

L. NATURAL RESOURCES

Goal

To protect and preserve the natural resources on which its economy and quality of life depend.

Abundant Natural Resources

The natural resources of Jonesport are diverse and abundant. As a large peninsula surrounded by Englishman Bay to the east, Beals Island to the south and the Indian River estuary, the town has many extraordinarily scenic water views. The coastline and outer islands support coastal and wading waterfowl, several productive fisheries and many unique species including bald eagles, peregrine falcon, and razorbill. Northern inland areas produce an abundant crop of wild blueberries, and the cool and humid marine climate supports unique forest associations, coastal raised bogs, and many rare species. These resources provide open spaces and are essential for the continued strength of commercial fishing to the regional economy. They also support the tourism sector by providing recreational opportunities such as fishing, boating, hunting, kayaking, and hiking.

Development Pressure and Overuse of Critical Natural Resources

Because natural systems are critical to the economy, environment, and quality of life for people in Jonesport, climate change is the biggest threat to the natural resources. Over 40% of the employed population in Jonesport works in some type of Natural Resources occupation (see Chapter E – Employment & Economy), most of whom rely on the harvest of natural resources such as lobster, shellfish, forest products, and agricultural products.

In 2022, 385 types of harvester licenses were issued to Jonesport residents. Many individuals hold licenses for multiple marine resources (lobster, shellfish, etc). It is clear that a large number of individuals, families, suppliers, and other retailers in Jonesport and nearby service area depend upon fisheries for some portion of their income. The Gulf of Maine is the fastest warming water body on the planet. Crustaceans and shellfish are sensitive to changes in water temperature and consumers are sensitive to supply and demand. Between 2011 and 2020, fluctuations in the price of shellfish were in direct correlation with the temperatures in the Gulf of Maine.

Overuse of recreation areas is becoming a problem across coastal Washington County. Coastal soils are thin and quickly erode as foot traffic kills vegetation, displaces soil, and exposes tree roots. Increasing frequency and intensity of rain events further exacerbates the problem, and well-worn trails become drainage ways that wash out in heavy rains. Jonesport does not contain public trails that receive much use outside of year-round and summer residents. However, the Great Wass Island Preserve on Beals, used by Jonesport residents, and managed by The Nature Conservancy, is experiencing significant overuse.

LOCATION AND TOPOGRAPHY

The town of Jonesport encompasses approximately 18,250 acres with an additional 46,200 acres of water. Jonesport is a large peninsula surrounded by several bays (Mason, Englishman, Chandler), the estuary and bay of Indian River, and two shipping passages (Seguin Passage and Moosabec Reach).

Jonesport also includes several coastal islands across Moosabec Reach to the south and to the east of the complex of coastal islands that make up the town of Beals. There are four large islands, Roque and Great Spruce in Englishman Bay and Head Harbor and Steele Harbor to the east of Beals, and numerous other smaller islands as described in the table below. The large and small islands protect the mainland and experience extensive marine exposure. The waters of the Gulf of Maine and the Bay of Fundy meet here and mix to produce a cool humid oceanic climate which support several plants and natural communities that are rare not only in Maine, but throughout the United States.

ISLANDS WITHIN THE TOWN OF JONESPORT

Name	Acres	Notes
Middle Hardwood Island	7.2	
Mouse Island	0.5	
Spar Island	1	
Dunn's Island	83	
Roque Island	1243	Tree Growth
Great Spruce Island	353	Tree Growth
Little Spruce Island	86	Tree Growth
Mink Island	1	
Bar Island	1	
Halifax Island	75	Public. IFW submits a yearly payment in lieu of taxes
Mark Island	41	Open Space 41A
Sequin Island	22	
Head Harbor Island	1100	Tree Growth
Little Head Point	32.35	Open Space 2.5A
Hardwood Island	1	
Big Sheep Island	1	
Little Sheep Island	1	
Inner Hardwood Island	0.5	
Marsh Island	45	Tree Growth
Bar Island	28	Tree Growth
Lakeman Island	47	Tree Growth
Anguilla Island	25	Tree Growth

Shag Rock	1	
Double Shot Island	22	Tree Growth
Little Peabody Island	1	
Big Peabody Island	1	
Treasure Island	1	
Inner & Outer Man Islands	15	Os 15
Marsh Island	31	
Devil's Island	0.5	
Black Island	10	Open Space 1A
Money Island	1	
Steel's Harbor Island	440	Tree Growth
Crow Island	1	
Little Hardwood Island	10	
Hall's Island	8	
Calf Island	2	
Green Island	5	
Knight's Island	35	Open Space 34A
Water Island	7	
Mistake Island	21	

GEOLOGY

Jonesport is in a region of massive granite intrusion that was glaciated in the Wisconsin age. The glacier caused till (unsorted, poorly drained soil) to be deposited over the entire region. This poorly drained till formed bogs and ponds and altered the drainage pattern. The underlying granite caused the till to be more thickly deposited on the northwest sides of ridges: on the southeast sides boulders were "plucked" and transported further south. Thick till deposits are found in bedrock "valleys" and depressions. The weight of the ice (in some places a mile thick) caused the land to be depressed in relation to the level of the sea. Marine sediments (silts and clays) were deposited in valleys and more sheltered locations. The release of pressure due to the melting allowed the land to rise slowly. In some areas, isolated deposits of sand and gravel (ice contact and glacial outwash) can be found.

LAND SUITABILITY FOR DEVELOPMENT

Soils

Soils in Jonesport are of several types: glacial till thinly deposited in the uplands; thick glacial till on northwest slopes and in bedrock depressions; marine silts and clays in the valleys and more sheltered locations, and glacial outwash or ice contact sands and gravels. Prominent soil types in Jonesport include Hermon-Brayton-Mondadnock (ME027), Lyman-Lamoine-Scantic (ME037), Scantic-Lamoine-Dixfield (ME032), and Schoodic-Rock Outcrop-Naskeag (ME055) associations.

These soils are not particularly well suited to septic sewage disposal. Some are well suited to forestry, farming, and wild blueberry cultivation. See Map: Farmland Soil Classification and Map: Drainage Soil Classification.

