City of Rockland
2002 Comprehensive Plan

Chapter 4

MARINE RESOURCES

State Goals:

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

Ensure the preservation of access to coastal waters necessary for commercial fishing and mooring, docking and related facilities. Each coastal municipality shall discourage new development that is incompatible with uses related to the marine resources industry.

Introduction

From the time of Indian encampments at Catawamteak, Lermond's Cove, Rockland Harbor has been a center of activity for the region. Its location at the entrance to Penobscot Bay is ideal for access to major commercial fishing areas, Maine coastal shipping lanes, and popular recreational boating.

Rockland's four miles of coastline extends in a general northeasterly direction from the Town of Owls Head to the Rockport Town line. A 4,346-foot granite breakwater extends south from the shore at Jameson's Point to the northern limit of the channel and protects Rockland Harbor from northeasterly storms. Rockland Breakwater Light is located at the end of the breakwater.

"Depths exceeding 50 feet at Mean Low Water are found in the entrance [of the channel], while project depths of 12 and 13 feet are found in dredged channels serving the Public Landing and the State Ferry Service, respectively. Extensive shoals and mudflats are found in the northwest and southeast portions of the harbor, with much ledge along the southern shore in the Town of Owls Head. The wide entrance and long fetch to the breakwater make the harbor less protected from northeast, east and southeast winds than would be desirable for small craft, though it continues to serve as a harbor of refuge for larger vessels. A second breakwater, proposed during the construction of the breakwater between 1881 and 1900, was never authorized by Congress."[1]

"Following the cessation of hostilities in the French and Indian War, John Lermond's built a logging camp in 1767 at the cove which still bears his name and shipped staves and lumber. Settlement gradually followed in the area between the harbor and Dodge Mountain. In 1789, lime burning began and by 1804, East Thomaston, as it was then known, was noted for the shipping of lime. Eventually, the lime industry, with its kilns, shipbuilding, and the Limerock Railroad, which connected the quarries and kilns, dominated Rockland Harbor. Of the many early wharves

[1] Rockland Comprehensive Plan, December 1983, pages 23 - 24.

and shipyards, relatively few remain, the lime industry which supported them having declined in favor of cement in the 1930's. The present site of the U.S. Coast Guard Station was constructed as Rockland's first wharf in 1846. The Knox and Lincoln Railroad, which reached Rockland in 1871, soon after constructed a branch line to a wharf at Atlantic Point to make direct connections with steamboats. Fish processing and canning began in the 1880's and have continued up to the present. FMC Marine Colloids, began in 1936 as the Algin Corporation of America, processes seaweeds from around the world and is Rockland's largest employer."[2]

"The demise of the steamboats left Tillson's Wharf available for the U. S. Coast Guard, while the Maine Central Wharf was partially dismantled and then abandoned...Removal of the lime kilns and the Limerock Railroad left other waterfront property available for new uses. The present Public Landing, which had been used as a city dump, was developed in 1935 as a Works Progress Administration project. Fisher Engineering, whose major product is snowplows, occupied space just south of the Public Landing. The FMC Marine Colloids site had also been used for lime kilns and wharves. The Maine State Ferry Service occupied the site of earlier wharves and lumberyards. The Rockland Wastewater Treatment Plant, for which a location in the South End was proposed in the 1962 Rockland Comprehensive Plan, was constructed largely on filled land in Lermond's Cove.

Residential uses were excluded from Rockland's waterfront due to the presence of the wharves, kilns, trestles, and other structures associated with the lime industry and shipping, both steam and sail, during the period of Rockland's growth as a city. The waterfront was effectively cut off from residential development, except in the northerly part of the harbor out to Jameson Point (Samoset Road) and along the southern shore in the Town of Owl's Head, beginning at Ingraham's Hill. A...condominium development...on Samoset Road...include[s] a pier as one of the amenities for...owners, along with a fine view of Rockland Harbor which is shared by the Samoset Resort Inn, located nearby, just across the Rockport town line.

Until the harbor's water quality was improved by the Wastewater Treatment Plant and the efforts of the fish processing plants to clean up their effluent, there was little to attract either the recreational boater or those who wished to enjoy a waterfront location for a home. Knight Marine Service, just north of the ferry terminal... [was] the only marina in Rockland Harbor [as of 1983]...Landfilling in the South End near Mechanic Street created a site for a public launching ramp and for the shore base of the Hurricane Island Outward Bound School. The North End Shipyard's facilities include a marine railway serving much of the Maine windjammer fleet."[3]

Today, Rockland's water traffic is concentrated in four general categories: ferries, commercial fishing, recreation, and commercial. The three ferry routes operate from the Maine State Ferry Terminal. Commercial fishing boats, including carriers, use the Fish Pier, while lobster boats are more widely distributed, with many on moorings in the Harbor. Small, trailer launched fishing boats, such as lobster and sea urchin boats, use the ramp at Snow Marine Park in the South End. Recreational interests are served by marinas, the launching ramp, the Public

[2]Ibid., page 23, (FMC is no longer Rockland's largest employer).
[3]Ibid., page 23.

Landing, and the various piers and shipyards where the schooners and tour boats are based. Rockland is the homeport for more schooners than anywhere else on the coast of Maine. Commercial traffic includes the activities of Prock Marine, a marine construction firm; the vessels arriving and leaving from the Rockland Marine Corporation's South End Shipyard; the oil tankers serving Maine's coastal islands, which are based at the Fish Pier; and the cement barges operated from the loading pier on Atlantic Point. The U. S. Coast Guard base also generates considerable activity, with search and rescue, maintenance of navigational aids, and icebreaking among its duties.

The intensive development of the shoreline throughout most of Rockland's history has resulted in narrow roadways in the waterfront areas that are poorly adapted to modern semi-trailers. The sometimes incompatible intermixing of land uses contributes to conflicts between vehicular and pedestrian traffic as well as commercial/industrial operations with residential land use. "Long-term planning of the waterfront requires that adequate attention be focused on improvements to the movement of on-shore traffic."[4] Other harbor issues include the need for dredging, zoning for appropriate land use, rehabilitation of some unsightly areas, public access, and erosion control.

ROCKLAND HARBOR
PHYSICAL DESCRIPTION

Rockland Harbor lies just north of the entrance to West Penobscot Bay and is a roughly oval shaped embayment on the west shore of the bay. It lies between the Owls Head peninsula on the south and the peninsula, mostly in the Town of Rockport, separating the harbor from Clam Cove to the north. Water depths exceed 50 feet at Mean Low Water (MLW) near the entrance and gradually shoal to mudflats, uncovered at low tide, in the northwest and southwest limits of the harbor. See Map 4-4: Harbor Depths. The tidal range is from 9.7 feet above MLW to 3.5 feet below MLW, for a total rise and fall of 13.2 feet. Navigation improvements, in addition to the breakwater, which forms the northeastern limit of the harbor, include dredged channels of 12 to 18 foot depth to permit vessels to reach various wharves, piers, marine railways, and other waterfront facilities. Rockland Breakwater Light, established in 1902, marks the harbor entrance and buoys mark the major shipping channels.[5]

The shore of the harbor, while much altered over the years by man-made changes, is the eastern part of a basin rising gently to the west. Two streams enter the northwestern part of the harbor, Lindsey Brook drains much of the central part of the basin, and streams enter the harbor from Owls Head near Ingrahams Hill and "Head of the Harbor." The most urbanized part of the shore is divided by three peninsulas. The most northerly lies in the North End and separates the northwestern part of the harbor from Lermond's Cove. Crocketts Point forms the eastern side of Lermond's Cove and separates it from the area in front of Buoy Park and the Public Landing.

