

D. NATURAL RESOURCES

The natural resources of Addison are diverse. As a large peninsula surrounded by the estuaries of the Pleasant River to the west and the Indian River to the east, the town has many scenic water views. The coastline and outer islands support coastal and wading waterfowl, several productive fisheries and many unique species including bald eagles, arctic and Roseate terns, and peregrine falcon. Forestry and agriculture are not major contributors to the economy of Addison, yet they do play a role. A few small farms, scattered wood lots, and related, local businesses provide character and sources of family income in Addison. These resources provide open spaces and are essential for the continued strength of commercial fishing to the regional economy. Open spaces within Addison support the tourism sector by providing recreational opportunities such as fishing, boating, hunting, kayaking and hiking.

LOCATION AND TOPOGRAPHY

Located in the western part of Washington County, Maine, the town of Addison is a large peninsula surrounded by two estuaries. The Indian River and its estuary form the eastern boundary of the town and the Pleasant River bay forms the western boundary. The Pleasant River estuary forks in the center of the village of Addison. The main stem meanders through the northern part of the town and continues on through Columbia Falls. The west branch meanders north to the town of Columbia and has been closed to tidal flow due to the installation of clapper gates in 1940. Addison also includes numerous small coastal islands as described in Table D-1. The town is situated approximately 70 miles southeast of Bangor and is bordered on the north and west by the towns of Columbia Falls, Columbia and Harrington and on the east by the towns of Jonesboro and Jonesport. The land area of the town is approximately 35,000 acres with an additional 27,000 acres of water. See Map 4: Topography, Steep Slopes and Flood Zones at the end of this section for general contour elevations.

Table D-1 ISLANDS WITHIN THE TOWN OF ADDISON

Name	Parcel Map #	Acres Size	Ownership (Public/Private)	Number of owners	Notes (acronyms defined at bottom of table)
BATSON LEDGES			Private		
BAR ISLAND	023-010	5	Private	4	
BENJYS ISLAND	021-007	.34	Private	1	
BIG NASH ISLAND	025-002	74.5	Private	1	
BRYANTS ISLAND	018-118	2	Private	1	MITA
BURNT ISLAND	015-034	1.8	Private	1	GALT easement
CARRYING PLACE ISLAND	023-003	4.6	Private	1	

Name	Parcel Map #	Acres Size	Ownership (Public/Private)	Number of owners	Notes (acronyms defined at bottom of table)
CHANDLERS ISLAND	020-032	.25	Private		
CROWLEYS ISLAND		293	Private		PRWF
DANIELS ISLAND	021-008	.52	Private	1	MITA
DOYLE ISLAND	021-016	88.6	Private	1	
DRISKO ISLAND	027-004	50	Private	1	GALT easement
DUCK LEDGES	024-002	2.1	Private	1	
DYERS ISLAND	002-001	4	Private	1	
EAGLE ISLAND	022-037	2.85	Private	1	GALT easement
FLAT ISLAND	026-005	17.6	Private	1	
GIBBS ISLAND	016-002	3.3	Private	1	
GOOSE ISLAND	016-004	.4	Private	?	
GOOSEBERRY NUBBLE (Wolverton)	022-037		Private		
GREEN ISLAND	026-001	2.1	Private	1	MITA easement
HARDWARD ISLAND	024-001	19	Private	1	
HEMLOCK ISLAND	016-003	5	Private	1	
INNERGOOSE ISLAND	022-011	.2	Public	1	IFW
INNERSAND ISLAND	027-005	14.2	Federal Gov't	1	USFWS ownership
JERDENS ISLAND	021-015	2.8	Private	1	
JOHN WHITES ISLAND	019-009	5.75	Private	1	
LADDLE ISLAND	025-001	1.8	Private	1	
LITTLE DRISKO ISLAND	027-002	11.5	Public		State of Maine IFW
LOWER BIRCH ISLAND	019-002	28.5	Private	1	1 large, 1 small
MASH HARBOR ISLAND	019-015	6.2	Private	1	
MARSH ISLAND (PLEASANT RIVER)	007-014 007-017 007-012	27.4 33.2	Private	3	
MARSH ISLAND	023-28-2		Private	1	GALT
MINK ISLAND	019-004	.22	Private		Unregistered island managed by Parks and Land
NASH ISLAND	025-003	4.3 4.72 .52	Private; 1/2 Federal gov't	3	½ USFWS
NIGHTCAP ISLAND	019-001	2.4	Private	1	IFW easement
NORTONS ISLAND	022-038	55	Private		trust

Name	Parcel Map #	Acres Size	Ownership (Public/Private)	Number of owners	Notes (acronyms defined at bottom of table)
NORTON ISLAND LEDGES (Fishermans Ledge)	Map 22	?	Private?	?	
ONE BUSH ISLAND	021-013	.34	Private	1	
OUTER GOOSE ISLAND	022-010	2.7	Private		
OUTERSAND ISLAND	027-006	18.7	Private	1	
EAST PLUMMER ISLAND	026-004 East	7.8	Private	1	TNC
WEST PLUMMER ISLAND	026-003 West	12.4			
POTS ROCK			Private		
RAM ISLAND	026-002	5	Private	1	
RASPBERRY ISLAND	016-001	3.4	Private	5	
ROUND GOOSE ISLAND	021-012	2.7	Private	1	
SAWYERS ISLAND	021-014	10.6	Private	1	
SEADUCK LEDGES			Private		
SHABBIT ISLAND	024-003	3.3	Private	1	
SHEEP ISLAND	022-036	.52	Private	2	
SHELDRAKE ISLAND	021-009	.7	Private	3	
STEVENS ISLAND	027-001	27.2	State of Maine	1	MITA
TIBBETTS SHEEP ISLAND	023-020	22.6	Private	1	
TOMS ISLAND	027-004	7.5	Private	4	
UPPERBIRCH ISLAND	019-003	27.6	Private		TNC Preserve
WITCHWOOD ISLAND	018-037	.25	Private	1	

GALT Great Auk Land Trust
 MITA Maine Islands Trails Association
 TNC The Nature Conservatory
 IFW Maine Department of Inland Fisheries & Wildlife
 USFWS United States Fisheries & Wildlife Service
 PRWF Pleasant River Wildlife Foundation

GEOLOGY

Addison is located 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 Addison 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. These soils are not particularly well suited to septic sewage disposal. Some are well suited to forestry or sand and gravel pits.