Jonesport has no public sewage or water facilities. Development depends on the private provision and maintenance of safe and adequate septic systems and wells. Septic systems should always be designed and constructed carefully, but this is especially crucial when such systems are placed in areas with poorly drained soils, shallow bedrock soils, and soils with high water tables.

Development on poorly suited soils is the underlying cause of many environmental and economic problems. A community pays for improper land use through water pollution, high mitigation and maintenance costs on individual wells and public services, closure of shell fishing areas, and destruction of existing wildlife and scenic areas.

Very few areas of Jonesport have large tracts of land that are ideal for intense development. However, most areas of Jonesport and the surrounding region contain many smaller tracts of land suitable for low density residential and light commercial development. These types of development are consistent with existing and in line with future patterns of development deemed important by the community.

Highly Erodible Soils

The removal of surface vegetation from large areas of land can cause erosion, which is a major contributor of pollution to surface waters. Highly erodible soils have a potential to erode faster than normal. Soil composition affects its susceptibility to erosion, but the combined effects of slope length and steepness are the greatest contributing factors when identifying highly erodible soils.

Most development and intensive land use can and should take place on areas with slopes of less than 15 percent (representing an average drop of 15 feet or less in 100 feet horizontal distance). On slopes greater than 15 percent, the costs of roads, foundations and septic, sewer and other utility systems rise rapidly. Map: Landcover identifies the location of steep slopes in Jonesport. There are very few areas in Jonesport with slopes greater than 15%; these are located in the northwest part of town stretching from Sandy River Beach to Gage Mountain, and between Steel Mountain Brook and the Cross Road.

FARM AND FOREST LAND

Soils in Jonesport are not generally suitable for many agricultural uses. Many Jonesport residents have home gardens, but there is only 1 commercial farm in Jonesport. However, a large area of Jonesport soils are very well suited for wild blueberry production and are identified as farmland of statewide importance (see Map: Farmland Soil Classification). Wild blueberry production continues to provide employment in Jonesport. Approximately 1,500 acres are under cultivation for blueberries, few of which are irrigated. Most blueberry production occurs in the northeastern section of Jonesport.

Maine's forests and forest industry still play a vital role in the state's economy, especially in Northern and Eastern Maine. Forested areas provide abundant and diverse wildlife habitat for both game and non-game species and contribute to many recreational and aesthetic experiences. Excluding the marine area, about eighty per cent of Jonesport is forested (see Map: Landcover) with a maritime spruce forest that also includes patches dominated by fir, heart-leaved paper birch and mountain ash and extensive areas of forested wetlands. A black spruce woodland occurs in cool and moist microclimates with an open canopy on bare rock, very thin soil over rock, or excessively drained gravelly deposits.

Soils rated with a woodland productivity of medium or above are qualified as prime forestland soils. These soils are rated only for productivity and exclude management problems such as erosion hazard, equipment limitations or seedling mortality. In Jonesport the forestlands range from medium to high and very high woodland productivity ratings according to the Washington County Area Soil Survey and Subpart C – Ordination System, National Forestry Manual.

The amount of timber harvesting conducted in Jonesport has risen exponentially over the past 24 years. In 1999, a total of 163 acres of timber was harvested from four harvests (per Maine Forest Service data). In 2022, a total of 4,759 acres were harvested - the number of individual harvests is not known (data provided by Jonesport’s tax Assessor).

TIMBER HARVEST INFORMATION

1999 - acres harvested	Selection Harvest acres	Shelterwood Harvest acres	Clearcut Harvest acres	Total Harvest acres
	163	-	-	163
2022 - acres harvested	Softwood	Hardwood	Mixed Forest	Other Timber
	2,326	240	1079	1,114
2022 - Harvest Value	\$293,076	\$166,305	\$29,280	\$961,774

Source: Year End Landowner Reports to Maine Forest Service, 2003; Jonesport Tax Assessor, 2022

WATER RESOURCES

Watersheds

A watershed is the land area in which runoff from precipitation drains into a body of water. There are several small rivers and streams in Jonesport, the Indian River estuary forms the western boundary with the town of Jonesport, the Steele Meadow Brook rises in the center of the peninsula and drains to the Indian River estuary and there are several smaller unnamed streams that drain all the coves and bays around the peninsula. There are extensive upland wetlands associated with Steele Meadow Brook and the drainages at the southern end of Jonesport. There are two small freshwater ponds in Jonesport, Cromwell Pond on Loon Point and Gaelic Pond north of Cross Cove Creek, but there are no lakes or great ponds within the town.

The water quality surrounding Jonesport is affected by land uses in Jonesport and in the surrounding towns of Beals, Addison, and Jonesboro. Anything that can be transported by water will eventually reach and impact the quality of a water body. Activity anywhere in the watershed, even several miles away, has the potential to impact water quality. All wetlands in Jonesport drain through Indian River Stream. Neighboring areas of Jonesboro, Chandler Bay, and Mason Bay contain large areas of blueberry lands that release fertilizer and pesticides into the waters of Jonesport.

The Maine Department of Environmental Protection (MDEP) uses bacteriological, dissolved oxygen, and aquatic life criteria to assess what portion of Maine's rivers, streams, and brooks meet the goal of the Clean Water Act. All river waters are classified into one of four categories: Class AA, A, B, and C, with Class AA being the highest classification with outstanding quality and high levels of protection. Class C, on the other end of the spectrum, is suitable for recreation and fishing yet has higher levels of bacteria and lower levels of oxygen.

All streams within Jonesport are classified as Class B by MDEP, including waters draining directly or indirectly into tidal waters of Washington County, including impoundments of the Pennamaquan River, except for the Dennys River Basin, the East Machias River Basin, the Machias River Basin, the Narraguagus River Basin, and the Pleasant River Basin. MDEP defines Class B as being suitable as a drinking water supply, for recreation in and on the water, fishing, as an industrial process and cooling water supply, for hydroelectric power generation, navigation, and as unimpaired habitat for fish and other aquatic life.

Threats to water quality of these waterways come from point and non-point discharges. Jonesport does not currently have any significant sources of non-point pollution from erosion, sedimentation, animal waste, or hazardous substances. Point source pollution is discharged directly from a specific site such as a municipal sewage treatment plant or an industrial outfall pipe. Point sources are also any pipe that discharges to surface water, including the few remaining licensed Overboard Discharge Permits within the town of Jonesport. The remaining OBDs are inspected at least once a year by Maine DEP. Until the majority of the town shows interest in getting town water/sewer, these property owners hope to continue licensing their OBD systems. No signs of OBD system malfunction have been reported.

