

## 9. NATURAL RESOURCES

### INTRODUCTION

Bucksport's natural resources are important to the town in several ways. First, careful stewardship of wildlife and fisheries habitats creates opportunities for hunting and fishing. Second, the natural features add to the town's quality of life. Third, managing the natural environment allows land development to occur in a manner that reduces the risk of harm from hazards such as flooding, erosion, and pollution.

**State Goal:** 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.

### OVERVIEW

The natural resources in Bucksport have been utilized for industry and personal use since civilization took root here. The cessation of paper making in 2014 may signal a time when less pressure is placed on consumption of natural resources and more attention is put on their enjoyment in place.

The town ordinances generally offer adequate protection for Bucksport's natural resources. The development review process is now more focused on species habitats. Due to state mapping of key natural features, there are far more data on natural resources than was previously the case. The town continues to enjoy a variety of fish and wildlife.

### HIGHLIGHTS

- ★ Local bald eagles are protected by the Bald and Golden Eagle Protection Act.
- ★ Vasey's Pondweed and Water Stargrass are two rare plants found in Hancock Pond.
- ★ An area of 'Brackish Tidal Marsh' in a Bucksport portion of the Penobscot River has been identified as a Rare and Exemplary Natural Community and Ecosystem.
- ★ The Great Pond Mountain Conservation Trust now has two properties in Bucksport.
- ★ The town of Bucksport has a number of scenic views that could be protected.
- ★ Beginning with Habitat has done extensive mapping of Bucksport's natural areas.



Brackish Tidal Marsh

## ANALYSIS

There are no specific threats to Bucksport's critical natural resources. They are largely protected by land development review standards. The threats to water resources are addressed in the Water Resource chapter. The current design of town culverts and bridges needs to be evaluated per the latest Maine Department of Transportation design standards to assure that they allow adequate passage of fish.

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

As of 2014, the town is reviewing its shoreland zoning standards to address some minor concerns expressed by the DEP. Communication from the DEP Shoreland Zoning Unit indicates that there are potential inconsistencies between the shoreland standards in Bucksport and the current State Standards but no details on these inconsistencies was available at this time.

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

The zoning ordinance has detailed guidelines to protect natural resources. Section 12.7 stipulates that land uses may not cause any detrimental effect to significant wildlife habitat. If any portion of a proposed development lies within a significant wildlife habitat area, the applicant must submit documentation that assesses the potential effect of the development on the habitat and adjacent areas. The applicant must describe appropriate mitigation measures to ensure that the proposed development will have no detrimental effect.

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

There are also standards in the subdivision ordinance that require that applications in areas with wildlife habitat areas include measures to preserve the habitat. The applicant must submit an impact assessment report prepared by a wildlife biologist. This report must assess the potential impact of the subdivision on the habitat and adjacent areas and describe appropriate mitigation measures to ensure that the subdivision will have no adverse impacts.

Some of these resources are subject to state regulation under the Natural Resources Protection Act (NRPA). For more information on significant wildlife habitats and the NRPA, see <http://www.maine.gov/dep/blwq/docstand/nrpapage.htm>. This act sets standards to protect key natural features such as certain wildlife habitats, wetlands, and other water bodies from adverse impacts of development.

The primary non-regulatory protection measure is public ownership and land owned by the Great Pond Mountain Conservation Trust (GPMCT). The town owns 89 acres as part of the Silver Lake trail system and 79 acres in the Miles Lane trail area. The GPMC owns 2 parcels in Bucksport. One is a 67-acre piece on Upper Long Pond Road enrolled in the Maine in Open Space Program. The other is a 29-acre piece on Jacob

Buck Pond Road, which is taxed normally. GPMCT has offered to work with the town to establish a multi-use trail on Upper Long Pond Road and on other potential projects.

The Great Pond Mountain Conservation Trust has worked both in Bucksport and adjoining towns in identifying and protecting key natural resources. As this plan is being drafted, there are emerging opportunities to cooperate with Orland on water resource management and fisheries restoration.

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

## Conditions and Trends

This section discusses the key natural resource features of Bucksport. It also identifies known endangered, threatened, and rare species. “Endangered” means a species is considered in danger of extinction throughout all or a significant portion of its range. “Threatened” means a species is considered likely to become endangered within the foreseeable future, but is not currently in danger of extinction. “Rare” refers to a species that could become threatened in the future.