[4] City of Rockland Harbor Improvement Program, E. C. Jordan, Co., Inc., October 1979, page 7.
[5] NOAA Chart 13307, Camden, Rockport and Rockland Harbors, 6th Ed. Sep 3/77.

Atlantic Point, the easternmost part of the South End, separates the Public Landing area from the cove extending to the "Head of the Harbor."

The land along the north shore is fairly low, rising to about 40 feet above Mean Sea Level (MSL). The western shore within Rockland is mostly low, filled land, with higher ground around the major roads. The land within Owls Head is generally higher. Ingraham's Hill, on the western shore in Owls Head, rises to about 100 feet above MSL, while the southern shore rises to about 200 feet above MSL at Post Hill. The view from the harbor, or from the breakwater, includes these elevations and the ridge west of the urbanized area of the City formed by Benner Hill and Dodge Mountain, with elevations over 600 feet above MSL.

NATURAL RESOURCES AND SHORESIDE DEVELOPMENT

The City's shoreline can be divided into five general regions:

The Breakwater and Jameson Point to the North End

Much of this part of the harbor includes shallow water depth, unconsolidated mud and clam flats which dry out at low tide and some areas of rocky shore and seaweed beds. Some of the lower elevations of the shore lie within a velocity (subject to wave damage) and flood hazard area.

The land uses in this area reflect the limitations of the natural environment. There is a bluff ten to thirty feet high from Jameson Point to just north of Ocean Pursuits Marine Services (the former State of Maine Cheese Company) on Front Street adjacent to Maverick Street. Consequently this area of the waterfront, which is poorly suited for most marine-oriented uses, has been developed largely for residential uses. The Jameson Point Condominiums are located on the south side of Samoset Road adjacent to the Marie H. Reed Park. Most of the harbor frontage along Samoset Road is occupied by modern single-family dwellings on large lots. However, part of the bluff on the south side of the road slid into the harbor, taking with it two homes. This landslide has since been stabilized and was purchased by the City in September and October 1996. The combined area of the two lots is just less than two acres. The shore side of Waldo Avenue, from its intersection with Samoset Road to Camden Street, is also mostly residential, with the Littlefield Memorial Baptist Church being located near the intersection of Waldo Avenue and Camden Street (U. S. Route One). Along Camden Street, two general commercial uses, Rockland Car Wash and VIP Auto Parts, are located between the highway and the shore, as are the Van Baalen Pacific Corporation warehouse/factory outlet and various residential properties. Other commercial uses along the waterside of Camden Street have no connection to, or visibility from, the harbor. In early 2000, the Samoset Resort announced plans to construct a motel on the water side of Camden Street south of the car wash.

Public waterfront access and public ownership are limited in this area. One notable exception is the Rockland lighthouse and breakwater with access via a footpath where the Marie H. Reed Park is located. The breakwater and lighthouse have come to symbolize Rockland and have been featured on city websites and in various publications. This is among the most popular waterfront

areas for residents and visitors alike. The Samoset owns the footpath that leads to the breakwater but has left it open for public access. Limited public parking is located at the easterly end of Samoset Road opposite the condominiums. The Samoset Resort places a float and gangway on the westerly (harbor) side of the breakwater, a short distance out from shore, which is used by the public. A pier, gangway and float extend southwesterly into the harbor from the shore of the Jameson Point Condominiums, but these are not for public use.

The North End

This area of Rockland Harbor extends southerly from Ocean Pursuits Marine Services to the northern portions of Lermond's Cove. Most of the shore is lined with bulkheads of various constructions, including dry-laid stonework, sheet metal piling and wood cribbing, while riprap protects other stretches. Remnants of long-gone stone-filled piers extend into the harbor from the Apprenticeshop and Everett L. Spear, Inc. properties. Most of the shore side land has been filled in the past, creating a low, level area reached by steep driveways from Front and Main Streets. Except in dredged channels, the water is shoal near shore. Most of this low, level land lies in a flood hazard area. However, there are no residences in the areas subject to tidal flooding.

Within this sizable area of waterfront, almost all the uses are marine dependent or marine related. Residential uses are found mostly along the shoreward side of Front Street, separated from the marine-oriented activities by the old Limerock Railroad grade and trestle remnants and by a steep bank containing the remains of old lime kilns. Except for a few apartments in the Spear building, only one residence is located on the water side of Main Street. Various non-marine activities are scattered along the waterside of Main Street, including automotive and cellular telephone businesses and a barbeque sandwich shop.

Land uses include one marine construction firm, Prock Marine Company; two full-service boatyards, Ocean Pursuits Marine Services and Rockland Harbor Boatyard, Inc.; a shipyard featuring a marine railway with 160 ton capacity, capable of hauling most of the schooners of Maine's windjammer fleet, North End Shipyard, Inc.; and the Atlantic Challenge Foundation Apprenticeshop, a marine-oriented educational institution. Four schooners are based at the North End Shipyard in 2000: ISAAC H. EVANS, HERITAGE, AMERICAN EAGLE, and WENDAMEEN. During the winter of 1999-2000, the Camden-based schooner, MARY DAY, was extensively rebuilt at the shipyard. Schooner Wharf Associates occupy a pier adjacent to the North End Shipyard. Their property is used for a variety of marine-related activities, including a seasonal restaurant, boat storage, a landing area for fishing boats and, in the recent past, for landing logs cut on islands off the Maine coast. Steel- Pro, Incorporated, a metal fabricating firm, is located immediately shoreward of the North End Shipyard. Everett L. Spear, Inc., a hardware store that once received much lumber by sea, opened a new store on U. S. Route One near the western side of Rockland in April 2000.

At present, public waterfront access is nearly absent from this area. However, both drivers and pedestrians have views of the harbor from Main and Front Streets. Some public access is now available with the completion of a pier built by the Atlantic Challenge Foundation. The pier incorporates livery boats available for public use and limited public launching facilities for light,

hand-carried boats and floats for landing dinghies. The Apprenticeshop intends to place some moorings in the future.

Crocketts Point and Lermond's Cove

Crocketts Point, which forms the east side of Lermond's Cove, experiences some flooding on its west side. Flood hazard is evident in the vicinity of the Maine State Ferry Terminal and Knight Marine. Lindsey Brook, an urban storm drain system, discharges at Lermond's Cove's west shore. Virtually the entire shoreline has been protected by bulk heading and riprap. Dredging has created channels and berthing spaces close to most of these shores.

Land uses have undergone tremendous changes since the decline in the offshore fishing industry. Many facilities once devoted to fish processing, ice making and other activities in support of commercial fishing have been converted to other uses. While some areas are devoted to uses that are not dependent or related to marine uses, a number of marine uses, such as seaweed processing, transportation, and recreational boating occupy most of the waterfront. Other than apartments in the upper floors of Main Street buildings, this area contains very few residences.

Marine-oriented commercial operations include: Bay Island Yacht Charter Co., FMC BioPolymer (formerly Marine Colloids), Gemini Marine Canvas, Journey's End Marina, Knight Marine Service, Leisure Time Ice/F.J. O'Hara Corporation, Lew Grant Marine Electronics, Prock Marine Co. (offices), Rockland Boat Inc., Rockland Harbor Marine, Rockland Landings Marina, Scandia Seafood Co., and Teak Decking Systems. Vessels berthed at the F. J. O'Hara Wharf during 1999 included: schooners VICTORY CHIMES, J. & E. RIGGIN, and NATHANIEL BOWDITCH. Two nearby marine-oriented uses, a marine railway and a former boat-building shed (recently used for residential purposes) were under the same ownership as the Landings Marina.