The United States Department of Agriculture (USDA) Soil Conservation Service (SCS) has prepared soil classification maps for each state (STATSGO). Soil maps for STATSGO are often compiled by generalizing more detailed (SSURGO) soil survey maps. Where more detailed soil survey maps are not available, as is the case in Washington County, data on geology, topography, vegetation, and climate are assembled, together with Land Remote Sensing Satellite (LANDSAT) images. Soils of like areas are studied, and the probable classification and extent of the soils are determined. Map 5 STATSGO Soils provides this level of information for Addison. As with the Soil and Water Conservation Service data discussed below, STATSGO soils information is not available on several islands within Addison.

Addison has no public sewerage 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 shellfishing areas, and destruction of existing wildlife and scenic areas.

Soil Potential for Low Density Development (LDD)

The STATSGO classifications in Addison, Lyman-Lamoine-Scantic (ME037), and Scantic-Lamoine-Dixfield (ME032) are mapped on Map 5 - STATSGO Soils. This is the only digital soils information available in Washington County. These associations give general information about development potential but are mapped at too coarse a scale for local planning or site specific purposes. Very few areas of Addison, or indeed of Maine in general, have large tracts of land that are ideal for residential development. The Natural Resources Conservation Service of the USDA has

produced a handbook of Soil Survey Data for Growth Management in Washington County. This publication is available at the Addison town office along with paper (non-digital) soils maps at a scale of 1 inch = 2000 feet. It includes many tables that interpret the suitability of different soils for agricultural production, woodland productivity, erodability and low density development.

This last interpretation – rating of soil potential for low density urban development – is provided in Table D-2 to guide the concentration of development in Addison. Under this system soil potentials are referenced to an individual soil within the county that has the fewest limitations to development (depth to water table, bedrock etc.). This reference soil is given a value of 100 points. Costs that are incurred to overcome limitations to development are developed for all other soils. These costs, as well as costs associated with environmental constraints and long term maintenance, are converted to index points that are subtracted from the reference soil. The result is a comparative evaluation of development costs for the soils in the county. The overall range is large with values between 0 and 100. These numerical ratings are separated into Soil Potential Rating Classes of very low to very high. Thus in the table a soil with a Very High rating has very good potential for development. Note that the Washington County Soil and Water Conservation service advises that soils are being mapped on Crowley Island, Doyle Island, Burnt Island, Sawyer Island, Inner Goose Island, Outer Goose Island, Hardwood Island, Pomp Island, West and East Plumber Islands, Norton Island, Shabbit Island and other assorted tiny islands but they were not available in mid-2004.

Table D-2 SOIL SUITABILITY FOR DEVELOPMENT POTENTIAL BY RATING CLASS

Map Unit	Soil Name	Septics	Dwellings	Roads	Development
29T	Gouldsboro Silt Loam	Very Low	Very Low	Very Low	Very Low
39G	Sebago and Waskish soils	Very Low	Very Low	Very Low	Very Low
39M (29M)	Wonsqueak and Bucksport soils, frequently flooded	Very Low	Very Low	Very Low	Very Low
39P (29P)	Bucksport and Wonsqueak soils	Very Low	Very Low	Very Low	Very Low
39RE	Abram-Rock-Outcrop-Ricker Complex, 15-80%, very stony	Very Low	Very Low	Very Low	Very Low
220B	Colton Gravelly Sandy Loam, 3-8%	Low	Very High	Very High	Medium
220C	Colton Gravelly Sandy Loam, 8-15%	Very Low	High	High	Medium
220E	Colton Gravelly Sandy Loam, 15-70% slopes	Very Low	Medium	Medium	Very Low
221B	Colton Gravelly Sandy Loam, 0-8%, very bouldery	Low	High	High	Medium
221C	Colton Gravelly Sandy Loam, 8-15%, very bouldery	Very Low	High	Medium	Low
230C	Buxton Silt Loam, 8-15%	Medium	Medium	Medium	Medium
232B	Lamoine-Buxton complex, 0-8% slopes	Very Low	Medium	Medium	Low
233A	Scantic silt loam	Very Low	Very Low	Very Low	Very Low
236A	Lamoine-Scantic complex 0-5% slopes	Very Low	Medium	Medium	Low
252B	Hermon-Monadnock complex, 3-8%	Very High	Very High	Very High	Very High
252C	Hermon-Monadnock complex, 8-15% slopes	High	High	High	High
262B	Tunbridge-Lyman complex, 3-8% slopes	Medium	High	High	High
262C	Tunbridge-Lyman complex, 8-15% slopes	Medium	Medium	Medium	Medium
263C (29RC)	Tunbridge-Lyman-Abram Complex, 3-15%, very stony	Medium	Medium	Medium	Medium
271B	Dixfield-Colonel complex, 3-8% slopes, very stony	High	High	High	High
320C	Colton-Adams complex, 3-15%	Very Low	High	High	Medium
320E	Colton-Adams complex, 15-70%	Very low	Medium	Medium	Very Low
321C	Colton-Hermon complex, 3-15% slopes, very bouldery	Very low	High	Medium	Low
327B	Nicholville-Croghan complex, 0-5%	Medium	High	Medium	Medium
327C	Nicholville-Croghan complex, 5-15%,	Medium	Medium	Medium	Medium
328A	Kinsman-Wonsqueak association, 0-3% slopes	Very low	Medium	Medium	Very low

Map Unit	Soil Name	Septics	Dwellings	Roads	Development
(327A)					
329C	Tunbridge-Lamoine-Lyman complex, 0-15% slopes, very stony	Medium	Medium	Medium	Medium
330B	Lamoine-Tunbridge-Scantic Complex, 0-8%, very stony	Very low	Medium	Medium	Low
331B	Lamoine-Scantic-Colonel complex, 0-8% slopes, very stony	Very low	Medium	Medium	Low
332B	Lamoine-Buxton-Scantic Complex, 0-15%	Very low	Medium	Medium	Low
332C	Buxton-Lamoine complex, 3-15%	Medium	Medium	Medium	Medium
333A	Scantic-Biddeford association, 0-3% slopes	Very Low	Very Low	Very Low	Very Low
353C	Hermon-Monadnock-Skerry complex, 3-15% slopes, very bouldery	High	High	Medium	High
363C	Lyman-Tunbridge-Abram Complex, 3-15%, very stony	Low	Low	Medium	Low
363E	Lyman-Abram-Tunbridge complex, 15-60% slopes, very stony	High	High	Medium	High
364B (261B)	Naskeag-Tunbridge-Lyman Complex, 0-8%, very stony	Very Low	Medium	Medium	Low
366C	Skerry-Becket Association, 3-15%, very stony	Medium	Medium	Medium	Medium
371B	Dixfield-Colonel complex, 0-8%, very stony	Very Low	Medium	Medium	Low
373B	Brayton-Colonel association, 0-8% slopes, very stony	Very Low	Very Low	Low	Very Low
377C	Skerry-Colonel-Tunbridge complex, 0-15% slopes, very stony	Medium	Medium	Medium	Medium

Source: USDA-NRSC Orono, ME – Soil Survey Data for Growth Management in Washington County, Maine, 1997

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 4: Topography, Steep Slopes and Flood Zones identifies the location of steep slopes in Addison.

