

G. MARINE RESOURCES

The purpose of this section is to:

1. Describe marine resources, marine water quality and fisheries in Lubec and Washington County;
2. Describe threats to marine resources and to fisheries in Lubec;
3. Describe coastal land use, maritime facilities and harbors in Lubec; and
4. Identify coastal access locations in Lubec and strategies for their protection.

KEY FINDINGS AND ISSUES

The importance of commercial fisheries to Lubec cannot be overestimated. Protecting public shore and water access and maintaining a healthy balance between the industry and natural beauty is crucial. 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. Lubec currently offers protection to its maritime resources with locally adopted shoreland zoning regulations, land use and subdivision regulations in addition to state and federal regulations. Ordinances will be updated to be consistent with the minimum requirements of state and federal regulations as necessary.

FISHERIES

Fisheries currently landed in Lubec include urchins, scallops, lobster, clams, sea cucumber, crab, quahog, mussel, sea weed, and elver. With a year-round population of 1,652, there are a total of 157 commercial harvesters representing 17% of Lubec's workforce. Associated businesses include seafood dealers, a seafood processor and fuel dealers. All species are also harvested by resident and non-resident fishermen.

Table G-1 MARINE RESOURCE LICENSES HELD BY LUBEC RESIDENTS

License Type	2002	2003	2004	2005	2006	2007
30 DAY URCHIN DIVING TENDER	1	2	0	0	2	0
COMMERCIAL FISHING SINGLE OPERATOR	105	91	77	57	58	83
COMMERCIAL FISHING WITH CREW	11	9	12	10	9	3
COMMERCIAL SHRIMP WITH CREW	2	2	2	1	1	1
COMMERCIAL SHELLFISH	69	74	71	47	55	44
ELVER-1 FYKE NET	2	2	1	1	3	3
ELVER-2 FYKE NETS	1	1	1	1	1	1
GREEN CRAB	1	1	1	1	1	1
LOBSTER/CRAB APPRENTICE >18	6	6	6	5	3	1
LOBSTER/CRAB CLASS I	12	13	17	14	11	18
LOBSTER/CRAB CLASS II	20	21	19	20	19	19
LOBSTER/CRAB CLASS III	5	5	3	3	3	2

License Type	2002	2003	2004	2005	2006	2007
LOBSTER/CRAB NON-COMMERCIAL	14	12	12	10	9	10
LOBSTER/CRAB OVER AGE 70	2	2	2	2	2	2
LOBSTER/CRAB STUDENT	3	7	6	4	1	0
LOBSTER TRANS (OUT OF STATE)	1	1	1	0	0	0
LOBSTER TRANS SUPP	1	1	1	0	0	0
MUSSEL-DRAGGER	1	3	5	5	4	7
QUAHOG (MAHOGANY)	1	1	1	0	1	0
RETAIL SEAFOOD	4	3	0	1	3	1
SCALLOP-DIVER	2	2	2	1	1	3
SCALLOP-DRAGGER	36	31	30	33	30	36
SCALLOP – TENDER	0	1	0	0	0	1
SCALLOP, NON-COMMERCIAL	5	2	4	0	1	1
SEA URCHIN- DIVER	3	2	3	3	3	3
SEA URCHIN-DRAGGER	33	32	31	33	32	32
SEAWEED	1	0	0	0	1	0
SHELLFISH TRANS SUPP	1	1	0	0	0	0
SHELLFISH TRANS OUT-OF-STATE	1	1	1	0	0	0
WHOLESALE NO LOBSTERS	3	1	1	2	2	4
WHOLESALE NO LOBSTERS, SUPP	3	1	1	1	0	1
WHOLESALE WITH LOBSTERS	3	2	2	2	1	3
WHOLESALE WITH LOBSTERS, SUPP	3	2	2	1	1	1

Source: Maine Department of Marine Resources, 2008

Landings data (pounds and value) for lobster are not available from the Department of Marine Resources (DMR) by town. However, in measuring the economic significance of fisheries within the local community, the count of Lubec residents holding a marine license (or licenses) is a reasonable gauge of fishing presence. Over the last several years, the number of Lubec residents holding licenses has declined by 40% from 210 harvesters in 2002 to 150 licensed harvesters in 2007.

During this period the most significant declines were seen in the number of residents licensed for commercial fishing as a single operator (from 105 licenses in 2002 to 83 in 2007) and for commercial shellfish harvesting (from 69 licenses in 2002 to 44 licenses in 2007).