Many non marine-oriented businesses located on Crocketts Point occupy office space formerly associated with the commercial fishing industry. These include: Bay Counseling Associates, Career Center – The Maine Employment Resource, Carroll's Appliance and Service, Conservation Law Foundation, Knox County Child Development Services, Redlon & Johnson (wholesale plumbing, heating and well supplies) and WBach (classical music radio). One non-marine industrial use, Bicknell Manufacturing, has closed and the buildings were for sale. Two marinas include restaurants among their services: the seasonal Captain Hornblowers at Knight Marine Service and a year-round restaurant and lounge at The Landings Marina. Carroll's Appliance & Service has relocated their retail outlet to Route One in Thomaston; their former store remains in use as an apartment and workshop. Plans have been approved by the Planning Commission for redevelopment of the former Port Clyde Packing Company facilities into other office and commercial uses. The former packing plant had been demolished and reconstruction was underway in late 1999.

Government uses at the local, State, and Federal levels are located on this part of Rockland's waterfront. These include the U. S. Coast Guard base on Tillson's Wharf, the eastern most projection of Crocketts Point, with barracks and administrative offices in the Bird Block, on the

south shore of Lermond's Cove. The Maine State Ferry Terminal, with a handsome office/waiting room and expanded parking facilities constructed in 1996, is on the west shore of Lermond's Cove. Parking is available for 200 vehicles. It serves ferry routes to Vinalhaven, North Haven, and Matinicus. Municipal uses include the Fish Pier and the Wastewater Treatment Plant. The Treatment Plant, located mostly on filled land in Lermond's Cove, was extensively modernized during 1999 and early 2000. The Fish Pier is the center of Rockland's commercial fishing related activity and is managed by a private operator. Activities include berthing for fishing boats and oil tankers that serve the islands, landing of fish, and repair of nets, icing of fishing vessels, etc. Some public parking is provided near the shore end of the Fish Pier and the public uses the pier for recreational fishing.

The nearby Downtown commercial area on Main Street (with waterfront at the rear) serves the landside public. It includes apartments on its upper floors.

South Central Area

The South Central Area extends from Crocketts Point to the South End. Offshore there are areas of seaweed beds. The Harbor bottom is silting-in in some areas and requires dredging to maintain future access at all tides. The low land in the vicinity of MBNA and the City-owned land adjacent to the Public Landing and Buoy Park are subject to tidal flooding in storms.

Land use in this area is diverse. The northernmost portion is a tight urban area, which is easily accessed from land, sea, and the Downtown. Generally this area offers many views of the Harbor. There is a high concentration of publicly owned waterfront land. A number of festivals use these sites each year, including the Lobster Festival, North Atlantic Blues Festival, and Friendship Sloop Days. Several vessels available for day trips and charters, both power and sail, are based at the Middle Pier floats. A former launching ramp between Middle Pier and the former Dry Dock Restaurant is now limited to carry in boats such as kayaks and light rowing boats. It is also used for moorings to be placed in the harbor. It can no longer accommodate trailer-launched boats. Limited parking is located at Buoy Park, with some on-street parking near the park. More extensive public parking is available at the Public Landing, where many eat lunch, either in their vehicles or on the benches along the seawall, while enjoying a "front row" seat overlooking the Harbor.

Facilities at the Public Landing include the office of the Rockland-Thomaston Area Chamber of Commerce, the Harbor Master's office, rest rooms, and showers, the latter for visiting yachtsmen and yachtswomen. A pier extends from the seawall to deeper water where a number of floats accommodate visiting vessels. One large float is used for dinghy landing and storage. Water and electric power are available at the floats. The Harbor Master's boat and a Police boat are usually based at these floats, which are also used for some charter/excursion vessels. A water taxi service began in 1999 and has been operating since 2000.

Uses include municipal facilities (Middle Pier/Buoy Park and Public Landing), one non-marine institution (Rockland-Thomaston Area Chamber of Commerce), and MBNA. The MBNA shore frontage extends southerly from the Public Landing to the northern boundary of Sandy Beach, including the site of the former Holmes Packing Company. Near the Public Landing

there is property recently vacated by a local newspaper plant. MBNA has purchased the property but its future use has not been disclosed. Two restaurants, the Black Pearl and Conte's, occupy the seaward and shore ends of a pier, which has been extensively restored.

The South End

South of Sandy Beach on Atlantic Point, the offshore area is made up of unconsolidated mud and seaweed beds. Ledge and rock outcroppings extend east from the south limit of Sandy Beach and are also found near the border with Owl's Head. The east facing shores in this area are designated as a velocity zone, which means that they are subject to damage from wave action during storms. The adjoining Snow Marine Park, with its low open playing fields and gently sloping topography, is susceptible to flooding. Small seaweed beds are found in the protected areas between wharves and promontories, north of Atlantic Point.

Land use in this area is diverse. A large residential neighborhood of over 200 homes extends to the inland side of most of the streets paralleling the waterfront. Shoreline uses include one marine commercial use (Rockland Marine Corporation, shipyard); a loading pier for Dragon Cement, where railroad cars of bulk cement are transferred to a covered barge; two educational institutions (Midcoast School of Technology, which leases space to the State Department of Marine Resources for boat repairs, and Hurricane Island-Outward Bound). Rockland Marine Corporation facilities include two marine railways capable of hauling vessels of up to 1300 and 750 tons displacement, respectively. In early 2000, a third marine railway, with a rated capacity of 500-600 tons, was under construction. While much of their work consists of repairs to steel vessels, they have built two barges since 1990 and a ferry/landing craft was launched there on March 20, 2000. A third barge was then under construction.

Two public parks, Snow Marine Park and Sandy Beach, provide public waterfront access. Snow Marine Park has a double boat launching ramp usable at all tides for small boats. There is parking for boat trailers and their tow vehicles. A string of floats extends into the harbor between the two ramps. Most of the park area west of the parking and driveways is devoted to open athletic fields. Sandy Beach, Berliawsky Park, has limited parking and no changing or bathroom facilities. Swimming is not encouraged by the City due to water quality concerns. There is a shelter for picnics and the site offers splendid views of the harbor.

A long-unused concrete grain silo, now owned by the Passamaquoddy Tribe, occupies what was once the site of the Maine Central Railroad pier. The Dog Island Lobster Co., a former marine commercial operation between the grain silo and the shipyard, in combination with the tribal property, has been suggested as suitable for a terminal for proposed high-speed ferries, as a transfer facility for rail freight, or other deep-water activities such as serving cruise ships.

Redevelopment of marine commerce and industry in the area seems logical. Historically this part of Rockland Harbor has supported deep water berthing along piers. The Maine Department of Transportation controls the state-owned former Maine Central Railroad right-of-way that serves the waterfront area. This rail line, following installation of improved grade crossing protection and improvement of the track, is now operated by the Safe Handling Inc., primarily to transport cement from Dragon Cement in Thomaston to a barge loading facility on the

waterfront. The combination of both deep water and rail access offers a unique asset in Rockland Harbor for a rail/water connection.