FARM AND FOREST LAND

Soils on Addison are not generally suitable for many agricultural uses, but some are well suited for blueberry production and this activity provides some employment in town. There are approximately 500+ blueberry acres in Addison. There are 2 other farming activities within Addison. There is an unusual and well-known llama farm with a herd of 40+ Llamas and a herd of 43+ Red Deer. There is a self-sufficiency farm raising a variety of animals and vegetables to supply family needs and for sale.

Agriculture has never been a major commercial activity for the people of Addison. A few generations ago residents engaged in part-time farming and supplemented

incomes from selling homegrown food stuffs. Some sheep husbandry occurs on the offshore islands, and continues to this day. Approximately 200 sheep are still pastured on various offshore islands in Addison.

In early years, many farms provided food and grain for sustenance and use aboard ships. A number of small farms today are maintained and produce berries and livestock, primarily for local consumption or specialty marketing. Several small businesses in Addison process farm products such as wool yarn and fresh vegetables. There are a few expanses of blueberry fields commercially harvested in Addison, a total of roughly 500 acres. Improvements in weed control and pest management have greatly increased yields and the profitability of the industry regionally.

Agriculture can be a primary contributor to surface and groundwater pollution, and also has both positive and negative impacts on neighboring lands and the character of the area. Zoning or development restrictions must balance the need to limit agricultural pollution in sensitive areas and maintain the character of residential or commercial neighborhoods which could be threatened by odorous or chemical agriculture, with the need to encourage a vibrant agricultural sector which contributes to the diversity, culture, and open space needs of the town. Some pesticide residues have been detected in the groundwater aquifers in the Addison-Columbia area.

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. About eighty-seven per cent of Addison is forested, see Map 6 Land Cover, with a maritime spruce fir forest that also includes patches dominated by fir, paper birch and red maple, and several areas of forested wetlands.

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 Addison the forestlands range from very low to very high with a large percentage in the medium to very high woodland productivity ratings according to the Washington County Area Soil Survey and Subpart C – Ordination System, National Forestry Manual.

The forest resources of Addison are used to provide firewood, or lumber for residents, or pulpwood for area mills. There are no mills remaining in Addison. In the late fall, Christmas wreaths made from Balsam Fir tips from Addison and the region are produced in Harrington (Worcester Wreaths), Milbridge (Kelco Industries), and other locations in the county. "Tipping" is a significant source of employment and home occupation activity, and access to private forest parcels to collect tips may become a contentious issue as tax levels, land posting, and ownership patterns

continue to challenge traditional customs in Addison. A modest amount of harvesting is conducted in Addison primarily on a selection harvest basis, see Table D-3.

Table D-3 SUMMARY OF TIMBER HARVEST INFORMATION

Year	Selection Harvest Acres	Shelterwood Harvest Acres	Clearcut Harvest Acres	Total Harvest Acres	Change of Land Use Acres	# of Timber Harvests
1991	120	120	0	240	0	3
1992	113	0	0	113	0	5
1993	47	60	101	208	0	4
1994	68	0	80	148	0	5
1995	146	0	10	156	0	6
1996	263	20	68	351	30	9
1997	214	100	2	316	0	11
1998	408	15	0	423	0	13
1999	667	0	0	667	0	13
2000	226	12	0	238	2	12
2001	217	200	8	425	0	9
2002	265	0	0	265	200	9
Totals	2754	527	269	3550	232	99

Source: Year End Landowner Reports to Maine Forest Service, 2003

Note: to protect confidential landowner information, data is reported only where three or more landowner reports reported harvesting in the town.

WATER RESOURCES

Watersheds

A watershed is the land area in which runoff from precipitation drains into a body of water. In addition to both branches of the mouth of the Pleasant River, there are several small rivers and streams in Addison. The Indian River estuary forms the eastern boundary with the town of Jonesport and is described as the Indian River and the West River as it encircles Crowley Island and drains into the Atlantic Ocean. Several small brooks rise on the peninsula and drain to the Indian River Stream (Hart and Southwest Brooks), the West River (Lath Machine and Lamson Brooks), and the Pleasant River estuary (Knowles and Batson Brooks). There are also several smaller unnamed streams that drain into all of the coves and bays around the peninsula. There are no lakes or great ponds within the town. See Map 7 Water Resources.

The marine water quality surrounding Addison is affected by land uses in Addison and in the surrounding towns of Harrington, Jonesport and Beals. The portion of the watershed that has the greatest potential to affect a body of water is its direct watershed, or that part which does not first drain through upstream areas. Anything that can be transported by water will eventually reach and impact the quality of a water body. Development activities, such as house and road construction and timber harvesting, may disturb land, increase the amount of impervious surfaces and contribute pollutants and other substances to waterbodies, degrading water quality.

Activity anywhere in the watershed, even several miles away, has the potential to impact water quality.

To assess what portion of Maine's rivers, streams, and brooks meet the goal of the Clean Water Act; the Maine Department of Environmental Protection (MDEP) uses bacteriological, dissolved oxygen, and aquatic life criteria. All river waters are classified into one of four categories: Class AA, A, B, and C. These classifications are defined by legislation, 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. Below are the designated uses ascribed to Maine's water quality classifications:

Class AA - Drinking water supply, recreation in and on the water, fishing, navigation and a natural and free flowing habitat for fish and other aquatic life.

Class A - Drinking water supply, recreation in and on the water, fishing, industrial process and cooling water supply; hydroelectric power generation, navigation, and unimpaired habitat for fish and other aquatic life.