While this is a significant decline, local fishermen indicate that the drop-off in shellfish licenses held by Lubec residents in 2005 can be attributed to long-time license holders who failed to renew their licenses as a result of red-tide.

Table G-2 COUNT OF LUBEC RESIDENTS HOLDING MARINE RESOURCE LICENSES

Year	2002	2003	2004	2005	2006	2007
Dealers	10	6	3	5	6	7
Harvesters	210	203	184	148	153	150

Source: Maine Department of Marine Resources, 2008

FISHERIES MANAGEMENT

The Cobscook Bay Resource Center, an independent non-profit organization located in Eastport, hosts an annual forum for Cobscook Bay fishermen. It also provides technical assistance and conducts research on several cross-cutting issues affecting marine harvesters in Cobscook Bay including commercial access to marine waters and marine water quality. However no bay management plan for the area has been undertaken to date.

Fisheries management that occurs in Lubec and Cobscook Bay is undertaken on a species-by-species basis. Over the past several years, fisheries management practices undertaken by the Department of Marine Resources (DMR) have significantly and negatively impacted the local economy. The ability to develop a multi-species bay management approach to fisheries management in Cobscook Bay is complicated by:

- the complexity of the marine environment,
- inter-species affects of fisheries management practices,
- non-fisheries uses of marine resources (e.g. the Federal Marine Terminal, on-going tidal power demonstration projects, and the potential of a liquefied natural gas (LNG) terminal in the bay), and
- issues associated with the international border that bisects the region.

Nonetheless, the Town of Lubec is open to exploring a multi-species approach to bay management planning.

Scallops

Scallops are one of the most commercially significant species harvested in Cobscook Bay. From the 1970s through the 1990s statewide scallop landings consistently exceeded 1,000,000 meat pounds. Beginning in 1997, landings began to decrease significantly reaching a low of 21,390 meat pounds in 2004. Despite the fall-off in statewide landings, scallops remain a commercially important species for Lubec fishermen, as witnessed by the 40 Lubec residents holding scallop licenses over the most recent five-year period for which data is available.

Although landings data are not yet available, DMR abruptly terminated the 2008/2009 scallop season in the middle of the harvest with little or no warning for fishermen. According to local fishermen, this decision significantly reduced landings levels and resulted in an unanticipated loss of income for marine harvesters and financial damage for other local businesses.

The Town of Lubec strongly supports a stable, predictable fisheries management strategy for scallops in Cobscook Bay.

Aquaculture

Since the 1990s aquaculture has come to play an important role in Lubec's economy. According to the Department of Marine Resources in 2007 there were 10 aquaculture lease sites located wholly or partially in Lubec waters, 8 of which were considered active.

Table G-3 AQUACULTURE LEASES IN LUBEC & SURROUNDING COMMUNITIES

ID	Primary Species	Location	Acres
Lubec Waters			
COB GS	Atlantic salmon	Off the NE side of Gove Point	26
COB FH	Green sea urchins	Between Hog and Long Is	6
COB CC	Atlantic salmon	Comstock Point	5
COB CC	Atlantic salmon	Comstock Point	10
COB LU2	Atlantic salmon	Eastern Johnson Bay	32
COB FH	Green sea urchins	Between Hog and Long Is	5
COB SB	Atlantic salmon	South Bay	32
COB RN2	Atlantic salmon	North of Rodgers Island	32
COB FH	Green sea urchins	Between Hog and Long Is	9
Nearby Communities			
COB TE	Atlantic salmon	Southeast of Treat Island	15
COB MI2	Atlantic salmon	South of Matthews Island	30
COB SH	Atlantic salmon	Off Shackford Head	8
COB BC	Atlantic salmon	Broad Cove	45
COB PC	Atlantic salmon	Prince Cove	26
COB DC	Atlantic salmon	Deep Cove	25
COB TW	Atlantic salmon	Southeast of Treat Island	15
COB JK	Atlantic salmon	South of Kendall Head	22
COB HP	Atlantic salmon	Harris Cove	10
COB BP	Atlantic salmon	Birch Point	33

Source: DMR

Aquaculture leases in and near Lubec are located primarily in Cobscook and Johnson Bay. Three leases in South Bay include one finfish aquaculture site (Atlantic salmon) and two adjacent shellfish leases (green sea urchins). Aquaculture in the Cobscook Bay area is dominated by finfish aquaculture; the primary species is Atlantic salmon.