Shorelands and Floodplains

Shorelands are environmentally important areas because of their relationship to water quality, their value as wildlife habitat and travel, and their function as floodplains. Development and the removal of vegetation in shoreland areas can increase runoff and sedimentation leading to an increase in the amount of nutrients and other pollutants that reach surface water. This can lead to algal blooms and closure of shell fishing areas. Steep slopes and highly erodible soils are particularly susceptible to erosion.

Floodplains serve to accommodate high levels and large volumes of water and to dissipate the force of

flow. A floodplain absorbs and stores a large amount of water, later becoming a source of aquifer recharge. Floodplains also serve as wildlife habitats, open space, and outdoor recreation without interfering with their emergency overflow capacity. Flooding can cause serious destruction of property and activities that increase paved or impervious surfaces and/or that change the watercourse on floodplains increase the quantity and rate of runoff that can intensify flooding impacts downstream.

Jonesport's Shoreland Zoning Ordinance, adopted in 1991 and last updated in March 2022, regulates land use within the following Districts:

1. Resource Protection
2. Limited Residential
3. Limited Commercial
4. General Development I & II
5. Commercial Fisheries/Maritime Activities
6. Stream Protection

Jonesport adopted a Floodplain Management Ordinance with new flood plain maps in 1996 that includes construction standards to minimize flood damage within the 200-year floodplain. This Ordinance is currently being updated to comply with minimum State and Federal standards.

All communities surrounding Jonesport utilize the minimum State and Federal shoreland, floodplain, and subdivision regulations and are consistent with standards placed on shorelands in Jonesport.

Wetlands

The term "wetlands" is defined under both state and federal laws as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support prevalence of vegetation typically adapted for life in saturated soils." Wetlands include freshwater swamps, bogs, marshes, heaths, swales, and meadows.

Wetlands are important to public health, safety, and welfare because they act as a filter, absorb excess water, serve as aquifer discharge areas, and provide critical habitats for a wide range of fish and wildlife. They are fragile natural resources. Vernal pools are significant wetland resources that are not often protected under general wetland regulations due to their small size. Riparian areas offer habitat for many plants and animals and can also serve as wildlife travel corridors. Some wetlands have important recreational and educational value providing opportunities for fishing, boating, hunting, and environmental education. Planning efforts should take into account the constraints of these areas.

The Maine DEP has identified extensive wetlands located within Jonesport, as illustrated on Map: Critical Habitat. These wetlands were identified as wetlands by aerial photo interpretation. Interpretations were confirmed by soil mapping and other wetland inventories. Field verification of the location and boundaries of the wetlands should be undertaken prior to development. The MDEP has

jurisdiction over freshwater wetlands and floodplain wetlands under the Natural Resources Protection Act (NRPA)/Wetland Protection Rules and Site Location of Development Act. The Mandatory Shoreland Zoning Law provides protection to mapped non-forested wetlands.

Groundwater - Sand and Gravel Aquifers

Aquifers may be of two types: bedrock aquifers and sand and gravel aquifers. A bedrock aquifer is adequate for small yields. A sand and gravel aquifer is a deposit of coarse-grained surface materials that, in all probability, can supply large volumes of groundwater. Recharge to these specific aquifers is likely to occur over a more extensive area than the aquifer itself. The Maine Geological Survey has identified one large sand and gravel aquifer within Jonesport that extends into the neighboring communities of Addison and Jonesboro, as shown on Map: Drainage Soil Classification. This map can be used to identify surface sites that are unfavorable for storage or disposal of wastes or toxic hazardous materials.

PUBLIC WATER SUPPLIES IN JONESPORT

Public Water System	System Type	Source
Jonesport Elementary/JBHS	NTNC	WELL – 250' Bedrock
Gaelic Square Housing	COM	WELL – 150' Drilled (1 GPM)
US Coast Guard Station	COM	SPRING – Groundwater Under Influence
Arnold Memorial Medical Building	NC	WELL – 250' Drilled (5 GPM)

The Maine Rules Relating to Drinking Water (Chapter 231) define a "public water system" as any publicly or privately owned system of pipes or other constructed conveyances, structures and facilities through which water is obtained for or sold, furnished, or distributed to the public for human consumption, if such a system has at least 15 service connections, regularly serves an average of at least 25 individuals daily at least 60 days out of the year or bottles water for sale.

1. **COM** (Community Water System): A public water system which serves at least fifteen service connections used by year-round residents or regularly serves at least twenty-five year-round residents.
2. Non-Community Water System: A public water system that is not a community water system. There are two types of Non-Community Water Systems. These are:
 - a) **NC** (Transient Non-Community Water Systems): A Non-Community water system that serves at least 25 persons, but not necessarily the same persons, for at least 60 days per year.
 - b) **NTNC** (Non-Transient, Non-Community Water Systems): A Non-Community water system that serves at least 25 of the same persons for six months or more per year.

Clean groundwater is essential to a healthy community and needs to be protected from pollution and depletion. Once groundwater is contaminated, it is difficult or even impossible to clean. Contamination can eventually spread from groundwater to surface water and vice versa. Towns can take measures to prevent contamination before it occurs. Most aquifer and surface water contamination comes from non-point sources including faulty septic systems and road salt leaching into the ground.

Known problem areas include several older homes along Feeney Street located in low, flat areas with little drainage. A few potentially problematic systems remain that were not addressed during a cleanup funded by Community Development Block Grant funds. Some overboard discharge systems have been cleaned up, and some continue to be licensed. Clam digging is now open from Henry Point east, but Moosabec Reach is closed.

Nearly 82% of respondents to the Community Survey stated they have a leach field while just over 16% reported having a chambered system or a holding tank. Over 90% of respondents reported that their septic system “works well” while nearly 5% stated that they were “unsure” of the condition of their septic system, almost 3% are aware that their system “has a problem.” The survey revealed that 1.92% of respondents declared their sewer system consists of “overboard discharge” and the same percentage of respondents reported that their septic system “needs replacement.” This does not mean that those who noted needing replacement are also those with OBD systems, nor does it mean that the OBD systems are failing. Direct outreach by the Town to residents with OBD systems will help clarify if there are any connections between the two survey question responses. Resources could also be facilitated by the Town with Maine DEP and owners of OBD systems to provide information about proper maintenance techniques and explore ways to provide financial help with purchasing the required chlorine tablets.