Bucksport’s natural resources are shown on the series of maps found on the Beginning with Habitat web site: [http://www.beginningwithhabitat.org/the\\_maps/status-b.html](http://www.beginningwithhabitat.org/the_maps/status-b.html) and are summarized below. The maps may also be viewed on the Comp Plan website at [www.bucksportmaine.gov](http://www.bucksportmaine.gov). Beginning with Habitat (BwH), 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 large scale. The goal of the program is to maintain BwH is designed to help local decision makers create a vision for their community, to design a landscape, and to develop a plan that provides habitat for all species and balances future development with conservation.

### Six available “Beginning with Habitat” natural resources maps:

1. Water Resources & Riparian Habitats
  2. High Value Plant & Animal Habitats
  3. Undeveloped Habitat Blocks & Connectors
  4. Rare Animal (Endangered Species)
  5. Rare Plant (Endangered Species)
  6. Rare Plant (Threatened Species)
  7. Wetlands Characterization (Supplementary)
  8. USFWS Priority Trust Species Habitats (Supp.)
- Regional Map “Building a Regional Landscape”



Excerpt from  
Beginning with Habitat  
Map #2  
High Value Plant  
& Animal Habitats

### An Overview of Bucksport's Natural Features

The town of Bucksport consists of approximately 34,699 acres or 54.22 square miles. The topography is characterized by gently rolling hills and small mountains, interspersed with numerous lakes, streams, and wetlands. The Penobscot River forms the western boundary of the town. The elevations in Bucksport range from zero feet along the Penobscot River, to over 740 feet at the top of Orcutt Mountain. In general, the north and northeast sections of town contain more hills and varied terrain than the flatter and lower southwestern section of town. The town's four mountains with elevations over 500 feet include Jacob Buck Mountain (707 feet), Cobb Hill (560+ feet), Orcutt Mountain (740+ feet) and Stricklen Ridge (555 feet). Bucksport is bordered on the north by the towns of Orrington and Holden, on the east by the town of Dedham, on the south by Orland and Verona Island, and on the west by the Penobscot River.

Slopes greater than 25 percent are found on portions of Jacob Buck Mountain, Orcutt Mountain, Dresser Mountain, Blood Mountain, and Cobb Hill. Slopes of between 15 and 25 percent are found in these areas as well as in the vicinity of Stricklen Ridge, Swasey Ledge, and along the shores of the Penobscot River. Slopes in the range of 8 to 15 percent are commonly found throughout town, while slopes less than 8 percent are most prevalent in the southwestern section of town.

Topography has influenced the town's settlement patterns, and will undoubtedly continue to do so. In general, the flatter areas in the southern portion of town have been more accessible to development, while the areas of high elevation have remained relatively undeveloped. The town's southern areas continue to be subject to greater development than the interior and northern sections of the community. Map 1 shows the topography of the town and the major watershed areas.

Bedrock is at or near the surface of the land in many parts of Bucksport, particularly in the northern part of the community. Formation of the town's bedrock resources began many years ago when marine sediments accumulated offshore from an ancient landmass. As the thickness of the sediments increased, increasing pressures and temperatures caused the sediments to change into metamorphic rocks. All of this rock-forming activity occurred many thousands of feet beneath the surface. After many years of uplift and erosion, the rock either lies just below the surface or has been exposed. According to The Preliminary Bedrock Geology of Maine (Doyle, 1985), all of the bedrock in Bucksport is hard, dense and impermeable.

### Riparian Habitats and Water & Marine Resource

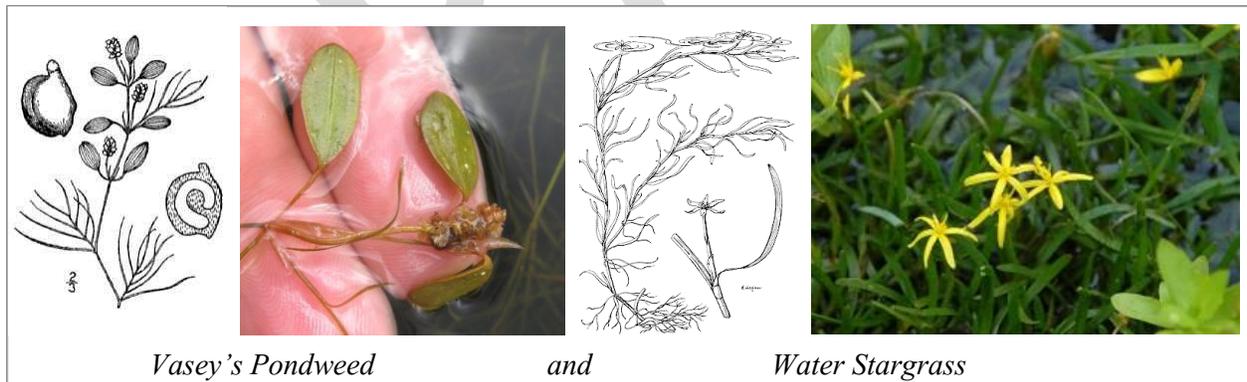
Wetlands mapped as part of the National Wetlands Inventory are shown on Map 1. There are approximately 1,295 acres of freshwater wetlands. Wetlands are some of the most productive natural areas in the world, and provide habitat for many types of wildlife, including waterfowl and wading birds; frogs, turtles, and snakes; fish; and shellfish. Wetlands naturally control floods, filter pollutants, retain nutrients, and reduce erosion. They also provide a myriad of educational and recreational opportunities including boating, hunting, trapping, fishing, and photography.



