farm stand.

There are a few small personal farm operations in town - a beef cattle and small CSA at **Sawyer Farm** on Bartlett Road and a **Christmas Tree Farm** adjacent to Deering Pond. The **Touching Earth Farm**, located on Stevenson Road, is a CSA farm cultivating produce crops and raising bedding and vegetable plants in the farm's greenhouses. At the present time, the town does not maintain a community garden, although residents have expressed interest in the idea.

RARE, THREATENED & ENDANGERED SPECIES

The Maine Department of Agriculture, Conservation and Forestry's Maine Natural Areas Program maintains a list of rare native vascular plant species in Maine whose populations within the state are highly vulnerable to loss, including those that are "Endangered" (rare and in danger of being lost from the state in the foreseeable future), "Threatened" (rare and, with further decline, could become endangered), and of "Special Concern" (rare in Maine, but not sufficiently rare to be considered

the Kittery area.[4] Principal among these are Bitternut Hickory, Bottlebrush Grass, Mountain Laurel, Northern Wild Comfrey, Saltmarsh False-foxglove, Scarlet Oak, Spicebush, Spotted Wintergreen, Wild Coffee, and Wild Garlic.

The Maine Department of Inland Fisheries and Wildlife manages inland fish and wildlife listed under the Maine Endangered Species Act (MESA) and the U. S. Endangered Species Act (ESA) or both.[5] Currently, 22 inland fish and wildlife species are listed as "Endangered" and 23 are listed as "Threatened" under MESA, some of which are also listed under ESA. The list "Endangered" list includes birds, fish, beetles, butterflies, skippers, dragonflies, damselflies snails, mammals, snakes, and turtles. The "Threatened" list includes birds, fish, butterflies, skippers, dragonflies, damselflies, freshwater mussels, mayflies, moths, mammals and reptiles. In the Kittery area, accounts of the Spotted Turtle have been recorded, as well as the Endangered New England Cottontail Rabbit. The region west of 95 and north of 236 is within a new proposed Refuge area for USFWS known as the "Great Thicket".

INVASIVE PLANT SPECIES

Threatened or Endangered). As of 2015, the list of rare plants contained 347 species, some of which have been accounted for in

The Piping Plover is a shorebird that nests and feeds in the sandy beaches of the Atlantic. The species may be present in Kittery.

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[4] The Maine Natural Areas Program's "Elements of Diversity: Rare, Threatened and Endangered Plants," published in September 2015 provides a list of the 347 species.

[5] Species listed under MESA receive state protection; species listed under ESA receive federal protection; species listed under both receive state and federal protection.

Maine's Department of Agricultural, Conservation and Forestry's Maine Natural Areas Program monitors invasive plant species in the state. An invasive plant is defined as a plant that is not native to a particular ecosystem, whose introduction does or is likely to cause economic or environmental harm or harm to human health. Of the 2,100 plant species recorded in Maine, approximately one-third are non-native, but only a small fraction is considered invasive. However, these have the potential to cause great harm to the landscape.   Currently, 19 invasive species and 29 potentially invasive species exist in Maine, some of which may grow in Kittery.[6] In addition, Maine's Department of Environmental Protection maintains an inventory of invasive aquatic species. In the Kittery area, European Naiad and Curly Leaf Pond Weed have been found[7]

UNIQUE NATURAL AREAS: ECOSYSTEMS, NATURAL COMMUNITIES, HABITAT FOCUS AREAS AND ESSENTIAL HABITATS

Ecosystems. The Maine Natural Areas Program has identified many ecosystems throughout the state. Ecosystems are defined as a group of communities and their environment, occurring together over a particular portion of the landscape, and held together by some common physical or biotic feature. In Kittery, *Coastal Dune-Marsh Ecosystem* has been identified -- low-lying coastal areas with sand beaches, dunes and saltmarshes behind the dunes -- along the 30 mile coastline. Included in this ecosystem are beach strands, dune grasslands, Pitch Pine dune woodlands, Rose-Bayberry maritime shrublands, and Spartina saltmarshes.

Natural Communities. The Maine Natural Areas Program has also classified and distinguished 104 natural community types in the state, three of which lie in Kittery:

- *Salt-hay Salt Marsh*, tidal marshes consisting of expanses of saltmeadow cordgrass, smooth cordgrass, and/or black-grass.
- *White Oak - Red Oak Forest*, deciduous forest dominated by red oak with a mix of white oak.
- *Dune Grassland*, sand dunes dominated by beach grass, with patches of beach-pea, red raspberry, bristly gooseberry and/or poison ivy.

Habitat Focus Areas. Beginning With Habitat, a collaborative program of federal, state and local agencies and non-governmental organizations, is a habitat-based approach to conserving wildlife and plant habitat on a landscape scale.[8] The organization has worked with biologists from several federal and state agencies and organizations, to identify areas of statewide ecological significance that contain unusually rich concentrations of at-risk species and habitats. These "habitat focus areas"

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[6] The Maine Natural Areas Program maintains this list of invasive species on its website:
http://www.maine.gov/dacf/mnap/features/invasive_plants/invasives.htm

[7] "Maine's Invasive Aquatic Plants: Confirmed Infestations," Maine Department of Environmental Protection, March 2011.

[8] www.beginningwithhabitat.org

support rare plants, animals, animals and natural communities, high quality common natural communities; significant wildlife habitats; and their intersections with large blocks of undeveloped habitat. Of the 140 focus areas statewide, Kittery contains two:

- *Brave Boat-Gerrish Island.* This area located in both Kittery and York along much of Kittery's Atlantic coast, includes many associated natural communities and provides the habitat needed to support most of the plants and animals native to Southern Maine.

- *York River Headwaters.* This area covers 1,000 acres of uplands and wetlands in York, Eliot and Kittery. It includes a tidal marsh estuary ecosystem with intertidal bays, and is one of the largest unprotected Spartina saltmarshes in the state. The York River is currently being studied for possible "Wild and Scenic" designation from the US Park Service.

In addition, the *Mount Agamenticus* focus area, while only bordering Kittery, is one of the largest remaining expenses of undeveloped forests in coastal New England. It abuts Kittery's Brave Boat Harbor focus area and watershed.

Essential Habitats. Maine's Department of Inland Fisheries and Wildlife (MDIFW) designates "essential habitat" areas. These are areas currently or historically providing physical or biological features essential to the conservation of an endangered or threatened species in Maine which may require special

management considerations.[9] Currently, MDIFW has identified two essential habitats which may be present in Kittery, the *Piping Plover and Least Tern* habitat, and the *Roseate Tern* habitat. Piping Plover and Least Tern nesting sites are located on the sand beaches along the Atlantic coast, and Roseate Tern sites are located on off-shore islands. Because Kittery contains both sand beaches and off-shore islands, it is likely that both habitats exist, or may develop in the future, within the town.

SCENIC RESOURCES

Located on the Atlantic coast and bordered on the south by the Piscataqua River, Kittery possesses tremendous visual and scenic

[9] Maine Department of Inland Fisheries and Wildlife (MDIFW), "Essential Habitat: Overview," fact sheet. Essential habitats in Maine have been mapped, and sites do appear in York County, although not as far south

Scenic views in Kittery include both those of natural areas, as well as historic features, such as the First Congregational Church Cemetery (and Piscataqua River/Gulf of Maine).

**Kittery
Comprehensive
Plan Update
2016**

TOWN OF KITTERY MAINE
INCORPORATED 1647

Map 2.4

CRITICAL NATURAL RESOURCES

Scenic Views and Vistas:
- Category One
- Category Three
- Category Two

Scenic Areas:
- **A** Wallingford Square
- **B** Kittery Point Village
- Active Farmland
- Conserved Land
- Land in Farm & Open Space
- Waterfront Facilities

0   0.5   1
Scale in Miles
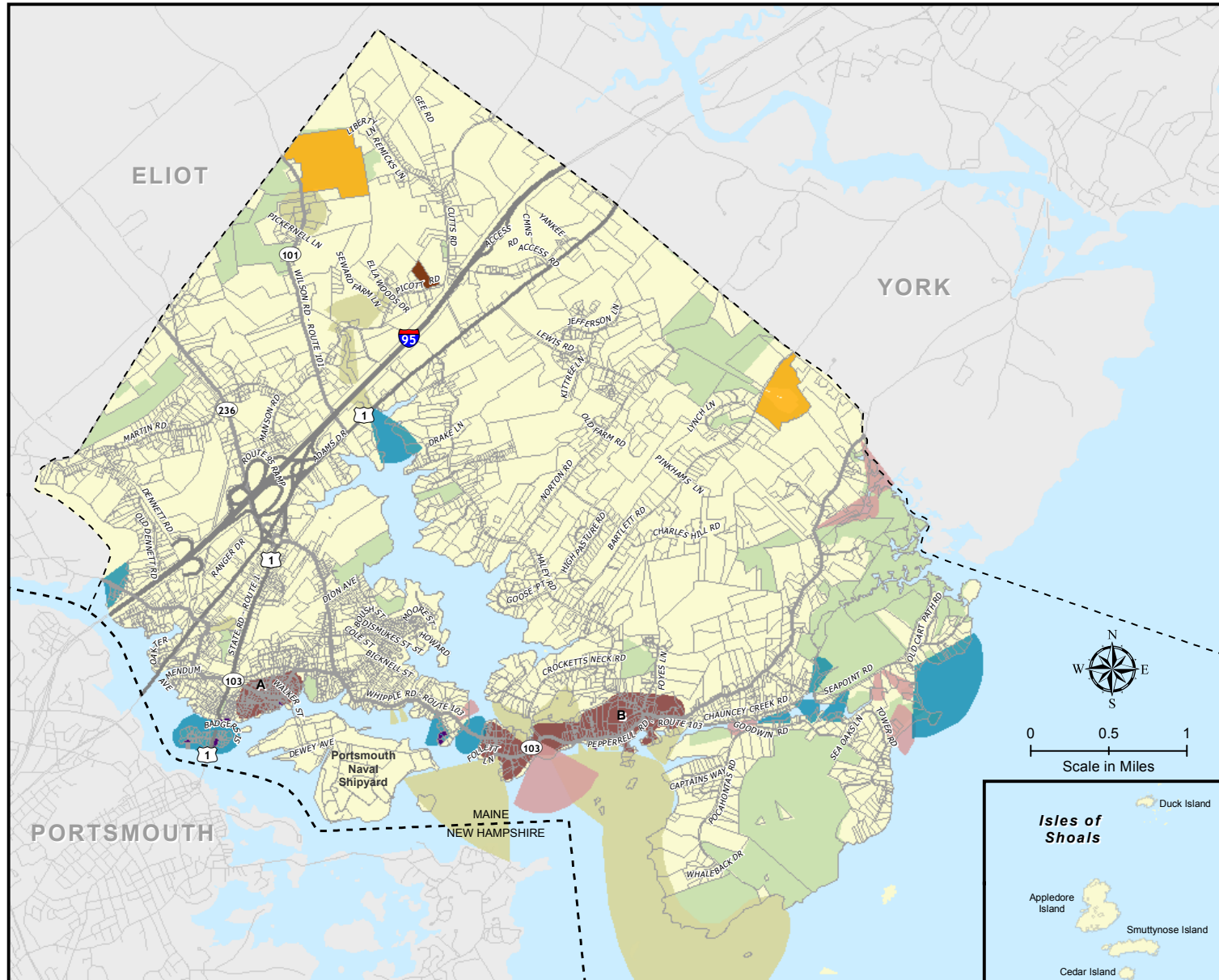
*Scenic areas, views were compiled by Planning Decision, Inc.
and were digitized by GRANIT at UNH, October, 1999.*

Active farmland, conserved land, waterfront facilities were provided by Planning Decision, Inc. and were digitized by GRANIT at UNH, September, 1999.

AECOM

This map is for general planning purposes only. The data used to create the map are not adequate for making legal or zoning boundary determinations or delineating natural resource areas. Exercise caution when interpreting the information on this map.

ELIOT

YORK

PORTSMOUTH

Portsmouth
Naval
Shipyard

MAINE
NEW HAMPSHIRE

*Isles of
Shoals*

Duck Island

Appledore
Island

Smuttynose Island

Cedar Island

quality. Views include both those seen from the land, looking outward across the water, as well as views of Kittery, from the water. Several inland views of historic building clusters, including Kittery Point and Kittery Foreside, are possible from the roads that wind throughout. Views may be classified as follows:

- Unobstructed by natural or manmade features, over land toward the ocean or tidal inlet or bay; or uncluttered over land or water toward a hill, open land or other natural feature
- Over land or water that include manmade features associated with settled areas
- Over land or water that include traditional maritime features

Kittery residents have rated views according to scenic value to the community, and have divided the views into three categories: 1 (highest value), 2 (very high value), and 3 (high value).[10] A total of ten views were rated 1, thirteen views received 2, and eight were rated 3. Scenic roads (discussed later in this inventory chapter) were also rated on a highest (1), very high(2) and high (3) scale and residents identified a total of 23 such scenic roads.

KITTERY'S STREET AND PUBLICLY-OWNED TREES

The Town of Kittery Department of Public Works conducted a street tree and publicly-owned shade tree inventory in 1994, locating species, documenting condition, and noting any

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[10] The 1999/2002 Comprehensive Plan provided a complete listing of these views.

maintenance needs and/or site conflicts. The inventory also highlighted "hazard trees," or trees to be removed. Each tree received a number and the number was associated with the location (street address). In summary, the inventory found that Kittery contained many substantially-sized street trees representing a range of species, and noted that of the 1,300 publicly-owned trees, many were in decline because of age, damage, poor growing conditions. Ninety-seven trees were found to be "hazardous," and in need of immediate removal. The inventory recommended that Kittery devote the resources of its tree program to maintenance, and also to implement an ordinance that would promote good tree care. It also recommended new plantings of trees at targeted areas, such as schools, and encouraged "memorial" tree plantings.

PAST AND CURRENT NATURAL RESOURCE PROTECTION EFFORTS

Spruce Creek Association. Established in 2002 by a group of Kittery and Kittery Point residents, this non-profit membership organization devotes itself to the monitoring and protection of the 9.8 square mile Spruce Creek Watershed, located in both Kittery and Eliot. Many members live along the Spruce Creek waterfront and are concerned about the long term beauty and health of the waterbody and its watershed. Goals of the association include providing stewardship of the creek; standardizing watershed-related ordinances; offering educational programs; and establishing a method of reporting and remedying violations. In March of 2008, the association completed a *Spruce Creek Watershed-Based Management Plan.* Updated in 2014, the goals of the plan included:

Kittery Comprehensive Plan Update 2016

Map 2.5

HABITAT FOCUS AREAS

Critical Natural Areas: Habitat Focus Areas

- Deer Wintering Area
- Habitat Focus Area
- Inland Waterfowl and Wader Bird Habitat
- Tidal Waterfowl and Wading Bird Habitat
- York River Watershed
- ● Vernal Pool Locations

ELIOT

YORK

PORTSMOUTH

Portsmouth Naval Shipyard

MAINE
NEW HAMPSHIRE

Isles of Shoals

Duck Island

Appledore Island

Smuttynose Island

Cedar Island

Scale in Miles

0   0.5   1

N
W   E
S

Watershed data was retrieved from the 'Gulf of Maine Land-Based Pollution Sources Inventory'. http://www-orca.nos.noaa.gov/projects/gomaine/gis_data.hml

Deer Wintering Area (8/1/2011), Inland Waterfowl and Wader Bird Habitat (6/14/2016), Tidal Waterfowl and Wading Bird Habitat (5/6/2016), Vernal Pool Locations (8/24/2016) derived from maine.gov.

York River Watershed were provided by Beginning with Habitat and digitized.

AECOM

This map is for general planning purposes only. The data used to create the map are not adequate for making legal or zoning boundary determinations or delineating natural resource areas. Exercise caution when interpreting the information on this map.
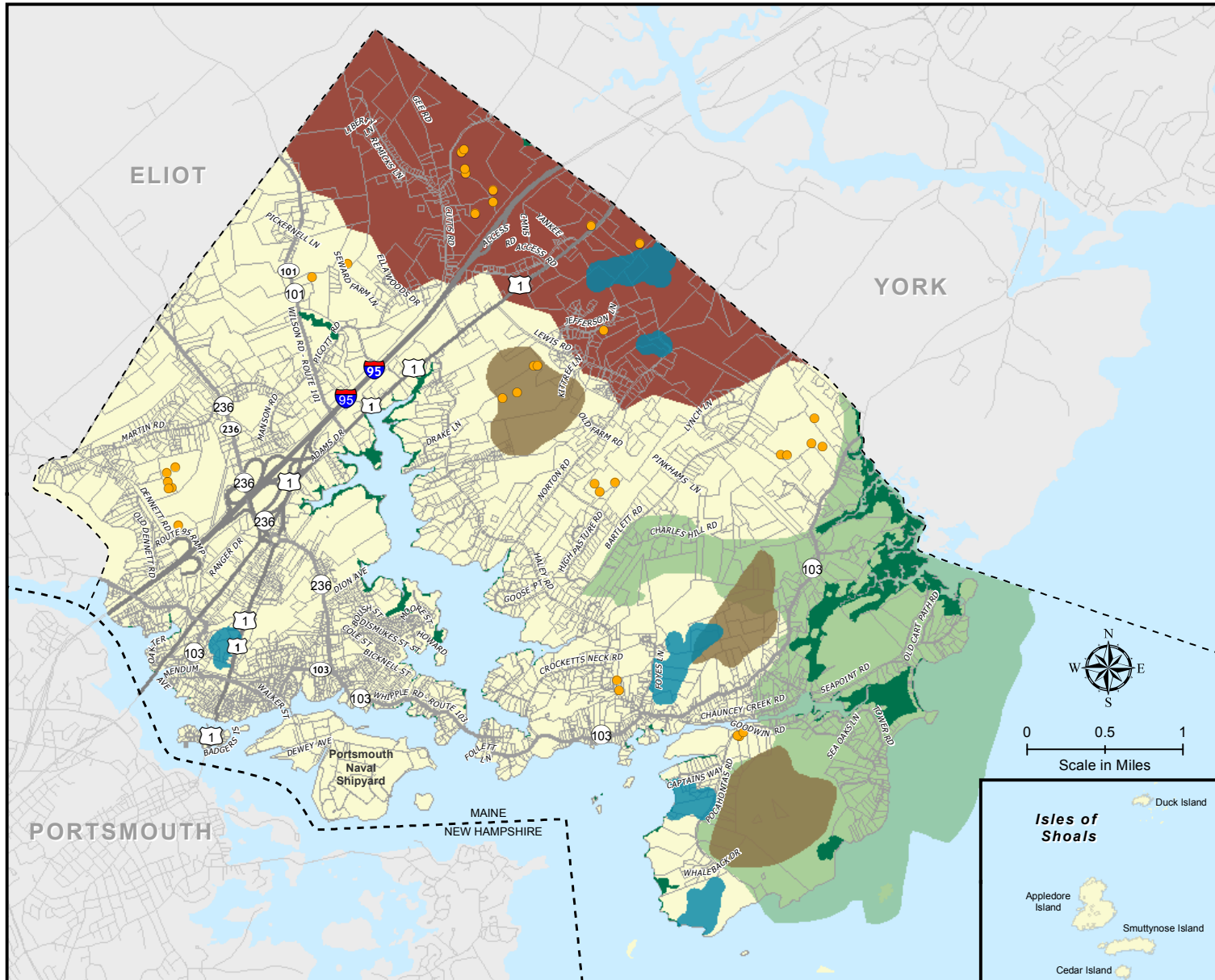
Spruce Creek as seen from Route 1, looking southward. Concern about the water quality in the creek, as well as its scenic beauty, fostered the activism of the Spruce Creek Association

- Re-opening shellfish beds in Spruce Creek
- Ensuring that Spruce Creek meets minimum Class B and SB water quality standards
- Ensuring that Spruce Creek is useful and healthy for drinking, recreation, fish, birds, and other wildlife now and in the future.

The plan included many implementation measures to meet these goals, some of which can be taken on by watershed stakeholders.

Kittery Shellfish Conservation Committee. This seven-member committee, appointed by the Kittery Town Council, is tasked with surveying Kittery's clam flats once every three years to establish size, distribution and density of the clam population. It also recommends conservation closures and opening of flats in conjunction with area biologists of the Maine Department of Marine Resources.

Kittery Comprehensive Plan, 1999 (adopted in 2002). The 1999/2002 Comprehensive Plan identified many goals aimed at protecting and managing the quality of the town's water, critical natural and scenic resources, including:

- Protecting the quality and supply of surface waters
- Protecting the quality and supply of groundwater
- Protecting wetlands
- Managing the use of flood prone areas
- Protecting significant wildlife
- Maintaining the town's scenic quality while respecting property rights
- Preserving scenic quality of the shoreline
- Maintaining and enhancing high value scenic views from public viewing sites
- Maintaining and enhancing the visual character of Kittery's scenic roads.

IDENTIFICATION OF PRELIMINARY NATURAL RESOURCE ISSUES, CHALLENGES AND OPPORTUNITIES

The following is a preliminary list of issues, challenges and opportunities posed by the findings of the inventory of existing conditions of Kittery's natural and scenic resources.

- The town's topography, soils and associated wetlands place limits on the extent of development possible. Shallow depths to bedrock further complicate this constraint.

- Wells currently supply drinking water to many Kittery homes, making preservation of groundwater and aquifer quality critical to the health of the community.

- Rising sea levels pose a long term threat to development near flood hazard areas. These areas include the edges of Kittery's major surface waters as well as portions of the watersheds.

- The largest of Kittery's remaining active farms, the Rustlewood Farm, has been conserved; the other smaller scale farm operations are not protected from future development.

- Kittery contains many unique natural areas, including natural communities, habitat focus areas and essential habitats, all of which add to the town's visual appeal and to residents' quality of life. Opportunity exists to protect these areas, while at the same time preserving individual property-owner's rights.

- Kittery possesses tremendous visual and scenic qualities, making it a highly desirable place to live and providing attractions for visitors. Opportunity exists to protect these qualities, while at the same time preserving individual property-owner's rights.

- Opportunity exists to adopt regulations limiting the amount of farming soils that can be removed from a property, as a means of preserving existing agricultural lands town-wide.

OPEN SPACE RESOURCES

As noted earlier in the introduction to this inventory chapter, residents of Kittery place high value on open space for its contribution to the town's physical character, as well as its natural beauty. The role open space plays in guarding natural resources and providing recreation opportunities furthers residents' level of appreciation. Of Kittery's 12,000 acres and 30 miles of coastline, approximately 14% has been protected in perpetuity from development through one of the following means[11]:

1. Ownership by the United States government
2. Ownership by the State of Maine
3. Ownership by a non-profit conservation organization or land trust
4. Town ownership of recreation and forest lands

FEDERALLY-OWNED PROTECTED OPEN SPACE

Rachel Carson National Wildlife Refuge. This large expanse of salt marshes and estuaries rimming 50 miles of coastline, extends from Cape Elizabeth (at its northern end) to Kittery, providing protected land for migratory birds. Land acquisition is in process, with the goal of obtaining a total of 14,600 acres. The Brave Boat

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[11] www.kitterylandtrust.org. The Kittery Land Trust has protected 810 acres, and other entities steward 850 acres, including 3 miles of coastline. The KLT website lists a total acreage for the town as 12,000, whereas other sources list 48,000.

SUMMARY OF KEY POINTS

- Of Kittery's 12,000 acres and 30 miles of coastline, approximately 14% of the acreage and 10% of the coastline have been protected through a variety of conservation methods.

- While the State of Maine and Town of Kittery own some of this protected land, the majority has been conserved through the efforts of the Kittery Land Trust (840 acres) and Maine Coast Heritage Trust (408 acres).

- Kittery is also the southern "anchor" of the Rachel Carson National Wildlife Refuge, with its Brave Boat Harbor division, located in northeast Kittery, covering 400 acres.

- Kittery's scenic roads, including Route 103 (Pepperrell Road and Whipple Street), are some of the town's most treasured assets. Visitors come from far and wide to drive the winding routes and take in historic and sea-facing views.

- Kittery's Conservation Commission is charged with protecting the natural resources located within the territorial limits of the town.

- The Kittery Open Space Advisory is tasked with maintaining an inventory of public open space and making recommendations to the Town Manager about acquiring and/or deaccessioning this space.
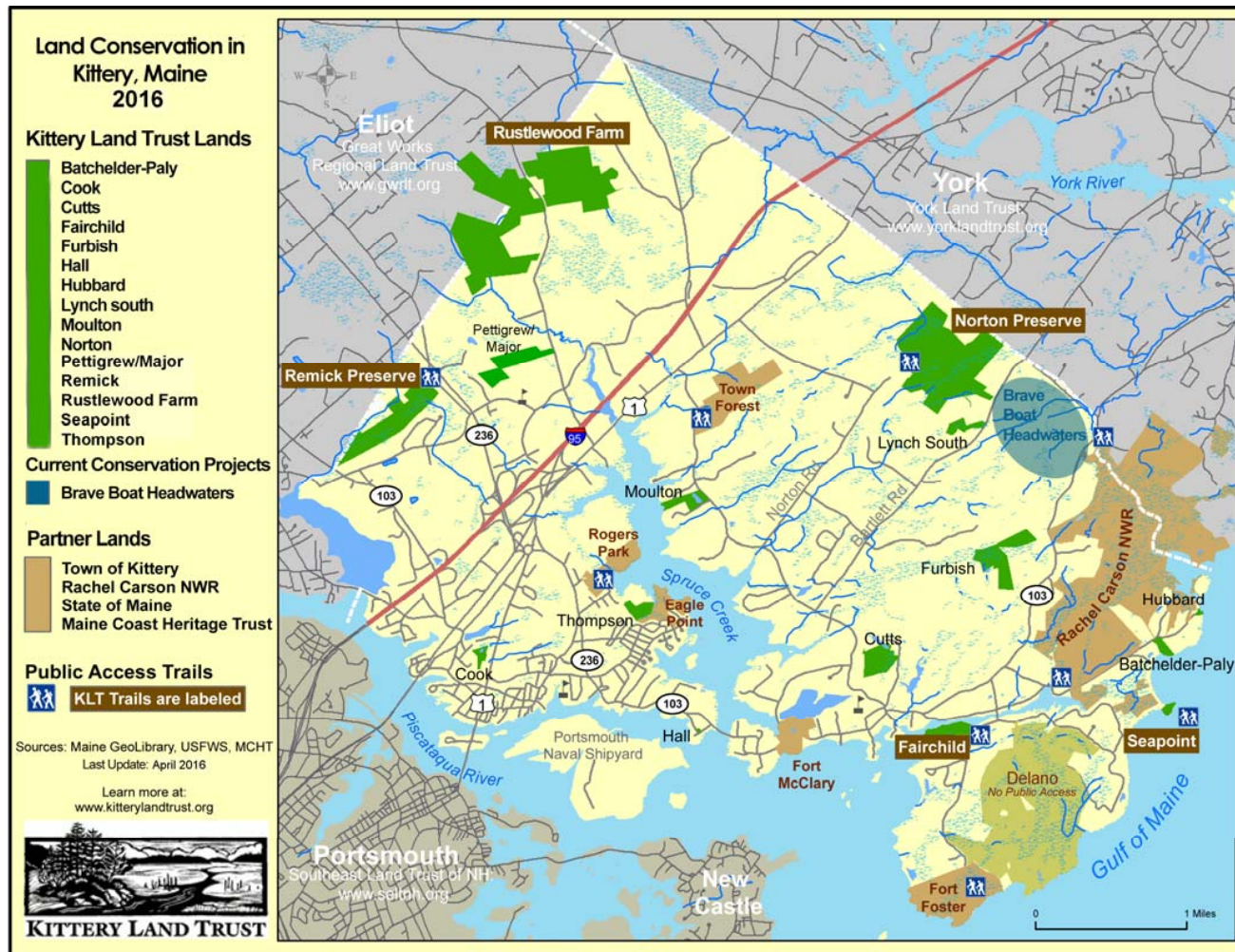
Conservation lands in Kittery include Federally-owned, State-owned, town-owned lands, as well as those owned by the Kittery Land Trust and Maine Coastal Heritage Trust, both nonprofit land trusts. (Kittery Land Trust)

Harbor division of the refuge consists of more than 800 acres, with 400 of the acres along Kittery's coastline. In addition to spectacular bird- watching, visitors to the refuge can take advantage of 1.8 miles of walking trails (known as the Cutts Island Trail) through scenic uplands in the vicinity of Brave Boat Harbor. The area is home to several species of rare and/or endangered birds and animals, including the Piping Plover, New England Cottontail, and Saltmarsh Sparrows.

STATE-OWNED PROTECTED OPEN SPACE

Fort McClary State Historic Site. Located at the mouth of the Piscataqua River with an entrance off Pepperrell Road in Kittery Point, this 37-acre property is owned and managed by the State of Maine as an historic and recreation site. It also provides habitat to a variety of upland and coastal flora and fauna habitats.

TOWN-OWNED PROTECTED OPEN SPACE

Fort Foster. Located on Kittery Point and jutting into the Gulf of Maine (Atlantic Ocean), Fort Foster covers 89 acres of upland and coastal wetland area.

Seapoint and Crescent Beaches. Located between Fort Foster and Brave Boat Harbor, these beaches extend across approximately 4.5 acres.

Kittery Town Forest. Managed by the Kittery Conservation Commission and Kittery Department of Public Works, this 72 acre parcel stands between Haley and Lewis Roads.

Rogers Park. Also managed by the Kittery Conservation Commission and Kittery Department of Public Works, this 27-acre parcel is located along Spruce Creek and behind the Kittery Community Center.

Wood Island. Wood Island is a 1.25-acre parcel, located in the Piscataqua River, that once served as a lifesaving station. Now in disrepair, the town is deliberating over its future. The site is part of an EPA Brownfield and MDEP/EDC grant to fund a remediation cleanup project in coordination with restoration efforts at the site. At present, public access is limited to persons with private boats.

Eagle Point. This 25-acre parcel, located along the backs of Spruce Creek, provides access to the water and a spot for viewing wildlife.

Kittery Cemeteries. Kittery contains over 130 cemeteries, burial grounds and burial sites, scattered throughout the town. They range size from hundreds of graves, to single burials.[12] Many are on private land and some are overseen by the Kittery Cemetery Committee. Maine's Cemetery Law prohibits the desecration of historic burial sites.[13]

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[12] At least two of Kittery's cemeteries, the Orchard Grove/Highland Cemeteries, are owned and operated by a private corporation.
[13] http://mainecemetery.org/law.

LANDS PROTECTED BY NON-PROFIT ORGANIZATIONS

Kittery Land Trust. Established in 1987 with a mission to conserve coastal, upland, agricultural and forested lands in the Town of Kittery, the trust has protected 840 acres of open space, with 450 acres conserved in the last five years. Recently, the trust secured a conservation easement, using Federal ranch and farmland protection funds, for the Rustlewood Farm. Located at the northern edge of town and crossing into Eliot, the farm covers 300 acres and continues as an active dairy and produce farm, and is the last remaining large dairy farm in Maine. The trust currently protects the following lands:

Public Access Lands
- Norton Preserve, 177 acres on Norton Road, includinga 98 acre parcel owned by the town, protected by a conservation easement held by KLT
- Remick Preserve, 80 acres of forested upland off Fernald Road
- Within Brave Boat Headwaters, a 150-acre public preserve in progress. Located off Brave Boat Harbor Road, the area contains three headwater streams for Brave Boat Harbor, four vernal pools, the historic location of the Mitchell-Grant Garrison. The area currently offers public access on 57 acres.
- One acre of upland between Seapoint and Crescent beaches that allows public access.

Limited Access Lands
- Clayton Lane, 8.5 acres of woodland abutting Rustlewood Farm, consisting of brushy, young forest

- Cook Preserve, a 5-acre wetland and a mature beech stand, off State Road
- Cutts, 22 acres off Tower Road, consisting of upland forest, wetlands and an old mill pond
- Fairchild, a 17-acre shorefront property adjacent to Chauncey Creek (public access on 3 of the 17 acres)
- Furbish, 30 acres of oak and hemlock forests in heart of the Brave Boat Harbor watershed
- Hubbard, 2.7 acres of ocean front oak-beech forest on Cutts Island
- Lynch South, 10 acres of wetland habitat in the Lynch Lane neighborhood
- Rustlewood Farm, a 300 acre dairy and produce farm in Kittery and Eliot protected by a conservation easement
- Thompson, a 18-acre woodland property on Mill Pond Road, adjacent to Spruce Creek.

Easement Lands (Access by Permission of Owner, Only)
- Batchelder-Paly, a 4-acre easement on Cutts Island
- Hall, located at the corner of Bowen Road and Old Ferry Lane, a one-acre grassy area
- Moulton, approximately 12 acres of field with a duck pond, on Haley Road

In the process of developing its strategic plan, the trust targeted seven focus areas for land conservation. Included in this were the Rustlewood Farm (described above), and the *Brave Boat Harbor Headwaters.* Through the Brave Boat project, the trust is collaborating with the regional *Mount Agamenticus to the Sea Conservation Project,* a ten-partner effort to conserve lands, waterways and working landscapes in the six-town area between

the Town of Wells and Gerrish Island in Kittery Point. The focus area involves 48,000 acres of land. 150 acres of open space in Kittery, when secured, will connect Mount Agamenticus to the Atlantic, through Brave Boat Harbor.

Maine Coast Heritage Trust. This non-profit land trust is involved in land protection along the entire coast of Maine. In 2008, the trust secured a conservation easement on 408 acres in Kittery Point. This private land of the Delano family, with nearly one mile of ocean frontage, represents 40 percent of Gerrish Island and affords valuable habitat for amphibians and migratory birds.

Star Island Association. This non-profit religious organization owns much of Appledore Island, in the Isles of Shoals. Appledore is also home to the Shoals Marine Laboratory, center for marine research.

OTHER EFFORTS TO PROTECT OPEN SPACE

Kittery Conservation Commission. This eight-member commission appointed by the Town Council is charged with protecting natural resources located in Kittery. As part of this charge, the commission is tasked with keeping an index of all open areas within the town, and recommending to the Town Council, measures for protection of these areas. In addition to reviewing development proposals and assessing impact on wetlands, the commission oversees maintenance of Rogers Park, located along Spruce Creek and the Town Forest Farm.

Kittery Open Space Advisory Committee (KOSAC). This 12-person committee of the town was established in 2007 to work in

cooperation with other boards and committees to develop and open space plan for Kittery. The plan was to include an inventory of publicly-owned lands and properties held under conservation easements; develop a list of critical wildlife habitats, recreational

Brave Boat Harbor, located at the northeast edge of Kittery, is part of the Rachel Carson National Wildlife Refuge. Protection of its watershed is an ongoing effort of the Kittery Land Trust.

opportunities, and landscapes important to Kittery's history; inventory undeveloped municipal properties; develop a maintenance and signage program for town-owned lands; and a plan for implementation. To date, the committee has:

- completed a windshield survey/inventory of properties
- assessed the inventory of town properties for their

recreation/open space potential

- worked with the planning board on the cluster sub-division ordinance
- discussed the permanent protection of Fort Foster and its management

Future efforts include:

- Updating the open space plan
- Updating maps
- Advocating for the use of town funds for stewardship of public open space
- Recommending the disposition of town lands suitable for conservation.

State Current Use Protection Program. This initiative, provided through Maine's Department of Revenue Services, offers property owners reductions in the assessed value through one of four programs: Farmland Tax Law, Open Space, Tree Growth, and Working Waterfront. In 1999/2002, 335 acres in Kittery was enrolled in the Tree Growth Program, and 8.5 acres was part of the Farmland Tax Law Program. In 2015, the amount of acreage in the Tree Growth Program had been reduced to 90, but the Farmland Tax Law Program had enrolled 201.35 acres.

Kittery Comprehensive Plan, 1999 (adopted in 2002). Open space was addressed as part of the Recreation chapter of this plan (see recommendations in the *Recreation Resources* section of this inventory chapter. Significant measures have been taken since 2002 to secure protection of open space in Kittery, including recent efforts at the Rustlewood Farm and Brave Boat Harbor.

2014 Quality Improvement Plan for Kittery's Shore and Harbors[14]. This draft plan was completed in response to a recommendation in the 1999/2002 Comprehensive Plan to identify and set priorities for improvements and to guide implementation. Specific recommendations and implementation strategies were made for Kittery Point, Kittery Foreside, the Traip Boat Launch, the Rice Avenue neighborhood (near Badger's Island), Eagle Point, Fort McClary, Fort Foster, Seapoint Beach, Crescent Beach, the Rachel Carson Refuge, Brave Boat Harbor, Isles of Shoals, Wood Island, Spinney Creek, and Spruce Creek. Policies shared throughout included:

- Enhanced public access
- Improved navigational safety
- Improved cleanliness of the beaches
- Enhanced productivity of the clam flats, particularly along Spruce Creek
- Funding for waterfront improvements
- Coordination between the town, Naval Shipyard, and Port Authority
- Mitigation of shoreline erosion
- Mitigation of water pollution
- Planning for long term sea level rise and climate change

Maine Shoreline Protection/Shoreline Overlay Zone. (Section 16.3.2.17 of the Kittery Town Code.) Kittery has incorporated this code into the development review process for the purposes of protecting natural resources (among other resources) along the town's coastline from the impact of development.