MARINE WATERS AND RESOURCES

Jonesport contains expanses of tidal waters ranging from a deep-water passage – Moosabec Reach - to secluded coves. The town’s tidal waters are of critical importance to a wide variety of interests including traditional fishermen, aquaculturists, recreational boaters, wildlife tour operators, and those who enjoy the view. The potential for conflict among the various interests may be avoided with reasonable controls planned out in advance.

Jonesport was founded on and continues as a commercial fishing community dependent on the ocean’s resources. Map: Marine Resources depicts the location of Molluscan shellfish habitat, commercially harvested marine worm habitat, aquaculture lease locations and limited purpose aquaculture sites, and rockweed and eelgrass areas.

Marine Water Quality

The Maine Department of Environmental Protection (DEP) classifies surface waters according to their

desired use and water quality necessary to support that use. All the tidal waters in Jonesport are classified Class SB. Quality in these waters should be suitable for recreation in or on the water, fishing, aquaculture, propagation and harvesting of shellfish, industrial process and cooling water supply, hydroelectric power generation, navigation, and as the habitat for fish and other estuarine and marine life. Discharges of pollutants to Class SB waters are regulated by state DEP wastewater permitting process.

Commercial Fishing

Commercial fishing in Jonesport is of tremendous significance to the local economy compared to other Washington County communities. Jonesport ranks highly in Maine for the most annual lobster landings.

MARINE LICENSE HOLDERS IN JONESPORT

Year	1998	2002	2022
Residents Holding Marine Resource Licenses - Dealers	21	46	54
Residents Holding Marine Resource Licenses - Harvesters	421	469	440
Lobster Traps Fished by Residents – Total Trap Tags	59,080	76,980	46,896 commercial, 70 non- commercial.

The diversity of target species indicates that year-round income comes from a variety of sources for individual harvesters and the industry as a whole. The number of fishing licenses held in Jonesport, and the types of fisheries have fluctuated between 1998 and 2022. Although the number of licenses has increased for some fisheries and decreased in others, the number of registered vessels has increased by two and commercial fishing remains an important source of income to residents.

TYPE & NUMBER OF MARINE LICENSES HELD IN JONESPORT

(Categories not included in reports are indicated with “-“ symbol)

Year	1998	2002	2022
Bulk Tagging	-	-	2
Commercial Shrimp, Crew	0	6	0
Commercial Fishing, Crew	22	44	28
Commercial Fishing, Single Operator	52	66	65
Commercial Pelagic and Anadromous Crew	-	0	3
Commercial Shellfish	122	86	-
Elver Dealer	-	-	1
Elver Dealer Supplemental	-	-	1
Elver Dip Net	10	4	0
Elver Dip Net Crew	0	0	1

Year	1998	2002	2022
Elver Dip Net 1 Fyke	0	0	1
Elver 1 Fyke Net	0	0	3
Elver 1 Fyke Net Crew	0	0	3
Elver 2 Fyke Net	0	2	0
Lobster Transportation	-	-	1
Lobster/Crab Apprentice	14	40	6
Lobster/Crab Apprentice Under age 18	6	4	-
Lobster/Crab Class 1	162	100	27
Lobster/Crab Class 11	56	132	71
Lobster/Crab Class 11 Over age 70	-	-	6
Lobster/Crab Class 111	4	12	31
Lobster/Crab 111 Over age 70	-	-	1
Lobster/Crab Over age 70	32	30	6
Lobster/Crab Non-Commercial	10	52	24
Lobster/Crab Student	18	28	37
Lobster Transportation (Out of State)	0	2	1
Lobster/Crab Under age 18	10	2	1
Menhaden Commercial	-	-	6
Menhaden Non-Commercial	-	-	2
Marine Worm Dealer	2	2	1
Marine Worm Dealer Supplemental			3
Marine Worm Digging	118	94	-
Marine Worms, Supplemental	0	6	-
Mic Lob/Crab Class 3	-	-	1
Mic Scallop Dragger	64	78	1
Mussel-Dragger	4	8	4
Non-Federal Halibut Single	-	-	1
Pass Elver 1 Fyke	-	-	4
Quahog (Mahogany)	22	38	-
Recreational Saltwater Fishing Operator	-	-	3
Recreational Saltwater Registry	-	-	5
Retail Seafood	10	12	1
Scallop-Diver	20	10	-
Scallop-Dragger	64	78	29

Year	1998	2002	2022
Scallop, Non-Commercial	8	8	2
Sea Urchin-Diver	28	26	1
Sea Urchin-Dragger	24	28	5
Sea Urchin/Scallop Tender	22	18	-
Seaweed	4	2	6
Shellfish Transportation (Out-of-State)	0	4	-
Shellstock Shipper	-	-	3
Shucker/Packer	-	-	1
Wet Storage - Flow Through	-	-	1
Wholesale Seafood, No Lobsters	12	10	8
Tender	-	-	1
Wholesale Seafood, No Lobsters, Supplemental	10	2	21
Wholesale Seafood, With Lobsters	14	18	5
Wholesale Seafood, With Lobsters, Supplemental	10	38	5
Total Licenses	954	1090	440

Source: Department of Marine Resources, 2022; Jonesport Comp Plan 2004

Number of Vessels Registered in Jonesport by Length		
Length - feet	2019	2021
6	0	1
10	1	0
11	1	0
12	1	0
13	1	0
14	3	5
15	5	2
16	11	12
17	2	3
18	14	12
19	8	8
20	21	19

Number of Vessels Registered in Jonesport by Length		
Length - feet	2019	2021
21	3	7
22	15	8
23	4	7
24	4	4
25	5	5
26	6	2
27	7	4
28	15	14
29	6	8
30	5	7
31	6	11
32	12	14
33	10	8
34	22	21
35	16	15
36	20	19
37	0	1
38	20	20
39	1	0
40	23	26
41	9	5
42	12	15
44	3	9
45	3	5
46	7	7
49	3	3
56	2	2
Total Vessels	307	309

Source: Department of Marine Resources, 2022

Aquaculture

Aquaculture is not yet a significant player in the Jonesport commercial fishing economy, however, Jonesport, and many other communities in Washington and Hancock Counties, are facing increasing pressure to accommodate both offshore and land-based aquaculture facilities.