Extensive improvements are planned for the Rockland Branch, from Brunswick to Rockland, to upgrade it for passenger service. Some work was done in 1999 and more is planned for 2000 through 2004. If passenger rail service is restored to this line, to connect with proposed ferries at Rockland Harbor, the effects on the adjoining residential neighborhood of increased railroad operations raise some concerns. The Harbor Walk crosses the rail line near Rockland Marine.

HARVESTABLE RESOURCES

Commercial fishing has long been an important industry in Maine. In the years from 1980–1998, Maine's total fish and shellfish landings, all species combined, ranged from a low of 157,282,000 pounds in 1988 to a high of 246,395,600 pounds in 1981. Landings remained above the 200 million pound level from 1980-1983, remained below that level through 1991, and exceeded 200 million pounds since 1992, with the exception of 1998, which fell to 184 million pounds.

Values of the statewide fisheries from 1980 - 1998 ranged from $92,702,864 in 1980 to a high of $225,305,578 in 1997. Values exceeded $100 million in 1981 and first surpassed $200 million in 1994.

The price per pound varies widely. Among finfish, the highest 1998 price was $66.0 for American eel. The Albacore tuna came in at $5.1 per pound. Among shellfish, the price leader in 1998 was the sea scallop at $7.3 per pound; with bloodworms (used for fishing) at $5.4 per pound; soft-shell clams at $4.2 per pound; eastern and European oysters at $3.7 and $3.8 per pound, respectively; various hard-shell clams at $3.0 per pound and lobster at $2.9 per pound.

Rockland remains the single most important fishing port in Knox County in terms of landed weight. From 1990 – 1998, Rockland landed close to one fifth of Maine's entire catch, ranging from a low of 13.4% in 1993 to a high of 27.7 % in 1997. These data are shown below in Table 4-1.

Individual species and values of fish landed at Rockland are not available due to disclosure limits related to the small number of dealers. However, the Fish Pier is used for unloading a considerable volume of herring, much of which is now used as lobster bait, following the demise of herring processing in the City. The pier also receives, by truck, herring landed at other ports. In 1999, 51,429,406 pounds of herring constituted 66.6% of the weight landed in Knox County, but only 4.7% of the total value. In contrast, the 1999 Knox County lobster catch was 19,132,420 pounds, 24.9% of the weight landed, but at $64,583,196, 83.9% of the total value of $76,985,295. In 1999, four species accounted for 95.8% of the value of Knox County's fisheries; lobster, sea urchins, herring and soft-shell clams.

Table 4-1
Landed Weight (Pounds), Fish and Shellfish

Year	Rockland	Rockland as % of Knox County	Knox County	Rockland as % of State	Maine
1990	36,055,229	65.5	55,069,917	20.6	174,978,341
1991	31,570,136	59.2	53,302,332	16.1	195,963,825
1992	39,611,831	63.3	62,579,982	19.6	201,880,091
1993	31,739,995	52.0	61,081,326	13.4	236,770,502
1994	33,591,728	52.2	64,362,932	15.1	222,245,571
1995	44,408,339	53.8	82,508,672	19.2	231,563,752
1996	52,584,857	63.8	82,478,884	22.1	237,741,491
1997	68,174,238	71.3	95,669,110	27.7	246,344,479
1998	38,908,797	58.7	60,576,739	21.1	184,103,215
1999	35,612,787	46.4	76,781,417	N. A.	N. A.

Source: National Marine Fisheries Service, May 9, 2000.

The concentration on few species makes Knox County's, and Rockland's, fisheries vulnerable to shifts in the availability and abundance of those species. Sea urchins, which peaked at 8,792,655 pounds, (16.5% of Knox County's value in 1995) have since fallen to 2,746,279 pounds (4.9% of value) in 1999. Knox County's catch of menhaden, an oily fish used mostly for industrial purposes and bait, varied between 639,665 pounds in 1990 and 7,926,206 pounds in 1992. It has not been landed in commercial quantities in either Knox County or the State since 1993, when the Knox County catch fell to 2,294,500 pounds.

The relatively rapid shifts in species availability and processing technologies make it less likely that private industry will invest in the facilities necessary to land and process fish in Rockland. Processors able to process many different species, perhaps including non-fish/shellfish foods, seem more likely to locate in larger centers such as Portland. However, for this reason, it is even more important that Rockland retain its Municipal Fish Pier as a public landing and servicing location for the vessels fishing in the Gulf of Maine and Penobscot Bay. Rockland, in early 2000, serves more as a transfer point between sea and shore, from which most of the catch is transported to other locations for processing or, in the case of baitfish, for distribution to many of the State's lobster fishermen.

The 1980 Census indicated that 90 people, 16 years or over, were employed in agricultural, farming, and fishing occupations. While the jobs generated may not be large in number, many businesses are related to fishing resources, including boat building, sales, and repair, fresh and

frozen preparation of fish, wholesale and retail sale of fresh fish, and restaurants specializing in fresh seafood.

Although Rockland's fishing industry saw significant changes in the 1980's (including the closure of several processing plants and the fish rendering facility, as well as the construction of the Municipal Fish Pier), employment remained remarkably constant. The 1990 Census indicated that 91 people, 16 years or over, were employed in agricultural, farming, and fishing occupations. However, these figures probably do not include those in part-time, seasonal employment, which made up most of the labor force in the fish processing industry. With the near cessation of fish processing and the reduction in the number of vessels off-loading their catches at Rockland, it is surprising that the number of people employed in agriculture, farming and fishing increased to 104 in the 2000 Census.