After a boom in the 1990s finfish aquaculture in Cobscook Bay was affected by management issues including the occurrence of Infectious Salmon Anemia (ISA) and the federal listing of Atlantic salmon as an endangered species. The industry contracted rapidly in the early part of the decade. Since that time finfish aquaculture in Lubec, which is now dominated by single New Brunswick-based company, has regained some ground – though employment and production both remain well below peak levels.

Shellfish Management

Lubec has approximately 3700 acres of clam flats. Four areas in Lubec – totaling a little over 600 acres in area – are closed to shellfish harvesting (see *Map 8: Marine Resources*).

DMR randomly tests over a dozen sites in Lubec for marine water quality. Most sites are tested several times annually. Contamination affecting shellfish closure areas is associated with poorly functioning septic systems, a cluster of over board discharges (OBDs) in North Lubec, and wastewater outfall from the Lubec Sewage Treatment Plant. These sources of contamination are slowly being corrected however chronic contamination is expected to result in continued closure of these areas.

Lubec has a Shellfish Conservation Ordinance which contains provisions for shellfish management and for commercial and recreational licensing. A Shellfish Conservation Committee, working with the Shellfish Warden and the Department of Marine Resources, strives to improve the flats.

The Annual Shellfish Management Review for 2006, 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 with more PSP sampling.

The shellfish management goals of Lubec include:

- provide a harvesting opportunity for the maximum number of participants,
- increase the clam resource through various enhancement activities,
- provide for commercial harvesting in preference to recreational harvesting, and
- maintain constant production to provide a steady but variable income.

These goals are achieved through management controls that restrict times and areas of harvest. Current management activities include establishing conservation areas for flat rotation, reseeded from high density areas or with hatchery stock, and enhancing natural seeding through brushing, roughing and other means. Shellfish conservation activities are undertaken by harvester volunteers with the assistance of municipal employees.

G-4 LUBEC CLAM MANAGEMENT ACTIVITIES BY FLAT

Location	Management Activity / Year
Federal Harbor West	Brushing rough (2005)
Glove Cove	Conservation Closure (2005)
Lawrence Factory / Rogers Is`	Conservation Closure (2005)
South Lubec / S-Turns	Conservation Closure (2005)
Federal Harbor /Denbow Neck	Conservation Closure (2005)
Morrison Cove	Brushing rough (2006)
South Lubec / S-Turn	Brushing rough (2006)
Globe Cove	Conservation Closure (2006)
Lawrence Factory / Rogers Is	Conservation Closure (2006)

Source: DMR, Lubec Annual Review 2006

Rockweed

Large-scale, commercial harvesting of rockweed in Cobscook Bay is a relatively recent economic activity. A number of local fishermen, conservation groups and coastal property owners have expressed concern over the potential impacts that rockweed harvesting may have on the marine ecology and other commercially harvested species. In 2008, the Lubec Selectmen requested a moratorium on rockweed harvesting. As a result of local concerns, the Maine Legislature enacted a law to regulate the rockweed harvest in Cobscook Bay in 2009.

Key provisions of the bill include:

- the institution of a seaweed buyer's license;
- an annual surcharge of not more than \$5 per wet ton to be paid by seaweed buyers into the existing Seaweed Management Fund;
- designation by the DMR of areas closed to rockweed harvesting;
- creation by DMR of harvest management sectors;
- the requirement that harvesters file management plans with DMR annually by March 1st;
- a limit on the annual removal of rockweed to 17% of the harvestable biomass in each sector; and
- reasonable efforts to remove and return marine organisms harvested with the rockweed alive back into Cobscook Bay as soon as practicable.

The seaweed buyer's license and surcharge apply statewide, while the bill's other provisions are limited to Cobscook Bay. The bill also requires DMR to report on "harvester compliance with regulations and the Quoddy Regional Land Trust voluntary no-harvest registry." The Legislature is anticipated to review the current legislation on rockweed harvesting based DMR's report.

MARINE WATERS

Lubec was founded on fisheries and continues as a commercial fishing community dependent on the ocean's resources. *Map 8: Marine Resources* depicts the location of Department of Marine Resources-identified shellfish beds including softshell clams and sea scallop, areas closed to shellfish harvest in 2003, marine worm habitat, access points to the water, and submerged vegetation in Lubec. These habitats and 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 the water quality necessary to support that use. Tidal water in two areas of Lubec (in the Grand Manan Channel off West Quoddy Head and in Cobscook Bay west of Young's Point) are classified as SA, the highest level of seawater quality. Recreational and commercial operations in these areas involve little risk of contamination since activities such as waste discharge and impoundment are prohibited.