In 2023, there is one lease site off Head Harbor and Steel Harbor Islands, and a limited purpose aquaculture site in Shorey Cove. The neighboring town of Beals contains four aquaculture leases and several smaller limited purpose aquaculture sites. See Map: Marine Resources for further information.

In 2021 an international aquaculture firm received approval from the State to construct a land-based aquaculture facility on a 94-acre site on Chandler Bay in Jonesport. The proposed \$110M facility would produce yellowtail kingfish (*Seriola lalandi*) under the operation of the largest producer of yellowtail kingfish in the European Union. The estimated annual production, once the facility is fully operational, is approximately 8,500 tons of fish. Anticipated water consumption is 43,000 gallons of fresh water per day and would be drawn from 4 different wells at the development site (28 million gallons of salt water would be taken in daily).

Access to the Marine Resource

The town of Jonesport has more than 110 miles of coastline and is home to approximately 264 commercial fishermen. Access to the waterfront for Jonesport commercial fishermen is provided at 8 commercial waterfront facilities, a huge loss from 14 in 2003. Of the three public access facilities, only one, Henry Point, is dedicated to commercial fishing use (this access point is still under development). Sawyers Cove, a State-owned recreation boating facility, provides access for half of the commercial fishermen in town. The public access sites are depicted on Map: Marine Resources. Most of the current access is provided through privately-owned piers and wharves.

Like many of its neighboring coastal communities, Jonesport could face serious problems with commercial fishing access in the future because waterfront properties are the most sought-after real estate and prices for these properties have risen dramatically in recent years. This trend threatens access for the town's commercial fishermen because of the tendency of new owners of waterfront property to close off traditional public and commercial access.

A study conducted in January 2003 by the Sunrise County Economic Council with the Maine Coastal Program showed that Jonesport's vulnerability to losing commercial fishing access was somewhat low. The Paths and Piers study analyzed the following factors:

- Commercial fishing access as a community priority
- Municipal ordinances protecting access

- Dedicated public commercial fishing pier
- Number of harvesters
- Degree of development pressures

Today, Jonesport and all of Washington and neighboring Hancock Counties are feeling significant development pressure. The rising costs of all residential real estate, especially coastal properties, and a sudden increase in sales, along with rising property taxes, is increasing Jonesport’s vulnerability risk. The value of coastal properties is well beyond the financial reach of many commercial fishing families, who are increasingly losing commercial water and shore side access.

Jonesport residents are concerned that changes in landownership and an increased numbers of residents could displace the needs and services that support traditional industries. A commercial fishing village includes the sound of boat engines, commercial trucks, traps deposited on beaches, transportation of boats, boat repair and construction, refrigeration units and vehicle traffic at all hours. A commercial fishing community also needs adequate access to the shore, including parking. Shellfish harvesters need access to the intertidal zone by private land.

Commercial fisheries activities in Jonesport are protected by a variety of measures including the following in order of priority:

- Continued local designation of maritime districts in the town’s Shoreland Zoning and Land Use Ordinances.
- An active program of securing formal and informal access to the water. For example, landowners have deeded Rights of Way to the Town for clamdiggers to access Mason Bay.
- A procedure for conflict mediation among residents and users of the resources. Mediations come to the Selectman, Planning Board, and Board of Appeals. For example, the Town entered into an agreement with property owners on Sandy River Beach to not promote access, and let the public know it is a privilege to use it.

TOWN OF JONESPORT BOAT ACCESS & WATERFRONT FACILITIES DATA

Miles of Coastline	110.53
Total Commercial resource harvesters	264+/-
Boat Access	
Total current boat access (moorings, berthing, slips, tie ups) commercial & recreational	275
Percent of total current boat access used by commercial fishermen	75%
Number of Vessels (DMR data)	
2019	307

2021	309
Facilities	
Commercial private & public waterfront facilities in 2022	8
Commercial private & public waterfront facilities dedicated to commercial fishing use	6
Percent of commercial fishing access achieved through private residence (pier/wharfs) owned or leased by fishermen.	+85%
"Other" access points (beaches, land, property crossing) not actual facilities.	17

CRITICAL NATURAL RESOURCES

Beginning with Habitat

The Beginning with Habitat Program of the Maine Department of Inland Fisheries and Wildlife is responsible for documenting areas that support rare, threatened, or endangered plant species and rare or exemplary natural communities. Several botanical rarities grow in the wetlands and on the exposed headlands of Jonesport. These plants must be tolerant of extremes conditions: constant wind, salt spray and a cool summer growing season. This program has documented the rare plants, animals, and natural communities within Jonesport shown in the following table.

RARE PLANTS, ANIMALS, AND HABITATS IN JONESPORT

STATE RANK	GLOBAL RANK	NAME	STATUS
S3	G5T5	Crowberry Blue	Species of Special Concern
S2S3N	G4	Harlequin Duck	Threatened Species
S1S2N	G4	Peregrine Falcon	Endangered Species
S4S5N	G5	Purple Sandpiper	Species of Special Concern
S2B	G5	Razorbill	Threatened Species
S3B	G5	Upland Sandpiper	Threatened Species
S3	G4	Black Spruce Woodland	Rare/Exemplary Natural Community
S3	GNR	Coastal Plateau Bog Ecosystem	Rare/Exemplary Natural Community
S2	GNR	Downeast Maritime Shrubland	Rare/Exemplary Natural Community

S3	G3G5	Maritime Huckleberry Bog	Rare/Exemplary Natural Community
S2	G3G5	Maritime Slope Bog	Rare/Exemplary Natural Community
S4	G4G5	Maritime Spruce-Fir Forest	Rare/Exemplary Natural Community
S3	G5	Salt-Hay Saltmarsh	Rare/Exemplary Natural Community
S2	G5	Blinks	Plant Species of Special Concern
S2	G5	Bird's-eye Primrose	Plant Species of Special Concern
S1	G5	Marsh Felworth	Threatened Plant Species

Focus Areas of Statewide Significance

Beginning with Habitat (BwH) Focus Areas are natural areas of statewide ecological significance that contain unusually rich concentrations of at-risk species and habitats. These areas support rare plants, animals, and natural communities, high quality common natural communities; significant wildlife habitats; and their intersections with large blocks of undeveloped habitat. BwH Focus Area boundaries are drawn based on the species and natural communities that occur within them and the supporting landscape conditions that contribute to the long-term viability of the species, habitats, and community types. These areas are researched and identified by biologists from agencies such as the Maine Natural Areas Program, Maine Department of Inland Fisheries and Wildlife, Maine Department of Marine Resources, U.S. Fish and Wildlife Service, The Nature Conservancy, Maine Audubon, the University of Maine, and Maine Coast Heritage Trust.