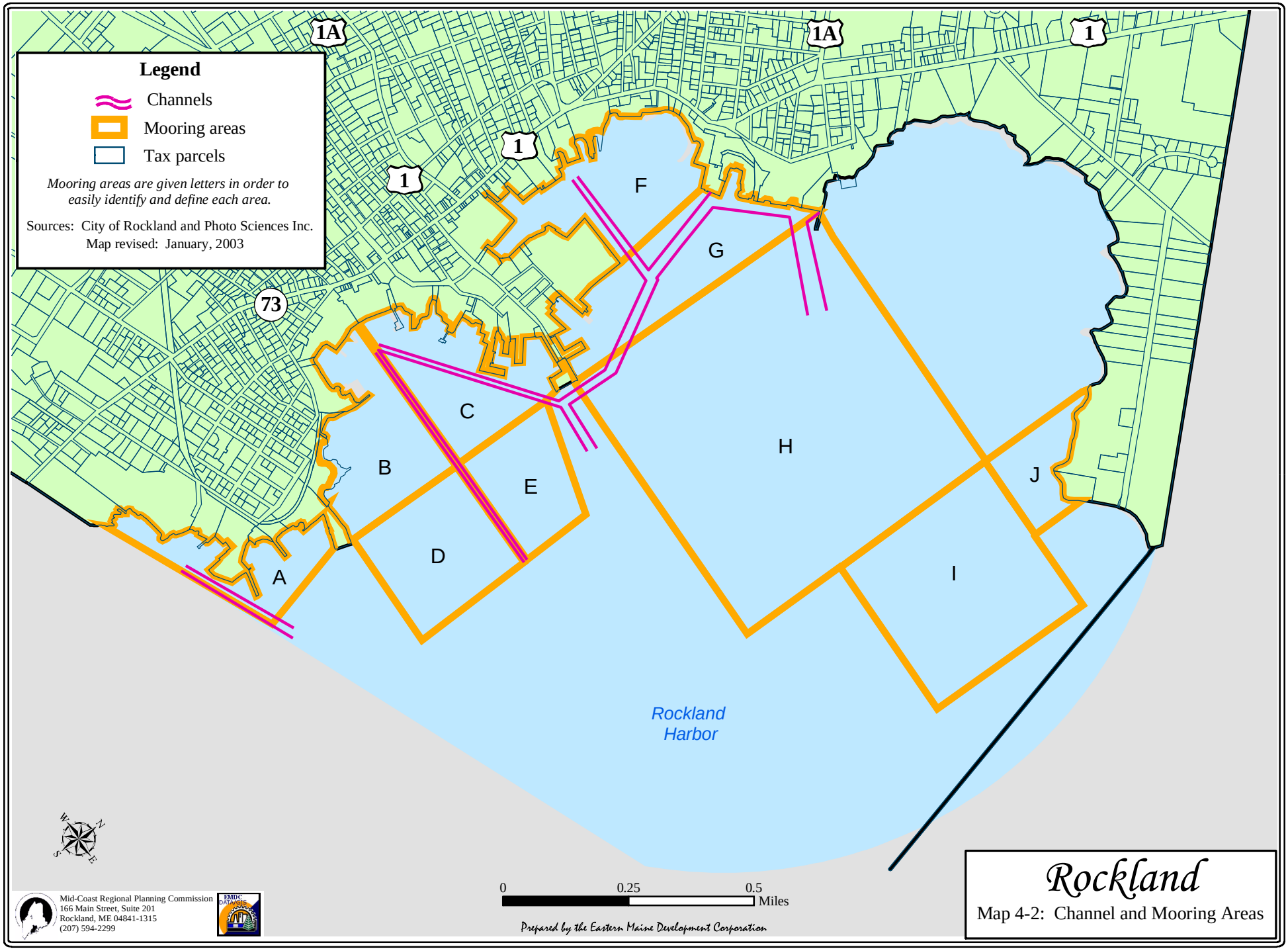
WATER RECREATION AND PUBLIC ACCESS

Recreational Boating

The recreational use of Rockland's Harbor has increased very rapidly. While moorings are also used by some of the local commercial fishing boats, use by the commercial sector has been essentially stable, with the growth occurring in pleasure boats. Between 1985 and 1987, mooring permits increased 85%. By 1991, they had increased by 141% from their 1987-1990 level. By 1995, the number of moorings reached 305, an additional 40% increase. Between 1995 and 1999, a further 24% increase brought the total to 402 moorings. As of mid-May 2000, the Harbormaster projected a total of about 450 moorings for the 2000 season. Table 4-2 shows the numbers of moorings.

Although some of the growth in recreational boating has been accommodated at expanded or newly created marinas, the numbers of moorings indicate that many boats are kept on moorings. This has led to a need for more shore access. The best access to moorings is provided at the Public Landing, where dinghy floats and a launch service enable those with boats on moorings to reach them without an overly-long trip. In contrast, the waters adjacent to the launching ramp at Snow Marine Park contain relatively few moorings, in part due to shallower depths of water. However, there are no dinghy storage areas there so users of those moorings are faced with bringing their dinghies to the launching ramp, as there is also no launch service. Use of moorings in the northern part of the harbor is even more limited as there is no public water access and the mooring areas are too far from the Public Landing.

Although the Public Landing provides the best access for users of boats on moorings, the use by this site by non-marine activities has created increasing conflicts with those who have already paid the City for the use of moorings and/or dinghy storage. These conflicts are most acute when public access is limited by the use of the Public Landing for festivals, most of which occur on summer weekends, the peak-use days for recreational boating.


Legend
Channels
Mooring areas
Tax parcels
Mooring areas are given letters in order to easily identify and define each area.
Sources: City of Rockland and Photo Sciences Inc.
Map revised: January, 2003
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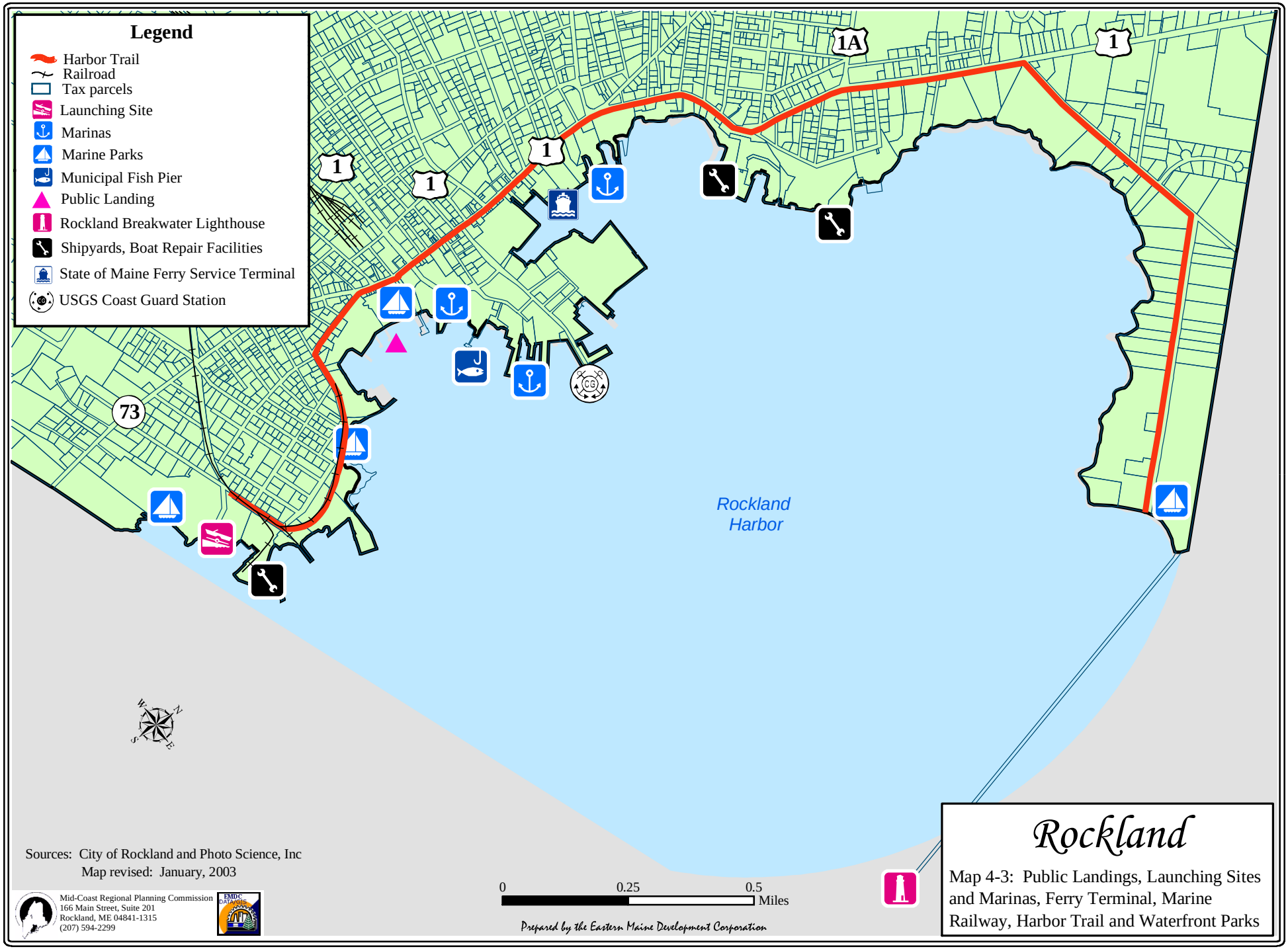
Prepared by the Eastern Maine Development Corporation
Mid-Coast Regional Planning Commission
166 Main Street, Suite 201
Rockland, ME 04841-1315
(207) 594-2299
Rockland
Map 4-2: Channel and Mooring Areas