Most wetlands in Maine are protected by state law and local shoreland zoning standards. One change since the 2003 plan was prepared is that significant vernal pools are now protected by the Natural Resources Protection Act. If any alteration of a vernal pool is proposed, the DEP should be consulted to determine if the pool is significant. A significant pool is one that has documented use in any given year by state-listed rare, endangered or threatened species that commonly depend on a vernal pool habitat. Examples of vernal pool dependent state-listed endangered or threatened species include, but are not limited to, Blanding's turtles, Spotted turtles, and Bog haunter dragonflies. Though one small vernal pool has been documented in a powerline right-of-way, no Significant Vernal Pools have been formally identified in Bucksport to date. There are, no doubt many vernal pools awaiting discovery. For more information see <http://www.maine.gov/dep/land/nrpa/vernalpools/index.html> on identification and other criteria. Striped Bass are caught seasonally in the Penobscot River and occasionally mackerel. Harbor porpoises and gray seals are routinely observed.

#### Rare, Threatened, and Endangered Plants

According to data from the Maine Natural Areas Program, the two rare plants in Bucksport's Hancock Pond are Vasey's Pondweed and Water Stargrass. The pondweed is ranked S-2 (the second highest rank for imperiled species) because of its rarity or vulnerability to further decline. There have been fewer than 20 occurrences in New England since 1970). It is rated as a species of Special Concern. It is rare in Maine, but not sufficiently rare to be considered threatened or endangered. The stargrass is ranked S-3 for imperiled species. It is also rated as a species of Special Concern due to its rarity. It is important to protect the water quality of the areas where it occurs.



#### Rare, Threatened, and Endangered Animals

The Maine Natural Areas Program reports that Bald Eagle nest sites are in Bucksport. The U.S. Fish and Wildlife Service has removed the bald eagle from the list of endangered and threatened species. It is protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Both laws prohibit killing, selling or otherwise harming eagles, their nests, or eggs.

### Rare and Exemplary Natural Communities and Ecosystems

Bucksport has an area of Brackish Tidal Marsh. It has a state rarity ranking of S-3. These marshes host both freshwater and brackish water species, often in bands corresponding to tidal exposure. Tall rushes and bulrushes often predominate over extensive mid-elevation flats. Rosette-forming herbs, such as lilaopsis and tidal arrowhead, may be common on the mudflats. Near the high tide line, there may be a fairly narrow zone of muddy gravel or rock shore sparsely vegetated with low herbs, including some rare species such as Long's bitter-cress or water-pimpernel. Sweetgale and poison ivy are often present at the upper fringes of the marsh, at or above the tidal reach. Tidal marshes provide valuable wildlife habitat. Maintenance of appropriate wetland buffers can help reduce degradation that could result from adjacent land uses. The prospect of sea level rise may also put these systems at greater risk. Brackish marshes provide important nesting habitat for Nelson's sharp-tailed sparrow, seaside sparrow, and the rare saltmarsh sharp-tailed sparrow. These wetlands also provide foraging habitat for a large number of wading birds.

#### a. Significant Essential and Other Wildlife Habitats Subject to NRPA Protection

The three known habitats are deer wintering areas, inland waterfowl and wading bird habitat, and tidal waterfowl and wading bird habitat. Deer wintering areas, commonly referred to as deer yards, consist of forested stands with a dense softwood canopy interspersed with mixed stands of hardwoods and softwoods. They provide shelter for deer by reducing snow accumulation and wind within the stand. Activities that involve soil disturbance may require a DEP permit to ensure that activities are done at a time or in a way that minimizes harm to deer wintering areas. Inland Waterfowl/Wading Bird Habitat areas are used for freshwater breeding, migration/staging and winter habitats for inland waterfowl. The areas are also used for breeding, feeding, loafing, migration or roosting habitats for inland wading birds. Tidal Waterfowl/Wading Bird habitat are breeding, migrating/staging or wintering areas for coastal waterfowl. They are also breeding, feeding, loafing, migrating or roosting areas for coastal wading birds. Habitats include aquatic beds, eelgrass, emergent wetlands, mudflats, seaweed communities and reefs.