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[14] The plan was not adopted by Town Council.

CRITICAL UNPROTECTED PUBLICLY-OWNED LANDS

Scenic Roads. Many public roads in Kittery stand unprotected from incompatible development -- new buildings and structures that detract from their scenic beauty. Route 103, rambling along Kittery's coast through Kittery Point and to York passing Brave Boat Harbor, has been regarded by residents and visitors alike as a drive through New England's natural and cultural history. Both the 1999/2002 Comprehensive Plan and draft Update (2015) noted its significance as well as that of many others, outlining dozens of scenic views possible along the routes. Provisions in the plans for preserving the quality of these scenic roads included:

- Adopting a Scenic Road Overlay Zone.
- Requiring the use of existing curb cuts and/or sharing of curb cuts and minimize their size, screening them with vegetation where possible
- Requiring subdivision proposals to identify all scenic resources and outline plans to preserve them
- Requiring that new fences and walls have minimal impact on scenic views
- Obtaining State Scenic Highway designations
- Educating property owners about programs available to assist with viewshed protection
- Limiting the placement of conventional communication towers

IDENTIFICATION OF PRELIMINARY OPEN SPACE ISSUES, OPPORTUNITIES, AND CHALLENGES

The following is a preliminary list of issues, challenges and opportunities posed by the finding of the inventory of existing conditions of Kittery's open space resources:

- Kittery is being rapidly developed, but the population is remaining level. New development is adhering largely to one-acre zoning (40,000 SF per dwelling unit).

- The current cluster development ordinance, as written, may have unintended consequences, and the town has not studied the cost of uncontrolled residential development to the community.

- The Kittery Outlets, built to last approximately 30 years, are reaching the end of their useful life and will need replacing. The impact of this development on the Kittery environment has been substantial, including Spruce Creek, and needs to be evaluated and mitigated in plans for redevelopment.

- Kittery's many miles of scenic roads are threatened by lack of provisions for preserving picturesque character. Opportunity exists to amend the Town Code so that these roads and views are protected, through revised development standards and subdivision regulations.

RECREATION RESOURCES

Kittery's many passive and active recreation sites contribute further to residents' quality of life. The town is fortunate to have several public beaches and two publicly-owned historic forts that provide access to the coast. In addition to these, Kittery maintains athletic fields and courts, playgrounds, walking trails, and boat docking/launching sites that complement the beach areas.

FEDERALLY-OWNED AND STATE-OWNED RECREATION FACILITIES

Fort McClary (37 acres). Located on Pepperrell Road (Route 103) in Kittery Point, Fort McClary dates to the 18th century when a fortification was constructed to protect the mouth of the Piscataqua River from maritime intrusions. Today, Fort McClary is a regionally-known recreation site and national tourist destination. In addition to its many extant historic features, the park contains 0.6 miles of hiking trails, picnic areas, a skating pond, and a playground. The site is known for its "million dollar view."[15]

John Paul Jones Memorial Park (2 acres). This trapezoidal-shaped park was created between Hunter Avenue and Newmarch Street,

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[15] For more information about the historic features at Fort McClary and the State of Maine/Friends of Fort McClary efforts to preserve and restore these, refer to the *Historic and Cultural Resources* chapter of this inventory.

SUMMARY OF KEY POINTS

- Kittery contains 28 acres of federal and state-owned recreation facilities, including both active and passive recreation sites. Two of these sites are open to all.

- The town maintains several historic sites (Fort Foster, Wood Island) which provide recreational opportunities, as well as many athletic fields and playgrounds.

- The Kittery Community Center, opened in 2011 at the former Frank Frisbee Elementary School on Rogers Road, provides active recreation facilities (gymnasium, fitness center) and offers recreation-oriented programs to users of all ages.

- A master plan for Kittery's athletic fields, completed in 2014, outlined the need for greater access to facilities, and need to eliminate overlap of facilities, and the need to rest fields on an ongoing basis.

- Access to the water (Piscataqua River) is limited by the small number of launches, slips, and moorings, and parking spaces near these sites.

- Kittery contains an extensive network of trails, both at formal recreation facilities, and on conservation lands. While used extensively, the trails do not currently connect to one another, and are not widely publicized.

- Sportspersons are permitted to hunt throughout the year in approximately 2/3 of the town. Some of the hunting ground lies in residential areas.

adjacent to Memorial Bridge. Owned by the State of Maine, it contains a bronze bas relief Soldiers and Sailors Memorial created by sculptor Bashka Paeff to commemorate World War I veterans, as well as three other memorial markers.

Portsmouth Naval Shipyard Recreational Facilities. Located at the eastern end of the Shipyard, these extensive facilities include playing fields with lights, tennis courts, a running track, three parks, two children's playgrounds and a basketball court. The Shipyard also maintains indoor facilities including a gymnasium, fitness center, tennis courts, racquet ball courts, a 10-pin bowling center. Due to increased security operations at the Shipyard, access to these facilities is restricted to employees.

TOWN-OWNED RECREATION FACILITIES

Kittery Community Center. Located on Rogers Road in the former Frisbee Elementary School, The Kittery Community Center opened in 2010, providing programs and services to residents of all ages. Indoors, the center contains a gymnasium, indoor track, fitness room, as well as the STAR Theatre, a 171-seat performance space. Outside, the center maintains a playground and athletic fields. Programs include classes for users of all ages, trips to arts and cultural organizations, an "Eyes of the World Discovery Center," a forest-based pre-school program for 2 to 5 year olds, and a S.A.F.E. after school program for youth K through 7th grade. For more information about the Kittery Community Center, refer to the *Public Facilities and Services* chapter of this inventory.

Fort Foster (89 acres). Located off Pocahontas Road in Kittery Point, this rocky site was home to the 200-guest Pocahontas Hotel, constructed in 1885. The hotel closed in 1904 (but remained standing until 1920), and the federal government claimed the land and constructed the fort. Briefly occupied by the 124th Coast Artillery Corps in 1905, it was never fully occupied again and in the late 1940s it served as a recreation site for the nearby Portsmouth Naval Shipyard. In the 1950s, the federal government offered the land to the Town of Kittery, and the deed transfer took place in 1961. Today, Fort Foster is one of the most popular recreation sites in Kittery, featuring a 569 foot pier

Seapoint Beach, located on Kittery's far eastern end, is a popular town-owned recreation site for swimming, fishing, dog-walking, bird-watching, and other outdoor recreation activities.

(built in 1942), ballfield, playground, pavilions, picnic and barbecue areas, and designated swimming, scuba diving, windsurfing and kayaking areas, as well as public restrooms. Visitors must pay a small admission fee, and both residents and non-residents can obtain season passes. The fort is open seasonally (Memorial Day to Labor Day), from 10:00 a.m. until 8:00 or dusk.

Seapoint & Crescent Beaches (approximately 4.5 acres). Located at the far eastern end of Kittery, these beaches provide users access to the Atlantic for swimming, jogging, fishing, dog walking, and enjoying nature. Surfing takes place at Crescent Beach at low and middle tides.

Wood Island (1.25 acres). This small island located in the Piscataqua River was the site of a lifesaving station in the early 20th century. It retains a seawall and building, all of which are in a state of disrepair. The privately-formed Wood Island Lifesaving Station Association is in the process of raising funds to restore the facility, but at the present time, the site is inaccessible to the public.[16]

Rogers Park (23 acres). Located at the end of Dion Avenue, adjacent to the Kittery Community Center and bordering Spruce Creek, Rogers Park provides walking trails for hikers and dog walkers. It is maintained by the Kittery Conservation Commission.

Recreation Fields. The town maintains six recreation field areas, covering 19.15 acres, providing opportunities for residents of all

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[16] For more information about the history of this site, refer to the *Historic and Cultural Resources* chapter of this inventory.

Frisbee Common, located in front of the Kittery Community Center, contains facilities for baseball, soccer and softball, and is heavily used.

ages to engage in many different sports. The fields are located throughout the town and include:

- *Emery Field (5.75 acres/3.1 acres of fields).* This multi-use property located on Cole Street adjacent to the former Kittery Community Center includes a basketball court and a multi-use field. The town recently received a grant to refurbish the perimeter walking path at this field.

- *Kittery Community Center at Frisbee Common (1.5 acres of fields).* Located on Rogers Road, Frisbee Common contains facilities for baseball, soccer and softball, and is heavily used by schools for intermural programs.

- *Haley Field (3.2 acres of fields).* Located on Litchfield Road less than one mile from the Shapleigh School, Haley Field contains soccer fields and a small parking area.

- *Memorial, Tobey and Dewolf Field Complex (5.25 acres/4.7 acres of fields).* This active recreation site is located on the Old Post Road, and provides space for football, baseball and youth baseball (on a small separate field), and contains the Tobey Memorial Field House. It is used by the High School, Little League and Babe Ruth Baseball League.

- *Shapleigh Middle School Fields (5.9 acres of fields).* Located on Stephenson Road in the western part of Kittery, Shapleigh Field is used by the Shapleigh School, Kittery Recreation Department, Traip Academy, Little League, and Kittery residents for high school athletics (track and field, soccer, field hockey, women's softball), t-ball and Little League practices. The track and field facilities were recently reconstructed.

- *Mitchell Field (5.9 acres/.75 acre fields).* Located on School Lane adjacent to the former First Baptist Church and cemetery, the field is part of the Horace Mitchell Primary School.

Recreational Areas. In addition to the recreational fields, the Town of Kittery maintains three recreational areas containing playgrounds and other non-field amenities:

- *Frisbee School (Kittery Community Center) Recreational Area (.50 acre).* This recreational area is located adjacent to the Kittery Community Center. Amenities include a playground with swings, a jungle-gym, and merry-go-rounds.

- *Shapleigh School Recreational Area (.25 acre).* Located adjacent to the Shapleigh School on Manson Road, this area contains two outdoor basketball courts, used primarily by students of the Shapleigh School.

- *Mitchell School Recreational Area (1 acre).* Located adjacent to the Mitchell School in Kittery Point, this area contains swings, a climber, a slide and a basketball court, as well as a small multi-purpose field, used primarily by students at the Mitchell School.

Passive Recreation Sites (Parks). Kittery's passive recreation sites provide quiet spots for visitors to stroll, rest on benches, and relax on the lawns. They do not contain recreational equipment, and most were built in memory of a person or persons.

- *Howells Park (.25 acre).* This small green space lies adjacent to the home owned by William Dean Howells, on Pepperrell Road in Kittery Point. The park features a broad lawn surrounded by shade trees and moveable seating.

- *Rudolf Park (.25 acre).* Located off Rogers Road and Lutts Avenue, this small passive park is maintained by the Conservation Commission.

- *Williams Avenue Park (.25 acre).* Also maintained by the Conservation Commission, this passive recreation site is located off Williams Avenue.

Water Access Areas. [17]

- ***Town Wharf (Frisbee's Wharf), Pepperrell Cove.*** Located on 0.4 acres in Kittery Point, this town-owned facility consists of two piers and floats, a one-ton hoist, gas, diesel and water, as well as 32 parking spaces. The Kittery Port Authority maintains the facility.

- ***Town Wharf, Government Street.*** Also maintained by the Kittery Port Authority, this 0.1 acre site located in Kittery Foreside contains a pier and hoist.

- ***Traip Academy Boat Launch, Williams Avenue.*** This boat launch located adjacent to Traip Academy in Kittery Foreside provides four parking spaces, maintained by the Kittery Port Authority.

- ***Old Ferry Landing.*** This small town-owned property is located at the end of Old Ferry Lane on Bowen Road, and contains a small park, two parking spaces and ADA-compliant steps leading to the water.

Trails. Many miles of walking trails thread throughout the town on publicly-owned lands (both Federal and State):

- Town Farm
- Rogers Park

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[17] For more information about marine resources in Kittery, including moorings, refer to the *Marine Resources* chapter of this inventory.

- Fort Foster
- Braveboat Headwaters/Mount Agimenticus
- Gerrish Island
- Abandoned trolley tracks
- Fort McClary (federally-owned)
- Rachel Carson National Wildlife Refuge (federally-owned)

Hunting. Hunting is permitted throughout all months of the year in approximately 2/3 of the town. Sportsmen and women cannot hunt in area to the south of Interstate 95 and west of Haley Road (area "B" on the graphic below), and the town ordinance
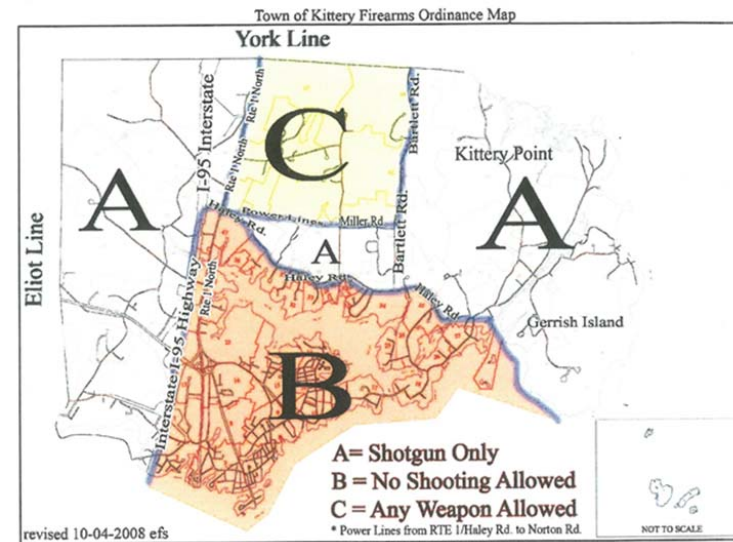
The Town of Kittery Firearms Ordinance Map shows the area where hunting is not permitted.

governing firearms states the persons found in the "no shooting" area carrying a loaded firearm (loaded with either blank or live ammunition) will be punished by fine.[18]

PRIVATE RECREATION FACILITIES

Badger's Island Marina/Badger's Island Marina East. Located on the Piscataqua between Kittery and Portsmouth, this private marina offers deep water power and sailboat slips (25 to 125 feet), electrical hook-ups, cable, water, pump out, bathroom and shower facilities, as well as parking. The marina also services and stores boats. Other private recreation facilities include the ***Kittery Point Yacht Yard*** and ***Take Flight Adventures***, a ropes course located on Route 1.

EFFORTS TO PLAN FOR RECREATION NEEDS

Kittery Comprehensive Plan, 1999 (adopted in 2002). The 1999/2002 Comprehensive Plan noted that town facilities for active recreation use were below benchmark standards for tennis, baseball and soccer fields. The greatest need seen by the community was for more soccer fields. The plan also pointed out the need to provide better information about Kittery's trail system, and to improve the community center (an effort completed in 2011).

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[18] Section 9.04.020 of the Kittery Town Ordinance, Kittery Firearms-Unlawful Discharge.

Town of Kittery Fort Foster Park 5-year Management Plan 2004-2008. In 2004, the Kittery Parks Commission completed this plan to steer management of the fort over a five-year period. The commission updated the plan multiple times between 2004 and 2008. Goals of the plan included upgrading public amenities, but also monitoring uses and evaluating user fees, and engaging in historic preservation of the fortifications. Capital improvements, identified through the planning process, included:

- Building an ADA-compliant restroom and a changing room
- Replacing pier decking and railing
- Replacing the leach field of accessed by the Town Pavilion bathroom
- Upgrading playground equipment
- Installing dog-waste collection bag dispensers
- Installing interpretive signs
- Installing a water level control structure for the marsh
- Raising the Tower Pavilion Road; replacing the culvert
- Relocating memorial benches
- Controlling erosion along the shoreline.

Town of Kittery Seapoint and Crescent Beaches 5-Year Management Plan 2007-2011. In 2007, the Kittery Parks Commission produced this plan to anticipate improvements and guide future management of the beaches. Recommendations included:

- Maintaining roads and culverts leading to the beaches in a manner that does not disrupt the area's natural resources.
- Upgrading the parking area with a landscape plan

- Instituting continuous police monitoring to discourage in-season use by non-permit holders and prohibiting parking of buses and large vans
- Streamlining the number of signs at the parking areas and on roads near the beach to reduce visual clutter

Town of Kittery Master for Athletic Fields Plan (2015). In 2015, the town completed a comprehensive plan that analyzed existing field conditions and made recommendations for improving the athletic fields system. Recommendations were shaped, in part, through a series of informational meetings with user groups and key stakeholders. Needs identified through the planning process were:

- More playing venues to accommodate the type of uses
- Fewer overlapping/multi-use fields
- Opportunities to rest fields (periodically take them off-line)
- Greater access to facilities
- Improved ancillary facilities (irrigation, lighting, etc.)
- Lighting to expand hours of use
- Greater funding for field maintenance and improvements
- Increased staff to maintain fields
- New capital funding for improvements

The plan's recommendations included:

- Adopting a "Field Use Policy" that places controls over the use of the fields
- Looking for opportunities to create new playing venues

- Setting aside funds to renovate existing facilities as new venues come on-line
- Aggressively pursuing traditional state and federal funding sources, in order to reduce the financial burden on residents to fully support field upkeep and improvement

Maine State Comprehensive Outdoor Recreation Plan (SCORP) (2014-2019). Every five years, the Maine Bureau of Parks and Lands updates its comprehensive outdoor recreation plan. For many years, this plan listed adequacy benchmarks standards for recreation facilities. The last two iterations of this plan did not include these standards. The 1999/2002 Comprehensive Plan noted that while Kittery exceeded the state-recommended standard for total municipally-own recreation acres, it was lacking in the area of numbers of baseball fields, soccer fields, tennis courts and boat ramps. The 2014 *Kittery Athletic Facilities Master Plan* proposed measures to improve the number of fields.

Another means of measuring the adequacy of recreation facilities in Kittery are the national averages published by the National Recreation and Parks Association (NRPA). The 2016 Field Report listed and average of one park for every 2,277 residents and 9.5 acres of parkland for every thousand residents. Kittery's recreation offerings for its 4,562 residents (2010 census) Exceeds both of these national averages.

IDENTIFICATION OF PRELIMINARY RECREATION ISSUES, OPPORTUNITIES, AND CHALLENGES

The following is a preliminary list of issues, challenges and opportunities posed by the finding of the inventory of existing conditions of Kittery's recreation resources:

- Limited staffing at Fort Foster make maintenance a challenge. Maintenance tasks range from housekeeping (including bathroom cleaning), lawn mowing and controlling youths who congregate after hours.

- Dog walkers do not always pick up waste, even though disposal bags are supplied throughout many of the parks and recreation sites. At Rogers Park, horseback riders leave horse waste.

- Geese congregate on the athletic fields and leave waste, creating a potential public health problem. Continual treatment with organic deterrents will be needed into the future.

- The one soccer field in Kittery is in very high demand.

- Overall, the fields in Kittery are over utilized, and the town does not maintain practice fields. Maintenance (including mowing, aerating, and fertilizing) is complicated by the over use.

- Due to increased security at the Shipyard since 9/11, the general public is not permitted to utilize the athletic facilities on the base. This reduces the number of overall recreation offerings in the town.

- The existing network of trails in Kittery is not well-publicized, and many of the trails do not connect. Opportunity exists to create a well-documented trail system that runs continuously throughout the town. Conversion of the old trolley bed to a recreational trail could be included in this effort.

- The existing firearms ordinance permits hunting in some residential neighborhoods.

REFERENCES

LIST OF RESOURCES

REPORTS, PLANS AND ARTICLES

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"Spruce Creek Watershed-Based Management Plan, Kittery and Eliot, Maine", FB Environmental, 2008/Updated 2014.

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"Town of Kittery Fort Foster Park 5-Year Management Plan 2004-2008," Town of Kittery Parks Commission., 2004.

"Town of Kittery Master Plan for Athletic Fields," Weston & Sampson, 2015.

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http://www.maine.gov/ifw/index.html

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www.mta2c.org

INTERVIEWS

Christine Bennett, Kittery Land Trust

Karen Young, Mount Agamenticus to the Sea Conservation Initiative

Kittery Open Space Advisory Committee

Norman Albert, Department of Public Works

Janice Grady, Kittery Community Center

Rex Turner, Main Bureau of Parks and Lands

Gary Best, Main State Parks and Historic Sites

Glenn Dochtermann, Maine State Parks and Historic Sites

POPULATION AND DEMOGRAPHICS

3

POPULATION AND DEMOGRAPHICS

This chapter includes a snapshot of Kittery's current population and demographic profile, as well as comparisons with York County and the State of Maine. Population and demographic data summarized in this chapter include population change, population by age, race and ethnicity, education attainment, geographic mobility, and information about households.

Summary of Key Points

- Total population for Kittery has been declining since 1970, and that trend is projected to continue through the year 2032.
- Kittery is an aging community. Between 2000 and 2014, residents age 55 to 64 increased by 65 percent.
- The racial and ethnic composition of Kittery closely resembles that of York County, with a majority of residents identifying as White, non-Hispanic.
- The educational attainment of Kittery residents is slightly higher than that of York County.
- The number of family households in Kittery with children under the age of eighteen has declined since 2000.
- Between 2000 and 2014, average household size shrank from 2.29 persons per household to 2.16 persons per household.

Whaleback Lighthouse. Source: http://www.flickriver.com/photos/nelights/3925199200/

Kittery Coast. Source: www.theatlantic.com

POPULATION CHANGE

Kittery was settled in the early 1600s, and since then its population has had several waves of in- and out-migration. Most notably, between 1900 and 1970 the Town's population increased four-fold from 2,872 to 11,028. The population of Kittery peaked at 11,028 in 1970 and has decreased 14 percent to 9,490 as of the 2010 Census[i]. This differs quite a bit from the population change for York County and Maine as a whole, which grew by 77 percent and 34 percent, respectively.

According to the State of Maine Data Center, Kittery's population is projected to continue to decrease by about 6 percent between 2014 and the 2032[ii]. These projections are consistent with what is anticipated to occur at the county and state level as well. York County's population is expected to decline by 0.4 percent, while the State's population is expected to decline by 2 percent over the same time period. Table 3.1 shows population change over time and compares Kittery to the county and state.

POPULATION BY AGE

Kittery's population is growing older. Between 2000 and 2014, Kittery residents in the 55 to 64 age cohort increased by 65 percent[iii]. During that same time period, residents over the age of 75 increased by 45 percent. The Baby Boomer phenomenon seen in Kittery is similar to what is occurring in many New England communities. As younger residents exit the higher education system, it is becoming increasingly difficult to find affordable housing options as well as jobs in parts of Maine.

Table 3.1: Total Population

US Decennial Census 1970-2010, 2010-2014 ACS, State of Maine Projections	Kittery	York County	Maine
TOTAL POPULATION			
1970	11,028	111,576	992,048
1980	9,314	139,666	1,124,660
1990	9,372	164,587	1,227,928
2000	9,543	186,742	1,274,923
2010	9,490	197,131	1,328,361
Percent Change (1970-2010)	-14%	77%	34%
2014 Estimate	9,649	200,710	1,330,089
2022 Projected	9,393	201,229	1,324,705
2032 Projected	9,069	199,933	1,300,166
Projected Percent Change (2014-2032)	-6%	-0.4%	-2%

Figure 3.1: Kittery's Population by Age
Source: ACS 2010-2014 Estimate
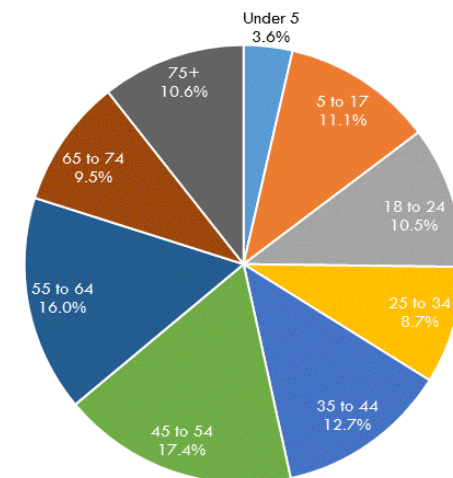
Younger workers are leaving the area to pursue jobs in other locations around the country. To that point, Kittery has seen the number of residents age 25 to 34 and 35 to 44 decline by 37 percent and 25 percent, respectively. The number of young children has also declined with the population of residents under the age of 5 declining by 40 percent. I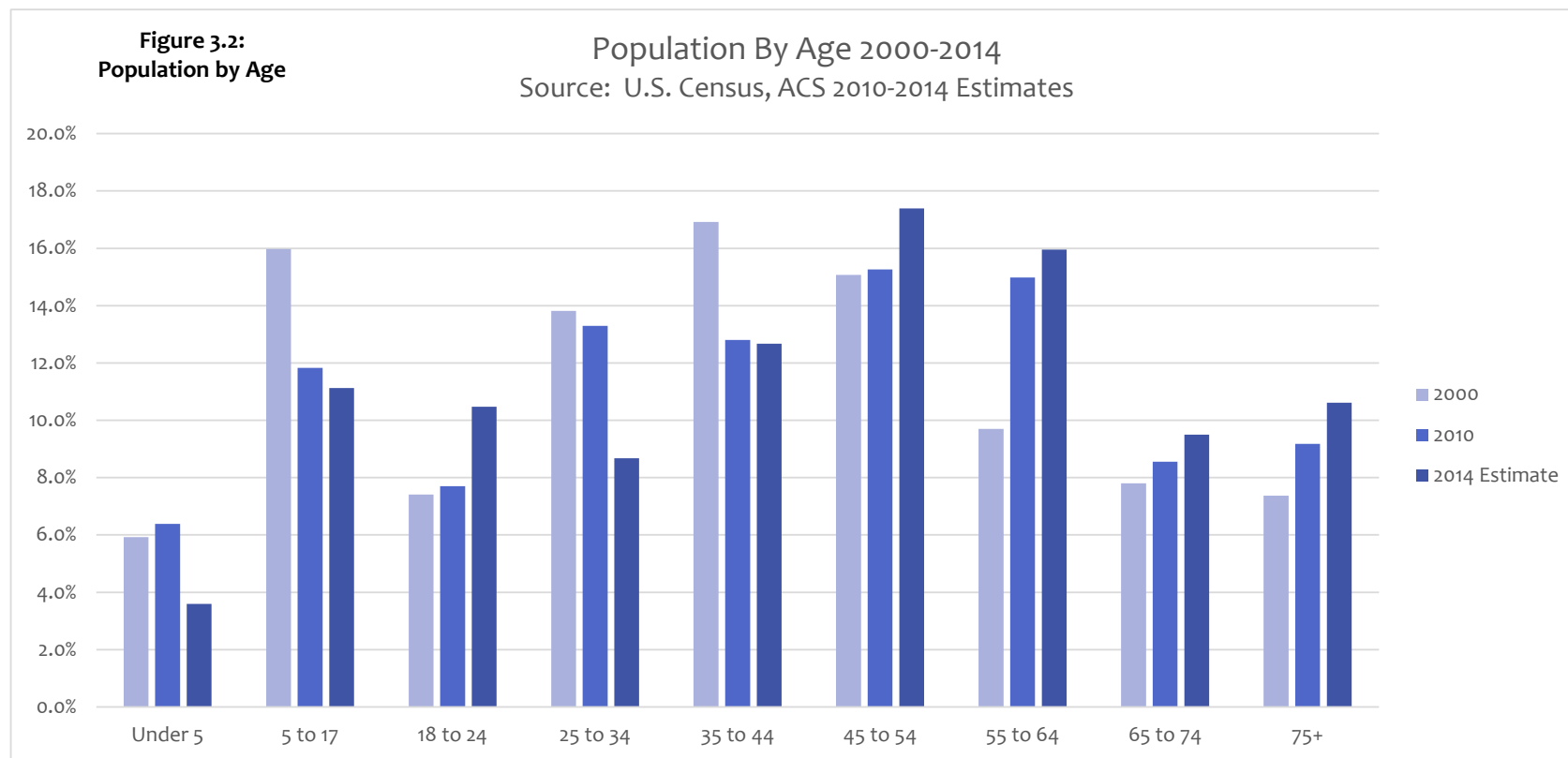nterestingly, this has not had a major impact on school enrollment. Fluctuations in enrollment are driven primarily by military families living in Kittery who work at the Shipyard.

One interesting notation in the data is the 42 percent increase from 2000 to 2014 in the age cohort of residents 18 to 24. This could be the results of a large cohort of young families with children who were living in Kittery in 2000 and have aged in place since, resulting in a large bump in the 18 to 24 year olds fourteen years later. It could also be the result of places like Portsmouth becoming too expensive and forcing younger workers and college age students to seek a slightly more affordable housing option.

Table 3.2: School Enrollment by Year

Year	Enrollment	% Change
2000-01	1244	
2001-02	1240	-0.32
2002-03	1193	-3.79
2003-04	1167	-2.18
2004-05	1120	-4.03
2005-06	1082	-3.39
2006-07	1077	-0.046
2007-08	1048	-2.69
2008-09	1001	-4.48
2009-10	971	-3
2010-2011	1014	4.43
2011-12	1013	-0.1
2012-13	1082	6.81
2013-14	1082	0
2014-15	1084	0.18
2015-16	1063	-1.94

Source: Kittery School District

Figure 3.2:
Population by Age

Population By Age 2000-2014
Source: U.S. Census, ACS 2010-2014 Estimates

RACE AND ETHNICITY

Kittery has limited racial and ethnic diversity, which is consistent with the population composition of York County as a whole. According to the U.S. Census Bureau, Kittery's population in 2014 was 96.6 percent White. The Asian population in Kittery was the second largest group comprising 2.2 percent of the total population. Black or African American and American Indian and Alaska Native made up the other 1.2 percent of the population. Table 3.2 shows the change in racial and ethnic composition of Kittery and York County between 2000 and 2014[iv].

EDUCATIONAL ATTAINMENT

Since 2000, the educational attainment of Kittery residents increased for those with an Associate degree or higher. Over the fourteen-year period between Census responses, the number of residents over the age of 25 with a Bachelor's degree increased by about 21.5 percent. The percent of residents with an Associate degree also increased by 38.7 percent[v]. The percentage of residents with a high school degree or less declined over the fourteen-year period. Kittery performed better than York County as a whole for educational attainment, earning more Bachelor's degrees and have fewer residents earn less than a high school diploma.

Table 3.3: Race and Ethnicity

		Kittery			York County	
US Decennial Census 2000-2010, 2010-2014 ACS	2000	2010	2014 Est.	2000	2010	2014 Est.
RACE						
White alone	96.0%	95.8%	96.6%	97.6%	96.5%	96.2%
Black or African American alone	1.8%	0.9%	0.9%	0.4%	0.6%	0.7%
American Indian and Alaska Native alone	0.2%	0.1%	0.3%	0.2%	0.3%	0.3%
Asian alone	0.6%	1.1%	2.2%	0.7%	1.1%	1.1%
Native Hawaiian and Other Pacific Islander alone	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Some other race alone	0.5%	0.5%	0.0%	0.2%	0.2%	0.2%
Two or more races:	0.9%	1.5%	0.0%	0.8%	1.4%	1.5%
TOTAL	100%	100%	100%	100%	100%	100%

GEOGRAPHIC MOBILITY

The current population in Kittery is very stable, with over 86 percent of residents living in the same home they did a year ago[vi]. This is fairly typical for a smaller size town without a college or university. High rates of transiency are more frequent in larger cities and municipalities with colleges and universities. About 10 percent of residents in Kittery moved from another state within the last year, and those residents had a median age of 31. This is unexpected given that the age cohort 25 to 34 has been consistently shrinking in Kittery over the last 14 years. Another interesting data point is the median age of those who moved to Kittery from abroad in the past year. Between 2010-2014, an estimated thirty-eight people moved to Kittery from abroad. The median age of those coming from another country to live in Kittery was 72. This shows the popularity of the Maine coast as a location for retirees, and speaks to the future demand for housing and services to meet the needs of an aging resident population.

Kittery also appears to have an increasing market of seasonal housing supporting short-term residents and tourists. Between 2000 and 2014, the number of seasonal homes grew by 188 percent (150 to an estimated 432)[vii]. Not only are people coming to Kittery from other places to live, the Town also supports a growing tourism draw and possibly a market for vacation homes as well.

HOUSEHOLDS AND FAMILIES

A household is defined as one or more people living in the same housing unit. The U.S. Census divides households into two groups: families and non-family households. A family household is where two or more people living together are related by blood, marriage, or adoption. A non-family household includes all other types of households, including single people living alone. It is

worth noting that the Census Bureau report all same-sex couples as non-family households regardless of their marital status under state law.

According to Census data, the number of family households in Kittery has slowly declined between 2000 and 2014. The Town has seen about a 4 percent decline over the fourteen-year period[viii]. In 2000, nearly two-thirds of all households were family households. That number has now declined to 58 percent as of the 2014 estimates. This pattern matches what is occurring at the county-level as well, with about a 3 percent decline in family households over the same time period.

Within the family household category, married couple households are still dominant making up 75 percent of family households in Kittery. That number is slightly higher, 78 percent, for York County. Kittery has a higher percentage of female (no male present) households compared to male (no female present) households. In 2014, the Census estimated only 16 percent of households in Kittery had a child under the age of eighteen. This is

down from 28.6 percent in 2000. At the county level, households with children are down about 8 percent over that same time period.

The average size of households in Kittery has also declined between 2000 and 2014, shrinking from 2.29 persons per household to an estimated 2.16 persons per household[ix]. This is common across many parts of New England as people are having fewer children, younger people are waiting longer to marry, and older residents are living longer as a single- or two-person household. This is also consistent with the growing age cohorts of residents ages fifty-five and older.

The large older single household population that faces many communities now and in the coming decade will be a significant challenge for housing, healthcare, and social services.

Figure 3.3:
Average Household Size

Average HH Size by Household Type
Source: U.S. Census, ACS 2010-2014 Estimates
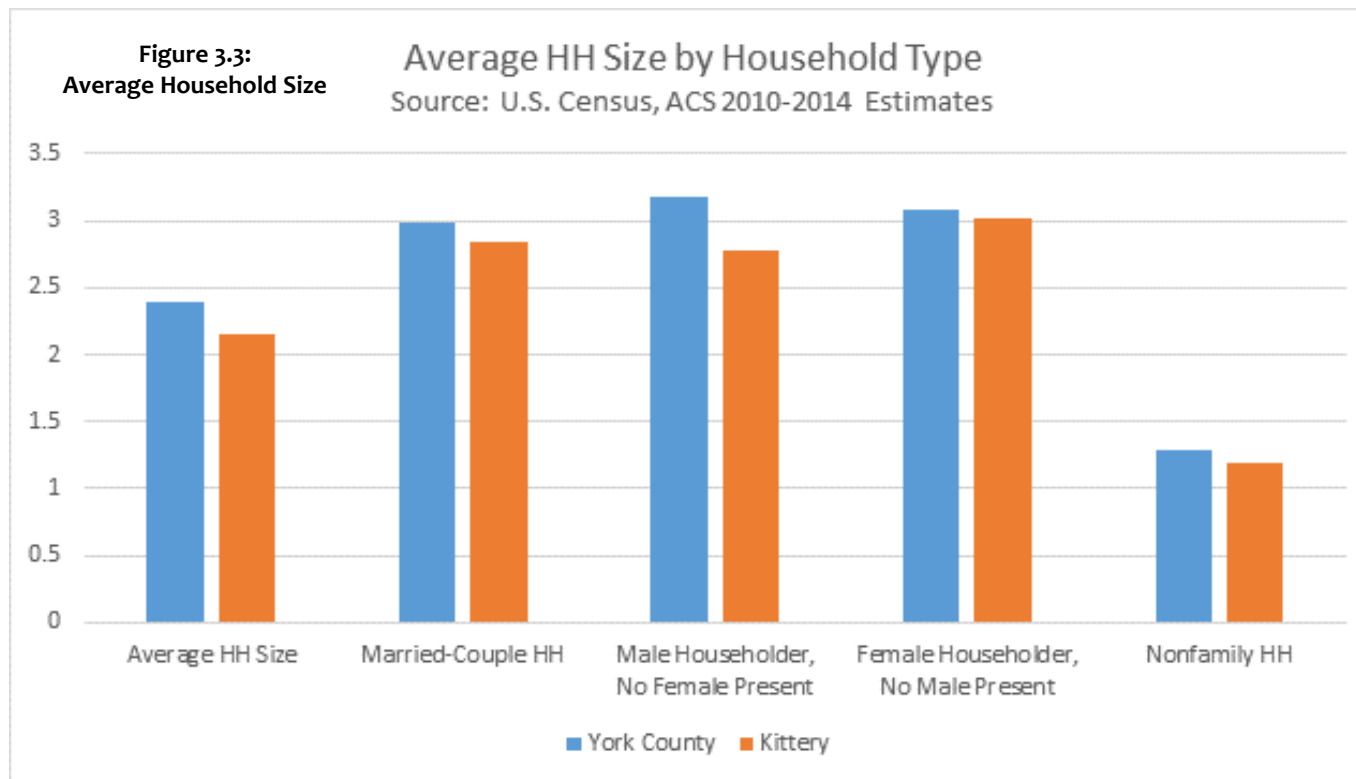
HOUSEHOLD INCOME AND POVERTY

Since 2000, the median household income in Kittery has grown from $45,067 to $60,205 in 2014[x]. This represents a 34 percent increase in the median. By comparison, the median household income of York County increased by 31 percent over the same time period. In Kittery, the largest number of households fall within the income range of $50,000 to $74,999, at 22 percent. That is followed closely by households earning between $35,000 and $49,999 (19 percent).