Legend
Harbor Trail
Railroad
Tax parcels
Launching Site
Marinas
Marine Parks
Municipal Fish Pier
Public Landing
Rockland Breakwater Lighthouse
Shipyards, Boat Repair Facilities
State of Maine Ferry Service Terminal
USGS Coast Guard Station
1A
1
1
1
1
73
Rockland
Harbor
Sources: City of Rockland and Photo Science, Inc
Map revised: January, 2003
Mid-Coast Regional Planning Commission
166 Main Street, Suite 201
Rockland, ME 04841-1315
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0
0.25
0.5
Miles
Prepared by the Eastern Maine Development Corporation
Rockland
Map 4-3: Public Landings, Launching Sites and Marinas, Ferry Terminal, Marine Railway, Harbor Trail and Waterfront Parks

Table 4-2
Mooring Permits
1985 - 1999

Year	Number of Permits
1985	47
1986	54
1987	87
1988	87
1989	87
1990	87
1991	210
1992	230
1993	238
1994	277
1995	305
1996	330
1997	345
1998	386
1999	402

Source: City of Rockland Harbormaster

The City Council voted in 1994 to create a subcommittee of the Harbor Committee to prepare a Harbor Use Plan. This was completed in the summer of 1995, and provides the basis for some of this current Comprehensive Plan. The Harbor Use Plan was adopted by the City Council on March 10, 1999 as part of Chapter 9, Rockland City Ordinances, entitled, "Harbor and Waterfront Management Ordinance."

Issues and implications

Land Use:

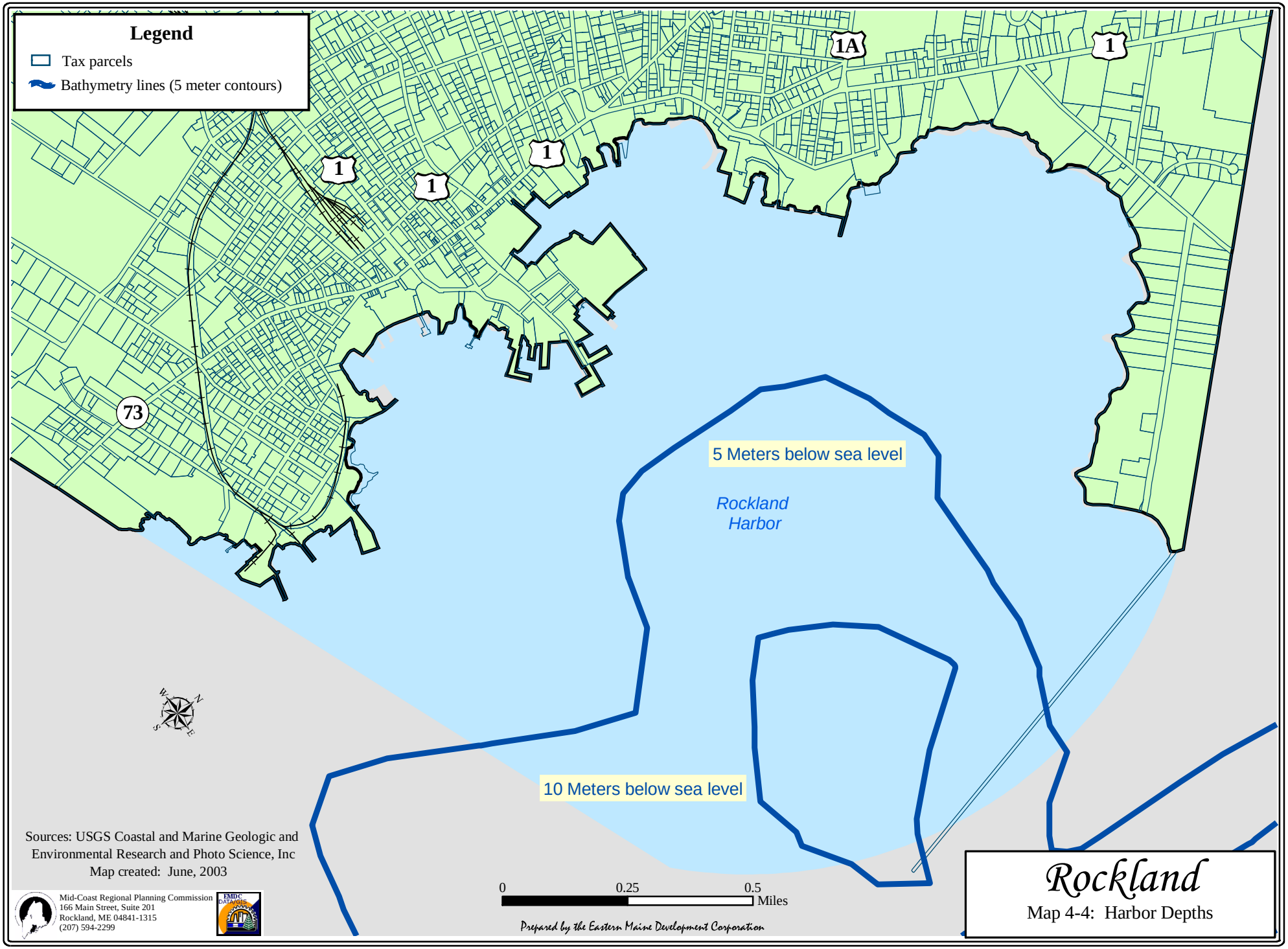
1. Land uses along Rockland's harbor have undergone tremendous changes in the years since the last Comprehensive Plan was adopted by the City Council. The preceding description of land uses was given to let the reader know what activities were occupying shore and near-shore lands since the year 2000. There is little doubt that change will continue to occur, perhaps requiring further changes to both municipal and private efforts to make the best possible uses of Rockland's harbor.
2. While commercial fishing and its ancillary activities have declined in importance over recent years, the harbor remains an important fishing port and continues to offer landing places for

those species still being caught in commercial quantities. Businesses providing fuel, ice, gear and other supplies to commercial fishermen are still found in Rockland, many on shorefront locations.