#### b. Species of Conservation Need

Table IX.1 lists species identified by the Maine Department of Inland Fisheries and Wildlife as those of greatest conservation need. These are species with the potential to become threatened or endangered in the future. While not all these species are necessarily found in Bucksport, there is habitat in which they could potentially exist. These species may be subject to additional protection in the future.



A box turtle seen roaming Bucksport may be someone's run away pet.

<b>Table 9.1:</b>		
<b>Bird Species of Greatest Conservation Need</b>		
<b>Of freshwater ponds and wetlands</b>		
American Bittern	Common Loon	Nelson's Sharp-tailed Sparrow
American Black Duck	Great Blue Heron	Pied-billed Grebe
American Woodcock	Marsh Wren	Willow Flycatcher
<b>Of rivers and coastal wetlands</b>		
Common Eider	Sanderling	Ruddy Turnstone
Greater Shearwater	Greater Yellowlegs	Semipalmated Sandpiper
Willet		
<b>Of fields, farms &amp; marshes</b>		
Barn Swallow	Field Sparrow	Horned Lark
Chimney Swift	Vesper Sparrow	Eastern Meadowlark
Eastern Kingbird	Bobolink	Common Nighthawk
<b>Of coniferous woodland</b>		
Bay-breasted Warbler	Red Crossbill	Black-throated Green Warbler
Blackburnian Warbler	Cape May Warbler	Black-billed Cuckoo
Purple Finch		
<b>Of deciduous woodland</b>		
Barred Owl	Great-crested Flycatcher	Yellow-bellied Sapsucker
Baltimore Oriole	Rose-breasted Grosbeak	Scarlet Tanager
Black and White Warbler	Northern Parula Warbler	Black-throated Blue Warbler
Blue-gray Gnatcatcher	Chestnut-sided Warbler	Wood Thrush
Eastern Towhee	Northern Flicker	Canada Warbler
Brown Thrasher	Veery	
<b>Fish Species of Greatest Conservation Need</b>		
<b>Of rivers and sea coast</b>		
Alewife	American Shad	Sea-run Brook Trout
American Eel	Atlantic Tomcod	Sea Lamprey
American Salmon	Blueblack Herring	Shortnose Sturgeon
American Sturgeon	Rainbow Smelt	Striped Bass
<b>Of freshwater ponds and streams</b>		
Alewife	American Shad	Rainbow Smelt
American Eel	Brook Trout	
<b>Other Species of Greatest Conservation Need</b>		
Blue-Spotted Salamander	Deep-throat Vertigo (snail)	Graceful Clearwing (moth)
<b>SOURCE:</b> Maine Department of Inland Fisheries & Wildlife, categories by SBF		

Images of some of the Species of Greatest Conservation Need:

***How many of these creatures have you seen in Bucksport?***



Veery



Vertigo snail



Graceful Clearwing



Blue-Spotted Salamander



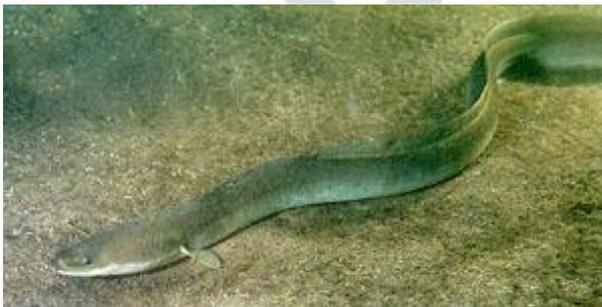
Barred Owl



Eastern Kingbird



Short-nose Sturgeon



American Eel



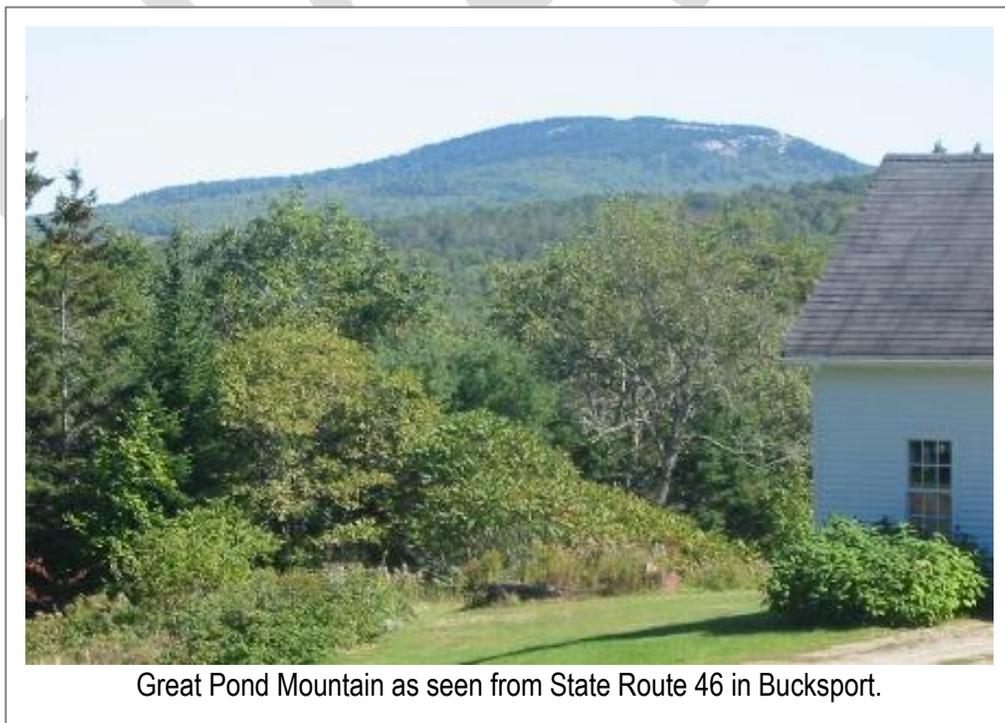
American Bittern

## Scenic Views

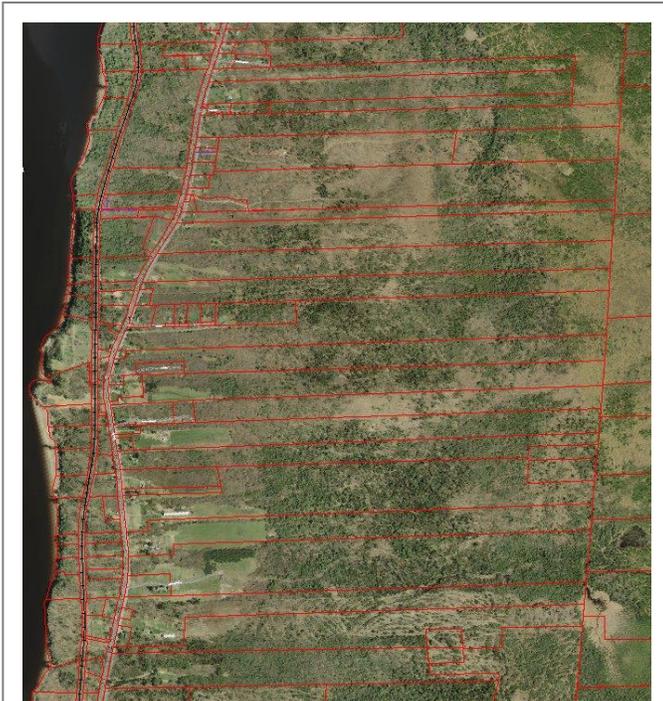
The town of Bucksport has a number of scenic views. The ones listed in the 2003 plan are shown in Table 9.2

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

<b>Table 9.2</b>		
<b>Scenic Views</b>		
<b>Road</b>	<b>Location</b>	<b>Description of View</b>
Route 15	1000 feet from second railroad crossing heading towards Bangor	Penobscot River and Channel
Main Street	From Main Street overlooking dock	River and Fort
Route 46	1.5 miles from Route 1	Alamoosook River in Orland
Route 46	Intersection, East Bucksport Church Road	Hancock Pond
Church Road	1500 feet down road	Hancock Pond, Bald
Bucks Mill Road	On top of Peat Bog Hill	Brewer Lake, Brewer
Hinks Road	Next to wetland	View of hardwood ridge
<b>SOURCE:</b> 2003 Comprehensive Plan – revise? add more?		



Great Pond Mountain as seen from State Route 46 in Bucksport.



Very long, narrow “spaghetti” lots east of River Road make development or even timber harvesting of the back land very difficult as road building costs are prohibitive. Some lots are well over a mile deep and only 300-400 feet wide. This situation acts a lot like conservation land “by default” until parcels are consolidated or owners band together to create shared access to remote areas.