Kittery's poverty rates are much lower than York County, which actually increased between 2010 and 2014 according to Census estimates. The percentage of individuals in poverty in Kittery dropped from 8.5 percent in 2010 to 5.7 percent in 2014. In York County, the poverty rate increased by 2 percent (8.5 to 10.6) over the same time period. Kittery has one of the lowest poverty rates of any municipality in the county.

IDENTIFICATION OF PRELIMINARY ISSUES, CHALLENGES AND OPPORTUNITIES

The following is a preliminary list of issues, challenges and opportunities posed by the findings of the inventory of existing conditions of Kittery's population and demographics. Please note that these are subject to change with the preparation of goals and objectives, not yet drafted (at the time the inventory was prepared).

ISSUES AND CHALLENGES

The population in Kittery is getting older and household size is shrinking. This has an impact on the types of housing needed in the community, and the types of services that are sought by older residents. The aging population in Kittery could create some issues for the Town, which may include:

- The need for smaller and more accessible housing units.
- The need for transportation options that do not rely on a personal vehicle.
- The need for expanded senior services.
- The ability to attract younger workers to Kittery to backfill jobs vacated by retirees.
- The continued aging of the population could impact school enrollment, which in turn will shape the curriculum opportunities Kittery can offer its children.

While Kittery's median household income has increased since 2000, the aging demographic could mean more residents on a fixed income as older workers retire. This may have an impact on local spending and local business if younger residents and families

are not attracted to Kittery. This could also have an impact on housing due to the rising housing costs for both renters and owners in Kittery. If younger workers are looking for more affordable housing options in Kittery in support living and working in the same community, the Town must consider a diversity of housing options across Kittery. The same can be said for senior households on a fixed income. This group will also need more affordable housing options, particularly ones that integrate universal accessibility.

The percentage of families in Kittery with children under the age of 18 has declined since 2000. School enrollment has also declined based on records back as far as 1985. As the number of school age children continues to decline, the Town may need to evaluate school programming, staffing, and space.

As the population of Kittery continues to age, there will be a growing need for more services oriented toward seniors. This includes programming, social services, and transportation. Currently, the Town does not have a Council on Aging program which typically acts as the programming and social service center for seniors in a community. In the future, there may be a need for dedicated Town staff to work directly with the aging population.

OPPORTUNITIES

While Kittery's overall population is both shrinking and changing demographically, household median income is on the rise. This bodes well for housing stability and additional expendable income for supporting local businesses. The mobility of Kittery's population is relatively stable, with more than 86 percent of households residing in the same place they lived a year ago. This helps with neighborhood development, homeowner investment, and social cohesion across the community. Finally, household size is shrinking in Kittery which can certainly be a challenge in some regards but an opportunity for others. The Town should consider ways in which it can promote services and housing options that are attractive to both younger and older single householders.

REFERENCES

[i] NH GIS, Table 0005

[ii] Maine Data Center Projections
http://www.maine.gov/economist/projections/index.shtml

[iii] U.S. Bureau of the Census, American Community Survey, 2010-2014, Table B01001.

[iv] U.S. Bureau of the Census, 2000 Census, Summary File 1, Table QTP3. U.S. Bureau of the Census, 2010, Summary File 1, Table QTP3. U.S. Bureau of the Census, American Community Survey, 2010-2014, Table B03002.

[v] U.S. Bureau of the Census, 2000 Census, Summary File 3, Table QTP20. U.S. Bureau of the Census, American Community Survey, 2010-2014, Table S1501.

[vi] U.S. Bureau of the Census, American Community Survey, 2010-2014, Table B07001 and B07002.

[vii] U.S. Bureau of the Census, 2000 Census, 2010 Census, and American Community Survey 2010-2014, Table B25004.

[viii] U.S. Bureau of the Census, 2000 Census, Summary File 3, Table QTP10. U.S. Bureau of the Census, American Community Survey, 2010-2014, Table S1101.

[ix] U.S. Bureau of the Census, 2000 Census, Summary File 3, Table QTP10. U.S. Bureau of the Census, American Community Survey, 2010-2014, Table S1101.

[x] U.S. Bureau of the Census, 2000 Census, Summary File 3, Table HCT011. U.S. Bureau of the Census, American Community Survey, 2010-2014, Table B19013.

ECONOMY

4

ECONOMY

The economic chapter provides an overview of economic and labor conditions in Kittery. This chapter will help give definition to what makes Kittery an attractive location for economic investment, characterize the labor force and job market, and discuss the areas designated as economic development centers within town.

Summary of Key Points

- Kittery has a unique mix of business types and economic development areas that support a relatively large labor force for the size of the town.
- Manufacturing and retail industries are primary employers in Kittery, but the majority of Kittery residents are employed by businesses in the healthcare, professional services, and retail sectors.
- The healthcare sector is increasing both the number of employers and employees in Kittery.
- The Naval Shipyard brings in over 5,000 workers per day to Kittery.
- The unemployment rate in Kittery, York County, and Maine has been decreasing over the last five years to a low of 3 percent at the state and county level.
- The Town has five primary economic development areas where commercial and industrial development is encouraged and supported.
- The Town has designated three Tax Increment Financing Districts, primarily along the Route 1 Corridor.

OVERVIEW

A city or town's economy is often guided by its location within a region, the types of industries and commercial entities it is able to attract, the education and skill sets of its working-age population, and by the land use decisions guided by the community. The role of the economic region is tremendous. The region is defined by its employers, employees, trade area, and transportation characteristics. The boundaries of the economic region are typically defined by the population, land use patterns, utilities, and transportation systems that help to move goods and people. For statistical purposes, Kittery is part of the Portsmouth, NH New England City and Town (NECTA) Division. This area is centered on Portsmouth, NH with close employment ties to the city and the development along Route 1 and Interstate 95.

Kittery is an interesting mix of a bedroom community on one hand and an economic center for southern Maine on the other. Economic development is associated with the benefits of job creation, expanding a community's tax base, improving public services and daily shopping needs for residents, strengthening the jobs base, and enhancing the value of commercial property. In Kittery, the development of commercial land will mean added tax base without the same public service demands that come with residential development and additional job opportunities for local residents. Kittery has several locations in town where commercial land is awaiting development. Utilities have been extended, zoning is in place, and the transportation network is easily accessible, all that is needed is the right fit for the space. The Town has already set up several tax increment financing districts to help with the betterments needed to improve the

areas in order to ready them for private investment. The Town's location along Route 1 and Interstate 95, its proximity to the Portsmouth market, and the navy Shipyard are all attractive elements for economic development activity.

EXISTING CONDITIONS

This section discusses the characteristics of Kittery's labor force and that of the region. This section will cover labor force characteristics, occupations, industries, and employment statistics.

LABOR FORCE

Kittery's labor force includes all residents over the age of 16, employed or actively seeking employment. Kittery's labor force is comprised of 5,624 people, which equals a 68 percent labor force participation rate[i]. This is higher than the State and County's labor force participation rate of 64 and 67 percent, respectively. Not surprisingly, Kittery has a high percentage of the labor force employed through the armed forces, at 3 percent of the total. As a point of comparison, the state and county totals are both 0.2 percent. The presence of the Naval Shipyard plays a significant role in not only Kittery's employment, but the employment of the region. Table 4.1 summarizes Kittery's labor force for the year 2014.

OCCUPATIONS

The Kittery labor force is well distributed across a number of industry sectors and occupations. The largest occupation sector is educational services, healthcare and social assistance. This is not surprising given the educational facilities and healthcare centers within and around Kittery. Another large occupational sector is the professional, scientific, management, and administrative services sector, which is likely driven by the presence of the Naval Shipyard and surrounding industries. Finally, 14 percent of the labor force falls within the retail trade occupational sector. The Route 1 outlets and other satellite retail shops drive a large number of hourly wage jobs in Kittery. These retail centers provide regional shopping opportunities for many communities across Maine looking for one-stop shopping. Table 4.2 provides information on the occupations Kittery residents are employed in.

Table 4.1: Labor Force

American Community Survey 2010-2014

LABOR FORCE COMPOSITION	Estimate	Percent of Total Population
TOTAL POPULATION	9,649	100.0%
Population over 16	8,245	85.4%
In Labor Force	5,624	58.3%
Civilian Labor Force	5,374	55.7%
Employed	5,064	52.5%
Unemployed	310	3.2%
Armed Forces	250	2.6%
Not in Labor Force	2,621	27.2%

Table 4.2: Employed Civilian Labor Force by Occupation

American Community Survey 2010-2014

LABOR FORCE OCCUPATIONS	Estimate	Percent of Total
Agriculture, forestry, fishing and hunting, and mining:	22	0.4%
Construction	341	6.7%
Manufacturing	482	9.5%
Wholesale trade	199	3.9%
Retail trade	709	14.0%
Transportation and warehousing, and utilities:	185	3.7%
Information	66	1.3%
Finance and insurance, and real estate and rental and leasing:	185	3.7%
Professional, scientific, and management, and administrative and waste management services:	860	17.0%
Education Services	377	7.4%
Health care and social services	735	14.5%
Arts, entertainment, and recreation, and accommodation and food services:	469	9.3%
Other services, except public administration	111	2.2%
Public administration	323	6.4%
TOTAL	**5,064**	**100.0%**

UNEMPLOYMENT RATE

Unemployment is down significantly across the State of Maine from a high of 8.3 percent in July 2009. The latest figures from the Center for Workforce Research and Information has the State's unemployment rate at 4 percent as of December 2015. York County had an unemployment rate of just 3.5 percent in December 2015. The most recent unemployment figures for Kittery (2014 estimates) from the Census showed an unemployment rate of 5.8 percent. Given the declining numbers at the state and county level, it is likely that Kittery's unemployment has also declined below 5 percent.

EMPLOYMENT BASE

The employment base across industry sectors in Kittery is centered on six primary sectors: manufacturing, professional services, public administration, retail trade, food services, educational services, and health care. The manufacturing sector, not surprisingly, comprises 52 percent of Kittery's employment base in town. The Naval Shipyard makes up the largest component with just over five thousand employees as of the third quarter of 2015[ii]. The retail trade sector is the next largest, at 16 percent of the total, which is comprised of much of the Route 1 retail outlets and shops. Employment in the businesses that make up Kittery's retail trade sector has fluctuated quite a bit since mid-2012. Total employment within the sector was 1,752 in 2012 and has slowly declined to 1,657 by mid-2015. Some of the fluctuation may be the result of outlets shops and stores going in and out of business from quarter to quarter over the three-year period.

Two sectors in Kittery that have seen significant growth over the last five years are the manufacturing and health care industries. The resurgence of the Shipyard has helped bring in high-skilled manufacturing jobs to Kittery, growing by 34 percent from 2001-2015. The health care sector has grown by 136 percent over the same period of

time, adding 254 jobs in Kittery. The presence of five hospitals within a twenty-mile radius puts Kittery in a unique position to take advantage of its location for supportive industries and employers. Additional information on employment growth by industry sector can be seen in Figure 4.2.

Figure 4.1: Percentage of Employees by Industry Sector
Third Quarter, 2015
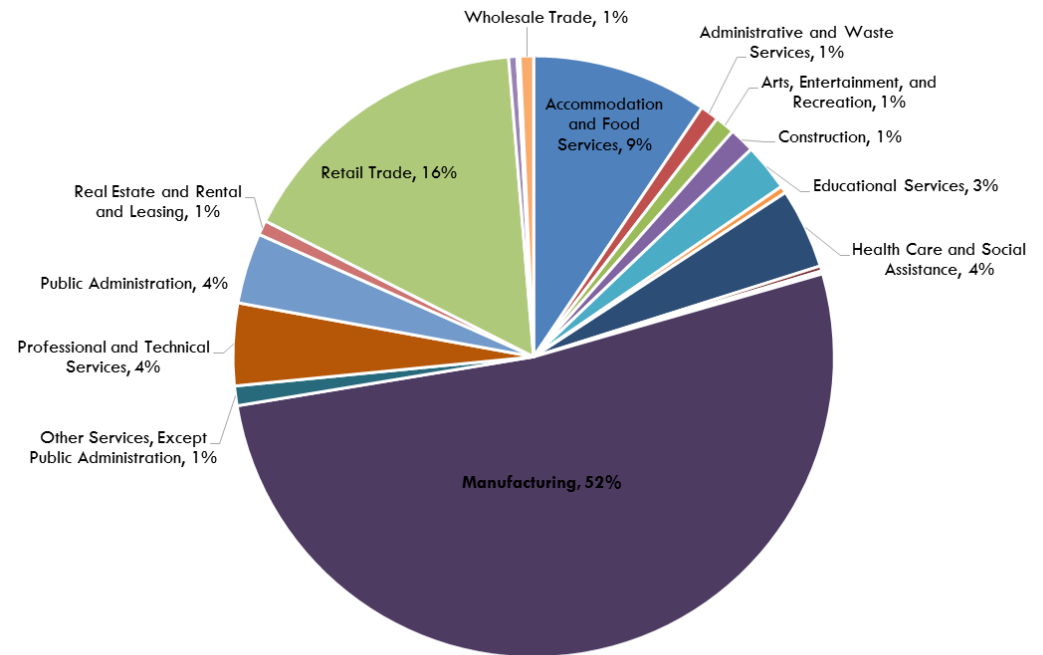
Figure 4.2: Number of Employees by Industry Sector Working in Kittery
Years 2001-2015, Third Quarter of Each Year
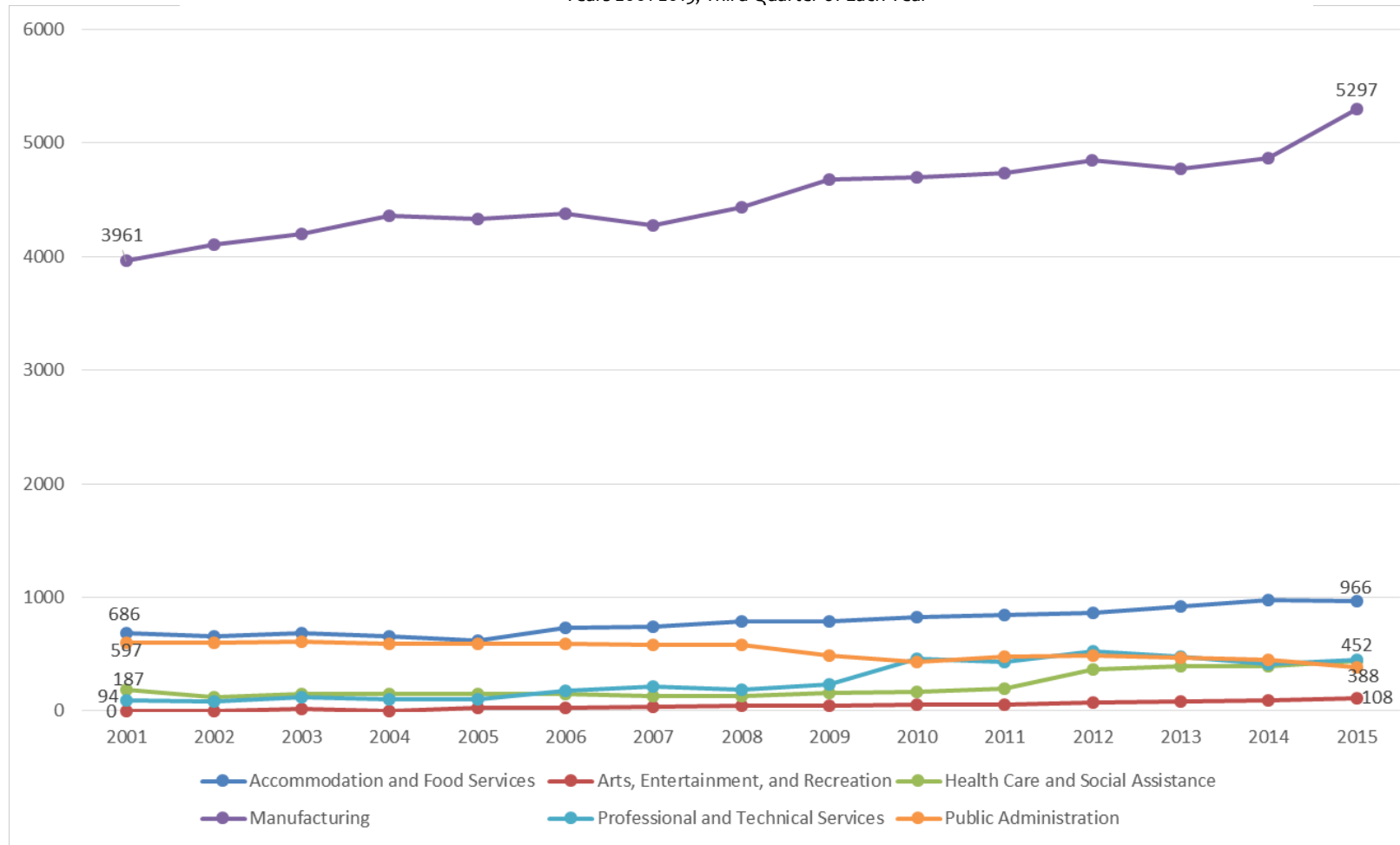
AVERAGE WAGES

The average weekly wage for an employee working in Kittery was $920 as of the third quarter in 2015[iii]. The 5,500 jobs under federal jurisdiction in Kittery have a significant impact on that weekly average as their employees are paid at a higher rate than those in private sector jobs within the same industry sector. For example, jobs in the federal healthcare industry sector located in Kittery were paid an average of $1,558 per week while private sector healthcare workers were paid an average of $784 a week. The same can be seen with federal manufacturing jobs in Kittery which paid an average of $1,609 per week, with private sector manufacturing jobs earning an average of $860 per week.

Having the Shipyard as an employment center in Kittery provides higher paying civilian manufacturing jobs to the entire region. Although not all jobs are filled by Kittery workers, the Shipyard does have spin-off effects of supporting local retail and service sector businesses, supporting the local real estate market, and the payment of taxes. Nevertheless, the employees working in the retail, food accommodations, and entertainment industries in Kittery are making far less on a weekly basis. The 2015 weekly wage data suggests that retail workers earn $390 per week, food service workers earn $471 per week, and those employed in the arts, entertainment, and recreation sector earn $403 per week. After accounting for weekly deductions like income tax, social security, and insurance, a service sector worker may find it hard to pay for basic needs such as housing and transportation costs.

Looking at historical wage trends and adjusting for inflation, several employment sectors have actually had a decrease in wages between 2001 and 2015. Among them were workers in the retail sector, educational services, and transportation and warehousing. . Figure 4.3 compares the average weekly wage by industry sector in 2001, 2008, and 2015.

TAX BASE

The residential and commercial tax rate in Kittery was listed as $15.52 for Fiscal Year 2015. Compared to other communities across the State, Kittery has one of the lower tax rates. As is discussed later in the Fiscal Capacity Chapter, Kittery's tax rate has been increasing year over year and will likely continue to do so because state aid has decreased and demand on local services has remained steady. The residential tax burden could be relieved to some degree by an increase in commercial development, which does not create the same level of demand on municipal services as residential development. Typically, single-family residential development contributes at a higher rate to school costs compared to commercial development, while multifamily development can demand a higher level of service from police and fire. It would likely take a number of new large commercial developments to impact the tax base in a meaningful way.

Figure 4.3: Average Weekly Wages by Industry Sector
Years 2001, 2008, and 2015, Third Quarter of Each Year
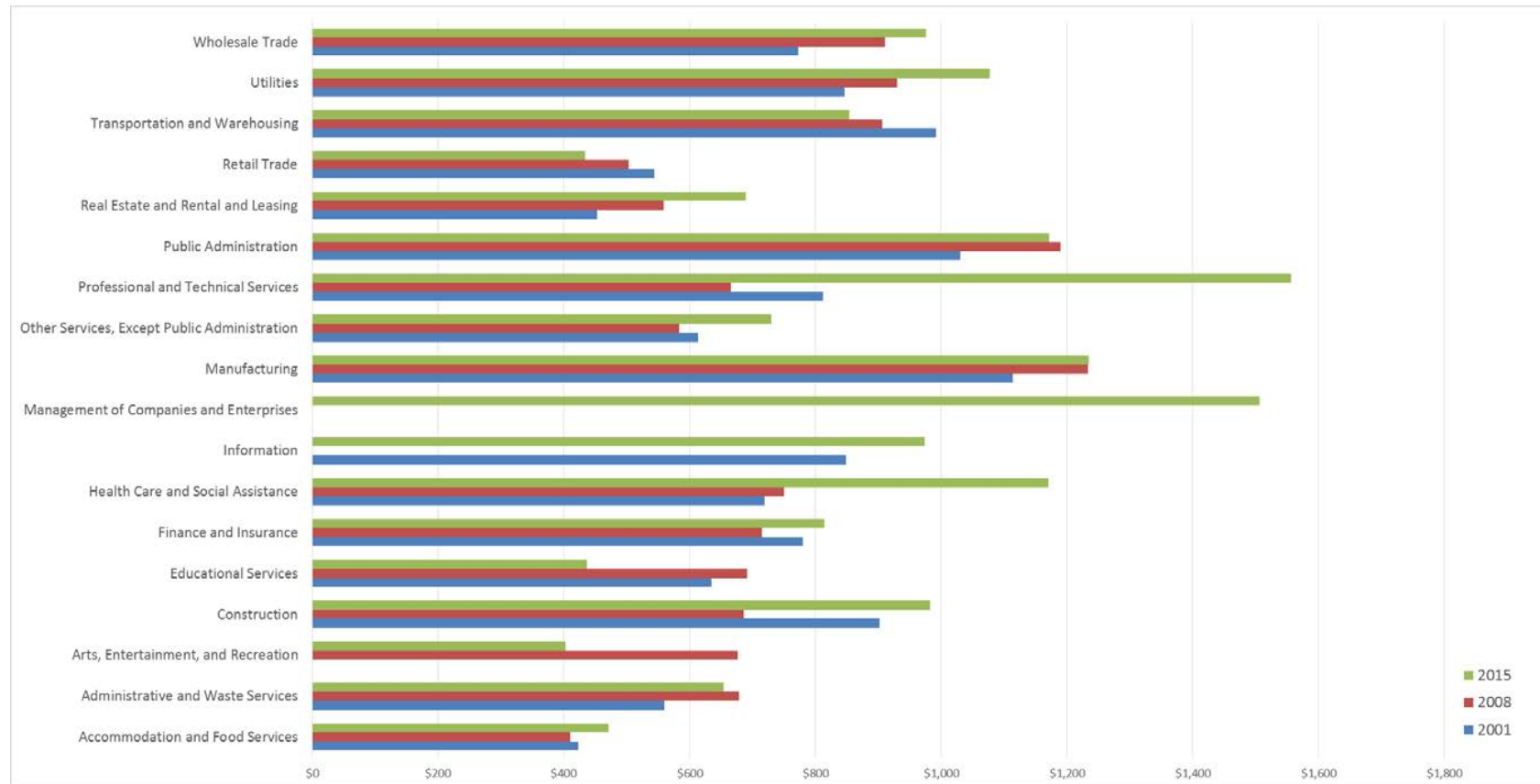
Figure 4.4: Economic Development Areas
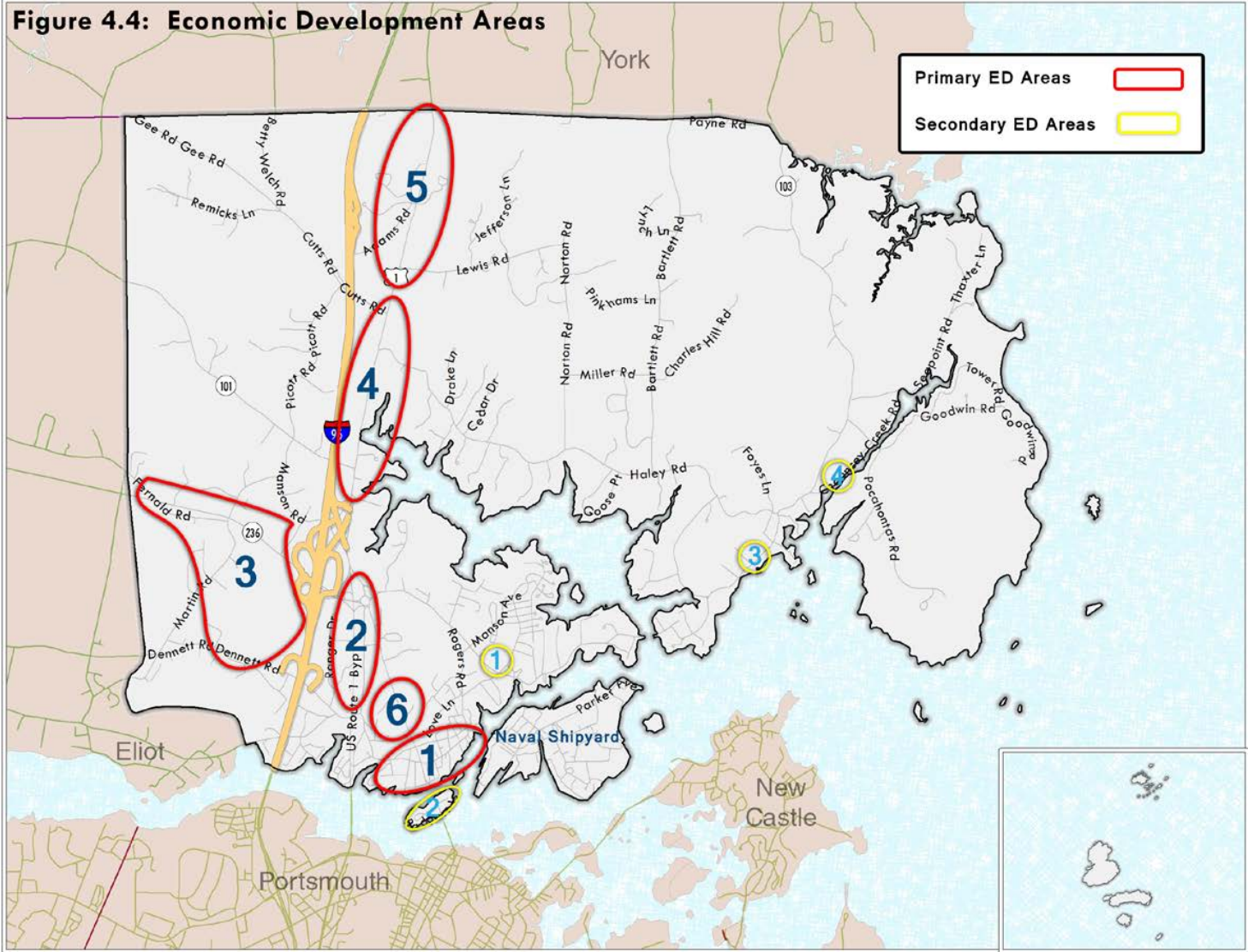
ECONOMIC DEVELOPMENT AREAS

Kittery has been very deliberate with trying to stimulate economic development in town by designating, through local zoning, several areas where commercial development is encouraged. The Town has six well-identified primary economic development areas where larger-scale concentrations of commercial and industrial uses are desired. The Town also has several secondary, smaller-scale, neighborhood commercial areas that serve local residents within walking distance to residential neighborhoods. The mix and scale of commercial and industrial users changes across each primary and secondary area. Some, like the Foreside area, contain a dense cluster of mixed-use and commercial development set within a walkable district. Others, like the Route 1 area, are auto-oriented with the intention of drawing patrons from a much wider geography than Kittery. To date, some areas have been more successful than others. This section will describe these areas and some of the opportunities and challenges they offer. Each of the six primary economic development areas and the four secondary areas are shown on the previous page in Figure 4.4.

AREA 1: DOWNTOWN/FORESIDE AREA

The Foreside is one of Kittery's more unique and interesting commercial areas with an eclectic mix of retail, restaurants, and daily service needs. The Foreside seamlessly integrates commercial space with residential buildings in a traditional development pattern reminiscent of pre-World War II compact

Figure 4.5: Primary Economic Development Area 1
Downtown/Foreside Area

land use planning. The area is easily accessible by car, walking, or biking on the narrow streets that naturally act as speed barriers and slow vehicles down as they navigate the Foreside. Proximity to the Shipyard is also an attractive quality of the Foreside, especially for locally-owned businesses that can rely on the daily influx of workers as patrons. Even though the Foreside is a relatively small geography compared to some of the other economic development areas, it is far more productive from a

taxes-per-acre standpoint than almost all of the other areas. This is discussed further in the Valuation vs. Tax Productivity Section later in this chapter.

In 2014, the Town conducted a process called "Foreside Forums" which brought together stakeholders to discuss the future of Foreside and key opportunities and concerns. Participants felt it was important to maintain the "organic growth" that had been occurring in Foreside, while protecting its character from the encroachment of Portsmouth. The group was concerned that pedestrian safety and inadequate parking need to be addressed, as well as the aesthetics of some of the buildings. It was also noted that the differences in business zoning districts in and around Foreside should be better aligned to allow commercial spillover into adjacent districts. Zoning regulations in adjacent business districts that are more restrictive than what is found in the Foreside Mixed-Use Zone can cannibalize opportunities in those adjacent districts. For example, in the adjacent B-L1 zone the minimum lot size is 20,000 square feet with a minimum lot area per dwelling unit of 8,000 square feet. In the Foreside Mixed Use zone, the minimum lot size is 5,000 square feet and only requires 5,000 square feet of lot area per dwelling unit.

Overall, the Foreside is a very successful example of a downtown economic development area that has created a local and regional draw. Focusing on the outcomes of the Foreside Forums will help the Town address several physical and regulatory barriers that could help open up even more opportunity for this area.

AREA 2: ROUTE 1 BYPASS AREA

The Route 1 Bypass area generally spans from Dennett Road to the south up, Rogers Road to the north, I-95 to the west, and Old Post Road to the east. The area is zoned Commercial 3 (C-3) and allows for the provision of general retail sales, services and business space to serve the community-wide and regional markets primarily oriented toward the automobile. The C-3

Figure 4.6: Primary Economic Development Area 2
Route 1 Bypass Area

District allows most of the typical retail establishments and professional offices, as well as hotels, conference centers, and restaurants. The District would also allow more industrial-type uses like a junk yard, boat yard, lumber yard, car and boat repair, etc.

Currently, this economic area has a mixture of businesses which includes a hardware store, several motels, a fitness center, automotive repair shop, a glass company, and the Kittery sewer disposal plant. This economic area is also supporting non-traditional business platforms like Blue Current Brewery, a business focused on the production of small batch Japanese sake.

Most of the buildings are single-use buildings located on their own large lot, which is stipulated in the zoning by requiring a 40,000 square foot lot minimum. The buildings are set back from the road with parking in the front. There are no sidewalks along the Route 1 Bypass roadway, so accessing the businesses by means other than an automobile is difficult and unsafe.

This area have been in flux with businesses that have come and gone over time. A few years ago, the Town decided to relocate the fire department to Gorge's Road right off the Route 1 Bypass. From a tax productivity view, the hotels and the sewer treatment plant are some of the higher assessed value properties in this economic area. It should be noted though that the treatment plant is tax exempt.

AREA 3: ROUTE 236/DENNETT ROAD AREA

The Route 236/Dennett Road economic area is a mixture of the commercially zoned land on either side of Route 236 (C-2 zone) and the area between Dennett Road and Route 236 that has been zoned Business Park (B-PK).

Figure 4.7: Primary Economic Development Area 3
Route 236/Dennett Road

Currently, a large majority of the land in this economic area is undeveloped, but recently had sanitary sewer lines extended through the Tax Increment Finance (TIF) District 3 initiative the

Town approved in 2010. Land along Route 236 has seen some small-scale commercial development with mostly single-use light industrial and commercial buildings. There are several machine shops and equipment repairs shops, a boat yard, a seafood wholesaler, small office buildings, and small residential enclaves located along Route 236.

The C-2 commercial zoning district that fronts either side of Route 236 is almost identical to the C-3 District discussed in the Route 1 Bypass area section. The allowable uses are nearly identical, as are the district standards and dimensional requirements. The district was established as an auto-oriented commercial area supportive of smaller single-use structures.

The B-PK zoning district was established to encourage a mix of uses on large tracts of land. Allowable uses include offices, retail sales, services, lodging, open space, light manufacturing, and housing.   The intent of the district is to create an area where multiple uses can be mixed together and clustered to provide a more efficient use of land than might be obtained through traditional segregated zoning districts. While the intent of the district to encourage multiple uses is good, the zoning dimensions require very large lots (120,000 square foot minimum) and wide front, side, and rear setbacks. This would likely create a planned area with large lots, uses that are spread out and separated by parking, and buildings set far back from the roadway. Under the cluster development/land use code, the dimensional standards could be varied but allowable uses are more restricted.

AREA 4: ROUTE 1 OUTLET AREA

In addition to the Foreside, the Route 1 Outlet area is one of Kittery's oldest and most successful economic development areas. This economic area spans the length of Route 1 from Rogers Road north to Haley Road.

Figure 4.8: Primary Economic Development Area 4
Route 1 Outlet Area

The presence of the Outlets and supporting services has tremendous tax value and draws customers both locally and regionally to the shopping center. This creates the potential for spin-off benefits for other local business areas around Kittery by drawing people in from a regional catchment area.

This area is zoned Commercial 1 (C-1) and allows primarily a mix of retail, restaurants, offices, and hotels. Similar to the other commercially-zoned districts discussed earlier, the C-1 District has similar large lot single-use zoning standards supporting an auto-oriented development pattern. The current mix of uses along Route 1 today include the large retail outlet stores, several stand-alone restaurants, the Kittery Trading Post, and motels. Several parcels in the area have been designated as a TIF District (TIF 2).

Although this area continues to be successful and is a major tax producer for the Town, there is concern among residents and Town officials that regional competitors in Massachusetts are beginning to reduce the demand on the outlets in Kittery. In Massachusetts alone, several outlets have been developed which include Wrentham, Dedham, Somerville, and Lynnfield, all further cutting into the market draw in Kittery.

AREA 5: ROUTE 1 MIXED USE AREA

The final economic development area is the Route 1 Mixed Use area primarily defined as the land along Route 1 north of Haley Road to the York town line.

Figure 4.9: Primary Economic Development Area 5
Route 1 Mixed Use Area

This area is currently zoned Mixed-Use (MU) with a primary purpose of providing opportunities for a mix of office, service, and limited residential and retail development at a smaller scale than what is allowed in the traditional commercial zones. This zone is also intended to maintain the rural character of the area, but has manifested in the creation of low-density suburban-style residential subdivisions, single-use commercial buildings, and clusters of multifamily and elderly housing.

Although the purpose of the district is to encourage mixed use development along Route 1, the dimensional requirements are such that a small building would have to be constructed on a very large lot (200,000 square foot minimum). The minimum setbacks are also very large at 60 feet from the roadway. Height in the district is limited to forty feet, which for a mixed use building would only accommodate a maximum of three stories.

The intent of the district may be to create a rural feel while allowing for a mix of uses along this section of Route 1, but the zoning may be overly limiting what can financially be supported. With such large parcel requirements and minimum building footprint, a developer or property owner may not be able to make new economic development opportunities work financially. Even with the assistance of a TIF District along this stretch of Route 1, public assistance may not be enough to make development attractive.

AREA 6: GOURMET ALLEY

The "Gourmet Alley" economic development area is located along Route 1 between Walker Street and Village Green Drive.

Figure 4.10: Primary Economic Development Area 6
Gourmet Alley

This area has developed organically over time into a collection of eateries and food-related businesses. These include the Beach Pea, Golden Harvest, The Farm Bar & Grill, Carl's Meat Market, Terra Cotta Pasta, Byrne and Carlson Chocolatier, and Loco Coco's

Tacos. Other businesses in this area include Fair Tide, the Marshall Rental Center, an automotive service shop, and a bank.

York Hospital constructed a 10,000 square foot medical office building and walk-in care center at the southeast corner of Route 1 and Walker Street. This was a formally vacant site which now provides a showcase anchor for that corner of this economic development area. There is another substantial parcel of land along Route 1 behind the Fair Tide store that could also serve as a major catalytic development site in the future.

SECONDARY COMMERCIAL AREAS

In addition to the six primary economic development areas in Kittery, there are several secondary "neighborhood serving" commercial areas as well. These smaller areas tend to be located close to or among residential neighborhoods providing localized services and civic uses. These include Badger's Island, the commercial area along Pepperrell Road and the Horace Mitchell School, a small area along Chauncey Creek Road, and along Shapleigh Road between Mason Avenue and Whipple Road.

Of the four secondary areas, the Badger's Island and Shapleigh Road areas are larger in size than the other two. These areas contain a mix of different uses including has stations, banks, restaurants, marine and boat sales, and the Tributary Brewery. These areas are highlighted in yellow in Figure 4.4.

TAX INCREMENT FINANCING (TIF) DISTRICTS

As noted earlier, the Town has enacted three different TIF districts which are all generally along the Route 1 Corridor and in three of the six primary economic development areas.