The remainder of tidal waters in Lubec are classified as 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 processes.

The marine water quality surrounding Lubec is affected by land uses in the town and surrounding towns. Threats to water quality come from point sources (pollution is discharged directly from a specific site such as a municipal sewage treatment plant or an industrial outfall pipe) and non-point discharges.

According to the DEP there are seven active (7) overboard discharge (OBD) permits in Lubec. Permitted OBDs require annual inspection to ensure that secondary treatment systems are properly functioning. Nonetheless, OBDs represent a potential source of marine water contamination and are gradually being phased out. Grant programs are available through the DEP to assist with replacement of OBDs. In the past, Lubec has participated in the Small Community Grant Program that provides financial and technical assistance to replace wastewater systems for income eligible households.

In addition to the seven active overboard discharge permits, DEP has issued 9 wastewater outfall permits for industrial and municipal facilities that discharge into Lubec waters.

COASTAL LAND USE

Water dependent uses in Lubec are thriving. In recent years, Lubec has experienced rapid growth in recreational water dependent uses such as kayaking and recreational boating. Commercial fishing and other traditional water dependent uses (e.g. seafood dealers) continue to maintain a presence on the waterfront. Lubec's waterfront today includes a mix of maritime and other business. Over the next 10 years, the waterfront will likely continue to support a mix of water dependent and non-water dependent uses.

To date, Lubec has managed most maritime affairs with basic ordinances and common courtesies. Commercial fishermen continue to enjoy access to the water through a mix of public access and traditional access.

The Town of Lubec actively promotes continued access to the coast for commercial fisheries uses through a variety of mechanisms, including a General Development zone around the harbor. (See **Public Access to Marine Waters**, below). A comprehensive list of the various state, federal and local regulations governing coastal land use is included in the Lubec Maritime Plan and summarized in *Chapter D. Natural Resources*.

Harbor Management

Lubec has a Harbor Ordinance and an elected Harbor Board that manages the harbor under the supervision of the Selectmen. Mooring areas are cooperatively managed by the

Harbormaster and users. The largest mooring area in Lubec is located immediately adjacent to the Town Pier near the downtown and includes a mix of commercial and recreational vessels. There is ample room to accommodate additional boats within the mooring area; and there are no current or anticipated needs for dredging in Lubec.

Public Access to Marine Waters

Lubec retains close ties to the sea. Public access to marine waters is vital to the local economy. Public access to marine waters also plays an important role in maintaining Lubec maritime heritage and providing recreational opportunities for local residents.

The Town Pier and associated facilities is the most heavily used public access point in Lubec. The Town Pier is very heavily used by an active commercial fleet (fishing skiffs, lobster boats, druggers, tenders, and aquaculturists) and a growing number of recreational users (sightseeing/kayaking, sailing and power craft). Facilities at the pier are in relatively good shape. The town will continue to prioritize maintenance of the pier as needed and work with the State to address maintenance of the boat ramp.

Map 8: Marine Resources shows the most recent inventory of public access points to the water in Lubec. All public access points that are known (through deed research and town owned land or rights of way) are depicted by numbers on Map 8 and listed in Table G-5 below. The focus is on access for commercial use with consideration for recreational use of public access points. There is no existing inventory of visual access and the need for one is not anticipated at this time.

Table G-5 PUBLIC ACCESSES IN LUBEC

Map ID	Name	Type	Surface / Access type
1	Town Pier	Public Pier	Pier & paved ramp with docks
2	Stockford Park	Park	Walk-down to shore
3	Main Street	Public road extends to water	Paved
4	Lower Water Street	Public road extends to water	Paved/gravel road
5	Mowry Beach	Water down, trail to water	Gravel road
6	“The Gravel Pit”	Gravel road to water	Gravel road
7	The Sand Bar	Public road extends to beach	Beach
8	Lyons Road	Public road adjacent to water	Walk down
9	Straight Bay Road	Public road adjacent to water	Walk down
10	North Lubec	Path from public road	Walk down

Source: Town of Lubec

Maintaining public access to the water is of vital significance to commercial fishermen and other marine harvesters. In addition to the public access points listed above, there are a variety of other access points to maritime waters that are used by fishermen in Lubec. Described as traditional access points these include private wharves and piers as well as beaches, boat launches and paths to the shore used by shellfish harvesters. Traditional accesses are on private land and are used through a variety of informal arrangements between marine harvesters and individual property owners.