Jonesport contains three Focus Areas of Statewide Significance:

Jonesport Heath - The Jonesport peninsula supports some of the largest and most interesting coastal plateau bogs in Maine. The three most significant plateau bog systems include Jonesport Heath, Kelley Point Heath and West Jonesport Heath. The Jonesport Heaths provide valuable wading bird and waterfowl habitat, as well as habitat for the rare crowberry blue butterfly.

Great Wass Archipelago - The islands of Head Harbor and Steel Harbor (along with Great Wass in Beals) contain one of the state's finest assemblages of coastal plateau bogs, Maine's two largest jack pine woodlands, as well as pristine open headlands, black spruce rocky woodlands, and maritime spruce-fir-larch forests. The archipelago's unique habitats support a high concentration of rare sub-arctic plant and animal species and an outstanding diversity of mosses and lichens, and the area has been identified as one of the richest intertidal marine systems in the state.

Wohoa Bay – The area reaches up the Indian River dividing Jonesport and Addison and includes expansive eelgrass beds and tidal mudflats that are highly productive for fish and shellfish and provide

high quality habitat for wading birds and waterfowl as well as shorebirds. The focus area features a coastal plateau bog ecosystem, a peatland type that is found nowhere else in North America except for a narrow region along the eastern coast of Maine. Three rare animal species have been documented in the area, including the crowberry blue butterfly, which is restricted to coastal heathlands.

Wildlife Habitats

Conserving an array of habitats and their associated wildlife species helps maintain biological diversity and ensures that wildlife and human populations remain healthy. Unplanned development can result in the deterioration of habitats and diversity through habitat fragmentation and loss of open space and essential travel corridors.

Wildlife is plentiful in Jonesport and its coastal islands. Bald eagles are plentiful and nest on several islands. The Jonesport peninsula supports some of the largest coastal plateau bogs in Maine, the three most significant of which include the Jonesport Heath, Kelley Point Heath and West Jonesport Heath.

In the intertidal zone, large numbers of shorebirds feed and roost in protected bays along with tidal and inland waterfowl and wading birds nearby. On the ledges off the outer islands large numbers of harbor seals frequently haul out to bask in the sun.

Essential Wildlife Habitats - Essential Wildlife Habitats are defined under the Maine Endangered Species Act as a habitat "currently or historically providing physical or biological features essential to the conservation of an Endangered or Threatened Species in Maine and with may require special management considerations". These sites are identified by the Maine Department of Inland Fisheries and Wildlife (MDIFW). Any project within the Essential Habitat that requires a state or municipal permit, or uses public funding, requires MDIFW review.

Significant Wildlife Habitat – protection of Significant Wildlife Habitat, as defined by Maine’s Natural Resources Protection Act is intended to prevent further degradation of certain natural resources of state significance. Significant Wildlife Habitats in Jonesport are illustrated on Map: Critical Habitat and include habitat for shorebirds, tidal and inland waterfowl/wading birds, and seabird nesting habitat.

Rare Animals – Maine’s Department of Inland Fisheries and Wildlife tracks the status, life history, conservation needs, and occurrences for species that are endangered, threatened or otherwise rare. Jonesport supports habitat for four species that are threatened, endangered or of special concern in Maine including the Upland Sandpiper, Purple Sandpiper, Peregrine Falcon, Crowberry Blue Butterfly (only found in Washington County bogs), Harlequin duck and the Razorbill. The location of these animals and their associated habitat is mapped on Map: Critical Habitat.

STATE PARKS AND PUBLIC RESERVED LANDS

Jonesport contains over 1,200 acres that are owned for public access or conservation purposes. There are no state parks in Jonesport. Halifax Island (75 acres) is managed for conservation by the Department of Inland Fisheries and Wildlife. The Nature Conservancy owns 129.5 acres on several small islands around Head Harbor Island and Steele Harbor Island. Another 1,357 acres on Head and Steele Harbor Island are restricted by 6 conservation easements.

The Town of Jonesport owns three important parcels of land:

- 7-acre Henry Point, purchased by the Town for the creation of a working waterfront.
- 1/5 subdivided interest in wetlands off Kelley Point Road, with potential to be used as mitigation for development of commercial fishing access at Henry Point.
- Access to Sandy River Beach and a lot across the street with parking for commercial harvesters, paddlers, and beachgoers.

NATURAL RESOURCE PROTECTION

A variety of laws and legal incentives that protect the natural resources in Jonesport. Those of greatest significance include:

Federal and State Laws

- Maine Natural Resources Protection Act – regulates activities in, on, over or adjacent to natural resources such as lakes, wetlands, streams, rivers, fragile mountain areas, and sand dune systems. Standards focus on the possible impacts to the resources and to existing uses.
- Maine Storm Water Management – regulates certain activities that create impervious or disturbed areas to reduce their potential to negatively affect water quality. This law requires quantity standards for storm water to be met in some areas, and both quantity and quality standards to be met in others.
- Maine Site Location of Development Law – regulates developments that may have a substantial impact on the environment (i.e., large subdivisions and/or structures, larger developments, and metallic mineral mining operations). Standards address a range of environmental impacts.
- Maine Minimum Lot Size Law – regulates subsurface waste disposal through requirements for minimum lot size and minimum frontage on a water body. The requirements for multi-family and other uses are based on the amount of sewage generated.
- Maine Endangered Species Act – regulates the designation and protection of endangered species including disallowing municipal action from superseding protection under the Act.
- The Forest Practices Act - regulates the practice of clear-cutting by setting regeneration and clear-cut size requirements.