3. The departure of many fish processing plants and the improved water quality in the harbor has increased the pressure to convert land to non-marine commercial uses or to residential uses. A waterfront once dominated by commercial activities now sees greater emphasis on recreational boating and yachting, and moorings for yachts vastly outnumber those used by commercial interests. The large size of Rockland Harbor permits many otherwise conflicting land and water uses to share the scarce resources of shoreland and sheltered water of adequate depths.
4. Rockland's zoning has served well to allow a variety of land uses in the immediate shorefront areas. However, the usefulness for marine-oriented activities varies from section to section of the harbor. Does the City wish to more closely tailor the ordinance to reflect these differences? Should further residential development on the immediate shore be restricted to areas lacking water depth for marine activities? Can the waterfront zones be adapted with contract zoning to meet specific needs of waterfront activities without unduly restricting the views and access of the general public? Can or should the City acquire more land to accommodate the future needs of commercial fishing and/or aquaculture?
5. Public access to the water is limited in Rockland. Among the most popular waterfront space in Rockland is the Marie-Reed Park / Rockland Breakwater. How should the City try to preserve these public spaces? Should the City try to acquire the land containing the footpath and beach area near the breakwater currently owned by the Samoset? What opportunities does the City have to increase public access to the waterfront? (For more information see Chapter 9)

Harbor Improvements

1. Most of Rockland's harbor improvements were designed and constructed to serve the limerock industry, shipbuilding, and transportation activities of the 19th and early 20th centuries. Although these improvements are still used by today's ferries, commercial activities and pleasure boats, the significantly reduced size of most vessels using Rockland Harbor makes some modifications desirable. Thus, while channel depths and widths are more than adequate for most recreational and fishing vessels, mooring areas and shore facilities adapted to small boats would benefit from greater protection from wave action. Lermond's Cove, the most sheltered location in Rockland Harbor, is limited in its use by the shallow water except in the immediate vicinity of the State Ferry Terminal. Could a privately funded dredging operation to create a more useful mooring basin be combined with maintenance dredging of the channel to the ferry terminal?
2. Although one or more breakwaters closer to shore would be beneficial, no funding source for such construction is currently available. However, construction of additional piers,



Sources: USGS Coastal and Marine Geologic and Environmental Research and Photo Science, Inc
Map created: June, 2003

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Rockland

Map 4-4: Harbor Depths

particularly those having some bulkheading or solid fill, can provide significantly improved protection of nearby water and shore areas. Could the remains of solid cribwork piers extending from the shore behind the Apprenticeshop and nearby properties be removed and combined into one long pier, perhaps "T" or "L" shaped, to provide for greater protected water area with adequate depths for small craft?

3. Minor dredging and filling behind solid bulkheads can create additional waterfront land for both public and private access to water. The Department of Environmental Protection's (DEP) policy against the filling of land below the low tide line, while logical and desirable in undeveloped areas, ignores the fact that considerable public and private funds have already been spent to make Rockland Harbor a developed waterfront. Would the City be willing to work with the DEP, the Legislature, and other waterfront municipalities to allow some use of solid fill for piers and wharves in previously developed, sheltered water areas? Why can't Rockland be permitted minor filling when Bath Iron Works was permitted to fill many acres of formerly navigable water in the Kennebec River to expand and modernize its shipyard?
4. The decrease in commercial traffic makes Rockland less likely to obtain federal funding for channel dredging (or breakwater construction). Can the City work with private operators to provide additional protection for boats and shore facilities?
5. As intensity of activities increases, waterfront land becomes more valuable. Would the City be willing to use vacant land away from the waterfront or work with School Administrative District 5 to use school parking lots (as is done for the Lobster Festival) for peak-season parking for vehicles that cannot be accommodated at the waterfront? Would local taxi operators or others be willing to provide van or bus services between "inland" parking lots and waterfront attractions?

Transportation

The planned improvements to the Rockland Branch, the rail line between Rockland and Brunswick, are intended to allow passenger service to serve the proposed ferry terminal on Rockland Harbor. The addition of longer distance ferry services, perhaps between Rockland and Portland, Bar Harbor, or other Penobscot Bay ports not served by the Maine State Ferry Service, could again make this City a major port. Depending on schedules, those making connections between boat and rail could enjoy the stores, restaurants, and lodging facilities of Rockland. Use of the train will make it possible for many more passengers to use the ferries without having to park their vehicles in the City. The presence of the rail line in the South End and the potential availability of waterfront land make use of a site on the South End waterfront the most likely location for such a rail/water terminal. Depending on design, amount of depth required, dredging needed, etc., facilities could also be constructed to accommodate freight traffic. If sufficient water depth is available alongside the pier, even cruise ships could use such a facility. Rockland has already formed a committee to work with the Maine DOT on planning for the ferry services. If the pier is long enough, could recreational or commercial boat slips or floats be installed along

its length in water too shallow for the larger vessels? Can most parking be located off-site connected by shuttle services? With cooperation and creativity, such a facility can be constructed and operated with minimal disruption to the adjoining South End neighborhood. The current operation of the tug and barge serving Dragon Cement has caused heavy damage to fixed fishing gear, primarily lobster traps, due to the failure to retrieve the towing hawser when towing alongside near the cement loading pier. Can the City, in cooperation with Dragon Cement, adopt rules regarding towing to be enforced by the Harbor Master?

Tourism

Rockland's Main Street has become a major tourist destination. However, outside of the festivals, the harborfront has failed to realize its potential to become a tourist destination in its own right. The mix of commercial and recreational activities on and near the harbor is found in fewer and fewer coastal communities, as recreational interests tend to displace commercial activities. More views of the water, access to the water, a permanent and improved Harbor Trail, and improved facilities for small boats would draw additional visitors to the City. Improvement of the Breakwater Light, with eventual displays in the structure, will attract even more visitors. Can a private operator provide launch service between Middle Pier and the Breakwater? Can these visitors' vehicles be parked away from the waterfront and served by a shuttle? Would development of the landslide area into a small park, incorporating an interpretive display (as is done on Mt. Battie) showing the sights visible from that location, and perhaps some benches and a picnic shelter, take pressure off Marie Reed Park? It could become a nice resting point for those using the Harbor Trail. Can more dinghies be accommodated at the Public Landing and Snow Marine Park? With cooperation from adjacent landowners and proper design, a park along the water side of Front Street in the North End could become a neighborhood amenity. It would provide a site from which tourists could view harbor activities while staying well away from the nearby marine and industrial activities along the waterfront. As water quality improves in the harbor, in part due to extension of sanitary sewers to the Ingrahams Hill section of Owls Head, the City could work with the Town in the event they wish to develop public facilities along the southern shore of Rockland Harbor. Construction on the sewer line began in May 2000.

Recreational Boating

1. Much of the previous discussion on tourism also applies to recreational boating. However, additional moorings and services to moored yachts would primarily benefit users of recreational boats. During major waterfront public events, to which admission is charged, those who have paid for the use of floats and other facilities at the Public Landing are unable to use them due to lack of access. Can the City work with adjacent landowners to create a right of way from Main Street to the pier at the Public Landing and create some permanently available parking/unloading areas for those using those facilities?
2. Additional waterfront access in the North End, with suitable ramp and floats, would make mooring areas adjacent to the north shore of the harbor more accessible. Without additional

shore access, either public or private, the potential of this area of the harbor is unlikely to be realized. Can the City purchase land for access in the North End? Can the City work with private operators to provide more dinghy storage and/or launch services?

3. Enforcement of pump out rules, while potentially annoying to some, protects water quality for all. Rockland did not become a destination for yachts until its water quality improved. With better water quality, can Sandy Beach relieve the pressure on Chickawaukie Beach for swimming?

Commercial Fishing

The City's commitment to commercial fishing is defined by the Fish Pier, City-owned but managed under contract by a private operator. The City should continue to own this facility. Periodic review of its operation should ensure that the pier continues to meet the needs of fishing boats which, with the demise of harborside processing plants, would no longer have any developed locations to land their catches. Can it be adapted to changing needs of various fisheries? Are additional facilities needed at other locations? Would a commercial boat-launching ramp in the North End serve the small boat fishermen well?