Class B - Drinking water supply, recreation in and on the water, fishing, industrial process and cooling water supply; hydroelectric power generation, navigation, and unimpaired habitat for fish and other aquatic life.

Class C - Drinking water supply, recreation in and on the water, fishing, industrial process and cooling water supply; hydroelectric power generation, navigation, and a habitat for fish and other aquatic life.

The DEP "bluebook" designates the Pleasant River main stem from the Maine Central Railroad (in Columbia) to tidewater (in Addison) as Class B. However, the town notes that tidewater actually extends up river to the falls in Columbia Falls. Further, the Legislature finds that the free-flowing habitat of this river segment provides irreplaceable social and economic benefits and that this use must be maintained. The tributaries to the Pleasant River entering below the Maine Central Railroad bridge are designated as Class B.

Except for the Pleasant River, the streams within Addison are not classified separately. All Addison streams are Class B according to the following general classification: Those waters draining directly or indirectly into tidal waters of Washington County, including impoundments of the Pennamaquan River, with the exception of the Dennys River Basin, the East Machias River Basin, the Machias River Basin, the Narraguagus River Basin and the Pleasant River Basin - Class B unless otherwise specified.

Threats to water quality come from point and non-point discharges. 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 and therefore include the 8 licensed Overboard Discharge Permits within the town of Addison and the discharge at the Treasures of the Sea, Inc. sea cucumber processing facility. This point discharge (Maine Pollutant

Discharge Elimination System (MEPDES) #ME0110256 and Maine Waste Discharge License Application #W-007950-5P-D-M) is limited to the months October 1 through June 30 and allows up to 8,000 gallons per day of treated sea cucumber processing water and facility clean up water.

Non-point source pollution poses the greatest threat to water quality in Maine communities and Addison is no exception. The most significant contributing source comes from erosion and sedimentation as well as excessive run-off of nutrients. Additional contributing factors include animal wastes, fertilizers, forestry and agricultural pesticides, sand and salt storage, faulty septic systems, roadside erosion, leaking underground storage tanks, and hazardous substances. Identification and regulation of these sites is important in safeguarding both surface and ground waters.

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 shellfishing areas. Steep slopes with highly erodible soils are particularly susceptible to erosion. The Shoreland Zoning Ordinance, latest revision adopted by Addison in 2004, is designed to provide protection to shorelands.

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 change the watercourse on floodplains increase the quantity and rate of runoff that can intensify flooding impacts downstream.

The 100-year floodplains within Addison have been identified by the Federal Emergency Management Agency (FEMA) for administration of the Federal Flood Insurance Program. A 100-year flood is a flood that has 1 chance in 100 of being equaled or exceeded in any 1-year period. One hundred year floodplains are associated with most of the mainland coastline of Addison, several interior wet areas, and all of the coastal islands. See Map 4: Topography, Steep Slopes and Flood Zones. Addison participates in the National Flood Program and has maps that are effective as of July 16, 1991. Addison has adopted a Floodplain Management Ordinance that includes construction standards to minimize flood damage within the 200-year floodplain. A Floodplain Management Ordinance with new flood plain maps was adopted in 1991. Currently, there is a Floodplain Management Ordinance that will be included on the warrant at the annual town meeting on March 8, 2005

Since 1991, the federal model floodplain ordinance has changed with respect to certain definitions, standards and permit requirements. In two cases (accessory structures and lobster/fishing sheds over water) this includes a relaxation in standards. Legal advice from the Maine Municipal Association has also resulted in certain revisions to the federal model. Addison should therefore pursue technical assistance from the Maine Floodplain Management Program to have their 1991 Floodplain Management Ordinance updated to current law and practice.

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. Even building on the edge of a wetland can have significant environmental consequences. 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 MDEP has identified wetlands located within Addison, as illustrated on Map 7: Water Resources. 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. Finally, the Mandatory Shoreland Zoning Law provides protection to mapped non-forested wetlands.

At their respective 2004 town meetings, Addison and neighboring Columbia gave their support for further exploration of the removal of the "tide gates" in the town of Addison that have blocked tidal flow to the West Branch of the Pleasant River since 1940. The removal of these gates will restore the tide to 300+/- acres of currently degraded salt marsh. It will also restore anadromous fisheries to this tributary of a river with a population of the federally listed endangered Atlantic salmon.

The scope of the project includes removal of the gates; construction of a 150-foot bridge to replace them; replacement of culverts; raising of several hundred feet of road and the safe guarding of peoples homes, wells, septic systems; and the protection of existing agricultural practices. Significant engineering and ecological studies need to be undertaken.

Agencies and organizations involved include: Army Corps of Engineers, Natural Resource Conservation Service, NOAA Fisheries, US Fish and Wildlife Service, Maine DOT, Maine State Planning Office, Inland Fish and Wildlife, and The Conservation Law Foundation.

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. Boundaries are based on the best-known information and encompass areas that tend to be the principal groundwater recharge sites. Recharge to these specific aquifers, however, 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 Addison that extends into the neighboring communities of Jonesport and Jonesboro, as shown on Map 7: Water Resources. Map 7 also shows the location of the following Public Water Supply Sources in Addison:

Table D-4 PUBLIC WATER SUPPLIES IN ADDISON

Water System Name	Public Water Supply Type ¹	Source Name	Source Type	Location
ADDISON POINT WATER DISTRICT	Community	DRILLED WELL 120'	Groundwater	ADDISON
ADDISON POINT WATER DISTRICT	Community	DRILLED WELL 160'	Groundwater	ADDISON
MSAD 37 Daniel W. Merritt School	Community	DRILLED WELL 535'	Groundwater	ADDISON

Source: Maine Department of Human Services, Bureau of Health, Division of Health Engineering, Drinking Water Program; Feb 13, 2004

The Maine Drinking Water Program follows an EPA-approved assessment matrix to determine the risk of contamination at a public water source due to its 1) well type and site geology; 2) existing and future risk of acute contamination and 3) existing and future risk of chronic contamination. Accordingly, the risk of contamination in the community water supplies in Addison is provided in Table D-5.

¹ 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. 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. 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 and may include, but is not limited to, a school, factory, industrial park or office building, and

b. 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 and may include, but is not limited to, a highway rest stop, seasonal restaurant, seasonal motel, golf course, park or campground. A bottled water company is a transient, non-community water system.