Local Laws: Jonesport has adopted minimum shoreland standards, as required by the State Mandatory Shoreland Zoning Act. Surface waters in Jonesport are also protected through the Plumbing Code and local Subdivision Regulations. Jonesport adopted Subdivision Regulations in January 1988 which were “re-written” in May 2012. A Floodplain Management Ordinance (which includes a section on subdivisions) with new flood plain maps was adopted in 1996 but has not been updated since then. Subdivision, Shoreland, and Floodplain regulations are being updated to match current State and Federal standards.

State Tax Incentive Programs

The State of Maine has four "current use" programs that offer the property owner a reduction in assessed value: Farmland, Open Space, Tree Growth, and Working Waterfront. The programs establish valuation of property at its current use, rather than at market value. All four programs are available to property owners through an application process with the local municipality. Applications must be filed on or before April 1 of the year the reduced valuation is first requested. Property must meet certain criteria to qualify for each program and any future change in the use of the land will cause disqualification resulting in a penalty. In 2022, Jonesport had 4,759 acres enrolled in the tree growth program, up from 3,916 acres in 2003.

PUBLIC OPINION

At front and center of desired natural resources conservation and preservation efforts are the coastline, scenic resources, and harbor restoration. Respondents to the Community Survey show strong support for preserving the fishing industry and support of maritime-related activities. They also note the need for diversification in the types of businesses and industries in Jonesport relative to the warming waters of the Gulf of Maine and the impact it will have on commercial fishing. Groundwater along the coast and on the islands of Jonesport is limited in quantity and saltwater intrusion problems occur during periods of low rainfall and heavy usage in the summer months. Residents note that education about conservation practices and proper storage of contaminants is called for as growth occurs.

The Community Visioning Session (see Chapter A - Community Vision), yielded a list of priorities for the people of Jonesport related to natural resource conservation.

- Protect both fresh water and saltwater resources.
- Retain existing and acquire new shore access and boat launch areas.
- Preserve and protect beaches, and all natural/marine life.
- Prepare for storm surge and sea level rise.
- Clean up trash on beaches and in other areas of town.
- Ensure that natural resource industries/infrastructure, such as renewable energy, are properly sited and contribute to the regional economy.

People shared their hopes for Jonesport’s regional role:

- Become known as a leader in environmental protection.
- Become a hub for commercial fishing and related activities-including wholesale buyers for all marine products; return lobster processing to the region.
- Work with neighboring communities to become a destination location for experiential tourism and ecotourism by highlighting our shared natural resources.
- Contribute to food sovereignty with community gardens, greenhouses, farm markets, and farms.

Jonesport Youth expressed desire for education about climate change, and to clean up trash on beaches and around town (See Appendix B - Youth Voice).

NATURAL RESOURCES POLICIES AND IMPLEMENTATION STRATEGIES

The people of Jonesport value the natural resources around Jonesport that sustain the fisheries economy and coastal landscape. The importance of commercial fisheries to Jonesport cannot be overestimated. Protecting public shore and water access and maintaining a healthy balance of industry and natural beauty is crucial especially in light of the rate of coastal development. The town will seek to ensure that traditional use of lands and access to water are protected as development pressures increase over the planning period.

Jonesport currently offers protection to its natural resources with locally adopted shoreland zoning regulations, land use and subdivision regulations. The town will continue to update local land use regulations to maintain consistency with local and State of Maine requirements, and has developed the following policies and implementation strategies to help guide future efforts to protect and preserve natural resources:

Natural Resources			
Goal: Jonesport will protect and preserve the natural resources on which its economy and quality of life depend.			
Policy	Implementation Strategy	Responsibility	Timeframe
Water Resources			
Protect current and potential drinking water sources.	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	Planning Board	Short term, 1-2 years; ongoing
Protect significant surface water resources from pollution and improve water quality where needed.	Consider amending local land use ordinances, as applicable, to incorporate low impact development standards.	Planning Board	Medium term, 3-5 years
Protect water resources in growth areas while promoting more intensive development in those areas.	Develop an impaired stream watershed management plan to encourage development without stream degradation.	Town committees, in partnership with SCEC	Medium term, 3-5 years
Minimize pollution discharges through the upgrade of existing public sewer systems and wastewater treatment facilities.	Maintain and strengthen public wellhead and aquifer recharge area protection mechanisms, as necessary.	Planning Board	Ongoing, medium term, 3-5 years
	Investigate the status of the aquifer by assessing the flow and quality of private wells.	Select Board	Medium Term, 2-3 years

Natural Resources			
Goal: Jonesport will protect and preserve the natural resources on which its economy and quality of life depend.			
Policy	Implementation Strategy	Responsibility	Timeframe
	Resolve known problem areas and potentially problematic septic systems, for example along Feeney Street where septic systems are located in low, flat areas with poor drainage.	Select Board	Medium term, 2-5 years
Cooperate with neighboring communities and regional/local advocacy groups to protect water resources.	Refresh display of information at the municipal office that includes info on 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.	Assistant to the Select Board/Town Clerk	Ongoing
	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.	Select Board, Planning Board	1-2 years
	Participate in local and regional efforts to monitor, protect and, where warranted, improve water quality.	Planning Board, Select Board, Department of Marine Resources	
Critical Natural Resources			
Conserve critical natural resources in the community.	Ensure that land use ordinances are consistent with applicable state law regarding critical natural resources.	Planning Board	Near term, 1-2 years; ongoing

Natural Resources			
Goal: Jonesport will protect and preserve the natural resources on which its economy and quality of life depend.			
Policy	Implementation Strategy	Responsibility	Timeframe
Coordinate with neighboring communities and regional and state resource agencies to protect shared critical natural resources.	Ensure that local land use ordinances require subdivision or non-residential property developers to look for and identify critical natural resources that may be on site. Update ordinances as necessary to protect those resources, including but not limited to, modification of the proposed site design, construction timing, and/or extent of excavation.	Planning Board	Ongoing
	Include consideration of pertinent Beginning with Habitat maps and information regarding critical natural resources as part of the regular land use review process.	Planning board	Ongoing
	Participate in the Community Resiliency Partnership and other initiatives for interlocal and/or regional planning, management, and/or regulatory efforts around shared critical and important natural resources.	Select Board, Planning Board, Sunrise County Economic Council	Immediate; ongoing
	Pursue public/private partnerships to protect critical and important natural resources such as through purchase of land or easements from willing sellers.	Selectboard	Ongoing
	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.	Assistant to the Select Board/Town Clerk	Ongoing