Marine Support Facilities

Much land on and near the waterfront is used by industries and services supporting both commercial and recreational boating interests. These are vital to the continuation of a healthy marine-oriented economy. While technologies such as boat hauling trailers allow many support facilities to be located away from the waterfront, there are still significant advantages to a harborside location. Can the City accommodate the specialized needs of these activities through contract zoning? Can space be found in the industrial park or elsewhere in the City for those activities that have expanded beyond the land areas available on the waterfront?

Goals, Policies, And Strategies

Land Use

Goal: To encourage the retention of marine-related activities along the shore of Rockland Harbor.

Policies:

1. Give preference to marine-related land uses in those areas well adapted to those activities.
2. Provide public facilities to support marine-related activities, both public and private.

Strategies:

1. Allow a broad range of marine-related activities along the shore.
2. Restrict non-marine uses on the immediate shoreline, except as part of larger scale activities extending beyond the shoreland.
3. Allow residential uses in the North End, South End and north shore of the Harbor.
4. Provide additional public facilities as needed to support commercial fishing.
5. Review public access and acquire additional public land, especially in the North End.
6. The land containing the footpath that leads to the Rockland Breakwater should be zoned to restrict further development from occurring. In addition, the City should work towards acquiring permanent easement (right of way) or outright ownership of the land from the Samoset.
7. The City will continue to protect marine related uses in waterfront districts from residential and non-waterfront dependent uses as noted in the descriptions of the waterfront districts in Chapter 6 of this plan.
8. The City will continue to protect residential uses in the North End. Such uses are noted in the description of districts within this area in Chapter 6 of this plan.

Harbor Improvements

Goal: Retain and improve the navigational advantages of Rockland Harbor.

Policies:

1. Maintain existing navigational improvements (channels, breakwater, piers).
2. Improve public facilities, including new or deepened channels and mooring/turning basins, to meet new needs and opportunities.
3. Improve wave protection of shore facilities and mooring areas.

Strategies:

1. Monitor water depths to keep the U. S. Army Corps of Engineers informed as to the need for maintenance dredging of channels.
2. Encourage public and private dredging to create new channels and mooring basins as needed.
3. Work with the Maine Department of Transportation and private operators to encourage more water-borne transportation activities.
4. Encourage the construction/installation of additional breakwaters or other protective works to improve protection of mooring areas and shore facilities (combine public and private funding sources).

5. Establish additional public water access in the North End to better serve moorings in the northern part of the harbor.
6. Plan for expansion and improvement of public waterfront facilities such as the Fish Pier, Middle Pier, and Public Landing as demand increases.
7. Consider the use of parking/storage areas away from the waterfront, with shuttle vans, to accommodate additional trailer launched boats (especially for those going out for more than a day).
8. Encourage construction of piers, including solid fill, out to the established Harbor Line to provide additional wave protection for shorefront facilities.
9. Work with the Department of Environmental Protection, the Legislature and other coastal municipalities to allow minor filling within developed, protected water areas to create useful shorefront facilities.

Transportation

Goal: Expand Rockland's role as a marine transportation center (hub).

Policy:

1 Actively participate in Maine Department of Transportation planning for all modes, which may affect Rockland Harbor.

Strategies:

1. Re-establish Rockland as a rail/water terminal for freight and passengers.
2. Encourage the design of any rail/water terminal to include:
    a. Minimum disruption of neighborhoods.
    b. Off-site parking for peak-use periods – provide shuttle vans.
    c. Bulkheading, breakwaters, fill or other features to increase the protection of nearby waters and shore areas.
    d. Additional recreational/commercial facilities in same pier if appropriate.
3. Encourage the retention and improvement of the State Ferry Service Terminal.
4. Provide for cruise ship accommodations such as vessel piers or piers and floats for launches serving cruise ships if they can be made self-supporting.
5. Work with Dragon Cement to coordinate their freight operations to the rail/barge terminal with any future passenger operations serving a ferry terminal over the same rail line in the South End and to improve the operation of the barge/tug to reduce damage to lobster gear in the harbor.

Tourism

Goal: To make Rockland Harbor a major attraction for tourists.

Policies:

1. Improve public facilities and access to the water, as well as harbor views from public roads. (Make the Harbor Trail a permanent feature).
2. Encourage private enterprise to attract people to, or near, the water.

Strategies:

1. Consider the use of shuttle vans to transport people to such locations as the breakwater and Public Landing without needing additional on-site parking.
2. Retain and improve the public's access to the breakwater.
3. Develop the Samoset Road landslide area into a park.

4. Create a park in the North End, along the harbor side of Front Street.
5. Improve boating facilities at the Public Landing.
6. Improve boating facilities at Snow Marine Park.
7. Work with the Town of Owls Head if they wish to develop public facilities on their part of the harbor.
8. Encourage tour boats to operate from Middle Pier and the breakwater, thereby improving public access to the lighthouse.
9. Encourage small craft rental/livery operators to allow more people to directly experience Rockland Harbor.
10. If the Shore Village (Lighthouse) Museum is relocated, encourage its relocation to a site on or near the waterfront.

Recreational Boating
Goal: To improve Rockland Harbor for recreational activities.
Policies:

1. Support public investment and services that enhance Rockland Harbor's recreational uses.
2. Encourage continued private investment in facilities and services for recreational boating.

Strategies:

1. Adequately fund, for both staffing and infrastructure, the City's public waterfront facilities. Much of this funding can come from fees for moorings, dinghy storage, etc.
2. Provide additional public transportation to serve waterfront facilities during peak use periods, including shuttle services from any off-site parking areas.
3. Increase public access to the water, especially in the North End, where a launching ramp for trailer-launched boats and additional dinghy storage would allow more use of mooring areas in the northern part of the harbor. Consider public/private partnerships negotiated with private owners to achieve these goals.
4. Enforce vessel holding tank discharge laws.
5. Mark (with buoys) and provide security for mooring areas.
6. Provide additional dinghy storage at the Public Landing and Snow Marine Park.
7. Provide a separate right of way to Main Street for those using the floats, etc. at the Public Landing so that they are not "cut off" during use of the Public Landing for events such as the Lobster Festival.
8. Consider the relocation of some events from the Public Landing to other locations adjacent to downtown, such as underutilized areas of Crocketts Point. This would also allow the general public access to their Public Landing during events for which admissions are charged.
9. As harbor water quality improves, provide limited facilities for swimming at Sandy Beach and/or Snow Marine Park.

Commercial Fishing
Goal: To provide for the needs of commercial fishing.
Policies:

1. Allow, through zoning and other public policies, commercial fishing activities along parts of the harborfront that are suitable for such activities.

2. Provide small, independent operators with landing/storage facilities for their vessels, gear and catches.

Strategies:

1. Retain the Fish Pier in municipal ownership.
2. Continually review the operations of the Fish Pier to see that it best meets the needs of users. Make sure that funding is adequate to maintain the pier during any future downturns in fishing activity.
3. Provide additional slips, floats and piers as needed.
4. Provide trailer-launching facilities for small fishing boats (urchin boats, lobster boats, etc.), perhaps in the North End.

Marine Support Services

Goal: To encourage the continuation and establishment of those activities necessary to support marine activities.

Policies:

1. Allow a wide variety of commercial activities in and near the waterfront.
2. Encourage the relocation to other sites in Rockland of marine-oriented activities whose space needs exceed available waterfront sites (to the Industrial Park, etc.).

Strategies:

1. Work with marine suppliers, marine service organizations, etc. to permit them to operate within the zoning ordinance.
2. Encourage educational and training programs oriented to marine activities.
3. Work with growing industries and services to find in-city locations when they expand.