Figure 4.11: Kittery TIF District Map
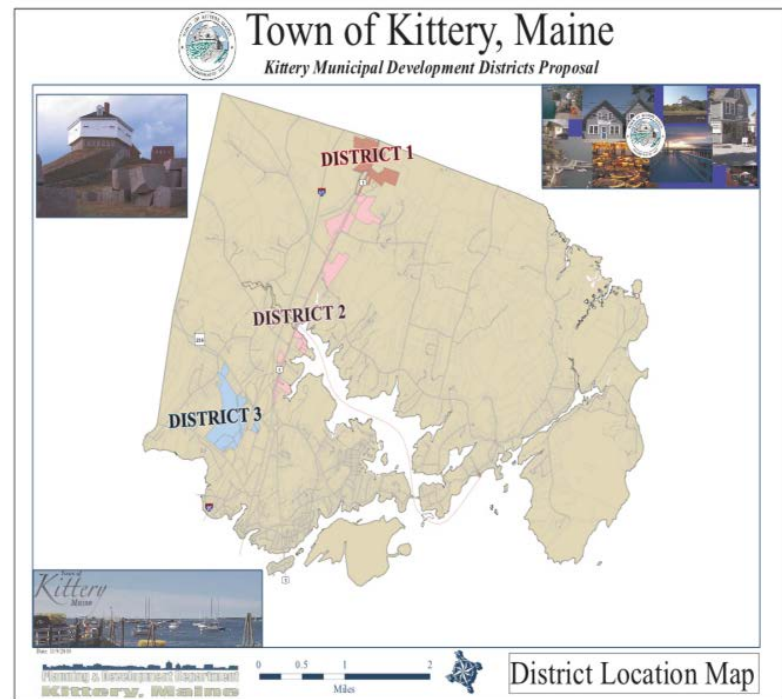
To date, it appears very little new development or increment has been generated in TIF Districts 1 and 3. District 2, the primary section of the Route 1 Outlets area, has seen some new development take place on a few of the parcels designated in the

District. One major issue upcoming for the Town is the debt repayment on the sewer line extension for TIF District 3. Beginning in 2017, the Town is responsible for beginning to pay back debt on those public improvements, with a share of the funding coming from new tax increments starting in the year 2022. If new development does not occur in District 3 before 2022, the Town will be responsible for paying back the debt that was incurred as a result of the sewer extension project. Based on the sewer betterment assessment, the Town will share the cost of the sewer extension 50/50 with the property owners whose land benefits from the new sewers. Figure 4.10 is a map provided by the Town showing the location of the three TIF Districts.

PROPERTY VALUATION VS. TAX PRODUCTIVITY

One way to look at the productivity of economic development areas in a community is to look at the assessed valuation of parcels and compare that to tax revenue on a per acre basis. Typically, the higher the assessed value the higher you would expect the tax generation to be on a particular parcel. While this holds true for smaller parcels, large parcels that have not maximized development potential may not generate as much property tax on a per acre basis as a smaller commercial property. Compact development patterns typically produce more tax revenue on a per acre basis than a more suburban or rural development pattern where parcels are larger and buildings are spread out.

Figures 4.12 and 4.13 compare the assessed values of parcels in Kittery to the amount of tax revenue they generate. For example, the assessed values of properties in the Foreside are much lower than those on Gerrish Island. The homes on the Island are much larger, newer, and worth more money than many homes in the Foreside. However, Figure 4.13 shows that properties in the Foreside produce far more tax revenue per acre than the properties on Gerrish Island. This is the result of a more compact development pattern in Foreside where more homes and businesses have been located in close proximity to one another.

This comparison can speak volumes to the productivity of land in a community and ways to maximize revenue within designated economic development areas. Concentrating development where municipal services and transportation facilities are already in place can save on costs and maximize revenue.[1]

TRANSPORTATION ASSETS

From a transportation and economic development perspective, Kittery is fortunate to have excellent access to several major roadways. Both Interstate 95 and Route 1 bisect Kittery's eastern edge, providing a direct connection to three of the five economic development areas. Clearly the outlets have been direct benefactors of the easy access to these major regional roadways bringing customers in from all directions. Route 236 provides east-west access in and out of Kittery as well.

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[1] Although the PSNY is shown as a high tax producing property in Figure 4.13, it does not pay property taxes. A payment in lieu of taxes is paid by the PSNY each year to the Town to help offset service and infrastructure costs.

Kittery is also within an hour's drive of four airports: Logan International, Manchester Regional, Portland Jetport, and Portsmouth International. Kittery is also a short drive to Dover or Durham, New Hampshire to access the Downeaster Amtrak train that runs from Boston to a number of key destinations in Maine.

UTILITIES

The Town has been able to extend sanitary sewer lines to many of the key economic development areas, including all three TIF Districts. Water lines have been extended across much of Kittery with the exception of most of the land zoned Residential – Rural, north and east of Haley Road, and west of the northerly end of I-95. This is helpful for new development, especially those that rely on a higher water intake and a higher volume of sewage outflow.

Figure 4.12: Assessed Value for Parcels in Kittery

Assessed Parcel Value FY15

Kittery, Maine

Residential Properties

Projected Value

$102,646.63 -
$226,553.81

$226,553.82 -
$263,345.76

$263,345.77 -
$387,252.94

$387,252.95 -
$804,545.12

$804,545.13 -
$2,209,893.50

This map is for general planning purposes only. The data used to create the map are not adequate for making legal or zoning boundary determinations or delineating natural resource areas. Exercise caution when interpreting the information on this map.

Date: 2/4/2016
Source: MaineDOT, NHDDOT, Town of Kittery

*Residential Property
-Single Family
-Two Family
-Three Family
-Condominium

½   1
                  Mile

Figure 4.13: Tax Value per Acre for Parcels in

Property Taxes per Acre

Kittery, Maine

$1.90 - $50.00
$50.01 - $150.00
$150.01 - $300.00
$300.01 - $800.00
$800.01 - $1,500.00
$1,500.01 - $4,101.88

RKG ASSOCIATES INC

This map is for general planning purposes only. The data used to create the map are not adequate for making legal or zoning boundary determinations or delineating natural resource areas. Exercise caution when interpreting the information on this map.

Date: 2/5/2016
Source: MaineDOT, NHDDOT, Town of Kittery

IDENTIFICATION OF PRELIMINARY ISSUES, CHALLENGES AND OPPORTUNITIES

The following is a preliminary list of issues, challenges and opportunities posed by the findings of the inventory of existing conditions of Kittery's economy.   Please note that these are subject to change with the preparation of goals and objectives, not yet drafted (at the time the inventory was prepared).

ISSUES AND CHALLENGES

Kittery's employment base includes a high number of retail, restaurant, hospitality, service, and entertainment workers whose weekly income may not be able to keep pace with the increased cost of living. As housing and transportation costs continue to rise, the need for more affordable housing options in Town will be critical. Housing is not only a personal necessity, it is also an economic development strategy.

The Town should begin to think about ways to diversify the business base along Route 1 as a safety net if outlets begin to move or close down as a result of greater regional competition. With increased development of outlet stores in other states and the popularity of online shopping, brick and mortar stores may become less popular over time. If this occurs, the Town should consider how the Route 1 Corridor could shift and continue playing a role supporting the economic base in Kittery.

The Town is investing significant public funds in TIF Districts where economic development opportunities have yet to materialize. The Town will be responsible for paying off any debt incurred as a result of public infrastructure improvements. Some of the debt payments are coming due in the near-term and tax increments have yet to increase. The Town should consider all future public investments in TIF Districts carefully and determine if public funding should be invested there or elsewhere. In addition, the Town should look at ways of stimulating development in the business park where utilities have already been extended by the Town.

Kittery's commercial and mixed use zoning districts appear to be quite restrictive and have dimensional standards that may render smaller-scale developments financially infeasible. The Town should revisit these zoning districts and have conversations with property owners and local developers to better understand the implications of restrictive zoning while still trying to attract additional economic development to these areas. One may not be able to occur without the other.

OPPORTUNITIES

The success of the Foreside and the Route 1 Outlet Corridor speaks volumes to the opportunities the Town has to continue to add to and invest in the success of these economic development areas. The existing physical infrastructure and built form provide a baseline which could easily be added to over time. The Town should consider the recommendations of reports such as the Foreside Forums for ways to make small investments that could pay dividends in future tax revenue.

In addition to small infrastructure improvements, the Town could also consider integrating residential development as a component of commercial areas. Additional rooftops within close

proximity to commercial areas would provide local businesses with additional consumer spending and a steady client base. Higher density housing options could be integrated with commercial in mixed use buildings, or as part of a larger planned development in commercial areas where larger parcels are more readily accessible.

The Naval Shipyard offers an opportunity for the Town to try and capture more of the spending from Shipyard employees and Naval Officers who are working in Kittery. The Foreside and other economic development areas are within very close proximity to over 5,000 workers. The Town may want to conduct a process or a survey to better understand their needs and what might attract them to live, shop and play in Kittery if they are not already doing so.

The Comprehensive Plan provides the Town with an opportunity to consider future economic development challenges and determine a course for possible alternatives should the future hold something different for these areas. This is an opportunity for residents, employees, and business owners to look at how current economic development areas are functioning today and what the needs may be in the future. How can the public and private sector come together to shape these areas to meet future needs? What should these areas look like and who should they serve? Are regulations in place today that are flexible enough to respond to changes in the economic environment?

Kittery
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2016

Map 4.1

ECONOMIC DEVELOPMENT AREAS

Primary Economic
Development Areas

Secondary Economic
Development Areas
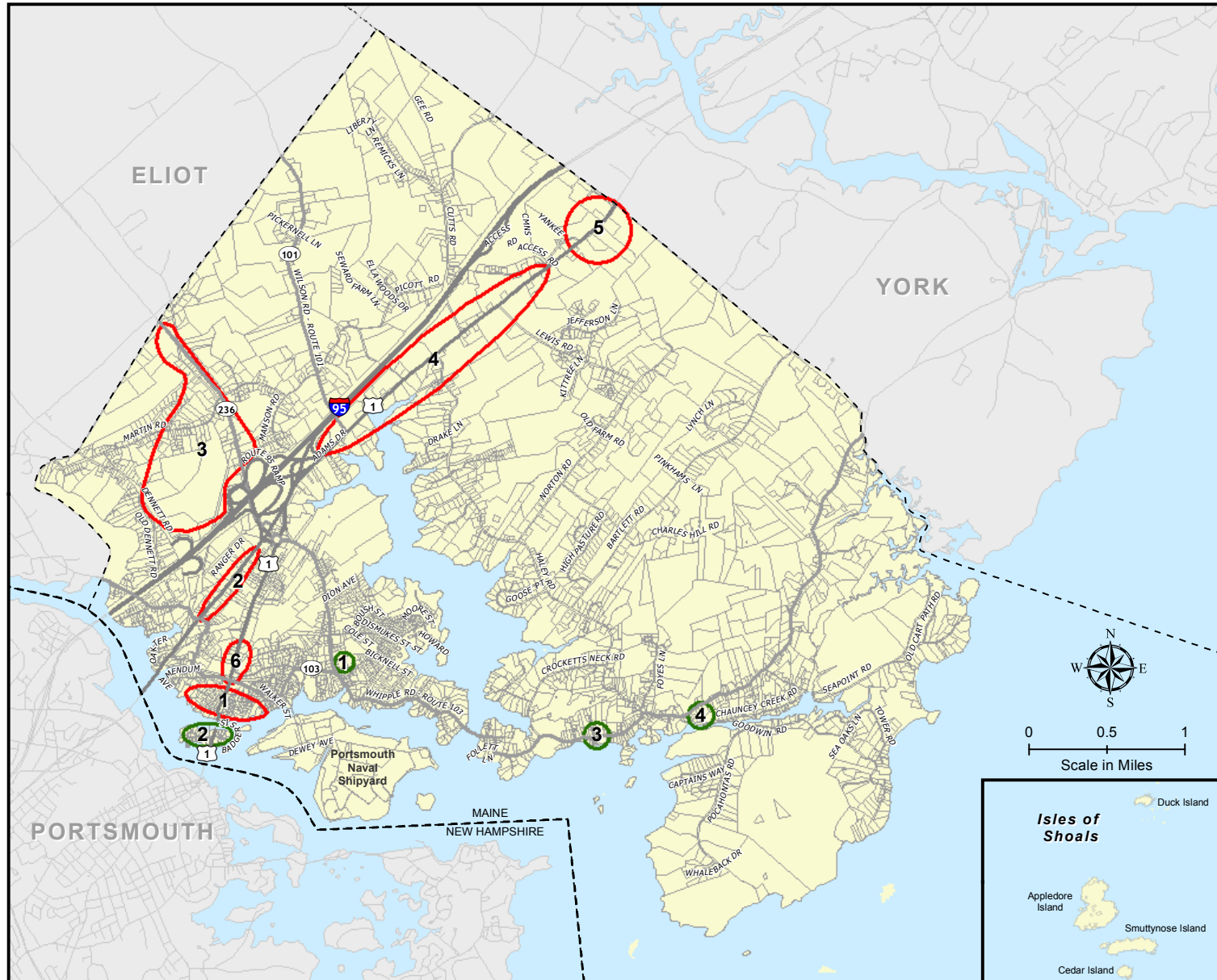
ELIOT

YORK

PORTSMOUTH

Portsmouth
Naval
Shipyard

MAINE
NEW HAMPSHIRE

Isles of
Shoals

Duck Island

Appledore
Island

Smuttynose Island

Cedar Island

Scale in Miles

0   0.5   1

N
W   E
S

AECOM

This map is for general planning purposes only. The data used to create the map are not adequate for making legal or zoning boundary determinations or delineating natural resource areas. Exercise caution when interpreting the information on this map.

**Kittery
Comprehensive
Plan Update
2016**

TOWN OF KITTERY, MAINE · INCORPORATED 1647

Map 4.2

ASSESSED VALUE FOR PARCELS FOR KITTERY

Residential Property Values FY 2015

- $102,647 - $226,550
- $226,551 - $263,300
- $263,301 - $387,250
- $387,251 - $804,540
- $804,541 - $2,209,893

Scale in Miles
0   0.5   1

Isles of Shoals

- Duck Island
- Appledore Island
- Smuttynose Island
- Cedar Island

AECOM

This map is for general planning purposes only. The data used to create the map are not adequate for making legal or zoning boundary determinations or delineating natural resource areas. Exercise caution when interpreting the information on this map.

Portsmouth Naval Shipyard

**Kittery
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2016**

Map 4.3

TAX VALUE PER ACRE FOR PACELS

Property Tax Per Acre

- $1.90 - $100.00
- $100.01 - $500.00
- $500.01 - $1,000.00
- $1,000.01 - $2,000.00
- $2,000.01 - $4,101.88
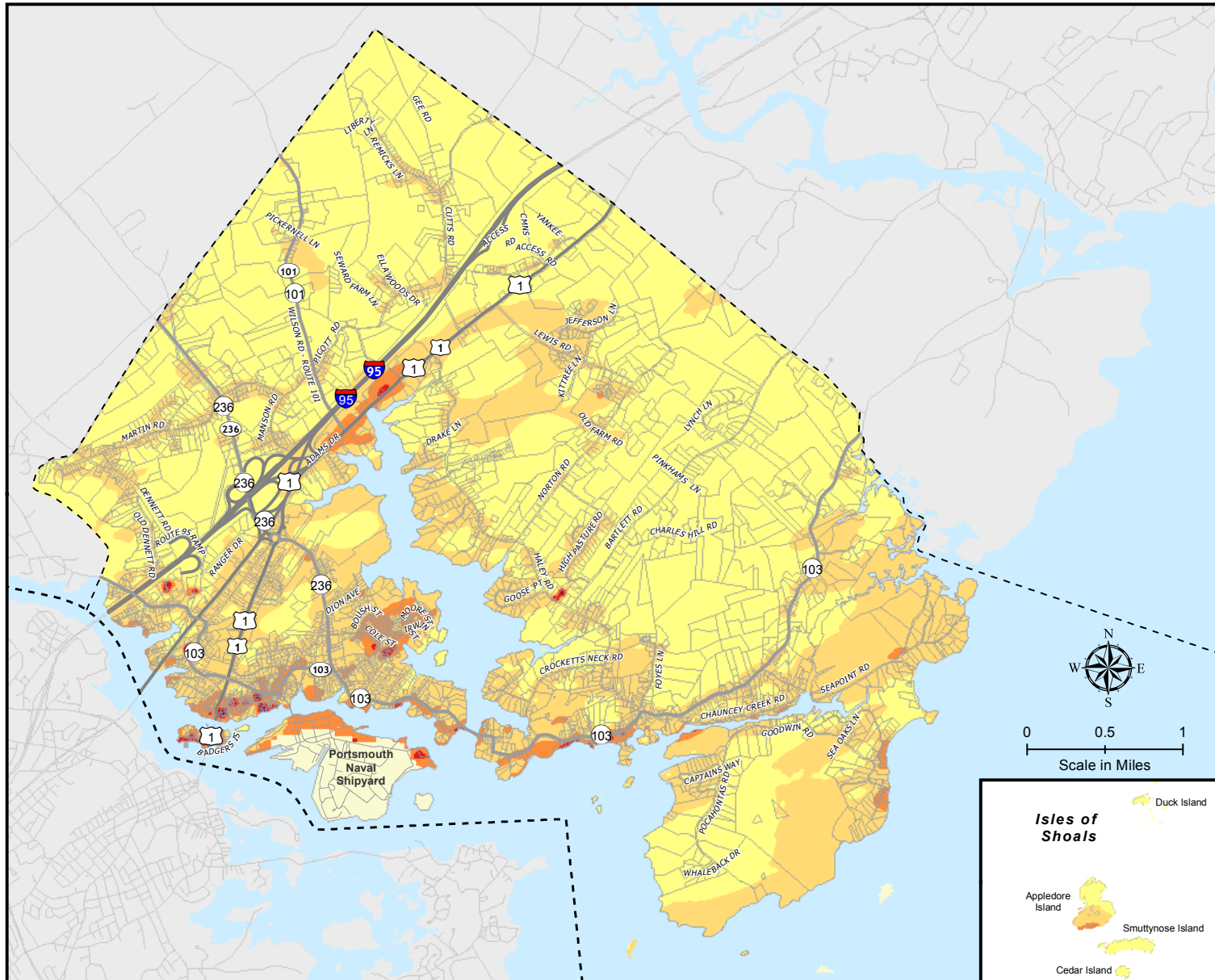
Isles of Shoals

Duck Island

Appledore Island

Smuttynose Island

Cedar Island

Scale in Miles

0   0.5   1

AECOM

This map is for general planning purposes only. The data used to create the map are not adequate for making legal or zoning boundary determinations or delineating natural resource areas. Exercise caution when interpreting the information on this map.
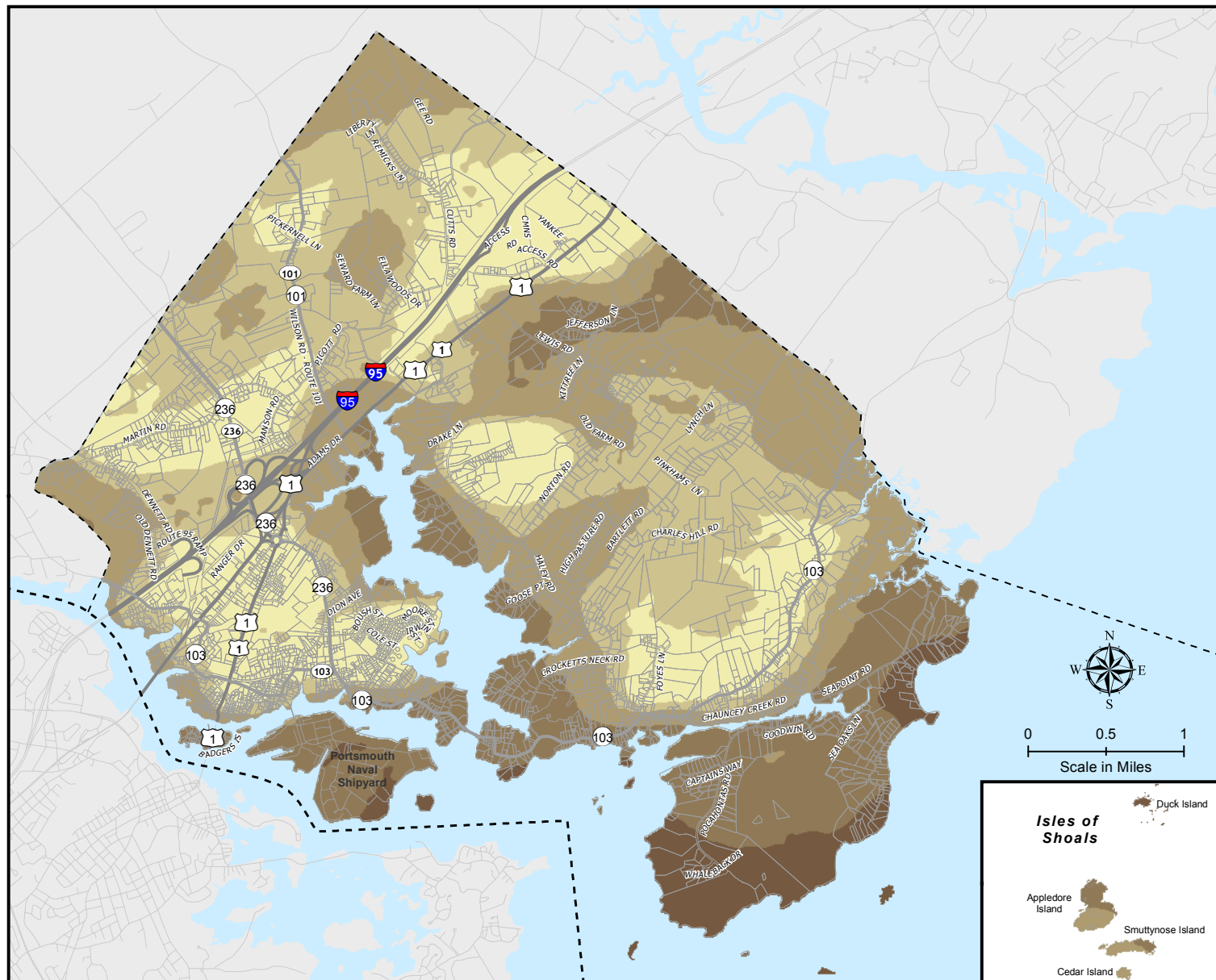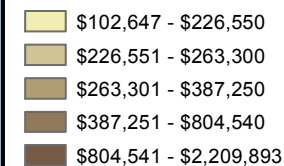
Portsmouth Naval Shipyard

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Foreside Forums Report, 2014.
District #3 – Business Park TIF Report. December, 2010.
Kittery Economic Development website. http://kitterymaine.biz/

INTERVIEWS

Terry Gagner, Comprehensive Plan Subcommittee Member, February 11, 2016.

[i] U.S. Bureau of the Census, American Community Survey, 2010-2014, Table DP03.
[ii] Maine Center for Workforce Research and Information, Quarterly and Annual Industry Employment and Wages. Quarter 2 of 2015.

[iii] Maine Center for Workforce Research and Information, Quarterly and Annual Industry Employment and Wages. Quarter 3 of 2015.

HOUSING

5

HOUSING

The housing chapter provides an overview of housing conditions in Kittery which includes owner-occupied and rental units. This chapter also provides points of comparison to nearby municipalities including York, Eliot, Newington, and Portsmouth to help give context to data points around housing. Included below is information on housing type, tenure, vacancy, age, development trends, and affordability.

Summary of Key Points

- Kittery has a number of different housing options that are spread across town. The variety of options provides housing for people at different income levels.
- Sixty-five percent of Kittery's housing stock is owner-occupied. This is lower than many surrounding towns with the exception of Portsmouth.
- The residential vacancy rate for both owner-occupied and renter-occupied housing increased from 2010 to 2014, but is still very low.
- Kittery has a relatively young housing stock, with 74 percent of residential structures built after 1940.
- Kittery has averaged around twenty single-family home building permits per year. The number per year has gone down slightly from 2012 to 2015.
- Median owner-occupied home values in Kittery are lower than the surrounding communities, making Kittery a bit more affordable. On the other hand, Kittery has higher rental prices than the surrounding communities.

Kittery's Housing Type Examples

OVERVIEW

Kittery has a number of distinct housing types, but a majority of the housing in town – about 66 percent - consists of detached single-family homes.[i] They are spread across Kittery and are located in neighborhoods that vary greatly in terms of layout, density, and character.

One can travel across Kittery and come across very large stately homes in locations like Gerrish Island or along the coast on Kittery Point. Homes on Gerrish Island are set within the natural geography of the land on large lots, where some of Kittery's largest single-family homes are found. Along the coast line in Kittery Point, older more historical homes are set on smaller lots much closer together, overlooking the water.

In contrast, Foreside has a much different residential character, with more modest homes set very close together within a close walking distance to the nearby commercial center. A majority of the homes in this section of Town were constructed prior to 1940, and most of them prior to 1900.

To the west of Route 1 the landscape and housing stock begin to change again. Here, single family homes are set back from the

roadways and located on cul-de-sacs, dead end streets, or circular loops bringing you back to the main road you entered on. The homes are set on larger lots, and the area is reminiscent of a more rural suburb. Homes in this area are newer, with many having been constructed after 1970. One exception are the homes along Manson Road, where many were constructed prior to 1940.

Lastly, in the north and north central part of Kittery, many homes were constructed as part of traditional subdivisions set among the open lands and farms. Here, dead end roads and cul-de-sacs branch off main arterials like Haley Road and Bartlett Road to create small subdivisions of large homes on large lots. In this area, most homes were built after 1970, and represent the highest concentration of newer homes in Kittery. This is particularly true along roads such as Cedar Drive, Drake Lane, and Jefferson Lane. Figure 5.1 shows the age of Kittery's existing housing based on when they were constructed.

OTHER TYPES OF HOUSING

While two-thirds of the housing stock in Kittery is comprised of single-family homes, there are many other options available in Town. Twenty-four percent of the housing stock in Kittery is located in multifamily structures. Ninety-one percent of multifamily units are housed within buildings that contain nine units or less[ii]. There are several examples of traditional multifamily housing in garden style apartment and townhome developments. One example of this style of housing is Woodland Commons off Route 1. This development offers two and three

bedroom units for rent. Kittery also has multifamily housing options for military personnel and their families at Admiralty Village. These are attached two, three, and four bedroom homes within close distance to the Shipyard.

Table 5.1: Units in Structure

Census 2000, ACS 2006-2010		Town of Kittery	
HOUSING UNITS IN STRUCTURE	**2000**	**2010 Est.**	**% Change 00-10**
Total HHs	4,078	4,209	3.2%
1 unit - detached	2,605	2,795	7.3%
1 unit - attached	167	140	-16.2%
2 units	419	294	-29.8%
3 or 4 units	289	255	-11.8%
5 to 9 units	205	380	85.4%
10 to 19 units	35	49	40.0%
20 to 49 units	61	28	-54.1%
50 or more units	8	16	100.0%
Mobile Homes	289	252	-12.8%

In addition, Kittery offers several age-restricted housing options for residents fifty-five and over. Developments like Meetinghouse Village, Shepard's Cove, and Kittery Estates offer rental apartments, for-sale condominiums, and single-family homes. All three are located very close to Route 1 and the Kittery Community Center. The Town also has assisted living and nursing care facilities for seniors. Developments like Durgin Pines offers rehabilitation and full long-term care with a choice of private and semi-private rooms.

There are also several mobile home parks in Kittery, which offer an affordable option for both short- and long-term housing. The two Yankee Mobile Home Communities off Idlewood Lane and Cutts Road on the western side of Route 1 are two such examples.

HOUSING CHARACTERISTICS

The type of housing being built in Kittery has certainly changed over time. Prior to 1900, single-family homes were constructed along the coast east of what today is the I-95 corridor. Between 1900 and 1970, housing continued to be built in the Foreside and began expanding over the Route 1 corridor to the southwestern edge of town. Between 1970 and 2015, single-family and multifamily housing expanded north into the farms and forests. Clusters of subdivisions now dot the landscape of Kittery with housing built primarily after 1990. Small clusters of multifamily housing were also built post-1990, which has been the most significant change to housing types in Kittery. Prior to 1990, there were not many rental or ownership opportunities in the larger-scale multifamily buildings.

According to data from the 2014 American Community Survey (ACS) estimates, 25 percent of Kittery's housing stock was constructed prior to 1940[iii]. Another 48 percent of the housing stock was constructed between 1940 and 1989, followed by 26 percent built after 1990. Southern Maine experienced a housing boom after 1980, which resulted in a substantial increase in the number of units in Kittery. By 1989, the housing boom was generally over and Kittery went back to seeing modest housing development up until 2000.

Table 5.2: Year Housing Structure was Built

ACS 2010-2014		Town of Kittery
AGE OF STRUCTURE	**2014 Est.**	**% of Total**
Total housing units	5,144	100.0%
Built 2005 or later	92	1.8%
Built 2000 to 2004	970	18.9%
Built 1990 to 1999	315	6.1%
Built 1980 to 1989	498	9.7%
Built 1970 to 1979	464	9.0%
Built 1960 to 1969	358	7.0%
Built 1950 to 1959	586	11.4%
Built 1940 to 1949	571	11.1%
Built 1939 or earlier	1,290	25.1%

After the year 2000, housing development (primarily in the form of single-family subdivisions) took place in many of the no/limited growth areas north of Spruce Creek and west of Interstate 95 which were identified as no/limited growth areas in the 1999 Comprehensive Plan. Housing by year built is shown in Table 5.2.

Building condition is typically closely tied to the age of the structure. Kittery's housing stock as a whole is not very old, with only 26 percent of structures constructed before 1940. The Census compiles information on building condition by reporting on the number of housing units without complete plumbing facilities, kitchen facilities, or lack of telephone service. According to ACS estimates for 2014, less than one percent of structures lacked complete plumbing, 3.6 percent lacked a complete kitchen, and 1.6 percent did not have phone service available.

Figure 5.1

Kittery, ME
Year Built

Residences Year Built
- 1990 - 1994
- 1995 - 1999
- 2000 - 2004
- 2005 - 2010
- 2011 - 2015

RKG

Date: 7/6/2016
Source: MaineDOT, NHDDOT, Town of Kittery

This map is for general planning purposes only. The data used to create the map are not adequate for making legal or zoning boundary determinations or delineating natural resource areas. Exercise caution when interpreting the information on this map.

Isles of Shoals
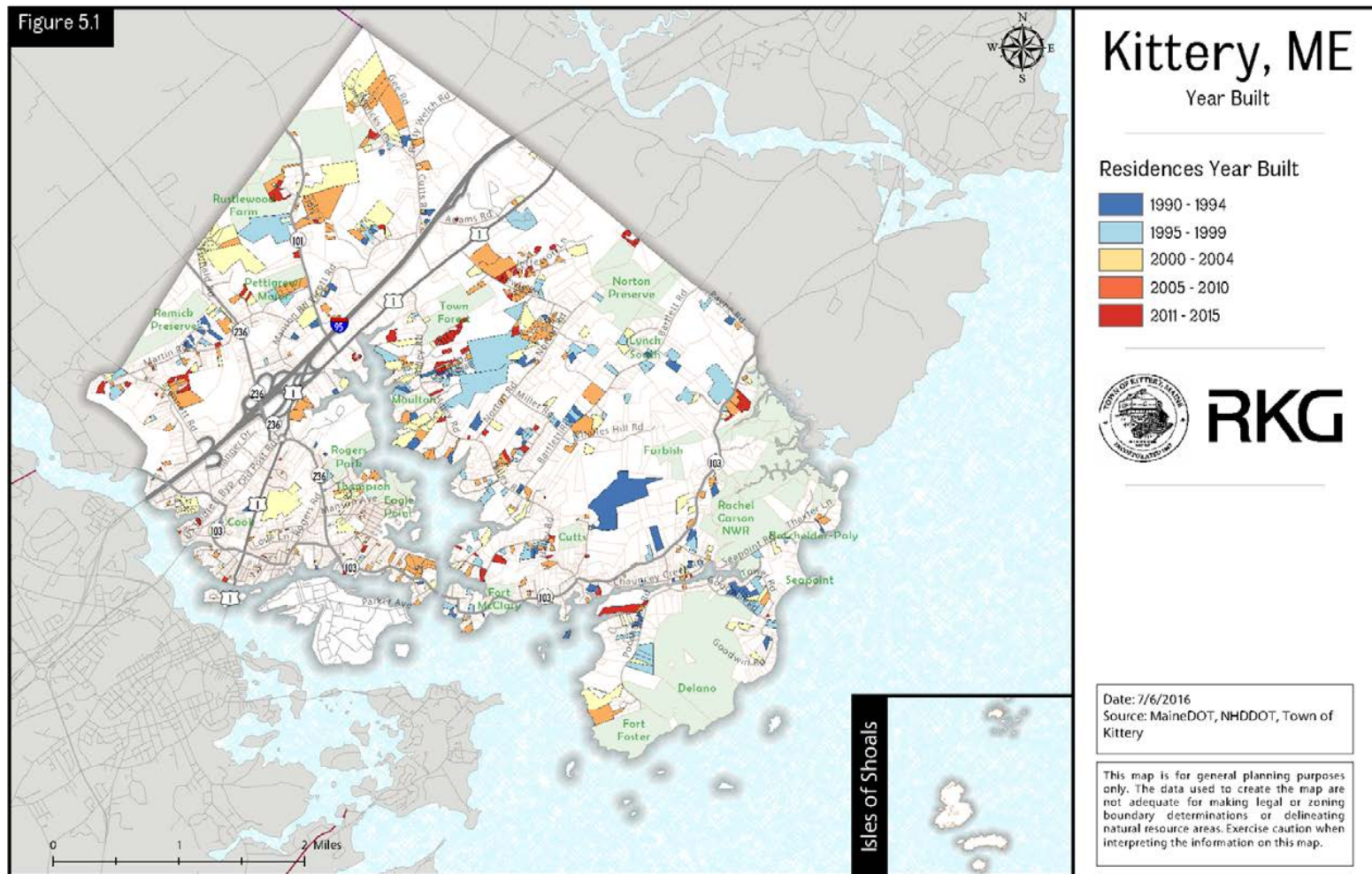
HOUSING TENURE

Kittery's homeownership rate (65 percent) is lower than that of many of the surrounding communities. York, Eliot, and Newington, NH have homeownership rates between 76 and 88 percent. Only Portsmouth, not surprisingly, has a lower homeownership rate than Kittery at 53 percent. To Kittery's advantage, having a mixture of housing types at a variety of price points and sizes will attract a more diverse resident population. This provides both a customer base and an employment base for local businesses, and provides Kittery with a more varied set of constituents.

As was mentioned earlier, the owner-occupied single-family homes in Kittery are spread across the town with a higher concentration in the Foreside area and along the eastern coast line. This is contrary to multifamily housing, which tends to be clustered in the areas along Route 1 and along Philbrick Avenue where Admiralty Village is located. Table 5.3 shows the breakdown of housing units by tenure, as well as the estimated change from 2010 to 2014.

Table 5.3: Housing Tenure

ACS 2006-2010, ACS 2010-2014	Kittery	
TENURE	**2010 Est.**	**2014 Est.**
Owner-Occupied Units	65.2%	65.1%
Renter-Occupied Units	34.8%	34.9%

VACANCY

Between 2010 and 2014, Kittery's owner-occupied and renter-occupied vacancy rates have increased slightly. As shown in Table 5.3, the overall number of vacant owner-occupied units in Kittery increased by 1 percent, and vacant rental-occupied units increased by 0.9 percent[iv]. Compared to surrounding towns, Kittery's vacancy rates are very similar, if not lower, than most of those towns. For 2014, Kittery's vacancy estimate for owner-occupied units is 0.2% higher than York, 1.6 percent higher than Eliot, and 2.4 percent higher than Portsmouth. York's rental vacancy percentage is nearly three times higher than Kittery. Portsmouth and Eliot both had fewer rental unit vacancies than Kittery.

Table 5.3: Residential Vacancy

ACS 2006-2010, ACS 2010-2014	Town of Kittery		
HOUSING UNITS IN STRUCTURE	2010	2014	% Change 10-14
Total HHs	4,700	5,144	9.4%
Owner-occupied vacancy	2.2%	3.3%	50.0%
Renter-occupied vacancy	5.8%	6.7%	15.5%

HOUSING MARKET AND TRENDS

The ACS estimates Kittery's median 2014 owner-occupied housing value at $292,200[v]. This includes both single-family homes and condominiums. Kittery's median value was higher than that of both York County and the State's median, which were $226,700 and $173,600, respectively. When compared to York, Eliot, Newington, and Portsmouth, Kittery's median housing sale price is a lower, making it a more affordable option for those looking to purchase a home. Kittery does have a higher percentage of homes above $1,000,000 than both Portsmouth and Eliot, at 3.4 percent (96 homes).

Looking at rental-occupied housing, median monthly rent in Kittery is higher than all the surrounding communities which is the opposite of the median owner-occupied figure. The median monthly rental cost in Kittery was estimated to be $1,232 in 2014[vi]. Kittery's median rent was also significantly higher than that of the county and state which were $772 and $883 per month, respectively. Since 2010, median owner-occupied sales values have increased by an estimated 4 percent, while monthly rental prices have increased by 7 percent in Kittery.