Table D-5 RISK ASSESSMENT MATRIX FOR PUBLIC WATER SUPPLIES IN ADDISON

Risk of Contamination due to:	Community Water Supply			Risk Assessment is based on:
	ADDISON POINT WATER DISTRICT Drilled well 120 feet	ADDISON POINT WATER DISTRICT Drilled well 160 feet	MSAD 37 Daniel W. Merritt School Drilled well 535 feet	
well type and site geology	Moderate	Moderate	Moderate	Well type; Overburden thickness
existing risk of acute contamination	Moderate	Moderate	Moderate	Coliform test; nitrate test; septic systems within 300' of well
future risk of acute contamination	High	High	Low	Legal control of 150 foot radium around well; and 300 foot radius of property around the well
existing risk of chronic contamination	Moderate	Moderate	Low	Detection of chronic chemical contaminants; # of potential contaminant sources around WHPA ² ; distance to nearest significant potential source of contamination
future risk of chronic contamination	High	High	Moderate	Legal control of entire WHPA; legal control of 2500 Phase II/V waiver radius ³

Source: Final Source Assessment Report - Source Water Assessment Program; Maine Bureau of Human Services, Bureau of Health, Division of Health Engineering, Drinking Water Program, 2003

The two wells operated by the Addison Point Water District have moderate to high risks of existing and future contamination. In both cases this results from the lack of legal controls within 150 of the well and the existence of septic systems within 300 feet of the wells. The town should assist the water district in the acquisition of land to increase the legal control of activities within the wellhead protection areas. The well serving the school does have legal control over a 300-foot radius of the property around the well and is rated with a lower risk of existing contamination.

Map 7 can be used to identify surface sites that are unfavorable for storage or disposal of wastes or toxic hazardous materials.

It is important to protect groundwater from pollution and depletion. Once groundwater is contaminated, it is difficult, if not impossible, to clean. Protecting a groundwater resource and preventing contamination are the most effective and least expensive techniques for preserving a clean water supply for current and future uses.

Groundwater along the coast and on the islands of Addison is limited in quantity and saltwater intrusion problems occur during periods of low rainfall and heavy usage in

² WHPA – Well Head Protection Area

³ 2500 Phase II/V waiver radius – with control of land out to 2500 feet the Public Water Supply is waived from performing the full range of Phase II/V water quality tests – a significant savings for the operator.

the summer months. Education about conservation practices and proper storage of contaminants is called for as growth occurs.

MARINE WATERS AND RESOURCES

Addison contains expanses of tidal waters from open water to secluded coves. The town's tidal waters are of critical importance to a wide variety of interests including traditional fishermen, recreational boaters, and those who enjoy the view. Potential for conflict among the various interests may be avoided with reasonable controls planned out in advance.

Addison was founded on and continues as a commercial fishing community dependent on the ocean's resources. Map 8, Marine Resources and Public Access, depicts the location of Molluscan shellfish habitat, areas closed to shellfish harvest in 2003, commercially harvested marine worm habitat, aquaculture lease locations, anadromous and catadromous fish locations and historic locations of herring weirs. These habitats and the other fisheries of commercial significance are described in greater detail below.

Marine Water Quality

The Maine Department of Environmental Protection classifies surface waters according to their desired use and water quality necessary to support that use. All of the tidal waters in Addison 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. As noted above Addison has 9 point source discharges. Map 8 Marine Resources and Public Access depicts areas in Addison that are closed to shellfishing due to excessive bacteria loading.

Shellfish Management

The shoreline of Addison varies widely from rocky cliffs to small tidal inlets to areas of extensive flats with potential commercial shellfish value. Addison most recently updated its Shellfish Conservation Ordinance in 2003. It contains provisions for shellfish management and for commercial and recreational licensing. A Shellfish Conservation Committee, working with the Department of Marine Resources and the University of Maine at Machias, strives to improve the flats.

The Annual Shellfish Management Review for 2003, provided by the Department of Marine Resources concludes that enforcement of the town shellfish management ordinance is satisfactory and indicates that enforcement could be improved by increasing the number of patrol hours. The shellfish management goals of Addison include providing a harvesting opportunity for the maximum number of participants,

increasing the clam resource through various enhancement activities, providing a preference to commercial harvesting over recreational harvesting and maintaining a constant production to provide a steady but variable income. These goals are achieved through management controls that limit the number of commercial and recreational harvesters, restricting areas of harvest and limiting the amount of recreational harvest. Current management activities include enhancement of natural seeding through brushing, roughing and other means and establishment of conservation areas for flat rotation.

Commercial Fishing

As Table D-6 describes, commercial fishing in Addison is of great significance to the local economy compared to other Washington County communities. Addison has the sixth highest number of state and clam licenses in the County.

Table D-6 FISHING PRESENCE IN WASHINGTON COUNTY

Community	State License	Clam License	Total Per town
Winter Harbor	55	0	55
Gouldsboro	133	17	150
Steuben	138	21	159
Milbridge	144	70	214
Harrington	109	57	166
Addison	151	40	191
Jonesport	191	73	264
Beals	191	12	203
Jonesboro	79	44	123
Roque Bluffs	41	58	99
Machias	88	0	88
East Machias	50	27	77
Machiasport	150	79	229
Cutler	87	43	130
Whiting	16	6	22
Trescott Twp.	7	n/a	7
Edmunds Twp.	8	n/a	8
Lubec	209	59	268
Eastport	43	4	47
Pembroke	58	35	93
Perry	39	22	61
Robbinston	8	0	8
Calais	12	0	12
Totals	2007	667	2674

Source: Paths and Piers: A Study of Commercial Fishing Access in Downeast Maine Coastal Communities, Sunrise County Economic Council, April, 2003

Data from the Department of Marine Resources, shown in Table D-7 indicates that the number of residents holding marine resource licenses (dealers and harvesters) has decreased by roughly 10% over the past five years. The number of fishing boats registered to Addison residents has declined over the same period from 267 in 1998 to 253 in 2002. However the commercial lobster tags registered to Addison residents

has increased substantially since 1998 – from 37,944 to 51,302. Thus a smaller fleet is harvesting more lobster.

Table D-7 MARINE LICENSE HOLDERS IN ADDISON 1998 – 2002

Type	License Year				
	1998	1999	2000	2001	2002
Residents Holding Marine Resource Licenses - Dealers	23	24	22	15	15
Residents Holding Marine Resource Licenses - Harvesters	352	354	358	343	329
Grand Total*	375	378	380	358	344

The diversity of target species (See Table D-8) indicates that year round income comes from a variety of sources for individual harvesters and the industry as a whole. Thus, commercial fishing remains an important source of seasonal income to residents.