Many traditional access points provide the only means of reaching important clamming flats or harbors. Traditional accesses are considered to be “at risk” because experience elsewhere in Maine has shown that when properties change hands, these critical links to the sea are not always maintained.

The Town of Lubec supports retention of traditional access points for use by commercial marine harvesters through promotion of voluntary enrollment in the Working Waterfront Current Use Taxation program and – if necessary – voluntary acquisition of rights of way from willing sellers.

EXISTING POLICIES REGARDING MARINE RESOURCES

Town policies relative to marine resources as established by the 1992 Comprehensive Plan are summarized in the table below as are recommended implementation strategies and notes on the status of each recommendation. A complete list of the policy recommendations from the previous Comprehensive Plan is included in *Appendix A: Executive Summary of the Town of Lubec Comprehensive Plan, 1992*. A full copy of the previous plan is on file in the Town Office.

Table G-6 MARINE RESOURCES POLICIES FROM THE 1992 COMP PLAN

Policy	Notes
It is the policy of the Town of Lubec to continue to protect and enhance the quality of its marine resources.	<i>This policy continues to align with municipal goals and should be maintained.</i>
It is the policy of the Town of Lubec to continue to encourage and promote the development of water dependent uses in appropriate areas, which will contribute to the economic well-being of the town.	<i>This policy continues to align with municipal goals and should be maintained.</i>
It is the policy of the Town of Lubec to monitor actively the harvesting of shellfish within its jurisdiction.	<i>This policy continues to align with municipal goals and should be maintained.</i>
Strategy	Notes
Develop and adopt a Harbor Management Plan. This would be the first activity of the new Harbor Management Committee and would be done with the Harbor Master.	<i>This strategy was successfully implemented.</i>
Require or encourage landowners with overboard discharge permits or malfunctioning septic systems in areas identified as polluted to find and implement alternatives or improvements to these systems.	<i>This strategy has been largely implemented. The Town is continuing to address remaining issues on a case by case basis.</i>
Construct a new breakwater to protect commercial and recreational boats in and around the Town Dock.	<i>This strategy has not been implemented.</i>

Policies and implementation strategies relative to marine resources are presented on the next page. They include revisions as noted above, along with additional policies and strategies that reflect changes in conditions on the ground, local priorities and State and Federal policy since the previous Comprehensive Plan was adopted.

POLICIES AND IMPLEMENTATION

Goal: Lubec will preserve for future generations the marine resources that are vital to Town ecology, support local fisheries, and contribute significantly to the Town’s heritage and quality of life.			
Policy	Implementation Strategy	Responsibility	Timeframe
Continue to protect and enhance the quality of Lubec’s marine resources.	Work with landowners, the DEP and neighboring communities to identify and eliminate OBD and non-point source pollution.	Selectmen	On-going
	Encourage owners of marine businesses to participate in clean marina/boatyard programs.	Selectmen; Harbor Board	On-going
Encourage and promote the development of water dependent uses in appropriate areas, which will contribute to the economic well-being of the town.	Enforce shoreland zoning provisions and provide adequate training to the code enforcement officer.	CEO; Selectmen	On-going
To maintain and, where warranted, improve harbor management and facilities.	Monitor condition of the wharf and coordinate with the State to make improvements as necessary.	Harbor Board	On-going
Actively monitor the harvesting of shellfish within its jurisdiction.	Continue to support the work of the Shellfish Conservation Committee, including flat management work, and reseeding efforts.	Warden; Shellfish Committee	On-going
To protect, maintain, and where warranted, improve access to the community’s marine resources for all appropriate uses including fishing, recreation and tourism.	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 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 & unless problems arise from disrespectful use of private land; • Providing property tax incentives to property owners who grant written, revocable rights of access across their property; • Purchasing permanent easements or fee title to access points or property of critical importance to the fishery. 	Selectmen; Planning Board	Immediate (1-2 years)
	Provide information about the current use taxation programs to owners of waterfront land used to provide access to or support the conduct of commercial fisheries.	Selectmen; Assessor	On-going