NEW HOME STARTS

According to the Town's building permit data[vii], there were 13 building permits pulled for the construction of new single-family homes in Kittery in 2015[viii]. This is lower than the previous three years, which averaged about 21 permits for single-family homes per year. Between 2012 and 2015, the Town saw an average of $4.3 Million in new single-family home construction value. Last year (2015) had the highest single-family home construction value with a total of $5.285 Million. Even though single-family construction permits were down in 2015 from previous years, construction value remains high.

HOUSING AFFORDABILITY

Kittery has worked over the years to provide some income restricted affordable housing options to residents who qualify as low- and moderate-income. The term "affordable housing" means a monthly housing cost that does not exceed 30 percent of a lower-income household's monthly gross income. For homeowners, that cost includes mortgage, taxes, and insurance. For renters, that cost includes the monthly rent and basic utilities. In circumstances where a household is spending more than 30 percent of their gross income on these housing-related costs, that household is considered housing cost burdened. Table 5.4 shows the 80 percent of area median income thresholds deemed affordable by household size for the York-Kittery-South Berwick HMFA.

Table 5.4: AMI thresholds for Kittery			
1 person	2 person	3 person	4 person
$46,100	$52,650	$59,250	$65,800

According to U.S. Census estimates for 2014, 46 percent of Kittery households are spending more than 30 percent of their household income on housing costs[ix]. Not all of these households meet the definition of cost burdened because many are middle- and upper-income households that are generally considered to have more choices in the marketplace. Of Kittery's 2,800 homeowners, approximately 24 percent are low- or moderate-income and paying more than 30 percent of their monthly income toward housing costs. Moreover, 15 percent of those households are considered severely cost burdened, spending more than 50 percent of their monthly income on housing costs[x].

On the rental side, 50 percent of Kittery's 1,600 rental households who are low- or moderate-income pay more than 30 percent of their monthly income toward housing costs. Approximately 29 percent of those households are considered severely cost burdened. A more telling data point about the issue of housing cost burden in Kittery is that 92 percent of renter households earning less than $35,000 per year are spending more than 30 percent of their income on housing costs[xi]. The same can be said for homeowner households, i.e., 74 percent of households earning less than $35,000 per year are spending more than 30 percent on housing costs.

AFFORDABILITY MISMATCH

Affordability mismatch further complicates the issue of housing affordability, which is a condition where households who can afford to live in more expensive housing are living in units priced below what they can realistically afford. This often leaves a gap in the number of units available to households who truly need housing units that are affordable at their income level. In Kittery, there are approximately 724 modest ownership units that would be considered affordable to low- and moderate-income buyers, but 39 percent are occupied by households with middle or higher incomes. Almost 83 percent of Kittery's rental units have monthly rents that qualify as affordable under the U.S. Department of Housing and Urban Development's (HUD) rent limits, but only 52 percent are occupied by low- to moderate-income renters. One of the biggest issues is that very low income households are living in housing affordable to moderate-income renters. This is an indicator that the community's affordable housing units are not

necessarily affordable to the owners or the renters who currently live there. Kittery's resident population is not terribly mismatched with the housing they can afford. In fact, most of the housing units seem to align well with the incomes of residents. On the rental side, there are some issues with the number of residents making more than 80 percent of area median income but reside in units priced for households at 50 to 80 percent of the median income. This could be resulting from the supportable rent prices in Kittery being relatively low compared to the median rental price thresholds set by HUD.

SUBSIDIZED HOUSING IN KITTERY

Kittery currently has three developments in town that house deed restricted affordable units. The Foxwell, Foxwell II, and Woodland Commons developments provide affordable rental units to those who are income eligible. Woodland Commons offers sixty-five two bedroom apartments and three-bedroom townhouse units with full appliance kitchens. The units are available to any household that is income eligible.

The Foxwell development offers forty-one bedroom units and ten two bedroom units, all of which are restricted to households earning less than 50 percent of the area median income. These units are assisted living units and house residents who are over the age of 62 and have a disability. The Foxwell II development is located in the same area as Foxwell, but is comprised of twelve one bedroom units and are assisted living units as well. These units are available to residents over the age of 62 with a disability and who do not earn more than 50 percent of the area median income.

IDENTIFICATION OF PRELIMINARY ISSUES, CHALLENGES AND OPPORTUNITIES

The following is a preliminary list of issues, challenges and opportunities posed by the findings of the inventory of existing conditions of Kittery's housing. Please note that these are subject to change with the preparation of goals and objectives, not yet drafted (at the time the inventory was prepared).

ISSUES AND CHALLENGES

The housing development that has occurred in Kittery over the last five to ten years has primarily been of two types: single-family subdivisions and multi-family townhomes and apartments restricted to residents over the age of fifty-five. The zoning in place across much of Kittery is rural residential and rural conservation and characterized as limited to no growth. However, these areas happen to be where a majority of the town's residential subdivision growth is happening. The zoning for these areas is more akin to suburban development with lot sizes of 40,000 to 80,000 square feet (for the Rural Conservation district). This zoning is considered by property owners as fundamentally necessary in order to ensure a reasonable return on their investment if they either build on or sell their land.

This creates a tension in Kittery between those who would like to see the land preserved or kept truly rural, and those who would like their property rights to remain in place. In these locations, the continued development of large tract subdivisions is not likely to help with the affordability issues that are present in Kittery. The homes being constructed in these zoning districts are typically larger and more expensive than households making at or below 80 percent of area median income could afford.

There appears to be a tension in town about the development of housing in locations where large tracts of land are currently open. Some residents would rather see new housing development take place in locations that are easier to be serve by utilities, transportation and town services while others believe property rights of individual land owners should take precedence.

Housing costs are increasing in Kittery year over year. This not only includes the sale cost of a unit or the monthly rent, but it also includes taxes on owner-occupied units. Increasing costs can burden those on a fixed income, lower wage earning households, and younger workers looking for an affordable housing option as they begin working. Diversifying the housing stock and maintaining levels of affordability at different income ranges will be important as the demographics in Kittery change over time.

OPPORTUNITIES

The Comprehensive Plan process is a unique opportunity for the Town to discuss its housing goals and approaches to meeting the housing needs of future residents. With an aging population, there may be a need for smaller units that are physically and financially accessible to that segment of the population. The Town may also wish to consider ways to attract and retain a younger population to help fill jobs, support local businesses, and support the town's tax base. This discussion should go hand in hand with the conversation about future land use and

development opportunity areas in town, how those should look, and how they should support the town's goals.

With the resurgence of the Foreside, Kittery has built a small economic development engine in its Downtown that is producing tax revenue per acre at a rate equal to or higher than many of the Town's more traditional "economic development centers". The Foreside is a unique example of a densely populated center where local business can be supported *in part* by the households that surround it. This is much different than the Route 1 corridor which requires a much larger local and regional draw for spending. Housing plays a factor in the economic development of the Foreside and any future commercial or mixed-use hub the Town wishes to pursue. As more regional competition emerges for commercial and retail dollars, Kittery must figure out how to best support the commercial it has today as well as what it wants to become in the future.

REFERENCES

[i] U.S. Bureau of the Census, American Community Survey, 2006-2010, Table B25032.

[ii] U.S. Bureau of the Census, American Community Survey, 2010-2014, Table DP04.

[iii] U.S. Bureau of the Census, American Community Survey, 2006-2010, Table B25032.

[iv] U.S. Bureau of the Census, American Community Survey, 2006-2010, Table B25004. U.S. Bureau of the Census, American Community Survey, 2010-2014, Table B25004.

[v] U.S. Bureau of the Census, American Community Survey, 2010-2014, Table DP04.

[vi] U.S. Bureau of the Census, American Community Survey, 2010-2014, Table DP04.

[vii] Data provided by Kittery's Code Enforcement Officer on February 11, 2016.

[viii] Data was missing for November and December 2015.

[ix] U.S. Bureau of the Census, American Community Survey, 2010-2014, Table B25106.

[x] U.S. Department of Housing and Urban Development (HUD), Comprehensive Housing Affordability Strategy (CHAS) Data, 2008-2012.

[xi] U.S. Bureau of the Census, American Community Survey, 2010-2014, Table B25106.

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Map 5.1

**YEAR OF RESIDENTIAL
STRUCTURE**

Residences Year Built

- Before 1900
- 1901 - 1940
- 1941 - 1970
- 1971 - 1990
- 1991 - 2015
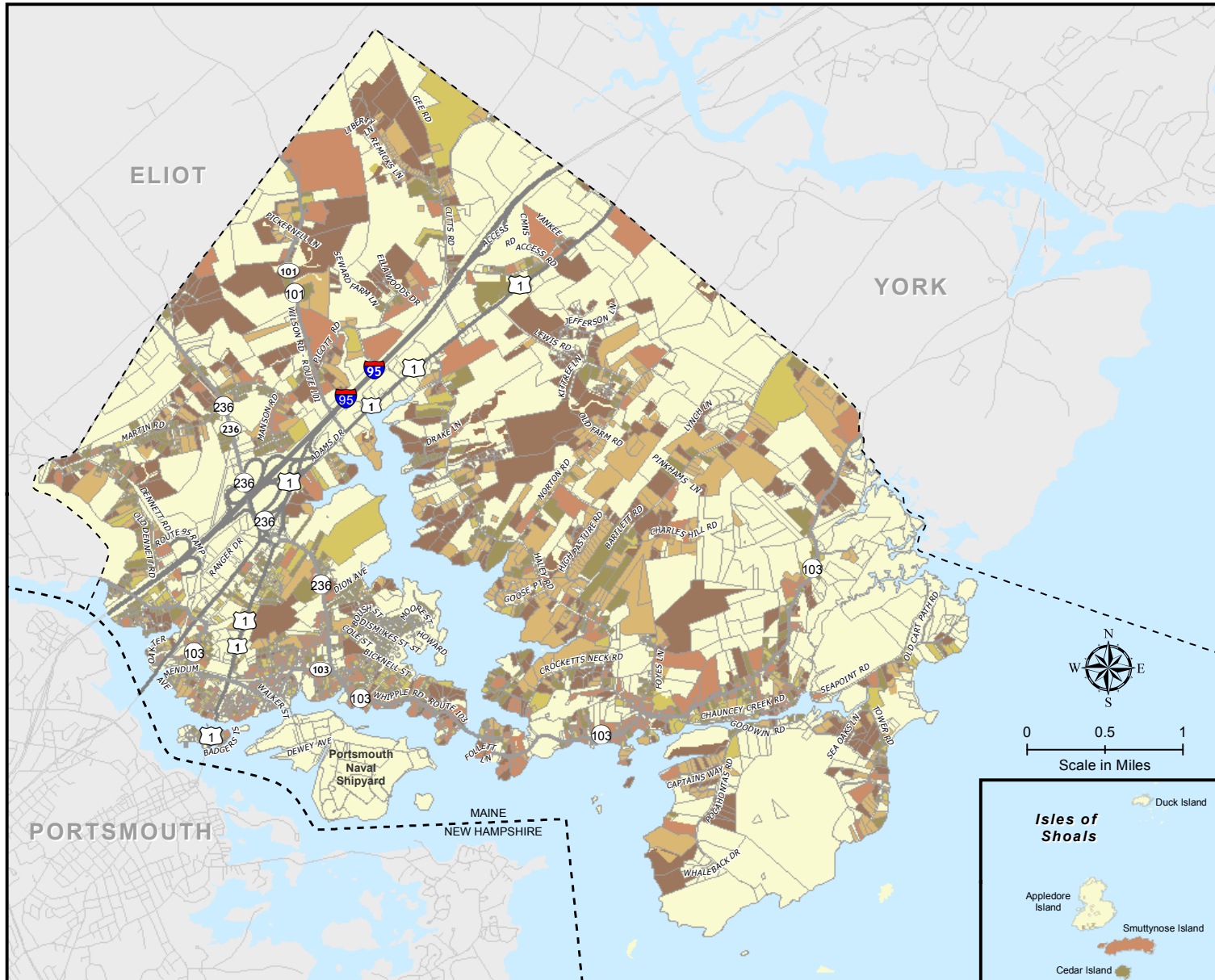
Scale in Miles

0   0.5   1

AECOM

This map is for general planning purposes only. The data used to create the map are not adequate for making legal or zoning boundary determinations or delineating natural resource areas. Exercise caution when interpreting the information on this map.

Isles of Shoals

Duck Island

Appledore Island

Smuttynose Island

Cedar Island

ELIOT

YORK

PORTSMOUTH

MAINE
NEW HAMPSHIRE

Portsmouth Naval Shipyard

TRANSPORTATION AND CIRCULATION

6

This chapter identifies and describes the existing transportation system in Kittery and how it connects with the regional transportation system. It also identifies issues, opportunities and challenges surrounding them to be addressed in the recommendations of the Comprehensive Plan. The chapter begins with the introduction and background, followed by the inventory of the existing transportation conditions. The following elements are summarized in this Chapter:

- Travel Characteristics
- Roadway Functional Classification
- Scenic Roads
- Traffic Volumes
- Maintaining the Transportation Infrastructure
- Safety
- Pedestrian and Bicycle Facilities
- Transit
- Parking

INTRODUCTION AND BACKGROUND

The local transportation system should provide efficient and safe mobility for all transportation modes and connections to regional facilities. The availability and quality of the transportation system is important to residents, businesses, students, visitors, and emergency services. The maintenance and enhancement of the transportation system can be used to attract development and expand the tax base. In addition, the transportation system has impacts on resources, community character, and the quality of life.

Located approximately 51 miles from downtown Portland, Kittery is located within the York County and is the southernmost community of the Southern Maine Planning and Development Commission (SMPDC) region. The SMPDC region is referred to as the "Gateway to Maine" and contains both urbanized areas (such as Biddeford/Saco and Sanford), rural villages/towns, summer resorts and a coastline of approximately 300 miles. SMPDC is connected to a number of cities through I-95 and modes of public transportation, including the "Downeaster" Amtrak service.

Kittery Area Comprehensive Transportation System (KACTS) is the Metropolitan Planning Organization (MPO) for the Maine portion of the Portsmouth and Dover-Rochester, and New Hampshire urbanized areas. The KACTS MPO includes York, Kittery, Eliot, South Berwick, Berwick, and Lebanon.

Kittery is also part of the KEYS (Kittery, Eliot, York and South Berwick) Region, which serves four southernmost towns in Maine: Kittery, Eliot, York and South Berwick. These towns provide strong connections to New Hampshire. KEYS Coordinating Council conducted a planning process called Our Future By Design (OFBD) from 2004 to 2006, which looked at many topics, including transportation.[1]

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[1] KEYS Our Future by Design.
http://www.keysregion.org/keys_ofbd/intro.htm

INVENTORY OF EXISTING TRANSPORTATION CONDITIONS

The inventory of the existing transportation system in Kittery is used to identify deficiencies and needs and as the basis from which to evaluate future conditions and potential improvement measures. Figure 6.1 shows the roadway system in Kittery.

Key points of the existing transportation conditions in and around Kittery are summarized below followed by the detailed description of each element.

TRAVEL CHARACTERISTICS

Demographics and travel characteristics such as journey to work data, vehicles available per household, commute time, and mode share trends are discussed in this section.

DEMOGRAPHICS

Maine's population reached approximately 1,328,361 in 2010, an increase of approximately 4.2 percent since 2000 (1,274,923 total population), or about 0.4% annually. A similar trend was seen in the York County. The region's population increased from 186,742 in 2000 to 197,131 in 2010, a 5.6 percent increase in 10 years. Unlike statewide and region-wide population, Kittery experienced a decrease in population during that time period. The population in Kittery was 9,543 in 2000 and 9,490 in 2010 based on US Census

Bureau data, indicating growth rate of -0.06 percent per year (approximately one percent decrease in 10 years).[2]

SUMMARY OF KEY POINTS
Travel Characteristics

- Unlike statewide and region-wide population, Kittery experienced a decrease of 1% in population between 2000 and 2010.
- Kittery is the largest work destination for Kittery residents and for residents in the KACTS communities.
- Nearly 52% of Kittery workers work in Kittery and 28% in Portsmouth.
- 85% of Kittery households have one or two vehicles compared with the state average of 74%. Approximately 6% of households in Kittery have no vehicles.
- Approximately 71% of Kittery workers drive alone and 22% used other modes. The number of trips for all the modes has increased since 2000 except for the drive alone trips.
- Average commute time = 21 minutes, shorter than the national and state averages. Number of commuters travelling less than ten minutes has decreased since 2000.

JOURNEY TO WORK DATA

Kittery is the largest work destination for Kittery residents. It is also the largest work destination for residents in the KACTS

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[2] U.S. Census Bureau 2000 and 2010.

Figure 6.1: Roadway System in Kittery
Source: Town Maps. 2011 Street Map. Town of Kittery, Maine

communities. This is mainly because of the Portsmouth Naval Shipyard in Kittery. Approximately 25% of the Shipyard's total workforce is composed of residents living in the five KACTS communities. Although the Shipyard cutback its workforce in the 1990s, the worker population increased since 1999. Besides the Shipyard, Kittery also hosts a number of other large employers, and is the dominant employment center in the KACTS area.

Figure 6.2 shows major work destinations for Kittery residents based on U.S. Census Bureau, American Community Survey Five Year Estimates 2006-2010.[3] As shown in the figure, 1,130 Kittery residents (approximately 52 percent of a total of 2,153 workers) work in Kittery. Approximately 28 percent of Kittery residents work in Portsmouth, New Hampshire (610 employees). York Harbor, Maine is the third largest work destination for Kittery residents, employing approximately 110 workers. All the other communities employed less than 5% of Kittery residents.

Figure 6.3 shows the major residence locations for people working in Kittery based on U.S. Census American Community Survey Five year Estimates 2006-2010. As shown in the figure, approximately 1,285 of a total of 5,214 people working in Kittery live in Kittery. Other communities with a large number of residents working in Kittery include Portsmouth, New Hampshire (500), South Eliot, Maine (415) and Dover, New Hampshire (350).
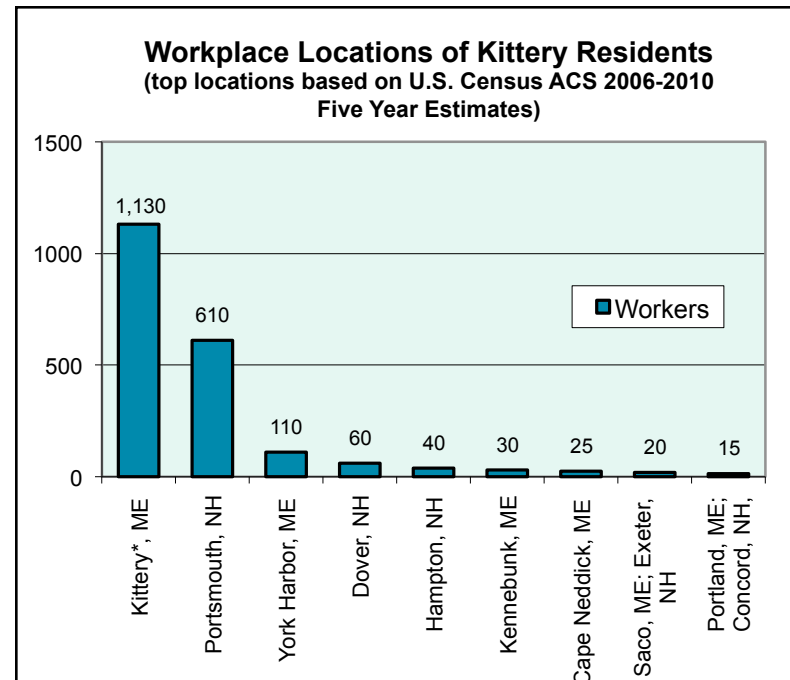

Figure 6.2: Workplace Locations of Kittery Residents Roadway System in Kittery

Note:
* Kittery also includes residents who work in Kittery Point, Maine.

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[3] U.S. Census Bureau, American Community Survey 2006-2010 Five-year estimates. Special Tabulation: Census Transportation Planning.

Residence Locations of People Working in Kittery
(top ten locations based on U.S. Census ACS 2006-2010 Five Year Estimates)
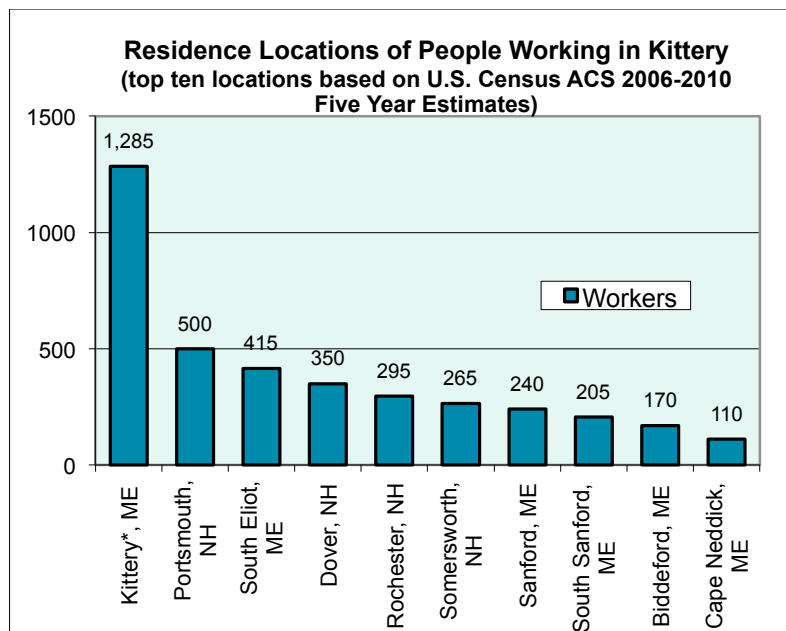
Figure 6.3: Residence Locations of People Working in Kittery

Note:
* Kittery also includes people with residence locations in Kittery Point, Maine.

VEHICLES AVAILABLE

Figure 6.4 shows vehicles available for households in Maine and Kittery for 2010-2014 based on American Community Survey (ACS) five-year estimates. It shows 74% of the households in Maine and 85% in Kittery had one or two vehicles. Kittery had fewer

households with over 3 vehicles per household (9%) compared with the State (18%).

Household Size by Vehicles Available
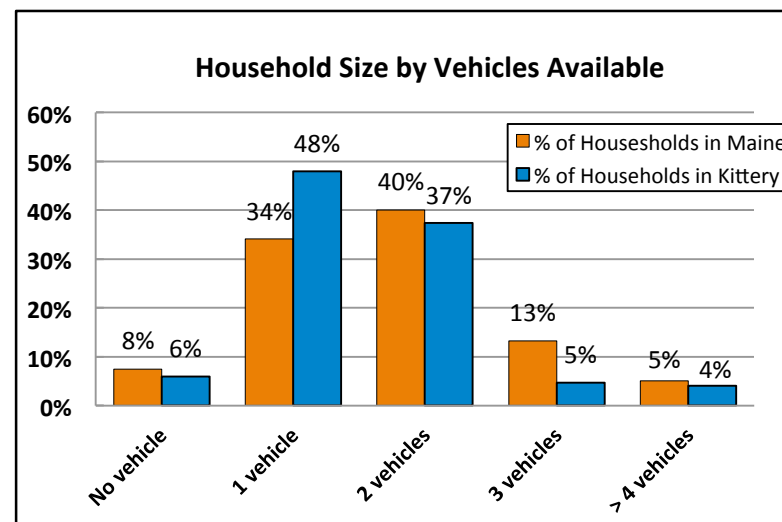
Figure 6.4: Household Size by Vehicles Available

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates. Table: Household size by vehicles available.

MODE SHARE

Table 6.1 summarizes mode share trends for the state of Maine and the Town of Kittery. Overall, it shows that the state experienced a decrease in the percent of people who drove alone, carpooled and walked to work and increase in percent of

people who used bicycle and other means. For Kittery, all the mode shares experienced an increase in 2010-2014 compared to 2000 except for the percent of people who drove alone, which decreased.

Table 6.1:   Work Mode Share Comparison

| Mode to Work | Maine Workers | | | | Kittery Workers | | | |
| | 2000 | | 2010 – 2014 | | 2000 | | 2010 - 2014 | |
	No.	%	No.	%	No.	%	No.	%
Drove Alone	483,317	78.6%	494,250	78.1%	3,869	78.7%	3,636	70.7%
Carpooled	69,208	11.3%	65,134	10.3%	538	10.9%	591	11.5%
Public Transportation[1]	3967	0.6%	4,061	0.6%	16	0.3%	28	0.5%
Walked	24,700	4.0%	24,784	3.9%	235	4.8%	313	6.1%
Bicycle	1,402	0.2%	3,164	0.5%	23	0.5%	123	2.4%
Other Means[2]	5,588	0.9%	7,493	1.2%	35	0.7%	53	1.0%
Worked at home	26,962	4.4%	33,871	5.4%	202	4.1%	402	7.8%
Total	**615,144**	**100%**	**632,757**	**100%**	**4,918**	**100%**	**5,146**	**100%**

Source: U.S. Census Bureau 2000 and 2010-2014 American Community Survey 5-Year Estimates.

1. Excludes taxicab
2. Includes taxicab, motorcycle and other means

Compared to the state, Kittery observed a significant decrease (8 percent) in the percent of workers who drove alone to work in 2010-2014 (70.7 percent) compared to 2000 (78.7 percent). The percent of workers who drove alone decreased by only approximately 0.5 percent in the state over the same period. The percentage of workers that carpooled in Kittery increased from

10.9 percent in 2000 to 11.5 percent in 2010-2014, while carpoolers in the state declined by one percent over the same period. In Kittery, use of bicycle increased significantly from 0.5 percent in 2000 to 2.4 percent in 2010-2014, which represents 100 additional commuters who biked. Both the state and Kittery observed an increase in the percent of workers who worked at home in 2010-2014 compared to 2000. In Kittery, the number almost doubled from 202 to 402.

COMMUTE TIME

The nationwide commute time increased very slightly in 2010-2014 compared to 2000 (25.5 minutes in 2000 to 25.7 minutes in 2010-2014). The statewide commute time increased by 3.5% from 22.7 minutes in 2000 to 23.5 minutes in 2010-2014. Similar to the statewide commuting trend, mean commuting time for Kittery residents increased by approximately 4%. The commute time for Kittery residents was 21 minutes in the 2010-2014 five-year estimate period compared to 20.2 minutes in 2000.[4] Figure 6.5 shows mean commute time for United States, Maine and Kittery for 2000 and 2010-2014.

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[4] U.S. Census 2000 and American Community Survey 2007-2011 Five-Year Estimates.
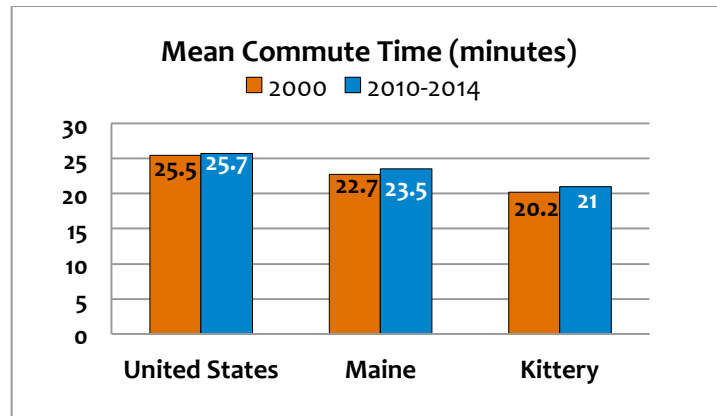
Figure 6.5: Mean Commute Time (minutes)

Source: U.S. Census Bureau 2000 and 2010-2014 American Community Survey 5-Year Estimates.

Figure 6.6 presents the commute time for Kittery workers. In 2000 and 2010-2014, a total of 4,716 and 4,744 workers travelled to work, respectively. The figure shows that a significant number of Kittery workers have short commute times (under 20 minutes) to work. During both time periods, approximately 65% of the workers travelled under 20 minutes. The number of workers who traveled between 35-44 minutes experienced a significant decrease (57%) since 2000. Similarly, the number of commuters traveling less than ten minutes decreased by 25%. There was a significant increase in the number of commuters who travelled between 45-59 minutes and over 60 minutes in 2010-2014 compared to 2000.
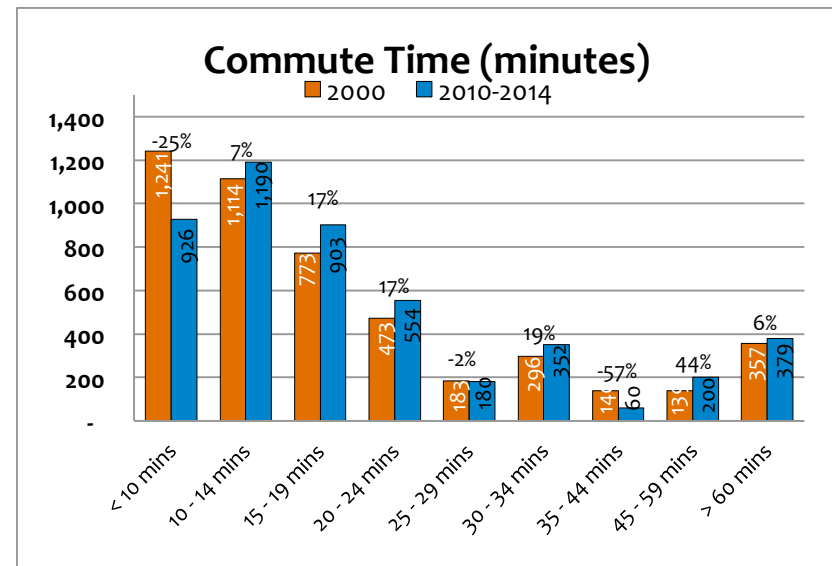
Figure 6.6: Commute Time (minutes) for Kittery Workers

Source: U.S. Census Bureau 2000 and 2010-2014 American Community Survey 5-Year Estimates.

ROADWAY FUNCTIONAL CLASSIFICATION AND DESIGN STANDARDS

Vehicular travel involves movement through a network of roads. Functional classification is the process of grouping streets and highways according to the character of service they are intended to provide. This classification determines how travel can be guided within a road network in a logical and efficient manner and is used to determine the long-term management and

development of the Town's roadway network. The Maine Department of Transportation (MaineDOT) has classified roadways in Kittery as state and federal aid roadways for the purpose of roadway planning and maintenance. The Town of Kittery has modified this system of classification to suit its own roadway planning and maintenance programs. These two systems are for the most part consistent with each other.

The following sections summarize MaineDOT's and Kittery's roadway functional classification systems.

SUMMARY OF KEY POINTS
Functional Classifications

- The MaineDOT classifies roadways in Kittery as state and federal aid roadways. The Town of Kittery has modified this system of classification to suit its own roadway planning and maintenance programs.
- Kittery has 73.42 miles of roadways, including Interstate 95.
- Approximately 44 miles are designated as townway/seasonal roadways. State Aid Highway and State Highway in Kittery account for 13.47 and 11.32 miles, respectively. Interstate I-95 is approximately 4.22 miles long in Kittery.
- Highway interchanges account for approximately 1.5% of the total town land area.

MAINEDOT FUNCTIONAL CLASSIFICATIONS

MaineDOT classifies roadways as follows: arterials, collectors, and local roads as illustrated in Figure 6.7. In total Kittery has 73.42 miles of roadways, including Interstate 95.

ARTERIALS

Arterials, as designated by MaineDOT, are intended to provide a high degree of mobility, handle large volumes of traffic, and serve longer trips. Arterials are major roadways that connect with collector roadways to provide access to activity centers, such as downtown Kittery and the Kittery Mall Outlets on Route 1 corridor. They include Interstate 95, US Route 1 and US Route 1 Bypass. Arterials are capable of handling between 10,000 and 30,000 vehicles per day. Kittery has 18.95 miles of state designated arterial roadways.

Kittery's current roadway network consists of the following state and/or federal designated principal and minor arterials based on MaineDOT functional classification system:

Principal Arterials:
- Interstate 95 (Maine Turnpike)
- US Route 1
- US Route 1 Bypass
- Route 103 - East of I-95 (US Route 1 to Wyman Avenue)
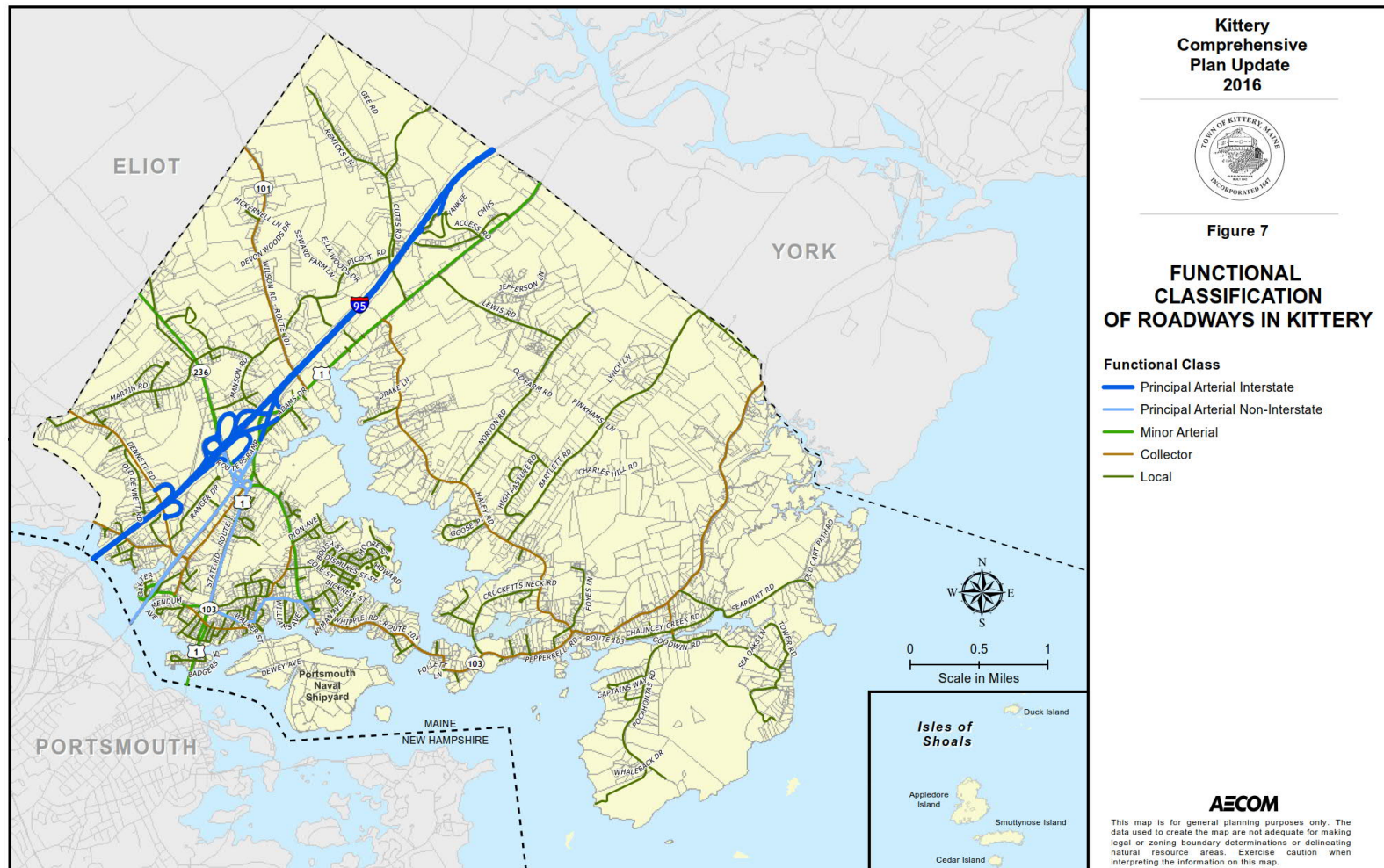
Minor Arterials:
- Route 236

Figure 6.7: MaineDOT Functional Classification of Roadways in Kittery

- US Route 1 - North of Traffic Circle
- US Route 1 - South of Walker Street
- Oak Terrace
- Bridge Street
- Walker Street – West of Us Route 1
- Government Street – West of Walker Street

COLLECTORS

Collectors link the arterial roadways with residential neighborhoods. Ideally, collectors are spaced conveniently to manage local road traffic and typically have two travel lanes; two parking lanes or six-to-eight foot shoulders and have a capacity to carry 8,000 to 10,000 vehicles per day. There are 8.74 miles of state designated collector roadways in Kittery.

Most collectors are under local jurisdiction. Kittery's current roadway network consists of the following state and/or federal designated collectors based on MaineDOT functional classification system:

Collectors:
- Dennett Road
- Government Street (Walker Street to Wallingford Square)
- South Eliot Road (Route 103)
- Rogers Road
- Route 103 – East of Wyman Avenue
- Haley Road (From US Route 1 to Route 103)
- Gerrish Island Lane
- Wilson Road (Route 101)
- Old Post Road

- Cook Street

LOCAL ROADS

Local roads are designed to have direct access to abutting properties, usually residential. They are relatively short and discontinuous to limit the amount of traffic volume that can be carried. Local roads usually have two travel lanes and parking. Traffic volumes are minimal, usually under 1,000 trips per day. Kittery has 45.74 miles of local roads. It is typical for local roadways to comprise a majority of the roadways in a community.