Table D-8 FISHING LICENSES IN ADDISON BY HARVEST SPECIES 1998-2002

Count of License Types/Town	Dealers by Year					Harvesters by Year				
	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
30 DAY TEMPORARY URCHIN DIVING TENDER						2			2	
COMM SHRIMP-CREW									2	
COMM'L FISHING SINGLE OPERATOR						26	26	26	30	16
COMMERCIAL FISHING WITH CREW						8	4	8	8	14
COMMERCIAL SHELLFISH						68	68	82	82	70
ELVER-2 FYKE NETS							2	6	4	4
ELVER-5 FYKE NETS						2				
ELVER-DIP NET-1 FYKE NET						2				
ELVER-DIP NET-2 FYKE NETS						2				
ELVER-DIP NET-4 FYKE NETS						2				
ELVER-DIP NET-5 FYKE NETS						2				
GREEN CRAB										2
LOBSTER MEAT PERMIT		2	2							
LOBSTER TRANSPORT SUPPLEMENTAL										
LOBSTER TRANSPORTION (OUT-OF-STATE)	4									
LOBSTER/CRAB APPRENTICE						10	16	16	20	26
LOBSTER/CRAB APPRENTICE UNDER 18						6	4			
LOBSTER/CRAB CLASS 1						124	100	94	84	82
LOBSTER/CRAB CLASS 11						72	84	96	100	96
LOBSTER/CRAB CLASS 111									6	6
LOBSTER/CRAB NON-COMMERCIAL						14	18	24	36	34
LOBSTER/CRAB OVER AGE 70						24	26	26	12	8
LOBSTER/CRAB STUDENT						14	14	24	12	26
LOBSTER/CRAB UNDER AGE 18						2	2		2	
MARINE WORM DEALER	8	8	8	8	8					
MARINE WORM DIGGING						102	136	114	100	84
MARINE WORMS, SUPPLEMENTAL	8	6	6	6	6					
MUSSEL-DRAGGER						2	2	2	2	
MUSSEL-HAND								2		2
QUAHOG (MAHOGANY)						12	12	12	14	18
RETAIL SEAFOOD	4	8	4							
SCALLOP-DIVER						28	24	18	16	14
SCALLOP-DRAGGER						30	34	46	42	44
SCALLOP, NON-COMMERCIAL						26	18	14	12	10
SEA URCHIN- DIVER						56	54	50	44	44
SEA URCHIN-DRAGGER						14	14	14	16	22
SEA URCHIN-TENDER										
SEA URCHIN/SCALLOP TENDER						34	32	28	28	24

Count of License Types/Town	Dealers by Year					Harvesters by Year				
	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
SEAWEED						14	16	14	12	12
SEAWEED, SUPPLEMENTAL						8	2			
SHELLFISH TRANSPORTION (OUT-OF-STATE)										
SHELLFISH TRANSPORTION, SUPPLEMENTAL										
WHOLESALE SEAFOOD, NO LOBSTERS	2	2	2	2						
WHOLESALE SEAFOOD, NO LOBSTERS, SUPPLEMENTAL	4	4	4	2						
WHOLESALE SEAFOOD, WITH LOBSTERS	10	8	10	8	10					
WHOLESALE SEAFOOD, WITH LOBSTERS, SUPPLEMENTAL	6	10	8	4	6					
GRAND TOTAL*	46	48	44	30	30	704	708	716	686	658

Source, Maine Department of Marine Resources, 2003

Aquaculture

Aquaculture is not yet a significant player in the Addison commercial fishing economy. There are no lease sites in Addison.

Access to the Marine Resource

The town of Addison has more than 107.7 miles of coastline and is home to approximately 191 commercial fishermen. Access to the waterfront for Addison commercial fishermen is provided at 8 commercial or private waterfront facilities, five of which are dedicated to commercial fishing use. Some of the current access is provided through privately owned piers and wharves. Addison has developed three community accesses to the waterfront. The fourth access is on the process of being upgraded. A municipal pier is in the future plans of the town that will support our current and future commercial fisheries.

Table D-9 TOWN OF ADDISON BOAT ACCESS & WATERFRONT FACILITIES DATA

Boat Access & Waterfront Facilities Data	Addison
Miles of Coastline	107.07
Total Commercial resource harvesters	191
Fisheries impacted by loss of access	Lobster, Sea Urchin, Clam, Worm, Seaweed, Mussel, Scallop, Lobster Pounds, Bait Dealers, Boat Yards, Fuel&Ice
Boat Access:	
Total current boat access (moorings+berthing+slips+tie ups) commercial & recreational combined	200
Percent of total current boat access used by commercial fishermen	77%
Facilities:	
Number of commercial private & public waterfront facilities in 2002	8
Number of the commercial private & public waterfront facilities <u>dedicated</u> to commercial fishing use	5
The percent of commercial fishing access that is achieved through private residence (pier/wharfs) that are owned or leased by fishermen.	32%
Number of "Other" access points (beaches, land, property crossing) not actual facilities.	12
The percent Population Change 1990-2000	9%
The percent Change in Housing 1990-2000	20%

Boat Access & Waterfront Facilities Data	Addison
Annual taxes per acre in 2001	\$41.28
Land valuation per acre in 2001	\$1,583.21
Waterfront Issues:	
Commercial Fishing access is a problem	No
Current threats to commercial fishing access	Higher Taxes Increased competition from tourism/recreational use Development pressures
The town/city is planning to address commercial fishing access	Yes
The top 3 useful tools to address commercial fishing access were:	Property tax relief Planning assistance A planning workshop on waterfront access tools
Commercial Fishing Access Vulnerability Rating	4 (see text following table)

Source: Paths and Piers: A Study of Commercial Fishing Access in Downeast Maine Coastal Communities; January 2003, Sunrise County Economic Council submitted to the State Planning Office and the Maine Coastal Program

The commercial fishing access vulnerability rating in the Paths and Piers study sought to evaluate the vulnerability of losing commercial fishing access within a community. Ratings were derived from a matrix that analyzed the following factors:

- Whether commercial fishing access is a community priority
- Whether or not a community has strong ordinances
- Whether or not a community has a dedicated fishing pier
- Development pressures
- Number of harvesters

Vulnerability ratings ranged from a low of 1 and a high of 7 with communities falling in the 1-3 category having the least vulnerability to a loss of commercial fishing access, those in the 4-5 category having a moderate vulnerability and those in the 5-7 range having the greatest vulnerability to loss of commercial fishing access. Addison, with a rating of 4 has a moderate vulnerability to loss of access but rising coastal real estate pressures could shift this rating into higher levels quickly. The analysis in Table D-9 indicates that the town could improve commercial fishing access by seeking creative ways to provide property tax relief to fishermen; obtaining planning assistance; and developing tools to increase the towns ability to obtain additional deeded access.