Natural Resources			
Goal: Jonesport will protect and preserve the natural resources on which its economy and quality of life depend.			
Policy	Implementation Strategy	Responsibility	Timeframe
	Work with land trusts and community groups to preserve the peat bogs with a bog boardwalk in the Heaths.	Select Board	Long term, 5-10 years
Agricultural and Forest Resources			
Safeguard lands identified as prime farmland or capable of supporting commercial forestry.	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.	Planning Board	As needed
Support farming and forestry and encourage their economic viability.	Consult with Soil and Water Conservation District staff when developing any land use regulations pertaining to agricultural management practices.	Planning Board	As needed
	Amend land use ordinances to require commercial or subdivision developments in critical natural areas to maintain areas with prime farmland soils as open space to the greatest extent practicable.	Planning Board	Medium term, 1-3 years
	Limit non-residential development in critical natural areas to natural resource-based businesses and services, nature tourism/outdoor recreation businesses, farmers' markets, and home occupations.	Planning Board	Medium term, 1-3 years
	Encourage owners of productive farm and forest land to enroll in the current use taxation programs.	Select Board, Assistants to Board of Selectmen	Ongoing

Natural Resources			
Goal: Jonesport will protect and preserve the natural resources on which its economy and quality of life depend.			
Policy	Implementation Strategy	Responsibility	Timeframe
	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.	Planning Board	Ongoing
	Include land conservation that supports agriculture, commercial forestry operations, and land conservation in local or regional economic development plans.	Select Board, Planning Board	Ongoing
	Support & encourage food sovereignty through community gardens, greenhouses, farmer's markets, and farms.	Selectboard, Healthy Acadia, Friends of the Library, volunteers group	Near term, 1-3 years; ongoing
Marine Resources			
Protect, maintain and, where warranted, improve marine habitat and water quality.	Identify needs for additional recreational access; complete development of Henry Point.	Select Board, Planning Board	Immediate; near term, 1-3 years
Foster water-dependent land uses and balance them with other complementary land uses.	Encourage owners of marine businesses and industries to participate in clean marina/boatyard programs.	Harbor Committee	Ongoing
Maintain and improve harbor management and facilities.	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.	Assistants to Board of Selectmen	Ongoing

Natural Resources			
Goal: Jonesport will protect and preserve the natural resources on which its economy and quality of life depend.			
Policy	Implementation Strategy	Responsibility	Timeframe
Protect, maintain, and improve physical and visual public access to the community's marine resources for all appropriate uses including fishing, recreation, and tourism.	Implement and support local and regional harbor and bay management plans.	Select Board	Ongoing
	Provide sufficient funding for and staffing of the harbormaster and/or harbor commission.	Select Board	Ongoing
	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. Retain/acquire boat launch areas and shore access. Highlight boat building heritage.	Select Board Select Board	Ongoing Ongoing

Education and Traditional Use			
Policy	Implementation Strategy	Responsibility	Timeframe
Educate landowners about saltwater intrusion and water quality issues on the peninsula and outer islands.	Include information about water conservation practices and proper storage of contaminants in educational materials about life on Jonesport.	Selectmen or designated committee	Near term, 1-2 years

Promote harmony and understanding among newcomers and existing residents over traditional uses of land and water.	Develop educational materials describing traditional uses and practices including issues such as shore access, hunting, working waterfront and commercial fishing, and community institutions. Also, to recognize and understand that activities (noise, traffic, odor, visual sights) associated with commercial marine uses occur at all hours, especially early in the morning. Reprint and distribute the existing Moosabec guide to the working waterfront (created by WCCOG for the Town).	Selectmen or designated committee	Immediate; ongoing
	Distribute these materials at town offices, schools and local businesses including real estate firms.	Selectmen or their designee	Near term, 1-2 years
Ensure that traditional use of lands and access to water are protected as development pressures increase.	Seek resources to research existing models and to develop an arbitration/mediation procedure for conflict resolution among residents and users of the resources on Jonesport	Selectmen	Near term, 1-2 years
	Refine the existing inventory (on a map and listed by property location) of all existing roads, trails and traditional access points to the water.	Selectmen; Planning Board	Near term, 1-2 years
	The town has identified the Indian River estuary as an area where public access is needed for commercial fishing activities and the town will seek to acquire access in this area.	Selectmen	Near term, 1-2 years
	Use this inventory to seek protection of these features when reviewing proposals for subdivision or development.	Selectmen; Planning Board	Near term, 1-2 years

	<p>Respect private property rights but seek to maintain traditional uses of any private roads or rights of way to the water. Negotiations with private landowners to secure these accesses will include:</p> <ul style="list-style-type: none"> • Acknowledgement/celebration of landowners who continue the centuries old practice of allowing public use of their lands; • Informal agreements allowing public use of lands; • More formal agreements allowing public use of lands until and unless problems arise from disrespectful use of private land (eg. Leaving gates open, littering, vandalism); • Providing property tax incentives to property owners who grant written, revocable rights of access across their property; • Purchasing rights of first refusal for access points or property of critical importance to the fishery; <p>Purchasing permanent easements or fee title to access points or property of critical importance to the fishery.</p>	<p>Selectmen; Planning Board</p>	<p>Near term, 1-2 years</p>
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	Work with neighboring communities to become a destination location highlighting its natural resources and show visitors “real Maine”.		Immediate; ongoing
Climate Resiliency	Monitor climate change effects on the fishery and seek assistance to mitigate reduction in harvest. This pilot project closely aligns with Jonesport’s enrollment in Maine’s Community Resilience Partnership.		Near term, 1-2 years; ongoing
	Storm surge and sea level rise preparedness.		Near term, 1-2 years; ongoing
	Work with youth to develop climate change/resiliency education and opportunities for youth to engage in adaptation planning.	School district with Healthy Acadia and Sunrise County Economic Council	Near term, 1-2 years; ongoing