KITTERY'S FUNCTIONAL CLASSIFICATION SYSTEM AND ROAD STANDARDS

The Kittery Public Works Department has developed a street classification system that defines the type of roadway by the level of traffic it can be expected to accommodate. This functional classification system is codified in the Land Use and Development Code of the Town of Kittery with design and construction standards for each class.[5] The town classifies roadways as arterial highways, secondary arterials, primary collectors, secondary collectors, minor streets and private streets as described below. Although the town has accepted this approach to roadway

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[5] Town of Kittery. Title 16 Land Use and Development Code. Recodified on July 26, 2010 and latest amendment made on October 26, 2015.
http://www.kitteryme.gov/Pages/KitteryME_TownCode/Title%2016%20thru%2010-26-2015.pdf

classification, it is important to note that many of the older roads that have been assigned to a specific class may not meet the current standard(s). This system is seen as a starting point for a systematic roadway classification program and should be applied to all new roads in Kittery.

ARTERIALS

Arterials include both arterial highways and secondary arterials.

Arterial highways are major traffic ways that provide connections with other thoroughfare or interstate roads. The average daily traffic (ADT) volume would be 9,001 or more trip ends. Primary arterials designated by the Town include Interstate-95, Route 1, Route 1 Bypass, Route 236 (including Rogers and Shapleigh Roads), Walker Street, and Bridge Street.

Secondary arterials carry relatively high volumes of traffic to and from arterial highways, adjacent communities, and through local residential areas, activity centers and minor commercial establishments. The ADT would be 3,001 to 9,000 trip ends. Designated secondary arterials include New Dennett Road, Route 103 from the Eliot town line through Kittery to the York town line, Haley Road, Government Street, and Wilson Road.

The Land Use and Development Code of the Town of Kittery states that street construction for roadways will generally be affected by the type of development and these types of roadways may require design and construction standards based upon special studies for required roadway improvements and/or construction.

Following is a brief description of primary arterials (Interstate 95, Route 1 and Route 236) in Kittery. These major roadways provide the greatest amount of mobility into, out of and through the Town.

- Interstate 95 (I-95) is a six lane, principal arterial with toll facility. It passes through southern Maine, including the Towns of Kittery and York, and crosses into New Hampshire. I-95 is a major commercial route within and between Maine and the rest of New England and is a major commuting corridor within the KACTS region. I-95 carries the largest volume of traffic in Kittery, approximately 37,500 vehicles per day (vpd) in 2014, though traffic volumes can vary depending on the time of year. In 2012, the average daily traffic volume at exit 7 was 46,965 vpd. During the month of August 2013, the average daily traffic volume peaked to a high of 66,438 vpd.[6]

- Route 1 is a four lane principal arterial in Kittery. It becomes a two lane arterial in parts of York, Ogunquit and Wells. In Kittery, Route 1 is mainly used by commuters and shoppers who utilize the outlet malls in Town and is used by seasonal travelers from New Hampshire through York County and on up to the northern part of the State. A short bypass segment that loops around the downtowns of Portsmouth and Kittery connects Route 1

[6] KACTS. Long Range Transportation Plan Update 2014-2040. Approved: September 08, 2014.

to I-95. Average daily traffic volumes on Route 1 in Kittery ranged from 3,570 vpd to 16,930 vpd in 2013.

- Route 236 is a two lane arterial that connects Kittery, Eliot, South Berwick and Berwick. It is a major commuter corridor and carried average daily volumes ranging from 4,650 to 18,660 in 2013.

PRIMARY COLLECTORS

Primary collectors may be residential or business or both, and serve both as collectors to lesser residential streets and as connections to or between arterials. The ADT would be from 801 to 3,000 trip ends and in the interests of traffic and public safety must be owned and maintained by the Town. Designated primary collectors include Martin Road, Manson-Picott Roads, Dana Avenue, Cutts-Betty Welch and Chauncey Creek Road. Primary collectors in the urban area of Kittery include Old Post Road, Love Lane, Rogers Road, Woodlawn Avenue, Rogers Road Extension, Maple Avenue and Cook Street.

The Town's design and construction standards provide for 60 feet for right-of-way, 22 feet for travel pavement, 6 feet for sidewalk, paved shoulder (2 feet for walk side, 8 feet for opposite side), 2 feet for gravel shoulder on opposite side, and one side of street for parking.

SECONDARY COLLECTORS

Secondary collectors may be residential or business or both and connect to or between streets of a higher classification and/or

may collect traffic from minor streets or private ways. The ADT would be 201 to 800 trip ends. Secondary collectors in Kittery include Stevenson Road, School Lane, Seapoint Road, Leach Road, Gerrish Island Lane, Cutts Island Lane, Fernald Road, Remicks Lane, Old Dennett Road (upper), and Spinney Way.

The Town's design and construction standards provide for 60 feet for right-of-way, 22 feet for travel pavement, 6 feet for sidewalk, paved shoulder (2 feet for walk side, 8 feet for opposite side), 2 feet for gravel shoulder on opposite side, and emergency parking.

MINOR STREETS

Minor streets are predominantly single-family residential short or dead end streets which may have branching minor streets, private lanes, or private ways and connect traffic to streets of higher classification. This is the lowest of the public street in the hierarchy and must serve at least four dwelling units. The ADT would be 35 to 200 trip ends. Minor streets include Sunset Drive, Emery Lane, Bayview Lane, Harris Avenue, Folcutt Road, Armour Drive, and Meadow Lane. In the urban area such roads include Colonial Drive, Boush Street, Phelps Street, Paul Street, Pleasant Street, Otis Avenue, Palmer Avenue, and Rogers Lane.

The Town standards provide for 50-feet right-of-way, 22-feet travel pavement, 5 feet for sidewalk, paved shoulder (2 feet for walk side, 8 feet for opposite side), 2 feet for gravel shoulder on opposite side, and emergency parking.

PRIVATE STREETS

Private streets function exclusively as residential streets serving high density housing developments including clustered housing, apartments, elderly housing, and mobile home parks and may not be dedicated for public acceptance. Maintenance and improvements must be controlled by proprietorship, corporation, association, or deed covenants. The Land Use and Development Code of the Town of Kittery states that the ADT for private streets would be 72 to 800 trip ends for Class III, 35 to 71 trip ends for Class II, and 12 to 35 trip ends for Class I private streets.

The Land Use and Development Code of the Town of Kittery states that design and construction of Class III private streets is to be in accordance with the applicable standards and specifications for public streets (Primary collectors, secondary collectors, and minor streets).

For Class II private streets, the Town's design and construction standards provide for 40 feet for right-of-way, 20 feet for travel pavement, 5 feet for sidewalk, gravel shoulder on both sides, and emergency parking.

For Class I private streets, the Town's design and construction standards provide for 40 feet for right-of-way, 18 feet for travel pavement (gravel), 5 feet for sidewalk, and no parking.

PUBLIC ROADWAY CENTERLINE MILEAGE

York County provides public roadway centerline mileage by municipality. Table 6.2 shows the public roadway centerline mileage for York County and Kittery. Kittery has 74.06 miles of roadway. Most of these (approximately 44 miles) are designated

as townway/seasonal roadways. State Aid Highway and State Highway in Kittery account for 13.47 and 11.32 miles, respectively. Interstate I-95 is approximately 4.22 miles long in Kittery.

The highway interchanges in Kittery comprise of approximately 1.5% of the total town land area. The interchanges have a significant impact on existing and future land use and development.

Table 6.2:   Public Roadway Centerline[1] Mileage

	Interstate	State Highway	State Aid Highway	Townway/ Seasonal	Other[2]	Total
York County	40.43	258.68	341.8	1607.16	16.42	2264.49
Percent	2%	11%	15%	71%	1%	100%
Kittery	4.22	11.32	13.47	44.07	0.98	74.06
Percent	6%	15%	18%	60%	1%	100%

Source: York County. Public Road Centerline Mileage by Municipality as of 1/9/09.
Note:
  1   A centerline mile is measured along the center of the road regardless of the number of lanes.
  2   Other includes reservation and seasonal parkways. Reservation mileage is the sum of "National Military and Naval, Other National, State Forest, State Park and other State mileage."

The Land Use and Development Code of the Town of Kittery provides street and pedestrian ways/sidewalks site design

standards.[7] The standards require the design of streets to provide for proper continuation of streets from adjacent development and for proper projection into adjacent undeveloped and open land. The local road design standard does not include bicycle accommodations. The Land Use and Development Code includes:

- Street classification,
- Access control and traffic impacts regulations for vehicular access to a development and circulation in the lot,
- Dead-end streets regulations, and
- Street construction standards.

Recently built residential developments on the northern side of Kittery (for example, off of Haley Road) are characterized with longer dead-end streets (cul-de-sacs), which limit access and prevent connectivity to the roadway network.

SCENIC ROADS

The Town of Kittery has a number of roads that contribute to the community's scenic character and visual environment. These roads typically wind and change in elevation, may have mature trees, stonewalls or other visually defining characteristics, and provide a scenic experience to a person traveling along the road. Roads that have been rated as having the greatest scenic value for the community are designated at scenic roads.

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[7] Town of Kittery. Title 16 Land Use and Development Code. Recodified on July 26, 2010 and latest amendment made on October 26, 2015. Pages 171 -195.

Scenic roads as identified in the 1999 Comprehensive Plan are classified into three groups: Category One (those of the highest value), Category Two (those of very high value), and Category Three (those of high value).

> **SUMMARY OF KEY POINTS**
> **Scenic Roads**
>
> Scenic roads as identified in the 1999 Comprehensive Plan are classified into three groups: Category One (those of the highest value), Category Two (those of very high value), and Category Three (those of high value).

Category One Scenic Roads include:
- Route 103 including Whipple Road, Pepperrell Road, Tenney Hill Road, and Brave Boat Harbor Road
- Seapoint Road
- Chauncey Creek Road
- Hunter and Newmarch Streets
- Government Street
- Crockett Neck Road from Route 103 to Bond Road
- Old Ferry Lane
- Picott Road
- Wilson Road from Picott Road to the Eliot Line
- Haley Road from Route 1 to Hartley Farm Road

Category Two Scenic Roads include:
- Tower Road
- Love Lane
- Cutts Road from Picott Road to Betty Welch Road

- Goodwin Road
- Old Dennett Road west of I-95
- The half-mile of Bartlett Road near the York line
- Lawrence Lane
- Adams Road

Category Three Scenic Roads include:
- Miller Road
- The upper end of Norton Road
- Pocahontas Road Extension
- Litchfield Road
- Betty Welch Road

TRAFFIC VOLUMES

Traffic volume counts are one method used to evaluate traffic. Weekday daily roadway traffic volumes collected in 2010 and 2013 on select arterials, collectors and local roadways in Kittery are shown in Table 6.3 and in Figure 6.8. Table 6.3 also summarizes weekday daily traffic volume growth on the roadways. The following summarizes traffic volumes in Kittery:

- Interstate 95 (I-95), principal arterial with toll facility in Kittery, carried the largest weekday daily traffic volume with 37,500 vehicles per day (vpd) in 2014. Traffic volume on I-95 increased by 0.3% per year between 2010 and 2014.
- Daily volumes on US Route 1, ranged from 4,110 vpd to 16,930 vpd in 2013. US Route 1 experienced decrease in traffic volume by 3.2% to 6.1% per year between 2010 and 2013.

- Daily volumes on Rogers Road (State Route 236) ranged from 10,740 vpd to 18,660 vpd in 2013. As shown in Table 6.3, two segments on Rogers Road experienced increase in traffic volume while one segment experienced decrease in volume.
- Shapleigh Road (State Route 236) carried 10,340 vpd to 12,070 vpd. Daily traffic volume on Shapleigh Road increased up to 7.3% per year.

SUMMARY OF KEY POINTS
Traffic Volumes

- I-95: 37,500 vehicles per day (vpd), Route 1: 16,930 vpd and Route 236: 18,660 vpd have the highest daily traffic volume.
- Most of the roadway segments experienced decrease in daily traffic volume between 2010 and 2013. Shapleigh Road increased up to 22% during this period.
- When I-95 experiences congestion, particularly during summer months, local roadways experience congestion and are used as cut-throughs.
- Route 103 is a narrow, winding roadway shared by vehicles, motorcycles, and bicyclists, particularly on warm weather weekends.

- Walker Street (State Route 103) experienced daily traffic volumes ranging from 8,110 vpd to 8,460 vpd in 2013. Traffic volume on Walker Street decreased by 0.6% to 1% per year between 2010 and 2013.
- Whipple Road southeast of Woodlawn Avenue experienced 8,830 vpd in 2013, a decrease of 2.6% from 2010 to 2013.

- Daily traffic volume on Government Street ranged from 1,970 vpd to 7,570 vpd in 2013. Government Street east of Hunter Avenue had the largest decrease in traffic volume (a decrease of 10.4% per year between 2010 and 2013).
- The remaining roadways in Kittery carried fewer than 5,000 vehicles per day.

Additionally, daily traffic volume on US Route 1 Bypass ranged from 2,640 vpd southwest of US Route 1 to 15,670 vpd at New Hampshire state line at Sarah Mildred Long Bridge.

Route 103 is a narrow, winding roadway shared by vehicles, motorcycles, and bicyclists, particularly on warm weather weekends.

Table 6.3: Roadway Traffic Growth in Kittery

Location	Daily Traffic Volume on Roadways		Percent Change	Annual Percent Change
	2010	2013		
I-95 SB @ NH State Line[1]	37,010	37,500	1%	0.3%
US 1 SW/O SR 101 (Wilson Rd)	18,730	16,930	-10%	-3.2%
US 1 @ Spruce Creek BR #2553	17,650	16,260	-8%	-2.6%
US 1 NE/O Haley Rd	12,330	10,940	-11%	-3.8%
US 1 SW/O Rest Area Rd	11,080	9,820	-11%	-3.8%
US 1 (State Rd) S/O Traffic Circle	9,880	9,200	-7%	-2.3%
US 1 SB SW/O I-95 NB On Ramp	9,250	8,400	-9%	-3.1%
US 1 (State Rd) N/O Love Ln	9,790	8,390	-14%	-4.8%
US 1 NB S/O US 1 Bypass NB	7,040	6,470	-8%	-2.7%

US 1 (State Rd) N/O Traffic Circle	7,310	6,230	-15%	-4.9%
US 1 SB SW/O I-95 SB on RP from US 1 SB	5,000	4,560	-9%	-2.9%
US 1 (State Rd) NB S/O SR 103 (Walker St.)	5,030	4,110	-18%	-6.1%
Rogers Rd (SR 236) NW/O Martin Rd	17,990	18,660	4%	1.2%
Rogers Rd (SR 236) SE/O Stevenson	18,120	18,630	3%	0.9%
Rogers Rd (SR 236) E/O Traffic Circle	12,220	10,990	-10%	-3.4%
Rogers Rd (SR 236) N/O Dion Ave	11,570	10,740	-7%	-2.4%
Shapleigh Rd (SR 236) SE/O Rogers Rd	10,460	12,070	15%	5.1%
Shapleigh Rd (SR 236) NW/O Whipple Rd (SR 103)	8,490	10,340	22%	7.3%
SR 236 SB NW/O Traffic Circle @ Overpass	11,350	10,720	-6%	-1.9%
SR 236 NB SE/O Dana Ave	9,060	9,400	4%	1.3%
SR 236 NB NW/O Traffic Circle @ Overpass	8,510	7,520	-12%	-3.9%
Walker St (SR 103) E/O US 1 (State Rd)	8,690	8,460	-3%	-0.9%
Walker St (SR 103) E/O Main St	8,570	8,360	-2%	-0.8%
Walker St (SR 103) W/O Jones Ave	8,600	8,350	-3%	-1.0%
Walker St (SR 103) W/O SR 103 (Wentworth)	8,270	8,110	-2%	-0.6%
Whipple Rd (SR 103) SE/O Woodlawn Ave	9,590	8,830	-8%	-2.6%
Government St (SR 103) SE/O Bridge St	7,420	7,570	2%	0.7%
Government St NW/O Stimson St	1,750	2,040	17%	5.5%
Government St (OW) E/O Hunter Ave	2,860	1,970	-31%	-10.4%

Dennett Rd N/O I-95 SB On Ramp	3,200	3,890	22%	7.2%
Manson Ave E/O Shapleigh Rd (SR 236)	2,350	2,750	17%	5.7%
Haley Rd E/O US 1	2,710	2,660	-2%	-0.6%
Haley Rd N/O Crocketts Neck Rd	1,830	1,640	-10%	-3.5%
Tenney Hill (SR 103) W/O Chauncy Creek Rd	2,460	2,270	-8%	-2.6%
Cutts Rd N/O US 1	2,120	2,040	-4%	-1.3%
Government St NW/O Stimson St	1,750	2,040	17%	5.5%
Stevenson Rd NE/O Rogers Rd (SR 236)	1,650	1,750	6%	2.0%
Old Post Rd NE/O Cook St (SR 103)	2,060	1,730	-16%	-5.3%
Chauncy Creed Rd SE/O Tennye Hill (SR 103)	1,270	1,080	-15%	-5.0%

Source: Maine Department of Transportation. 2014 Maine Transportation Count Book.

Note:
1   For I-95, 2014 volume was available instead of 2013 therefore, 2014 volume was used.

TRAFFIC OPERATIONS

In Kittery, traffic congestion on local streets is experienced due to traffic generated by the stores on Route 1 and the Portsmouth Naval Shipyard (PNSY).   The Portsmouth Naval Shipyard has

more than 5,000 employees[8], who enter and exit the PNSY through Gate 1 near Walker Street and Wentworth Street and Gate 2 at Whipple Road and Wyman Avenue. Traffic backing up into residential neighborhoods during the daytime shift change is a major issue. This Comprehensive Plan will help identify measures to manage and reduce traffic to Kittery's transportation system.

The PNSY promotes carpooling and offers transportation via the COAST bus system. In Kittery, COAST provides year round limited transit services from PNSY to towns in New Hampshire and Maine.

When I-95 experiences congestion, particularly during summer months, local roadways experience congestion and are used as cut-throughs.

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[8] KACTS. Long Range Transportation Plan Update 2014-2040. Approved: September 08, 2014.
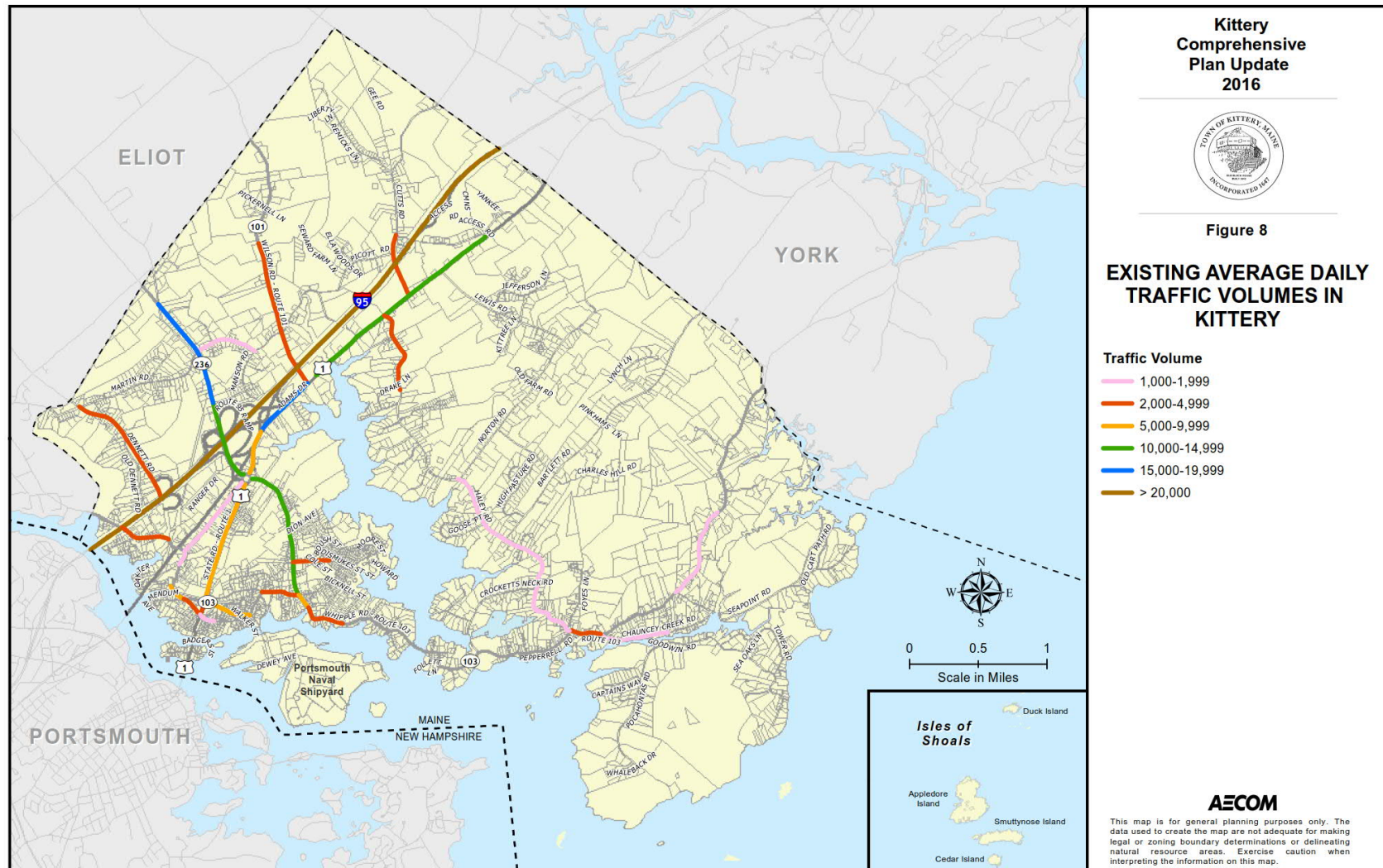
Figure 6.8: Existing Average Daily Traffic Volumes in Kittery

MAINTAINING THE TRANSPORTATION INFRASTRUCTURE

This section discusses transportation infrastructures, including pavement management, bridges and sidewalks.

SUMMARY OF KEY POINTS
Maintaining the Transportation Infrastructure

- The DPW conducts a full roadway inventory every three years and it is used as a basis for setting road maintenance priorities. Typically, the roadways with ratings of less than 50 would be on the priority list for maintenance in a given years.
- Most of the sidewalks in Kittery are along US Route 1 and in the urban downtown area.
- Most of the bridges in Kittery received a Federal Sufficiency Rating (SFR) above 50. Viaduct and Sarah Mildred Long Bridge have the lowest ratings of 16.4 and 21, respectively. Memorial Bridge replacement was completed in 2013.

PAVEMENT MANAGEMENT

The Department of Public Works (DPW) has established a policy for local roadway maintenance that is referred to as the Road Surface Management System. This system groups roadways into three categories: 1) State Aid Roads, 2) Local Collector/Connector Roads, and 3) Local Roads. Within each of these categories roadway segments are identified and for each segment a rating is given as well as the length of the roadway and the date of last

maintenance (i.e., sealed, paved, other). The inventory also identifies the specific repairs that are necessary.

The rating system is based upon a numerical rating from 1 to 100 where 100 is the highest rating. Such roadway conditions as deficient drainage, rutting, pot holes, cracks, and shoulder raveling are rated. The DPW conducts a full roadway inventory every three years and it is used as a basis for setting road maintenance priorities. Typically, the roadways with ratings of less than 50 would be on the priority list for maintenance in a given years.

Kittery's current budget for road maintenance and improvement includes $900,000 in state aid and $ 600,000 in bond money for paving.

Figure 6.9 "Road Surface Ratings and Repair Categories" illustrates the road surface repair categories.

Town of Kittery, Maine
Pavement Management Program
Road Surface Ratings & Repair Categories

Repair Category
— Defer Maintenance
— Routine Maintenance
— Preventative Maintenance
— Rehabilitation
— Reconstruction
— Gravel

DRAFT

Date of Inspections: April 2015
Issue Date: August 20, 2015
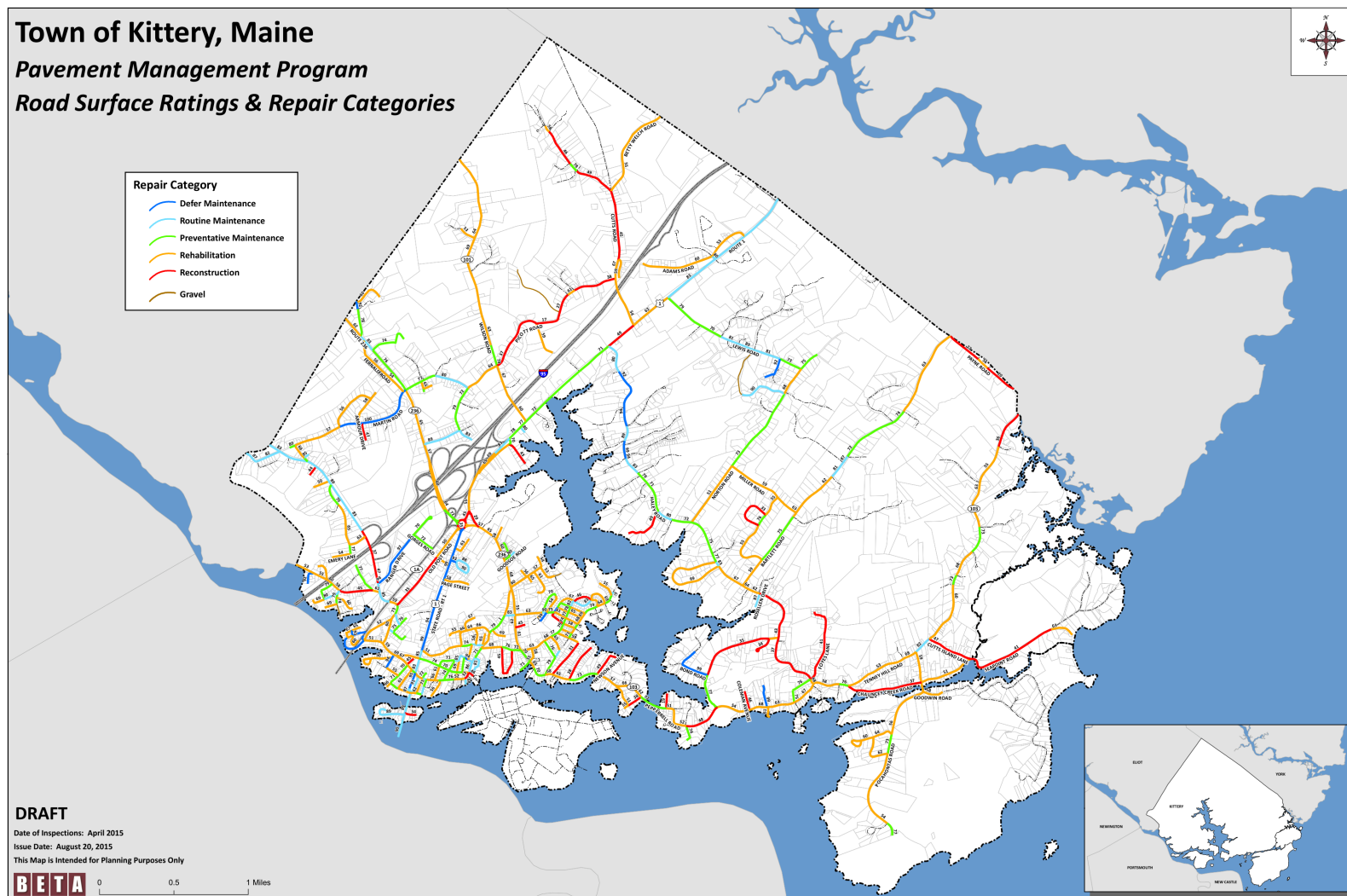**This Map is Intended for Planning Purposes Only**

Figure 6.9: Road Surface Ratings and Repair Categories for Kittery
Source: Town of Kittery, Maine and BETA. August 20, 2015

SIDEWALKS

The Kittery Department of Public Works maintains an inventory of sidewalks in a Sidewalk Condition Report. Each sidewalk section is identified by type (paved or concreate) and length and condition (Excellent, Good, Fair, Poor).

Most of the sidewalks in Kittery are along US Route 1 and in the Foreside area. The sidewalks along Route 1 are located on Badger's Island and in the areas from Water Street to the south of traffic circle and the Kittery Mall Outlets. Large lengths of sidewalks in the Foreside and urban business districts are along Dana Avenue, Cook Street/Old Post Road, Government Street, Walker Street, Bridge Street, Dion Avenue, Manson Avenue, Rogers Road, Shapleigh Road, Whipple Road, Woodlawn Avenue and Pepperrell Road. Sidewalk is also present along short segment of Dennett Road (from Old Post Road to South Eliot Road).

The KACTS has completed a study with Kittery to identify opportunities to make the Route 1 Bypass more bike and pedestrian friendly, especially once the new Sarah Mildred Long Bridge is constructed.

Some recent sidewalk projects include:
- Repaving of the sections of Taylor parking lot and front sidewalk in 2012[9];
- New sidewalks around the "When Pigs Fly" property in 2011[10]; and

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[9] 2011-2012 Annual Report for the Town of Kittery, Maine.

- Completion of Stevenson Road and sidewalk improvements in FY 2010-2011[11].

The Town of Kittery was awarded 1.5 million dollars to continue improving the Route 1 corridor, including the Memorial Traffic Circle rebuild, additional sidewalks, drainage, island reconstruction, culvert replacement, pavement overlays and other related work.[12] Construction is due to begin in summer 2017.

BRIDGES

The MaineDOT, the Maine Turnpike Authority, and the Kittery Department of Public Works are responsible for bridges in Kittery. There are approximately 20 bridges and ramp structures maintained by the state that are associated with Interstate-95, Route 1 and the Route 1 Bypass, including the bridges over the Piscataqua River. In addition, there are three state maintained "local" bridges, including the Kittery Point Bridge over Spruce Creek on Route 103, the Gerrish Island Bridge over Chauncey Creek and the Route 1 Bridge/Culvert over Spruce Creek. The state also owns and maintains the Route 103 overpass on the Boston and Maine spur and a Boston and Maine tunnel under an abandoned section of rail at the Route 1 Bypass.

Three bridges between Kittery and Portsmouth, New Hampshire: the Memorial Bridge (Route 1), Sarah Mildred Long Bridge (Route 1 Bypass) and the I-95 High Level Bridge provide important

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[10] Ibid
[11] 2010-2011 Annual Report for the Town of Kittery, Maine.
[12] 2013-2014 Annual Report for the Town of Kittery, Maine.

connections between Maine and New Hampshire. These three bridges are owned jointly by the MaineDOT and the New Hampshire DOT.

The Town of Kittery is responsible for bridge structures that are ten (10) feet or less in span. The Town is responsible for the following bridge structures:

- A box culvert on Wilson Road over Spruce Creek;
- A box culvert on Picott Road over Spruce Creek;
- The Cutts Island Bridge on Seapoint Road;
- A box culvert and causeway on Crockett's Neck Road over Barters Creek; and
- Several smaller culverts where roads pass over water bodies.

The MaineDOT has a state-wide bridge inspection program that is based upon the National Bridge Inspection Standards (NBIS) system. All bridges are inspected at least every two years and depending on the location, use and, condition may be inspected on a less formal basis more frequently. In Kittery, the bridges were last inspected in 2011 and 2012 (see Table 6.4). Similar to roads, bridge condition is rated on a numerical system, called Federal Sufficiency Rating (FSR). Each FSR has a numeric indicator of the overall value of the sufficiency of the bridge, with rating form 0-100 where the higher the rating, the better the condition of the bridge. The FSR include both structural deficiencies as well as functional obsolescence. The state then establishes priorities for maintenance, repair and replacement of its own bridges.

As shown by the ratings of the bridges in Table 6.4, most of the bridges in Kittery received a rating above 50. Viaduct and Sarah

Mildred Long Bridge have the lowest ratings of 16.4 and 21, respectively.

Table 6.4: State-aid Bridges in Kittery

Bridge Number	Bridge Name	Federal Sufficiency Rating (FSR)	Last Inspected
1361	B&M Railroad Tunnel	56.5	1/23/2012
1362	Eliot Road Overpass	93.2	1/9/2012
1477	Piscataqua Maine Approach	84.0	10/23/2012
2031	Badger Island	65.6	12/5/2012
2546	Memorial	N/A	N/A
2553	Mill	71.4	4/27/2012
3013	Kittery Point	88.6	12/5/2012
3641	Sarah Mildred Long	21.0	12/29/2009
3783	Gerrish Island	88.1	1/9/2012
3860	Kittery Overpass	57.9	12/26/2012
5276	Viaduct	16.4	9/26/2012
5620	B&M Overpass	92.5	4/27/2012
6222	Ramp M-US 1/I-95 Ramp	76.5	1/18/2012
6223	Wilson Road Bridge	76.9	1/18/2012
6224	Spruce Creek	95.1	12/5/2012
6275	I-95/Dennett Road	83.0	1/23/2012
6276	Route 236 over I-95	87.5	1/23/2012
6277	Ramp H Bridge	99.6	4/30/2012
6278	Ramp J Bridge	97.8	1/23/2012
6330	I-95/Piscataqua River	76.0	1/27/2011

Source: KACTS MPO Long Range Transportation Plan Update 2014-2040. September 8, 2014.

The MaineDOT puts emphasis on maintaining health of "forever bridges", which are high-value bridges which, when replaced, will create extraordinary impacts to customers or create significant funding needs that could severely impact bridge resources. These bridges must last at least 100 years or longer in some cases. "Forever bridges" in Kittery includes Memorial Bridge, Sarah Mildred Long Bridge, and I-95/Route 103 bridge over Piscataqua River.[13]

Recent bridge projects in Kittery include the Memorial Bridge replacement project that was completed in 2013. The original structure was a lift span bridge that was constructed in 1920. The bridge was replaced due to maintenance issues, serious structural deficiencies, and weight restrictions. The new bridge is still a lift span bridge and includes sidewalks and bike lanes on both sides of the bridge and several pedestrian overlooks. Ongoing bridge project includes planning for the reconstruction of the new $180,000,000 the Sarah Mildred Long Bridge. It is scheduled to be replaced by 2017. The new bridge will include a bicycle lane but not sidewalks. Bridge improvement for I-95 is included in the MaineDOT's 2015-2016-2017 Work Plan. The improvement would

be on I-95/Piscataqua River Bridge over the Piscataqua River, located on the Maine-New Hampshire state line.[14]

SAFETY

One measurement of safety is to evaluate the history of crashes on roadways and intersections. Town, Maine and KACTS are dedicated to reducing the number of crashes and fatalities on roads and support the federal *Toward the Zero Deaths* initiative.

> **SUMMARY OF KEY POINTS**
> **Safety**
>
> - There were nine high crash locations (six of them are intersections and three are segments of roadway) in Kittery between 2013 and 2015.
> - According to the annual Town report for 2013, Kittery experienced a reduction in accidents by 10% compared to 2012.

MaineDOT uses crash data obtained from the State and local police to determine high crash locations (HCL). Every intersection (node) and section of roadway (link) is analyzed to come up with a Critical Rate Factor (CRF). The CRF is a comparison of actual crash rate on a link or at a node to the expected accident rate based on road type, vehicle miles of travel, and a statewide

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[13] MaineDOT. Keeping Our Bridges Safe. 2014 Report. http://www.maine.gov/mdot/publications/docs/plansreports/kobs2014.pdf

[14] MaineDOT Work Plan. Calendar Years 2015-2016-2017. http://www.maine.gov/mdot/projects/workplan/docs/2015/WorkPlan2015-2016-2017.pdf

average of accident rates. A CRF greater than 1 on a link or at a node indicates a crash rate higher than should be expected at that location when based on statewide data.

In addition to determining the CRF, MaineDOT maintains data on all the crashes on the links and at the nodes. Reports are produced at locations with CRF greater than 1 that have more than 8 crashes during a 3 year period. These locations are then called high crash locations. MaineDOT and municipalities use the High Crash Location data to make informed decisions about highway safety improvements. In order to qualify, High Crash Locations must be at locations that have had at least eight crashes in the same location for a three-year period. It also must exceed the Critical Rate Factor of crashes. A CRF is the average expected rate of crashes for a location.

Table 6.5 lists the high crash locations in Kittery based on MaineDOT analysis of crashes between 2013 and 2015. As shown in the table, there were nine high crash locations (six at intersections and three on roadway segments) in Kittery between 2013 and 2015. These locations are further illustrated in Figure 6.10.