Addison is concerned that, as change occurs, the needs of second homeowners and tourism based facilities will 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 access to the shore, allows harvesters to walk in front of private land to access the tidal resources, and includes parking of vehicles for access as needed, construction of wharves and buildings as needed and many more activities to support the industry.

Responses to the public survey in May of 2003 indicated very strong support for marine based industry.

CRITICAL NATURAL RESOURCES

Maine Natural Areas Program

The Natural Areas Program of the Maine Department of Conservation is responsible for documenting areas that support rare, threatened, or endangered plant species and rare or exemplary natural communities.

The Maine Natural Areas Program has documented the rare and unique botanical features in Addison in the table below.

Table D-10 RARE OR EXEMPLARY BOTANICAL FEATURES IN ADDISON

Scientific Name (Common Name)	Last Seen	State Rarity	Global Rarity	Legal Status	Habitat Description
SPARTINA PATENS SALTMARSH (SALT-HAY SALTMARSH)	2000 08-09	S3	G5		Saltmarshes dominated by Spartina grasses. May form large expanses behind dunes, or may be found in pockets along larger rivers. Peat is typically more than a meter thick.
LOMATOGONIUM ROTATUM (MARSH FELWORT)	2001	S2	G5	T	Turfy or sandy seashores.
MONTIA FONTANA (BLINKS)	1986	S2	G5	SC	Rills, pools, and ditches on or near the Atlantic
S2 - Imperiled in Maine due to rarity (6 - 20 occurrences or few remaining individuals or acres) or other factors making it vulnerable to further decline. S3 - Rare in Maine (on the order of 20-100 occurrences). G5 - Demonstrably secure globally. Note: Global ranks are determined by The Nature Conservancy. T - THREATENED: Rare and, with further decline, could become endangered; or federally listed as Endangered. SC - SPECIAL CONCERN: Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.					
Source: State of Maine Department of Conservation (10/24/02)					

Wildlife Habitats

Conserving an array of habitats and their associated wildlife species will help in maintaining biological diversity and ensuring that wildlife and human populations remain healthy. To feed and reproduce, wildlife relies on a variety of food, cover, water, and space. 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 Addison and its coastal islands. Bald eagles (*Haliaeetus leucocephalus*) are plentiful and nest on several islands. Just offshore, common eiders (*Somateria mollissima*) gather in large rafts while great blue herons (*Ardea herodias*) and several species of shorebirds grace the tidal flats and marshes. On

the ledges off the outer islands large numbers of harbor seals (*Phoca vitulina*) 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). In summary, any project within the Essential Habitat that requires a state or municipal permit, or uses public funding, requires IF&W review. The Essential Habitat includes land within ¼ mile of the identified bald eagle nest site. This consultation rarely stops development, but projects may be modified to protect the eagles. According to MDIFW, Addison has several sites of essential wildlife habitat that support bald eagles, arctic terns (*Sterna paradisaea*) and Roseate terns (*Sterna dougallii*). These sites include nesting territory that is occupied during at least one of the three most recent years and intact for two consecutive years. See Map 9 – Critical Habitat.

Significant Wildlife Habitat - Significant Wildlife Habitat, as defined by Maine's Natural Resources Protection Act (NRPA), is intended to prevent further degradation of certain natural resources of state significance. NRPA-defined Significant Wildlife Habitats in Addison are illustrated on Map 9: Critical Habitat and include shorebird habitat, tidal waterfowl/wading bird habitat, waterfowl/wading bird habitat and seabird nesting habitat. Addison supports habitat for four species that are threatened, endangered or of special concern in Maine including the Peregrine Falcon (*Falco peregrinus*), Arctic Tern (*Sterna paradisaea*), Roseate Tern (*Sterna dougallii*) and yhr Bald Eagle (*Haliaeetus leucocephalus*).

Rare Animals - In addition to Essential and Significant Habitat, MDIFW tracks the status, life history, conservation needs, and occurrences for species that are endangered, threatened or otherwise rare. The location of these animals and their associated habitat is mapped on Map 9 Critical Habitat.

Atlantic Salmon - In December 1999, the State of Maine banned angling for Atlantic salmon statewide. In November 2000, the National Marine Fisheries Service and the US Fish and Wildlife Service officially declared as endangered the Atlantic salmon populations in eight Maine rivers (Dennys, East Machias, Machias, Pleasant, Narraguagus, Ducktrap and Sheepscoot Rivers and Cove Brook).

Accordingly, it is unlawful to angle, take or possess any Atlantic salmon from all Maine waters (including coastal waters). Any salmon incidentally caught, must be released immediately.

Control of non-point sources of pollutants, principally nutrients and sediments, through the use of local ordinances is one means by which Salmon habitat can be protected without removing parcels from the assessment rolls when they are purchased for conservation.

STATE PARKS AND PUBLIC RESERVED LANDS

There is a total of approximately 50 acres in Addison owned for public or conservation purposes and approximately 600 additional acres that are protected by conservation easements held by a variety of non-profit organizations. There are no state parks in Addison. Roughly half of the above conservation land is on the islands and half is on the mainland. The Nature Conservancy owns a 27-acre preserve called Upper Birch Island Preserve and has several other smaller preserves throughout town. The Maine Department of Inland Fisheries and Wildlife holds a conservation easement on Nightcap Island and owns and manages additional lands on Little Drisko Island and Inner Goose Island. The town of Addison owns 182 acres of land in 4 separate parcels (see Table I-1).

NATURAL RESOURCE PROTECTION

There are a variety of laws and legal incentives that protect the natural resources in Addison. Those of greatest significance are summarized below.

Pertinent Federal and State Laws – There are a number of federal and state laws that protect the natural resources of Addison. These include:

- Maine Natural Resources Protection Act (NRPA) – which 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 activities creating impervious or disturbed areas (of size and location) because of their potential impacts to water quality. In effect, this law extends storm water standards to smaller than Site Location Law-sized projects. It 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, 20-acre plus 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 minimum lot size requirement for a single-family residence is 20,000 square feet; the shoreland frontage requirement is 150 feet. 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 superceding protection under the Act.
- The Forest Practices Act - regulates the practice of clear cutting by setting regeneration and clear cut size requirements.

Pertinent Local Laws - At the local level, Addison has adopted minimum shoreland standards, as required by the State Mandatory Shoreland Zoning Act. Surface waters in Addison are also protected through the Plumbing Code and local Subdivision Regulations (revised July, 2003). Addison last revised its shoreland zoning ordinance in 2004.

Pertinent Tax Incentive Programs: A variety of programs provide financial incentives for landowners to keep land undeveloped and managed for long term productivity. They include the following:

- Farm and Open Space Tax Law - (Title 36, MRSA, Section 1101, et seq.) encourages landowners to conserve farmland and open space by taxing the land at a rate based on its current use, rather than potential fair market value.

Eligible parcels in the farmland program must be at least five contiguous acres, utilized for the production of farming, agriculture or horticulture activities and show gross earnings from agricultural production of at least \$2,000 (which may include the value of commodities produced for consumption by the farm household) during one of the last two years or three of the last five years.

The Open Space portion of this program has no minimum lot size requirements and the tract must be preserved or restricted in use to provide a public benefit by conserving scenic resources, enhancing public recreation opportunities, promoting game management or preserving wildlife habitat.

In 2003, Addison had 7 parcels totaling 148 acres in the farmland program (72 acres of cropland and 76 acres of woodland) and 5 parcels totaling 255+ acres enrolled in the open space program.

- Tree Growth Tax Law - (Title 36, MRSA, Section 571, et seq.) provides for the valuation of land classified as forestland on the basis of productivity, rather than fair market value.

According to municipal records for fiscal year 2003, Addison had 46 parcels totaling 5140.7 acres in tree growth tax status.

These programs enable farmers and other landowners to use their property for its productive use at a property tax rate that reflects farming and open space rather than residential development land valuations. If the property is removed from the program, a penalty is assessed against the property based on the number of years

the property was enrolled in the program and/or a percentage of fair market value upon the date of withdrawal.

POLICIES AND IMPLEMENTATION

In order to protect and preserve the natural resources within the town of Addison, the town will continue to update local land use regulations to maintain consistency with local regulations and State of Maine requirements. The town has adopted shoreland zoning regulations which protect the marine surface waters, wetlands and aquifers within the borders of Addison and has developed the following policies and implementation strategies to protect and preserve natural resources:

Goal: Addison will protect and preserve the natural resources on which its economy and quality of life depend.			
Policy	Implementation Strategy	Responsibility	Timeframe
Water Quality			
Protect water quality.	Update Shoreland Zoning Regulations when necessary to maintain compliance with minimum State and Federal regulations and reflect the local needs of the community.	Planning Board; Selectmen	On-going
	Control non-point source pollution to surface waters through a review and revision of sedimentation and erosion control language included in the subdivision ordinance.	Planning Board	Short-term (within 2 years)
	Promote stormwater management and erosion and sedimentation control through education of the Planning Board, Code Enforcement Officer and Road Commissioner.	Planning Board; Selectmen; Road Commissioner	On-going
Address septic waste disposal problems as they affect drinking water quality and overall water quality problems.	Continue to repair or replace malfunctioning septic systems and contaminated wells.	Selectmen	On-going
	Make application to the Small Community Grant Program to upgrade any additional failing septic systems.	Selectmen	On-going
	Examine the technical and management needs, and the costs associated with clustered septic treatment alternatives to support new development in growth areas.	Selectmen	On-going
Protect existing and future community drinking water supplies from contamination	Work with the Addison Point Water District to obtain legal control of land within 300 feet of the Well Head Protection Areas around their wells; or identify site(s) for new wells if necessary.	Selectmen; Addison Point Water District	On-going
Educate landowners about saltwater intrusion and water quality issues on the peninsula and outer islands.	Distribute State-provided information about water conservation practices and proper storage of contaminants in Addison.	Selectmen; Town Office	On-going

Goal: Addison will protect and preserve the natural resources on which its economy and quality of life depend.			
Policy	Implementation Strategy	Responsibility	Timeframe
Sustainable Development			
Development will be sited using the best available information.	The Planning Board requires that development and building permit applications be accompanied by a septic design provided by a certified soils site evaluator.	Planning Board	On-going
	Addison will pursue technical assistance from the Maine Floodplain Management Program to update the 1991 Floodplain Management Ordinance to current law and practice.	Planning Board	Immediate
Traditional maritime uses and activities will be promoted with particular protection given to Addison's working waterfront.	Review maritime districts and Shoreland Zoning Ordinance to ensure affirmative support for marine and commercial marine related activities. Research and consider property tax incentives that support landowners who voluntarily retain working waterfront (commercial) uses; with appropriate penalties if/when conversion to residential use occurs.	Planning Board; Harbor Committee	Immediate
	Review the Commercial Fisheries/Maritime Activities district to ensure that water dependent uses and accesses are not restricted by residential development. Water dependant uses would include such things as fishing and marine related services, marinas, boat storage facilities, shellfish sales, boat charters, excursions, piers, docks, and wharves.	Planning Board; Harbor Committee	Immediate
Education and Traditional Use			
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 in Addison.	Selectmen	Short-term (within two years)

Goal: Addison will protect and preserve the natural resources on which its economy and quality of life depend.			
Policy	Implementation Strategy	Responsibility	Timeframe
	Respect private property rights but seek to maintain traditional uses of any private roads or rights of way to the water. Negotiations with private land owners to secure these accesses will include: <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; • Purchasing permanent easements or fee title to access points or property of critical importance to the fishery. 	Selectmen; Planning Board	On-going

SUMMARY

Addison currently offers protection to its natural resources with locally adopted shoreland zoning regulations, land use and subdivision regulations. These ordinance provisions will be updated to be consistent with the minimum requirements of state and federal regulations as is mandated and to ensure that Addison retains its fishing village character. The importance of commercial fisheries to Addison cannot be overestimated. Protecting public shore and water access and maintaining a healthy balance of the industry and natural beauty is crucial especially in light of the rate of coastal development. The existing marine districts will be reviewed to ensure that they protect the rights of marine and commercial marine related activities while accommodating some residential 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.