Table 6.5: High Crash Locations in Kittery (2013-2015)

High Crash Location Description	Total Crashes	Critical Rate Factor (CRF)	Ranking State/County
Intersection (Node)			
Intersection of New State Road, Rogers Road, State Road	37	4.27	40/10
Intersection of Manson Road, Picott Road and Wilson Road	8	3.18	81/19
Intersection of Shapleigh Road, Whipple Road and Woodlawn Avenue	12	2.50	120/31
Intersection of Ramp off to Rogers Road Rogers Road South Bound	8	1.75	171/40
Intersection of Manson Avenue, Shapleigh Road	9	1.70	175/48
Intersection of State Road and Walker Street	16	1.06	228/60
Section of Roadway (Link)			
End of US 1 Bypass to Intersection of US 1 Bypass & US 1 Bypass South Bound	11	1.63	125/14
End of I-95 Southbound to Intersection of Exit 1 On-Ramp from I-95 North to Dennett Road I-95 SB	9	1.61	127/15
Intersection of Entrance to Maine Outlet/Entrance to Shop Center/US 1 to Intersection of Entrance to Mall/ US 1/Wilson Road	18	1.09	179/35

Source: MaineDOT – Traffic Engineering, Crash Records Section. High Crash Locations from 1/1/2013 to 12/31/2015.
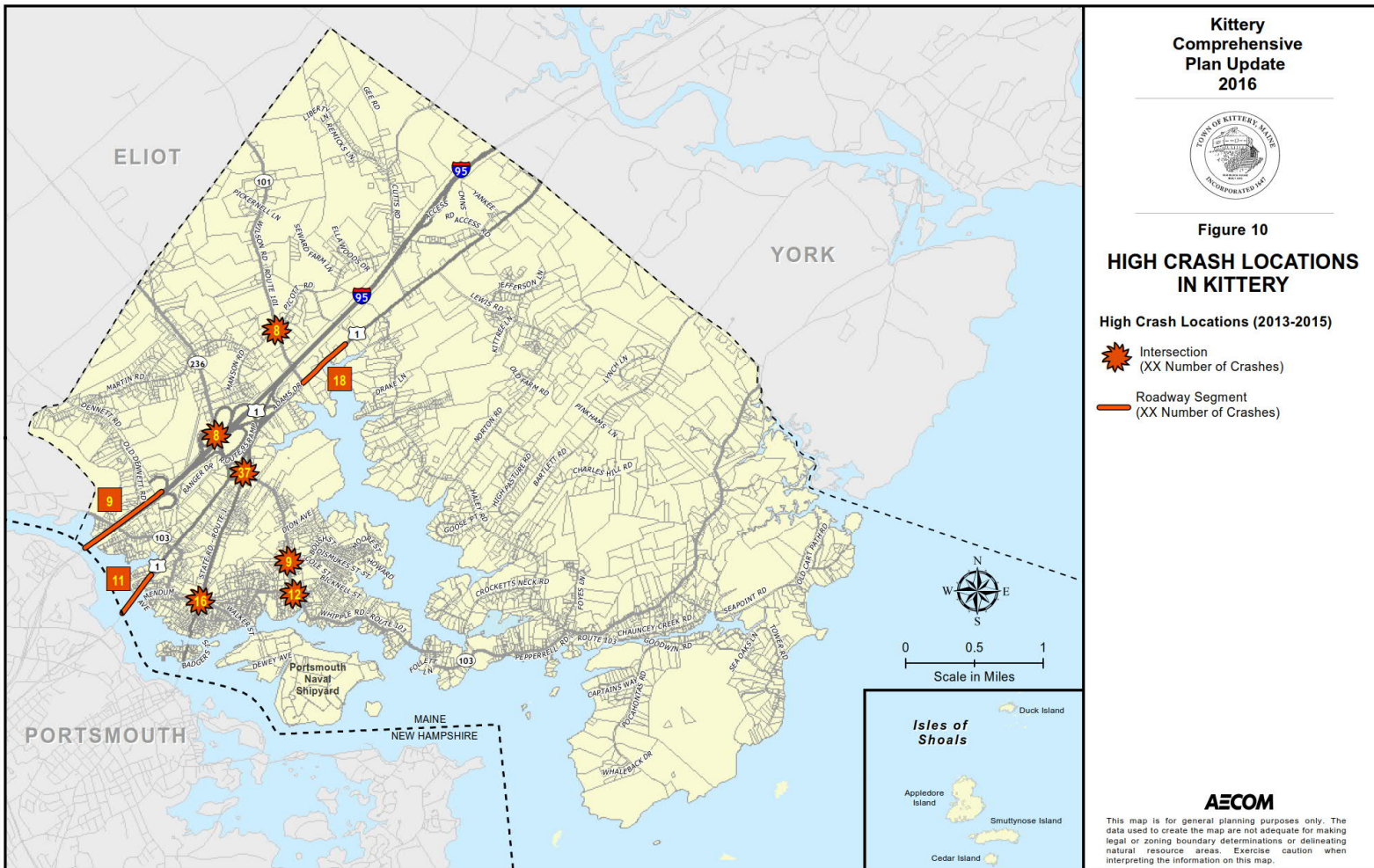
Figure 6.10: High Crash Locations in Kittery

Source for High Crash Locations: MaineDOT – Traffic Engineering, Crash Records Section. High Crash Locations from 1/1/2013 to 12/31/2015.

In 2013, Kittery experienced a reduction in crashes by 10% compared to 2012. According to the 2013-2014 Annual Town Report, Kittery's goal is to achieve 10% reduction in traffic accidents.[15]

In FY 2011-2012, the Kittery Police Department created a new position for bicycle officer. The bicycle officer patrols high pedestrian traffic areas, such as the malls, beaches, and parks, on a mountain bike. This has enabled the officer to interact with pedestrians and provide responses to areas where police vehicle cannot practically reach.

PEDESTRIAN AND BICYCLE FACILITIES

This section discusses the current level of pedestrian and bicycle facilities in Kittery including sidewalks, trails, paths and bike accommodations. Pedestrian and bicycle facilities are used for both commuting and recreational purposes. Common strategies to ensure pedestrian safety include providing sidewalks and controlled crossings in areas where pedestrian activity is significant or encouraged. Bicycle safety measures include providing at least four-foot (five-foot preferred) bike lanes on paved shoulder of a roadway.

The design and construction standards for streets and pedestrian ways provided in the Land Use and Development Code of Kittery

> **SUMMARY OF KEY POINTS**
> **Pedestrian and Bicycle Facilities**
>
> - Approximately 2.5-milesof the Eastern Trail runs through Kittery from the Maine State Line on the Memorial Bridge to Dennett Road after which it continues to the Town of Eliot. An alternative on-road trail route is also provided through South Eliot Road/Main Street/Route 103.
> - The State designated Route 236 bike route runs through Kittery. Route 236 has adequate shoulder width to accommodate bicycle travel.
> - The KACTS has completed a study with Kittery to identify opportunities to make Route 1 Bypass more bike and pedestrian friendly.
> - Kittery does not participate in the MaineDOT Safe Routes to School (SRTS) Program.

provides design standards for sidewalks but does not provide standards for bicycle accommodations.[16]

BIKE ACCOMMODATION

ROUTE 236 BIKE ROUTE

The State designated Route 236 bike route was the only designated bicycle route in the KACTS area and Kittery until

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[15] 2013 – 2014 Annual Report for the Town of Kittery, Maine. July 1, 2013 – June 30, 2014.

[16] Town of Kittery. Title 16 Land Use and Development Code. Recodified on July 26, 2010 and latest amendment made on October 26, 2015. Page 178.

recently when Eastern Trail began. The Route 236 bike route runs from Route 4 in South Berwick down Route 236 through Eliot and Kittery. Both of these roads have adequate shoulder width to accommodate bicycle travel.

EASTERN TRAIL

The Eastern Trail is a 65-mile section of the East Coast Greenway, a transportation-recreation greenway connecting Kittery, in southernmost Maine, to Casco Bay in South Portland.[17] The Eastern Trail includes both off-road sections and scenic on-road route that mostly follows quiet country roads. In Kittery, the Eastern Trail is approximately 2.5-miles long and begins at the Maine State Line on the Memorial Bridge over the Piscataqua River and runs on-road through Hunter Avenue, Newmarch Street, Government Street, Cook Street, Old Post Road and Dennett Road after which it continues to the Town of Eliot. The alternative on-road trail route is also provided through South Eliot Road/Main Street/Route 103.[18] This bicycle route also incorporates the existing bicycle route on Route 236 in other towns.

BICYCLE COALITION OF MAINE

The Bicycle Coalition of Maine is an advocacy group that works to make Maine a better place to bicycle. It was founded by a small

group of cyclists in 1992. Since then it has grown into one of the most effective bike advocacy groups in the country.[19]

The Bicycle Coalition of Maine's five-year strategic plan guides its work for expanding biking in Maine, improving bike safety, passing bike-friendly laws and spreading a love of cycling to children and adults. The group also manages the Maine Safe Routes to School (SRTS) Program in partnership with the Maine Department of Transportation. This federally funded initiative promotes safe walking and bicycling for Maine's school children. Since the start of the program in 2005, the Maine SRTS Program has worked with hundreds of local schools throughout the state to engage in walk and bike to school activities and projects. Currently, Kittery does not participate in the MaineDOT SRTS Program.

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[17] Eastern Trail Alliance. http://www.easterntrail.org/

[18] Eastern Trail Guide. "Welcome to the Eastern Trail in Southern Maine". 2nd Edition, 2014. http://www.easterntrail.org/documents/etbooklet.pdf

[19] The Bicycle Coalition of Maine. http://www.bikemaine.org/about

BICYCLE AND PEDESTRIAN STUDIES/PROEJCTS

ROUTE 1 BYPASS BICYCLE AND PEDESTRIAN PLAN

The KACTS has completed a study with Kittery to identify opportunities to make the Route 1 Bypass more bike and pedestrian friendly, especially once the new Sarah Mildred Long Bridge is constructed. In late 2014, the KACTS and the Town retained Sebago Technics to conduct a neighborhood pedestrian and bicycle improvement plan for Route 1 Bypass from Memorial Circle to the Sarah Mildred Long Bridge and develop a long-term vision for improving bicycle and pedestrian safety. The study area consisted of the section of the Town bordered by US Route 1 (to the east), Memorial Circle (to the north), Bridge and Government Streets (to the south), and Dennett and South Eliot Roads westerly to the Maine Turnpike. The study provided three options for improvement.

ROUTE 103 BICYCLE-PEDESTRIAN TRAIL

The MaineDOT work plan for Calendar Years 2015-2016-2017 lists bicycle-pedestrian project on Route 103. It is listed as an on-road new construction project on Route 103 beginning at Old Ferry Lane and extending westerly 0.52 of a mile.[20]

Additionally, MaineDOT and the Maine Office of Tourism have published 33 Loop Bike Tours in a book entitled "Explore Maine by Bike". It includes Route 103 in Kittery in Tour 8 (Kittery Coastal

Signature Rides) with three tour loops that are 12, 17, and 22-mile long and extend from York to Nubble Light, Kittery to Elliot and York to Kittery, respectively.[21]

TRANSIT

This section describes transit services, paratransit service, private bus carriers and ride sharing program available in Kittery.

SUMMARY OF KEY POINTS
Transit

- In Kittery, the COAST provides year round limited transit services. Out of five COAST routes, four are express commuter routes.
- There used to be shuttle bus service that operated on Route 103 in Kittery, but it has not been provided for several years.
- Paratransit service, ridesharing program and van services are available to Kittery residents through various organizations.

FIXED – ROUTE BUS SERVICE IN KITTERY

Since 1983, the Cooperative Alliance for Seacoast Transportation (COAST) has provided public bus service to Portsmouth and

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[20] MaineDOT Work Plan. Calendar Years 2015-2016-2017. January 2015. Pg. 135.

[21] Explore Maine. Tour 8 – Kittery Coastal Signature Rides. http://www.exploremaine.org/bike/beaches/kittery.shtml

Berwick. In Kittery, COAST provides year round limited transit services from Portsmouth Naval Shipyard (PNSY) to towns in New Hampshire and Maine. Currently, COAST operates five Routes: 2cc, 41cc, 100, 101 and 103 to and from the PNSY Gate 1. Route 2cc operates between PNSY Gate 1 to Rochester, New Hampshire. Routes 100, 101, 103 and 41cc are known as COAST's "Clipper Connection" express commuter routes. These bus routes begin in PNSY and serve the communities of Portsmouth, New Hampshire (Route 41cc), Rochester, New Hampshire (Route 103), and Dover, New Hampshire (Route 101). Route 100 begins at PNSY and serves Somersworth in New Hampshire, and Eliot, South Berwick, Berwick in Maine. The COAST service is open to the public, but serves primarily employees of the Navy Yard and Portsmouth. Monthly pass holders of the Clipper Connection service are eligible for the "Emergency Ride Home" program.

A shuttle bus service use to operate on Route 103 in Kittery, but it has not been provided for several years. Fair Tide has recently evaluated the need for shuttle bus service. At this time, it

appears that demand for the service is not large enough to be considered for grant guidelines. Fair Tide may consider applying in the future as condition and demand may change. Fair Tide was established in 1998 by a group of southern Maine and seacoast New Hampshire citizens. Fair Tide provides short-term affordable housing for people who are homeless, and individualized support services and referrals to community services. It also advocates on participants' behalf at both the local and state government levels.[22]

PARATRANSIT SERVICE

York County Community Action Corporation (YCCAC) provides transportation services to all the KACTS towns. YCCAC currently operates demand-responsive service for the residents of Kittery and other York County towns. The service is mainly targeted for the elderly, disabled, and low income populations although it is also available for the general public. YCCAC provides four scheduled transit services to few towns and year round "Local Rides" service to all the communities in the York County. Local Rides routes provide services from home to the closest regional shopping and medical destinations for each town served. Riders are usually picked up at their homes with a return trip an hour or more later. Map and schedules for the Local Rides service are available in the YCCAC website. Towns are coded with different colors based on the day service is available for the town. Local Rides service in Kittery is available on Fridays, with destinations in Kittery, Portsmouth and Newington.[23] The York Hospital also

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[22] http://www.fairtide.org/people/
[23] York County Community Action Corporation. Local Rides. https://www.yccac.org/index.php/local-rides

provides a shuttle bus service for patients who need transportation to and from the hospital in the southern York County area, including Kittery.

Electric Vehicle (EV) charging stations may be part of the York Hospital's future plans.

PRIVATE BUS CARRIERS

There are several interstate private bus carriers that serve the Portsmouth-Kittery area. C & J (formerly C & J Trailways) offers service out of the Portsmouth Transportation Center located at the Grafton Drive entrance of the Pease International Tradeport, Dover and Durham. Greyhound Bus Lines provides limited service in Dover, New Hampshire. These bus carriers provide bus service to Boston and Logan Airport as well as Portland, Maine and other cities in northern New England.

RIDESHARING PROGRAM

GoMaine is a statewide commuter services program sponsored by MaineDOT and the Maine Turnpike Authority. GoMaine helps individuals find carpools for commuting to work and rides for events. While vanpools were previously operated by GoMaine, today they are operated by several private organizations and commuters. GoMaine has partnered with vRide and Enterprise Rideshare for vanpool. There are a couple of vanpools available from the Portsmouth Naval Shipyard in Kittery. By signing up with

the Go Maine NuRide program, commuters can get rewards including the "Emergency Ride Home" benefit.[24]

VAN SERVICE

Kittery Community Center provides van service through town-owned four vans for special events. The Kittery Community Center also provides adult trips (for 18 years and over) to places of attractions in Maine, Massachusetts and New Hampshire, including Larz Anderson Auto Museum in Brookline, Massachusetts; Freeport Shopping and Lunch in Freeport, Maine; Bedrock Gardens in Lee, New Hampshire; Pickity Place in Mason, New Hampshire; Lake Sunapee Cruise in Sunapee, New Hampshire and Cabbage Island Clambake in Boothbay, Maine. Registrations are required to be done at the Community Center.

In addition to this, the State of Maine also provides van service to York County if a reservation is made ahead by phone. Durgin Pines, a nursing home located in Kittery just off the turnpike between York Hospital and Portsmouth Hospital, and Sentry Hill, a retirement community in York have their own vans.

OTHER TRANSPORTATION SERVICES

Other transportation services, including taxi service, rail service, airports, marine facilities and parking are summarized below.

[24] GoMaine. http://www.gomaine.org/

TAXI SERVICE

Kittery is not consistently served by taxi service. Portsmouth taxi companies provide limited coverage of the Kittery area. At one time, Kittery offered to implement a subsidized taxi service for the elderly and needy individuals, but due to lack of interest, discontinued the project.

RAIL SERVICE

Currently, there is no passenger rail service into Kittery. Amtrak Downeaster began providing passenger service between Portland, Maine and Boston, Massachusetts in 2000, which was extended to Freeport and Brunswick, Maine in 2012. The nearest stations from Kittery are Dover, New Hampshire and Wells, Maine. There is a freight service to the Portsmouth Naval Shipyard operated by the Boston & Maine Division of Guilford Transportation Industries.

MARINE FACILITIES

Kittery has some small harbor facilities in addition to the Portsmouth Naval Shipyard. They are located on the north side of the Piscataqua River basin and Portsmouth Harbor. A lighted whistle buoy, Whaleback Light, and the Portsmouth Harbor Light at New Castle mark the entrance to the harbor, and the channel is marked with buoys, lighted buoys, and day beacons. The primary activities on the smaller harbors are fishing and recreational boating. There are no docking facilities outside of the Portsmouth Naval Shipyard for working large ocean-going vessels. Refer to Chapter 8 for marine facilities.

AIRPORT

Boston, Massachusetts, Manchester, New Hampshire and Portland are the closest major air terminals, each approximately one hour from Kittery. Shuttle service is available to Boston and Portland from private carriers. Littlebrook Airport off Route 236 in Eliot has a 2,500-foot paved runway suitable for small planes. The Pease Development Authority located in Portsmouth, New Hampshire also provides regularly scheduled commercial air service flights for the Pease International Tradeport. The Tradeport also has a private charter service.

PARKING

There are generally very few off-street municipal parking lots in Kittery. However, parking provided at municipal buildings such as Rice Library and Taylor Building, is sometimes used by the public to shop/eat in the Foreside area. These lots serve as shared parking spaces for visitors on nights and weekends. Most public parking in the Foreside area is on-street parking, with the majority of off-street parking being private. With the recent addition of new restaurants and shops, parking demand has increased in the Foreside area. Some residents have indicated that it is difficult to park in this area during peak periods, particularly during the summer.

SUMMARY OF KEY POINTS
Parking

- There is a parking shortage in the Foreside area and along the water during the peak summer season.

Additionally, during the summer parking is limited for non-residents who want to access the water.

High demand for parking has also been indicated at access points to beaches (Sea Point) and public boat access to the harbor area. The Government Street public wharf has limited parking of approximately 5-6 spaces, with most of these typically used by local fishermen. The Traip Academy boat ramp also has very limited parking near the ramp with additional parking available at the Academy. Kittery Point Town Wharf has limited public parking.[25]

Table 6.6 summarizes the existing municipal parking areas in Kittery along with the capacity and occupancy during peak periods.

The South Berwick Feasibility Study has recommended providing additional park-and-ride lots to serve the MPO communities and improve commuting traffic along the Route 236 Corridor. The study also recommended for using Transportation Demand Management (TDM) measures to serve the commuter shed for the Naval Shipyard in Kittery and the Pease International Tradeport in Portsmouth.

Recent parking lot projects include:
- Resurfacing of sections of the Taylor parking lot that was completed in the FY 2012-2013 and 2013-2014; and
- Reconstruction of Traip parking lot in FY 2010-2011.

Table 6.6: Existing Municipal Parking Areas in Kittery

Parking Area	Capacity	Occupancy during Peak Periods
Fort Foster	150 spaces	100% during summer months
Haley Field	54 spaces	100%*
Legion Pond	5 spaces	100%*
Memorial Field	55 spaces	100%*
Rice Avenue	30 spaces	Less than 100%*
School Lane	25 spaces	Less than 100%*
Seapoint Beach	10 spaces	100% during summer months
Shapleigh Field - parking is at the adjacent school	134 available spaces	Less than 100%*
Town Forest on Haley Road	8 spaces	Less than 100%*
Town Pier on Bellamy Lane	28 spaces	100%*
Wallingford Square downtown	12 spaces	100%

Note: *Estimated
Source: Town of Kittery

The Land Use and Development Code of Kittery lists parking standards for specific uses but it does not provide any parking standards for development in village or downtown areas.[26]

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[25] The Kittery Comprehensive Plan Update Committee. 1999 Update of the Kittery Comprehensive Plan. Adopted by Council on 3/25/2002.

[26] Town of Kittery. Title 16 Land Use and Development Code. Recodified on July 26, 2010 and latest amendment made on October 26, 2015. Page 193.

IDENTIFICATION OF PRELIMINARY ISSUES, CHALLENGES AND OPPORTUNITIES

The following is a preliminary list of issues, challenges and opportunities posed by the findings of the inventory of existing conditions of Kittery's transportation and circulation system.   Please note that these are subject to change with the preparation of goals and objectives, not yet drafted (at the time the inventory was prepared).

- Traffic issue around Portsmouth Naval Shipyard;
- No public transit service;
- Lack of parking in Foreside and shoreline areas;
- Need for more bicycle facilities;
- Provide pedestrian facilities with new infrastructure projects and develop pedestrian friendly environments; and
- Develop Complete Streets policy and evaluate roadway standards for complete streets.

http://www.kitteryme.gov/Pages/KitteryME_TownCode/Title%2016%20thru%2010-26-2015.pdf

Kittery Comprehensive Plan Update 2016

Map 6.1

ROADWAY SYSTEMS IN KITTERY

Functional Class

- Principal Arterial Interstate
- Principal Arterial Non-Interstate
- Minor Arterial
- Collector
- Local
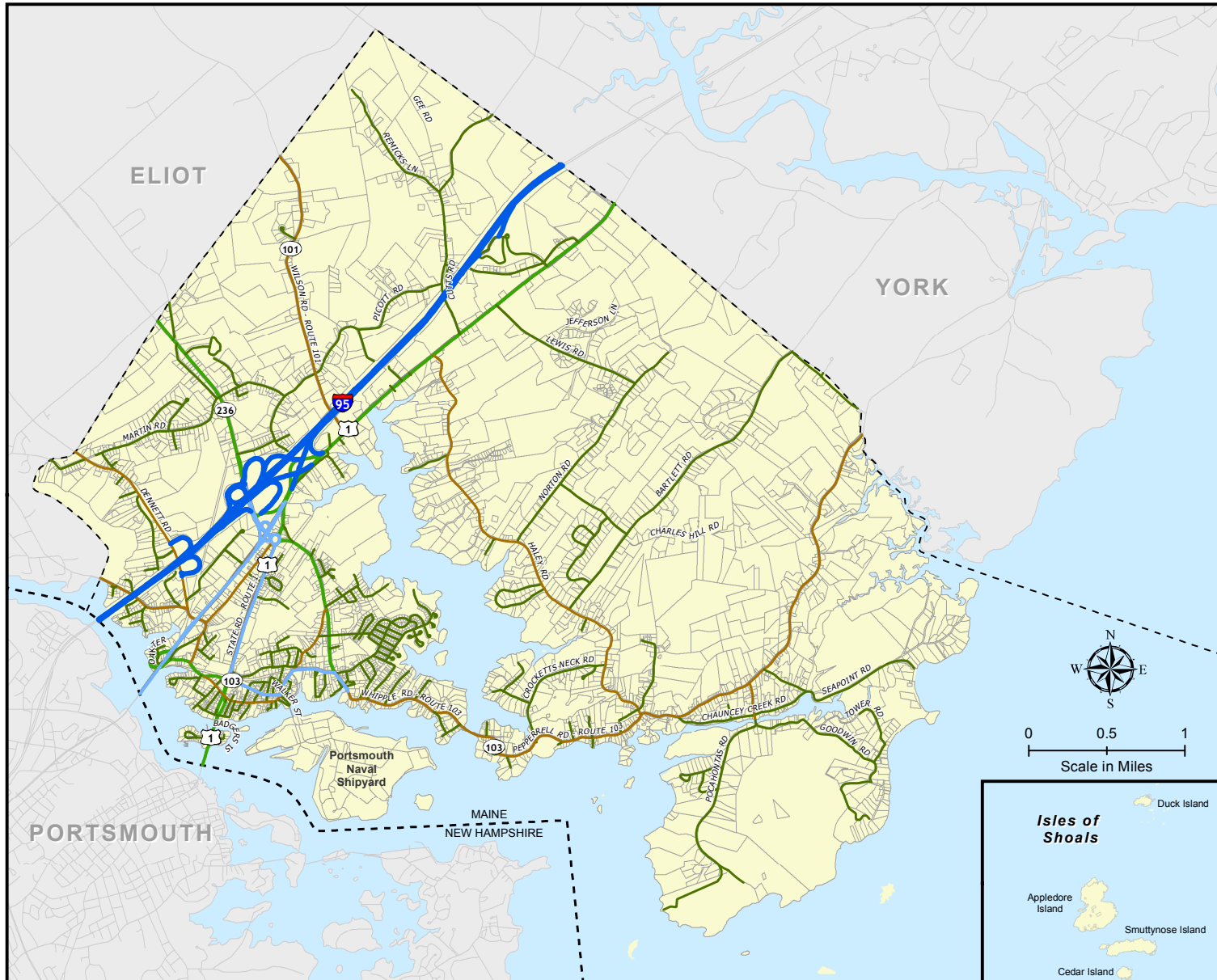
Scale in Miles
0   0.5   1

AECOM

This map is for general planning purposes only. The data used to create the map are not adequate for making legal or zoning boundary determinations or delineating natural resource areas. Exercise caution when interpreting the information on this map.

Isles of Shoals

Duck Island
Appledore Island
Smuttynose Island
Cedar Island

**Kittery
Comprehensive
Plan Update
2016**

TOWN OF KITTERY, MAINE · INCORPORATED 1647

Map 6.2

**EXISTING AVERAGE DAILY
TRAFFIC VOLUMES IN
KITTERY**

Traffic Volume

— 1,000-1,999
— 2,000-4,999
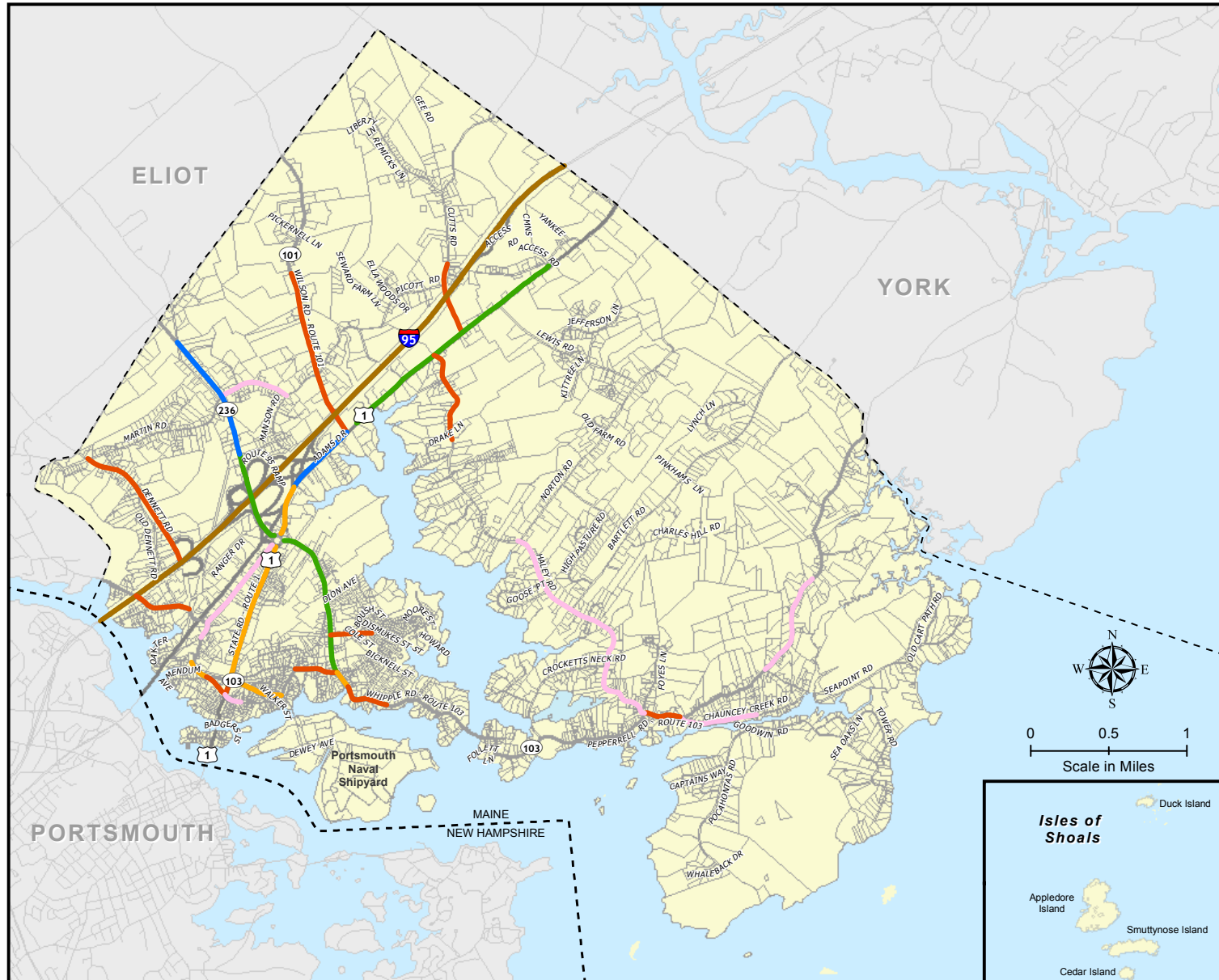— 5,000-9,999
— 10,000-14,999
— 15,000-19,999
— > 20,000

ELIOT

YORK

PORTSMOUTH

MAINE
NEW HAMPSHIRE

Portsmouth
Naval
Shipyard

*Isles of
Shoals*

Duck Island

Appledore
Island

Smuttynose Island

Cedar Island

N
W E
S

0   0.5   1
Scale in Miles

AECOM

Road labels: LIBERTY LN, REMICKS LN, GEE RD, CUTTS RD, YANKEE, CMNS RD ACCESS RD, ACCESS RD, PICKERNELL LN, 101, WILSON RD - ROUTE 101, SEWARD FARM LN, ELLA WOODS DR, PICOTT ST, 95, JEFFERSON LN, LEWIS RD, KITTREE LN, OLD FARM RD, LYNCH LN, DRAKE LN, 236, MANSON RD, MARTIN RD, ROUTE 95 RAMP, ADAMS DR, 1, NORTON RD, PINKHAMS LN, HIGH PASTURE RD, BARTLETT RD, CHARLES HILL RD, DENNETT RD, OLD DENNETT RD, RANGER DR, HALEY RD, GOOSE PT RD, FOYES LN, CROCKETTS NECK RD, SEAPOINT RD, OLD CART PATH RD, DION AVE, BUSH ST, BODISMUKES ST, GOULD ST, HOOKE ST, HOWARD, BICKNELL ST, WHIPPLE RD - ROUTE 103, STATE RD - ROUTE 1, 103, WALKER ST, MENDUM AVE, FOSTER AVE, BADGERS ST, DEWEY AVE, 1, WHALEBACK DR, WHIPPLE RD, PEPPERRELL RD, ROUTE 103, CHAUNCEY CREEK RD, GOODWIN RD, SEA OAKS LN, TOWER RD, CAPTAINS WAY RD, POCHONTAS RD, FOLLETT LN, 103

This map is for general planning purposes only. The
data used to create the map are not adequate for making
legal or zoning boundary determinations or delineating
natural resource areas. Exercise caution when
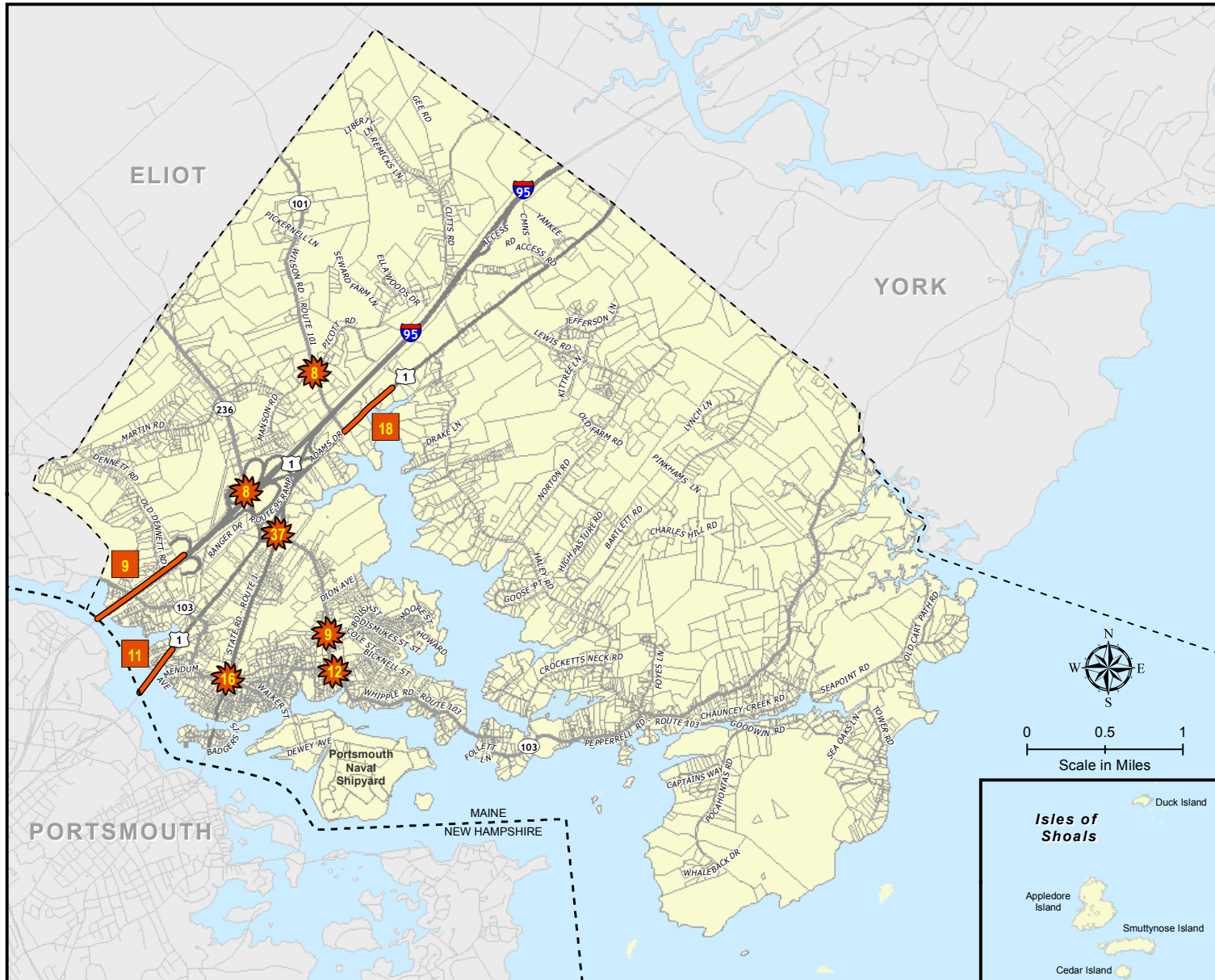interpreting the information on this map.

ELIOT

YORK

PORTSMOUTH

Portsmouth
Naval
Shipyard

MAINE
NEW HAMPSHIRE

Isles of
Shoals

Duck Island

Appledore
Island

Smuttynose Island

Cedar Island

0   0.5   1
Scale in Miles

PUBLIC FACILITIES AND SERVICES

7

CHAPTER CONTENTS

This chapter identifies and describes the public facilities and services the Town of Kittery provides to its residents and business owners.

Over the next two decades facilities and services may need to adapt to reflect the needs of the community. For example,

- Aging facilities will need to be repaired, replaced and/or upgraded.
- Existing Town services will need to be adjusted and adapted to meet various codes, changes in technology, and changes in available methods for increased efficiency.
- New services and facilities may be needed to accommodate a growing elderly population.
- Future planning of public services and facilities should be related to demographic changes as well as projected and desired development patterns.
- Predictions regarding climate change should be incorporated in planning for public services and facilities; sustainability practices should be maintained and increased.

Regional trends and facility needs will impact the way in which services are provided, the buildings which house them, as well as their capital needs, and therefore, the Town budget. Additionally, regionalizing services in some cases may help to make them more efficient and cost effective.

Kittery Town Hall

The information presented in this chapter is a compilation of a review of relevant previous studies, and documents and information posted on the web and presented in Town reports. Additionally, "leadership interviews" were conducted with key Town Staff (see end of chapter for a complete list). Site visits were also conducted.

Summary of Key Points

- The **Municipal Complex/Town Hall** building is in very good condition and has room for expansion if this were needed in the future.

- **Public meeting space** is adequate.

- Kittery's **schools** are adequate in terms of size and condition to meet current needs as well as those in the foreseeable future. New enrollment projections are needed in order to monitor potential future changes in enrollment.

- Implementation of the **Athletic Fields** Study recommendation will help meet recreation needs.

- **Public safety** service can be improved by:
  - o Joint dispatch for Police calls (pending grant) is expected to result in efficiencies.
  - o There may be a need to increase the number of sworn officers to police a larger population taking into account tourists, shoppers and Shipyard employees
  - o The Fire Department may need to transition to full-time professional fire fighters.

- The **Library's** most critical decision with regard to the future is how to combine all the library's functions into one building and whether this should be accomplished by constructing an addition to the existing historic Rice building or by creating a new facility on the site of the Kittery Community Center.

- The Kittery **Community Center** will continue its efforts to expand revenue and may need to increasingly orient future programming to the growing senior population.

Summary of Key Points (continued)

- The **Port Authority** would like to develop a Strategic Plan and to explore ways of increasing access and enjoyment of the water, and striking a better balance between tourism and fishing.

- There is a need to update the Town's **GIS maps**.

- DPW would like to explore new technologies for **communicating with residents**

- It may be more efficient to create a **regional Resource Recovery Facility** by merging Kittery's with that of the Town of Eliot.

- **Stormwater infrastructure** will need resources for continued maintenance and replacement of aging structures.

- The **Kittery Water District** is planning to construct a new Treatment facility while it continues to upgrade the pipes. It does not plan on expanding the system in the foreseeable future. Additional regional cooperation with surrounding towns may result in increased cost efficiencies.

- The recent expansion of the **sewer system** to the Business Park is expected to result in encouraging economic development. Also recent expansion to a mobile home community is expected to reduce septic contamination of Spruce Creek.

- The Energy Efficiency Committee is working with the Town Manager and Council on programs, policies and projects to develop **sustainable** energy practices.

For each service area, a description of the current facility and/or service is provided, followed by an assessment of the capacity to meet existing needs as well as anticipated future needs. The following Public Facilities and Services are addressed in this chapter.

MUNICIPAL ADMINISTRATIVE OFFICES & PUBLIC MEETING SPACE
Town Hall/Municipal Complex
Public Meeting Space
Communication

SCHOOLS AND EDUCATION

PUBLIC SAFETY
    Fire
    Police
    Medical Emergency

LIBRARY
Rice Public Library
Walker Street Annex

RECREATION[1]
    Recreation Department/Community Center
    Parks and Beaches
    Public Piers[2]
    Conservation Land/Town Forest

HEALTHCARE

PUBLIC WORKS
    Department of Public Works Facility
    Street Maintenance
    Stormwater Management
    Solid waste Disposal & Recycling/Resource Recovery Center

SEWER AND WASTER SERVICES
Water
Wastewater

SUSTAINABILITY MEASURES (Energy Conservation)
Power
Programs and Plans

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[1] See **Chapter 2:** Natural Resources, Open Space and Recreation for a more detailed discussion of Recreational facilities.

[2] See **Chapter 8:** Marine Resources for a more detailed discussion of public piers as well as other waterfront assets.

Kittery Community Center

BACKGROUND INFORMATION

POPULATION CHARACTERISTICS

The population of Kittery has been relatively stable over past couple of decades, with a slight tendency towards declining evident since 1970. While current population projections generally assume that this trend will continue, it is possible that increasing development pressure in Portsmouth may result in more people moving to Kittery for the affordability of housing, good schools, and other amenities.

Kittery is an aging community. Between 2000 and 2014, residents age 55 to 64 increased by 65 percent, and the number of elderly residents is expected to continue to increase. This is important in terms of the number and types of services that may be needed in the future.

Despite being a tourist destination, there is not much change in the Town's population over the summer months, with the exception of foreign students who come on work visas and work in area establishments. These young people have a hard time finding housing that is affordable to them and are an important element of Kittery's seasonal economy.

Another fairly unique component of Kittery's population is the number of military families that live in or near Kittery. While many families associated with the Naval Shipyard used to live in Kittery, apparently this is becoming less frequent. It is important to consider what impacts any future changes in the uses at Shipyard may have on the need for Kittery facilities and services.

Additional population characteristics that may be of interest and importance when considering the future provision of facilities and services include the following:

- The racial and ethnic composition of Kittery closely resembles that of York County, with a majority of residents identifying as White, non-Hispanic
- The educational attainment of Kittery residents is slightly higher than that of York County.
- The number of family households in Kittery with children under the age of eighteen has declined since 2000.
- Between 2000 and 2014, average household size shrank from 2.29 persons per household to 2.16 persons per household.

OVERVIEW OF MUNICIPALLY-OWNED PROPERTIES

The properties listed below are owned and/or funded by the Town of Kittery. Please see Figure 1.1. Public Facilities and Services for their location.

Town Hall
DPW
Schools
    Mitchell Elementary School (grades K-3)
    Shapleigh School (grades 4-8)
    R.W. Traip Academy (grades 9-12)
Library[3]
Community Center
Public Safety (police, 2 fire stations, emergency medical)
Public Piers
Fort Foster
Recreational Facilities (fields, parks, beaches, conservation land)
Town Forest/Farm
Wastewater Treatment Plant
Resource Recovery Center

The Town also owns:
- an old school building on the corner of Curtis Island Lane and Route 103
- the lot currently used for parking in Wallingford Square (13 spaces)

Wastewater Treatment Facility

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[3] The Library is owned by the Trustees of the Library and supported by the Town of Kittery

TOWN ADMINISTRATION OFFICES, COMMUNICATION AND PUBLIC MEETING SPACE

Summary of Key Points

- The Town Hall is in very good condition and has room for expansion if this were needed in the future

- Public meeting space is adequate.

- The lack of a local newspaper has resulted in reliance and high usage of cable TV, social media and community bulletin boards for communication.

TOWN HALL

A majority of town administrative offices are housed in the Municipal Complex/Town Hall building, located at 200 Rogers Road, and constructed in 1998. It was built on the site of the previous Town Hall and houses the administrative offices for the Town Manager, Town Clerk, Finance, Assessing, Planning, Code, and the Harbormaster. The Police and School Departments are also housed in the Municipal Complex in adjacent spaces. The Public Works Department is located in another building directly behind the Town Hall.

The following government functions are *not* located in the Municipal Complex:
- Recreation Department
- Fire Department
- Sewer Department
- Library

The building continues to meet the needs of the staff and the public. The Town Hall building is in very good condition with the exception of the HVAC system that is in need of repair. The roof was replaced last year.

FUTURE PLANS/NEEDS

The Town Hall building was designed with room for expansion; the second floor is unfinished and could be renovated to accommodate additional needs if necessary (building code issues may need to be addressed). There may be some small growth in municipal staffing if the Town experiences an increase in the current levels of residential growth.

Human Resources is housed in the School Department. It may be more efficient for them to be housed in the Town Hall in the future.

COMMUNICATION

There are four cable TV providers in Kittery (Time Warner, Satellite Television, Xfinity, and Direct TV). The Town has its own community cable TV channel which streams key municipal meetings including Town Council, Planning Board and School Committee.

In terms of internet access, Comcast is available almost everywhere and Fairpoint fiber and Fairpoint DSL are available many places throughout Town.

The lack of a local newspaper results in some difficulty with regard to communication among town residents. The following are current modes of communication:
- Cable TV, Channel 22
- Our Kittery blog
- Seacoast on-line
- Portsmouth Herald
- Town Manager's Facebook and Twitter

A number of **Community Bulletin Boards** are located throughout the community including:

- Main Squeeze
- Golden Harvest
- Lil's
- Beach Pea Bakery
- Banks
- Carl's Meat Market
- David Pratt Framer
- Terra Cotta Pasta
- Fabulous Finds
- Frisbees/Enoteca Market
- Kittery Point Post Office
- Library – outside bulletin board and 2 inside bulletin boards
- Kittery Community Center
- Pine Tree Country Store

PUBLIC MEETING SPACE

There are a number of spaces available for community meetings, the largest of which is at the Traip Academy. There are some large events, such as the Maine caucuses, that Kittery cannot accommodate. Additionally, there are times when specific places are booked, but usually an alternative space is available. Public meeting space is adequate for Kittery's needs now and in the foreseeable future.

Table 7-1: Public Meeting Spaces

Space/Location	Capacity	Comments
Shapleigh School	150 people	Gym, Caf, library
Mitchell School		Cafeteria, library
R.W. Traip Academy	Over 200 people	Auditorium Gym, Caf, library
Community Center	100 – 200 people the latter if bleachers are opened	STAR Theatre plus additional smaller spaces
Rice Library	60 people	Can accommodate more but without seating
Town Hall	75 people 20 people 12 people	Council Chambers Conference Room A Conference Room B

SCHOOLS AND EDUCATION

> **Summary of Key Points**
>
> - The Schools are adequate in terms of size and condition to meet current needs as well as those in the foreseeable future. Traip Academy is in need of additional repairs.
> - The lack of playing fields is addressed in the Athletic Fields Study. When its recommendations are implemented, current needs will have been met.
> - More current enrollment projections are needed in order to monitor potential future changes in the school population
> - More internships in the community are needed for students to complete their proficiency learning experience; transportation to these internships is a challenge

Mitchell Elementary School (grades K-3)
- Located at 7 School Lane, Kittery Point

Shapleigh School (grades 4-8)
- Located at 43 Stevenson Road, Kittery
- Has walking track (only one at a school)

R.W. Traip Academy (grades 9-12)
- Located at 12 Williams Avenue, Kittery
- No outdoor athletic facilities

The School Department undertook a School Building improvements program during the years 2009-2011; it included:
- Closing and converting the Frisbee School into the Kittery Community Center
- Building additions to the Mitchell (K-3) school and the Shapleigh (4-8) schools

- Minor upgrades and renovations to the Traip Academy (grades 9-12)

Horace Mitchell Primary School

The Mitchell and Shapleigh Schools are in good shape and both have the ability to accommodate a small increase in enrollments if this were to occur. Shapleigh School has a track used for the middle and high school track and field, and for walking by all.

The Traip Academy is over 100 years old and while additions and upgrades have been made, there are a few more needed. Technology, HVAC and flooring have all been upgraded. There is a plan in place, with a yearly budget allocation for the completion

of needed upgrades. There are no capacity issues. Challenges with the school that are more difficult to address include the fact that there are no adjacent playing fields (and no seemingly easy way to provide these) and the fact that the schools reportedly lacks a "campus feel."

The State of Maine legislates that school districts must apply proficiency-based learning[4] as their approach to pedagogy. Reportedly, the Kittery School District is ahead of neighboring districts because they started earlier when they developed the district's "Vision for the Future."

Because of the layout of the Town, it is not feasible for children to walk to school, except for the few who live near the schools. Some students bike to school. The School Department contracts the bus service to an outside vendor who operates on a two-tier schedule. The older students are brought to school first, followed by the younger ones, the way it is carried out in most communities, even though it is contrary to teenagers' biological clocks and need for sleep. It is difficult to change this schedule as doing so has other negative impacts.

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[4] Proficiency-based education refers to any system of academic instruction, assessment, grading and reporting that is based on students demonstrating mastery of the knowledge and skills they are expected to learn before they progress to the next lesson, get promoted to the next grade level or receive a diploma. The general goal of proficiency-based education is to ensure that students acquire the knowledge and skills that are deemed to be essential to success in school, higher education, careers and adult life. If students struggle to meet minimum expected standards, they receive additional instruction, practice time and academic support to help them achieve proficiency, but they do not progress in their education until expected standards are met. (from: http://www.maine.gov/doe/proficiency/about/proficiency-based.html)

STUDENT ENROLLMENT

As evident in Table 7-2 below, enrollment has been relatively stable over the last few years, even with some decline, which is also consistent with statewide enrollments. There are a total of 1,014 students currently enrolled in Kittery's public schools. There is little ethnic/racial diversity: approximately 90% of the students are White, 1.5% are Asian, 2.5% African American, and 3.4% are Latino[5].

TABLE 7-2: Student Enrollment: Years 2000-2016

YEAR	Students attending Kittery Schools[6]	Yearly Change (%)
2000-01	1244	
2001-02	1240	-0.32
2002-03	1193	-3.79
2003-04	1167	-2.18
2004-05	1120	-4.03
2005-06	1082	-3.39
2006-07	1077	-.046
2007-08	1048	-2.69
2008-09	1001	-4.48
2009-10	971	-3.00
2010-2011	1014	+4.43
2011-12	1013	-0.10
2012-13	1082	+6.81
2013-14	1082	0
2014-15	1084	+0.18
2015-16	1063	-1.94

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[5] ME DOE

[6] October 1rst enrollments, Kittery School Superintendent's Office

As is evident in the Table 7-3, of the three public schools in Kittery, Shapleigh School (grades 4-8) has the highest student enrollment.

TABLE 7-3: Enrollment and Capacity by School: 10/15/2015

School	Enrollment	Capacity
Mitchell School (grades K-3)	376	450
Shapleigh School (grades 4-8)	418	525
R.W. Traip Academy (grades 9-12)	269	400

Statewide Enrollment Trends[7]: After peaking in the 1970s at close to 250,000 students, public school enrollment in Maine has been declining steadily. While projections are sometimes elusive, according to the Maine Department of Education, state-wide projections are that enrollment will reach a low point in the next few years and then begin to rise again, but at a much slower pace than that of the recent decline (see Table 7-4 for comparison of student enrollment between 1998 and 2012 statewide).

TABLE 7-4: Statewide Enrollment: Declining (1998 – 2013)[8]

Year	Students in Maine public schools
1998-99	214,842
2012-13	185,767

According to the enrollment projections presented in Table 7-5, developed in 2009 (the only ones available), Kittery's student population will increase ever so slightly in the near future. It is

important to note that over the last few years these estimates did not result in accurate projections and therefore, need to be updated. As is evident in Table 7-3, all three schools have the capacity to accommodate an increase in enrollment if that were to occur.

TABLE: 7-5: Kittery Student Enrollment Projections: 2016-2019[9]

School Year	Total K-2	Total 3-5	Total 6-8	Total K-8	Total 9-12	TOTAL K-12
2016-17	263	237	234	733	242	975
2017-18	263	245	226	733	245	979
2018-19	263	235	232	730	252	982

Over 90% of the Navy families attend Kittery schools and they make up about 30% of the school population (many of these students attend Kittery school for only 15-24 months because their parent(s) is assigned to repair a specific vessel at the PNSY and are stationed in Kittery for only this amount of time). Also, the number of children generated by Shipyard assignments varies dramatically depending on where the boats are originally stationed. For example, if the boat is from Groton, CT families may keep the children in the Groton school system and "commute" home on the weekends. If, on the other hand, the boat is from San Diego, the families are more likely to move to Kittery for the one or two year assignment. Having a transient and diverse student body presents its own set of opportunities and challenges.

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[7] Maine Department of Education, "A Snapshot of Education in Maine," http://maine.gov/doe/inside/snapshot.html

[8] m: Maine Department of Education, "A Snapshot of Education in Maine," http://maine.gov/doe/inside/snapshot.html

[9] Planning Decisions, Inc., Best Fit Model (1/26/2009)

Table 7-6 Percent of students from military families (PNS): February 1, 2016[10]

School	Grades	Percentage of children from military families
Mitchell School	K-3	22%
Shapleigh School	4-8	18%
Traip Academy	9-12	13
Overall District	K-12	18%

Due to the age of the Shipyard enlisted individuals, most of the children form the military families tend to be younger (as is evident in Table 7-6, Mitchell School, with the youngest grades, has the highest percentage of children from the PNS). The backgrounds and incomes of the students' families vary widely. This provides a unique opportunity for the more permanent Kittery students to become exposed to children from all over the country, thus enriching their educational experience.

The transient, short-term assignment of the students from the military families, also poses a number of challenges. The Kittery public school system necessarily serves a variety of levels and needs. There is an intensive intervention program to support students experiencing gaps in their educational experience due to the fact that they jump from school system to school system. According to the School Superintendent,[11] the Kittery School system performs as well, if not better than other school systems in Maine with similar demographics.

FUNDING[12]

Funding for education is a shared state and local responsibility. State funding to local school districts is based primarily on the Essential Programs and Services (EPS) formula. The Department of Education uses the formula to calculate the amount a district should expect to spend to provide an "adequate" education aligned with the Maine *Learning Results* academic standards, and determines the portion the state will pay based on available funds and local factors such as student enrollment and property values. Kittery is considered to be a "minimum receiver" community, that is, according to the State which bases its evaluation on the Town's tax assessments, Kittery can support the school system through local taxpayer money (rather than through state funds). As a result Kittery only 5% of the Kittery School Department's overall budget comes from the State, and the Town only receives 30% of approved special education funding (approximately $600,000 of a total budget of $16M). While this funding issue has been under review at the state level for several years, it is not anticipated that anything will change in the foreseeable future. The additional support programs that Kittery schools provide are funded through State funds for special needs, and from federal funds that follow military connected children. They also receive Federal Impact Aid ($200,000) in lieu of the tax-exempt housing that the military families stay in.

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[10] information provided by Superintendent of Kittery Schools

[11] during a Leadership Interview conducted on February 16, 2016

[12] From: Maine Department of Education, "A Snapshot of Education in Maine," http://maine.gov/doe/inside/snapshot.html

PRIVATE SCHOOLS AND OTHER EDUCATIONAL INSTITUTIONS IN OR NEAR KITTERY, MAINE

Approximately 90% of school-aged Kittery residents attend Kittery's public schools. Those who do not attend Kittery public schools go to the following private and parochial schools located in Maine and New Hampshire[13]:

- Berwick Academy
- Brixham Monotessori School
- Catherine McAuley High School
- Friends of the Liberty School
- Hebron Academy
- Mission Bay Christian School
- Portsmouth Christian Academy
- Seacoast Waldorf School
- St. Mary's Academy
- St. Patrick's School
- St. Thomas Aquinas High School
- Seacoast Christian Academy

Sanford Vocational High School
The regional vocational high school provides an alternative to Traip Academy for Kittery students. The school provides a wide range of programs including automotive technology, building trades, computers, culinary arts, health occupations, law enforcement, among others.

Enrollment of Kittery residents at Sanford Vocational High School has been relatively low (approximately 8-10 students attended

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[13] Kittery School Superintendent's Office

the school over the last few years). Reportedly there have been numerous reasons for the low enrollment, including the fact that commuting to the school takes 45-50 minutes each way.

The Kittery School Department recently purchased a mini-van to transport students to the Vocational High School, resulting in a shorter and more comfortable ride. Twenty (20) students have expressed interest in attending the school for the 2016-2017 academic year. If all these students are accepted in their programs and they choose to attend, the School Department will have to find an alternative transportation plan as the current van is fully utilized. Most likely an additional bus will be needed.

Kittery Adult Education
Kittery Adult Education provides lifelong learning opportunities for residents of all ages in the areas of academics, literacy, ESL and enrichment. Classes are held at the Traip Academy.   Kittery Adult Education offices are located at 12 Williams Avenue.

The Town shares the Adult Education Director with the Marshwood School District (Eliot and South Berwick) that also offers their classes to Kittery residents, thereby increasing the number and type of opportunities available.

FUTURE PLANS/NEEDS

There are no significant capital needs, either for renovations or for increasing the capacity of the schools as they are all in good condition and are able to accommodate existing and any potential small increases in enrollment. Needed repairs to the

Traip Academy will be undertaken in the near future. See the Capital Improvements Plan (CIP) for details.

The lack of playing fields is addressed in the Athletic Fields Study. When its recommendations are implemented, current needs will have been met.

The School Department will undertake to produce new enrollment projections as a way of being proactive about the population it serves.   Also, along with the Town, the School Department will continue to monitor any changes in the patterns of growth at the Shipyard as these may affect future school enrollments.

One of the goals of proficiency-based learning is to have every student have the experience of a community internship before they graduate. The Superintendent would like to increase opportunities for students to participate in Outreach and Service Learning in the community. VISTA volunteer services are currently exploring such opportunities in the community. Transportation for students to get to these internships is an issue. Exploring public transportation options (e.g. town shuttle) may also give high school students more flexibility in terms of getting to school and back.

Over 50% of the Town's budget is allocated to the schools. It may be useful to revisit combining the School Department and Town payroll systems.

Opportunities for regional cooperation:
The Superintendent has agreements with other school districts and sometimes places students in other districts based on their needs. Kittery School District collaborates with MSAD #35 (Marshwood School District) and York whenever possible to save money for all three school systems. The three districts communicate regularly and seek out ways to work together whenever possible and practical. An analysis of potential cost savings of becoming a combined school district concluded that it would not be more cost effective for Kittery.

Traip Academy

PUBLIC SAFETY

Summary of Key Points

- There is a pending grant for joint dispatch for public safety with four surrounding communities; the dispatch service will be located in Kittery's Police Department. This could be expanded to more communities in the future.

- The Police Department is in the process of setting up a regional opiate addiction program that seeks to decriminalize addicts and connect them to treatment.

- There may be a need to increase the number of sworn officers for the Police Department in order to police a larger population (that takes into account the tourists, shoppers and Shipyard employees).

- The Fire Department is having difficulty recruiting volunteers for its on-call fire fighting force. It may be necessary to transition the Fire Department to full-time professional fire fighters. In the meantime, adding sleeping quarters to the central Fire Station may help recruit more volunteers and prepare for the professional staff.

- The Town will continue to use American Ambulance New England for emergency medical services.

POLICE DEPARTMENT

The Police Department is located next door to Town Hall in the Municipal Complex. It has its own separate entrance and section of the building. The facility is more than adequate to meet current as well as future needs (the second floor houses significant shell space that could be used for any needed expansion).

The Police Department has a total of twenty (20) sworn officers and is comprised of the following staff:
1 Police Chief
I Lieutenant
3 Sergeants
12 patrol officers
2 detectives
1 school resource officer
1 part-time Administrative Assistant
6 dispatchers
1 part-time Animal Control

The Police Chief is retiring in June 2016, and the Town is advertising for new Chief. For three years, the towns of Kittery and Eliot shared a Police Chief through an inter-municipal agreement. Kittery will no longer be sharing Police Chief with the Town of Eliot. The new Police Chief will only work for the Town of Kittery. Additional funding will need to be allocated to a full time Chief's salary.

According to the current Chief of Police, Kittery could use additional officers (the national average is 2 officers/ 1,000 residents). Currently Kittery has 20 sworn officers which is approximately in line with the national average. In Kittery's case however, in addition to the Town's residents, public safety is an issue for the shoppers patronizing the outlets and the tourists visiting the beaches and parks increasing the daily population of the Town, especially in the summer months. This is why the Chief supports an increase in the number of officers for the future.

CALLS FOR SERVICE

The calls for service have been fairly consistent over the last three years at approximately 15,000 calls per year. The primary categories are as follows:

Car accidents/traffic:
- Rt. 1 North (outlets) generate approximately 14% of all traffic accidents per year
    - There are approximately 3.5 million visitors to the outlets annually
- The Shipyard is the major contributor to traffic congestion
    - They already encourage carpooling and have vans that transport employees as they have parking limitations on Seavey Island (Shipyard).
    - The Police Chief has made a request to the Shipyard with regard to directing traffic and they were willing to every so often, make a 3-minute delay for those leaving from Gate 2, so as to allow the traffic to flow.

- The Shipyard has its own police services provided by the Department of Defense. However, the Kittery Police Department does respond to Shipyard calls and there is some coordination of services.
- Tourists contribute to traffic congestion seasonally
- Foreside: the recent increase in development in the Foreside district has led to an increase in traffic and parking issues
- There are seasonal increases in traffic in Fort Foster and Seapoint Beach areas.
- Peak traffic times are: 6:00AM -8:00 AM & 200PM-5:00PM; most of the congestion is created by employees of the Shipyard going to and from work
- The Maine Department of Transportation identified the top three high crash locations in Kittery as being:
    - I-95 off ramp (Exit 2) due to a blind spot
    - Rotary Circle – scheduled for reconstruction
    - Rt. 1 By-pass at the intersection with Bridge Street. Some of these accidents occur when the bridge is up and drivers are not paying attention and don't stop in time. The Sarah Long Mildred Bridge is being replaced.

Criminal activity:
- The Rt. 1 North (outlets) area generates approximately 14% of all criminal activity (in the form of shoplifting). An interesting coincidence is that the same area generates the exact same percentage (14%) of the traffic accidents in Town.
- Heroin use has been on the rise (as is the case nationwide). In 2105 there were 4 opiate-related deaths in Kittery and 20 overdoses. With only one and a half months into 2016 at the time of writing, there has already been one opiate related

death. According to the Police Chief, heroin addiction drives the majority of criminal offenses, that is, thefts, burglaries and robberies.

The Department coordinates with the School Department and provides for a School Resource Officer. The Department does not operate a traditional D.A.R.E (Drug Abuse Resistance Education) program, but instead has created a curriculum regarding making good decisions, promoting leadership and coping skills.

RESPONSE TIME

The average response time (during 2015) was 4.9 minutes.

VEHICLES

The Department has 16 vehicles in total including 1 motorcycle (plan is to dedicate as a fulltime traffic officer), 3 marked cars, and 1 supervisor's vehicle. Some of the vehicles are currently being replaced. See the Capital Improvement Plan (CIP).

JOINT DISPATCH

Currently the Kittery Police Department already conducts dispatch for public safety for the Towns of Kittery and Elliot. The Town has submitted a grant for a regional fire and police joint dispatch with the towns of Kittery, Eliot, Berwick and South Berwick.   An estimated $200,000 will be saved if regional dispatch is instituted. The Town Managers of each community will be the governing board. The Department also dispatches for

the American Ambulance Service, Kittery's medical emergency service.

PATROL ZONES

The Department provides 24-hour a day coverage with three shifts covering two geographic patrol areas. Using the natural boundary of Spruce Creek, the two zones are the "North Zone" which includes Kittery Point and the outlet area and the "South Zone" which includes the Foreside District. Additionally, there is a third "Floating Zone," using Rt. 1 as a divider, including Rt. 236 and smaller, less populated, quieter areas. Using the zones as a way of defining areas to be patrolled has reportedly increased efficiency and effectiveness. Additionally, officers and their Sergeants work as a team.

FUTURE PLANS/NEEDS

The Chief believes that the Police Department should expand over the next five years to reflect the actual daytime population of the Town (that is, in addition to residents, to account for the Shipyard employees, tourists, and shoppers). He believes that increasing from the current 20 sworn officers to a total of 30 sworn staff members would help the Department to be more proactive. As previously mentioned, this is to cope with the significant increase in population due to outlet shoppers and tourists. There is space to expand on second floor of Town Hall, if needed.

The Police Chief also believes that the Kittery Police Department dispatch could, over time, expand to provide regional dispatch services for up to 6 communities (this is two additional towns than is currently the plan). The space for expansion exists on the second floor. This increase in dispatch would generate additional revenue for Kittery.

The Police Chief is in the process of establishing an organization, *HOPE (Heroin-Opiate Prevention Effort) for the Seacoast,* to combat opiate addiction on a regional level. Together with York, ME, Portsmouth, Dover, Summers and Rochester, NH, they are in the process of developing capacity based on the Operation HOPE models of Gloucester, MA and Scarborough, ME[14] that decriminalize addiction and offers treatment to those suffering from opiate addiction. They are currently training police officers and angels[15] and establishing connections with treatment centers.

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[14] The program creates a partnership between law enforcement and treatment facilities. Dealers will still be arrested, but individuals may surrender drugs, needles or other paraphernalia at the police station without fear of arrest. From: Kelley, Michael, "Operation Hope is making an impact," Scarborough Leader, 11-13-2016.
http://leader.mainelymediallc.com/news/2015-11-13/Front_Page/Operation_HOPE_is_making_an_impact.html

[15] "Angels" are individuals trained to help those suffering from addiction to find resources for treatment. The goal is to humanize individuals suffering from addition, and to help them through empathy and understanding.

FIRE DEPARTMENT

The Kittery Fire Department operates from two Fire Stations. The Walker Street Station was closed in 2007 and is now used by the emergency medical service, American Ambulance New England (AANE). The following describes each of the two currently operating stations.

GORGES ROAD FIRE STATION, KITTERY

- Built in 2007
- Has six (6) bays
- Facility
  - Full locker room and shower (separate facilities for men and women)
  - Kitchen area
  - Physical fitness space
  - Training area
  - Offices and conference room
  - SCBA room (Self contained breathing apparatus)
  - Gear storage/washing/drying
- Equipment/Apparatus
  - Ladder truck
  - 2 utility vehicles
  - heavy duty rescue
  - 2 pumpers
  - tank truck
  - Harbor Master's boat

LEWIS SQUARE STATION ON KITTERY POINT
- Built in 2007

- Has three (3) bays
- Facility
    - Shower and locker facilities (only 1, no separate male/female facilities)
    - On-call addition
    - Kitchen
    - Training room
    - Office/radio room

Both stations are adequate with the exception of the fact that neither station has sleeping quarters.

STAFF

The Fire Department is fully staffed by on-call fire fighters. That is, the Department does not have any paid, full-time career fire fighters. Fire fighters are on-call and are paid only when they respond to an alarm.   Currently there are 49 total fire fighters; approximately 25 of these are active. There are 44 men and three women. The Chief recently initiated a bonus program such that if a fire fighter makes 33% of the calls in a year, they will receive a $1,000 bonus. The Chief also recently increased their pay in an attempt to keep existing fire fighters, and to attract new recruits. The Fire Department's response time is under 10 minutes, which is within public safety standards for an on-call fire department. There is no location in Kittery that is further than 5 miles from one of the stations and the Department has good working relationships with fire departments in surrounding communities.

APPARATUS

The Kittery Fire Department has an apparatus reserve account funded annually. The Fire Chief reported that all apparatus is currently adequate. Each piece of apparatus is kept for a maximum of twenty-five (25) years.   Additionally, the apparatus has been organized so that there is a specific piece of apparatus for each specific function needed. This makes for a more efficient fleet

Photo by John Galla   www.firenews.org

Some of Kittery's fire trucks

The Department's mutual aid system is operated by a "run card" system. When the size or type of incident requires additional resources, the scene commander may initiate the mutual aid through Kittery Dispatch.

- First alarm is Kittery apparatus and automatic mutual aid from Eliot for smoke in building or confirmed structure fire.
- Second alarm calls for assistance from Eliot, York, Portsmouth, and Portsmouth Naval Yard.
- Third alarm and above initiates assistance from other regional fire departments.

RESPONSE TIME

The average response time for the year ending on 05/31/2016 was 6 minutes and 10 seconds.

The Fire Chief has a concern regarding response time to Gerrish Island. He considers the area to be a "wildland interface" problem. Wildlife interface is where several structures are built in and around heavily wooded/forested areas with little to no water supply.

FUTURE PLANS/NEEDS

The Town is experiencing difficulty recruiting on-call fire fighters. Requirements are becoming more stringent than in the past, for example, it takes a year to train a fire fighter. This requires a high degree of commitment from a volunteer. Additionally, the lack of affordable housing and other high living expenses is discouraging for young people considering moving to Kittery, reducing the pool of potential volunteers. The Fire Department will continue to explore creative approaches for maintaining an on-call fire department.

In the future, there will most likely be a need for career fire fighters.

As the Fire Department transitions to a career fire fighting staff, the Chief thinks that a key step is to add sleeping quarters to the Station. There is ample space on the parcel of the Main Station building to accommodate such an addition. Sleeping quarters could be beneficial during the transition for a number of reasons, including the following:

- Currently when there is a storm, fire fighters have to sleep in the truck cabs or on cots in the station.
- Southern Main Community College Fire Science Program students are given the opportunity to participate in a "live in" program where, as part of their curriculum they are housed in several fire stations in southern Maine. Kittery does not participate in this program because of the lack of sleeping quarters and the distance from South Portland. It may be worth considering this program for possible expansion of services by York County Community College in Wells, Maine.
- Fire fighters are attracted to the community spirit of a common room and sleeping quarters; many join for this sense of community.

EMERGENCY MEDICAL RESPONSE

The Town currently contracts with American Ambulance New England (AANE), a private company, to provide ambulance service for Kittery. They service Kittery and Eliot, ME from its base at 25 Walker Street in Kittery.   Kittery's Fire Chief is the Administrator.

According to Kittery Fire Chief,[16] the American Ambulance has met the response times indicated in the existing contract. In addition, American Ambulance pays Kittery $16,000 a year for dispatching services.

The Town owns the building (the former Walker Street Fire Station) that it leases to AANE for free. AANE pays for all utilities and day-to-day maintenance.   The Town is responsible for more substantial upkeep of the building (for example, the Town will be replacing the boiler and repaving of the parking lot, while AANE paid for new windows, insulation, and painting of the building). In exchange for the use of the building, they do not charge the Town of Kittery for the services they provide. They also serve the Town of Eliot from this location.

Ambulance services are free to all Town employees. Town residents pay through their health insurance. In addition to Emergency Medical Services, AANE provides free blood pressure clinics, CPR classes and it maintains the 18 defibrillators, located

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[16]from *OurKittery: News and Updates on Kittery*, http://ourkittery.com

throughout the Town (in all schools, athletic fields, and public buildings).

CALLS FOR SERVICE

Emergency medical service calls have reportedly been increasing due to the increase in the elderly population.

Table 7-7: Calls for EMS service

Town	Approximate Annual calls for service
Kittery	1,200
Eliot	400

Two (2) of the paramedic wagons that AANE use are housed in the Main Kittery Fire Station.

RESPONSE TIME

The average response time in 2015 was 3 minutes and 15 seconds.

FUTURE PLANS/NEEDS

In January 2016, the Kittery Town Council voted to authorize the Town Manager to execute a new four-year agreement for EMS services with American Ambulance New England (AANE), with an option for an additional four years.

The agreement will allow Kittery and Elliot to continue their joint services with AANE, which they started two years ago. Their

current contract is set to expire at the end of June. The vote also extends American Ambulance's lease agreement of the old Walker Street Fire Station to utilize for the ambulance services.

LIBRARY

Summary of Key Points

- The most critical decision facing the Library in the near future is how to combine all the library's functions into one building and whether this should be accomplished by constructing an addition to the existing historic Rice building or by creating a new facility on the site of the Kittery Community Center.

The Rice Public Library is a private nonprofit corporation. The Trustees of the Library own the Library, but 99% of their funding is from the Town. It currently occupies two buildings, both in the Foreside district, across the street from each other. Both are historic buildings.

The original library building located on Wentworth Street, was constructed in 1888, and the Taylor Annex, a former county court building was acquired in 1989 to relieve overcrowding in the Rice Building. The Rice building was renovated in 1991 and the Taylor Annex in 1989. Both are considered to be structurally sound. The Rice building is considered by many to be the most architecturally significant building in Kittery and is listed on the National Register of Historic Places.

As previously mentioned, the Town of Kittery provides the majority of operational funding for the Library. Institutional administration is under the direction of a seven-member (public) Board of Directors, while daily management of the facility and specialized staff is the responsibility of the Library Director. Additional funding comes from the Friends of the Rice Public Library, and from grants and donations from area businesses and individuals.

Rice Public Library

The library functions out of the two buildings as follows:

RICE LIBRARY BUILDING

- Non-Fiction
- Administrative functions
- 7 computers
- geneology and local Kittery history
- seating areas
- 3,000 books on CD
- reference
- young adults collection and space (will expand into reference area)
- Basement meeting/movie room
- History room/collection (4,000 items)

Only the basement is handicap accessible.

TAYLOR LIBRARY BUILDING

- Children's room and collection (story time once a week; 40 -60 children attend; staff from the library also go to Pre-schools)
- Fiction
- DVD collection
- 5 computers
- large print collection
- art exhibits
- very limited seating
- staff room

The building is handicap accessible. A ramp runs along the side of the library.

The Rice building has an exceptionally beautiful exterior and interior and the Children's room in the Taylor building is unusually cozy. However, the current facilities are inadequate for current and future needs. First, having library functions in two separate buildings results in inefficiencies as well as inconveniencing both patrons and staff who must continually go back and forth between the two facilities.

Secondly, overall space for current and future needs is scarce. Space is for additional books and other materials is limited and is very limited for additional computers at both buildings. Seating is extremely limited at the Taylor building.

COLLECTION

The library adds between 3,000 – 4,000 items per year to its collection and tries to weed out an equal amount.

TABLE 7-8: Rice Library Circulation (2014 – 2015)

Collection	2014	2015
Children & Young Adult borrowing	27,439	27,821
Adult: Print, audio, video	60,331	58,018

The Rice Public Library is part of the Minerva system of libraries giving it access to 60 other library collections. Twenty-five crates of books are ordered from other member libraries weekly. 23,000 items and borrowed and loaned each year.

STAFF

The library has a total of 6 FTEs (4 full time staff, 2 part time and 8 substitutes who work 2 hours at a time)

USAGE

The library is enjoyed by many residents of all ages (5,956 at last count). In 2015 a total of 88,990 items were borrowed, 515 children participated in the summer reading program, and there has been an increase in participation in children and teen programming as well as lectures and adult programs[17]

- Once a month there is a family movie night (approximately 60 people attend)
- Once a month there is an adult movie night (approximately 15 people attend); the Friends of the Library also show movies at retirement and nursing homes
- 2 book groups currently meet in the library

Food and drink are allowed throughout the buildings.

The Library also organizes off-site events at Fort Foster, Kittery Block Party, and and Kittery estates (for senior citizens)

LIBRARY HOURS

The library is open five days a week, including extended evening hours on two nights per week, and is closed on Mondays and Sundays.

Tuesdays 10:00 AM – 5:00 PM
Wednesdays 12:00 AM – 8:00 PM
Thursdays 12:00 AM – 8:00 PM
Fridays 10:00 AM – 5:00 PM
Saturdays 10:00 AM – 2:00 PM

FUTURE PLANS/NEEDS

SHORT TERM:

The Library Director would like to focus on the following priorities:

- Supporting early literacy ("Read 25 books by age 5).
- Community building (by participating in joint sponsorship of off-site events)
- Digitizing the library collection of photographs
- Supporting increasing elderly population
  - Delivery of books to elders that are confined to their homes
  - Demonstrations (e-books, books for the seeing impaired, computer classes) at the library and at senior housing
  - Entertainment (movies, etc.) at senior housing

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[17] from interview with Library Director, February 16, 2016