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ACAD

BAR HARBOR, MAINE

COMPREHENSIVE COMMUNITY ENVIRONMENTAL INVENTORY

ACADIA NATIONAL PARK
P.O. Box 177
Bar Harbor, Maine 04609-9702

Prepared by:

The Bar Harbor, Northeast Harbor Elementary School Teachers

College of the Atlantic students

The Members of the Bar Harbor Conservation Commission

SX Bar Harbor, NE Harbor
14 Elementary School
ACAD Comprehensive commun-
1974 ity environmental in-
ventory

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SECTION I

INTRODUCTION

INTRODUCTION TO THE INVENTORY

According to state law, the Conservation Commission of Bar Harbor has the responsibility to establish a central inventory of the town's resources. The opportunity to develop this inventory presented itself through a Ford Foundation Grant for which the Bar Harbor Conservation Commission applied. The application was approved and funds were granted for a teacher workshop which would develop such an inventory of the town's resources.

This inventory makes available to the local government, townspeople, and students comprehensive information about the town --

its history,

its present development,

its future possibilities.

The inventory combines this information with related materials to be used in providing first-hand information about various aspects of the Bar Harbor community.

The data in this manual is intended to aid different community organizations in planning for and improving Bar Harbor. Additionally, a major purpose of the inventory was that it could provide a basis for which the school might establish an environmental education program.

The teachers may use it in:

planning field trips,

student environmental investigations,

and other environmental activities.

Because the purpose of this inventory is to be of use to the community planner, the student and the interested citizen, the information contained herein is both highly technical and non-technical. The section on geology is a good example of this. For the teacher and serious student there is much information to be used as a basis for further verification and study. The average citizen, on the other hand, will find interesting descriptions of how the land of Bar Harbor was formed and the locations of unique geologic features.

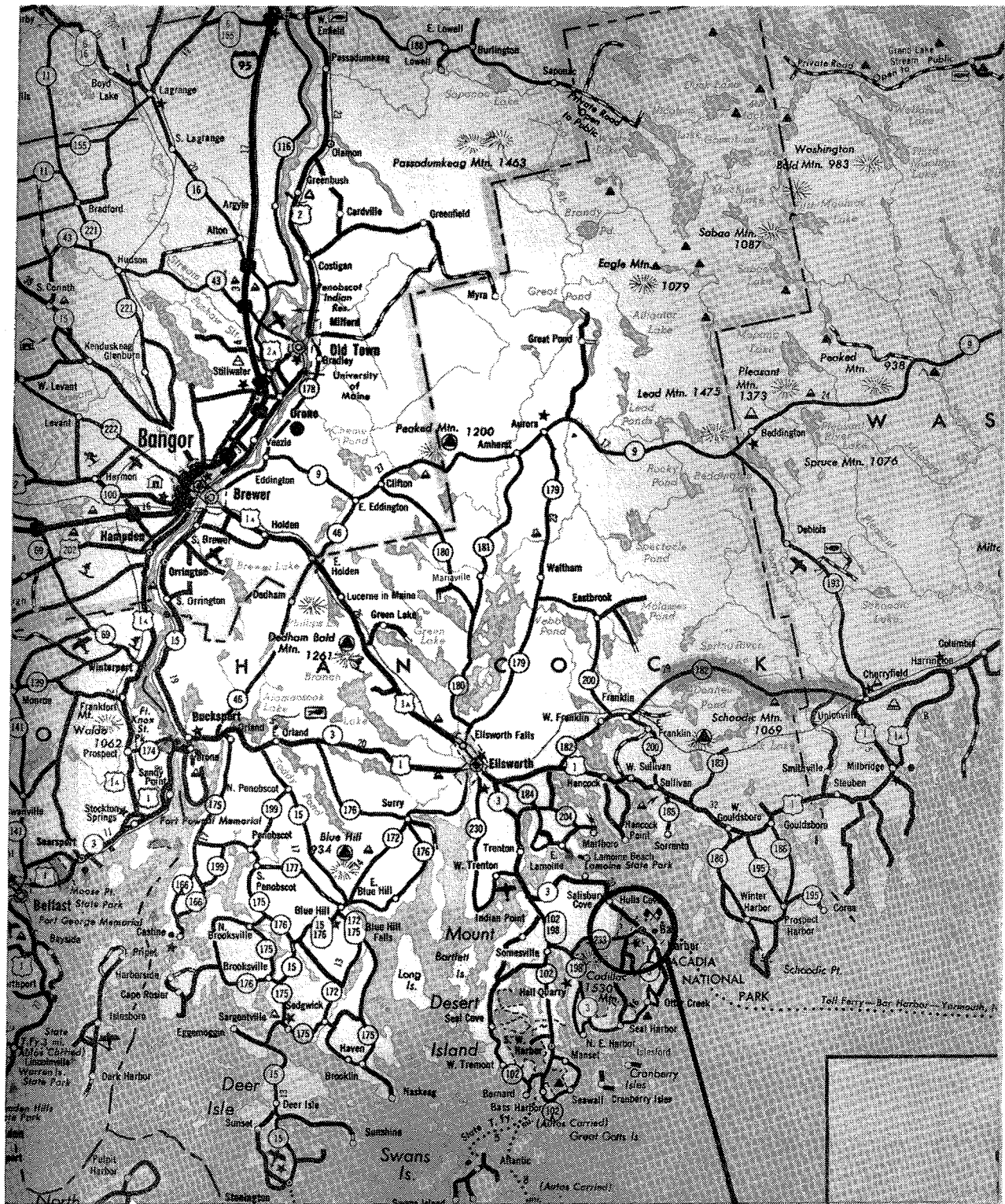
INTRODUCTION TO THE COMMUNITY

Bar Harbor is located on Mount Desert Island on the Maine coast. It is in Hancock County and is approximately 20 miles southeast of Ellsworth on Route 3, and 46 miles southeast of Bangor via Routes 1A and 3. Bar Harbor can only be reached via the Thompson's Island Bridge. It lies near the entrance to Acadia National Park. The urban center of the town is on Frenchman's Bay with a beautiful view of the off-shore islands and surrounding waters. The town and several rural areas are contained in 45 square miles. The population of Bar Harbor is 3,716. The town of Bar Harbor is comprised of the following villages: Hulls Cove, Otter Creek, Salisbury Cove, and Town Hill.

The average elevation is one hundred and fifty feet above sea level, with the highest point of elevation being 1,530 feet above sea level.

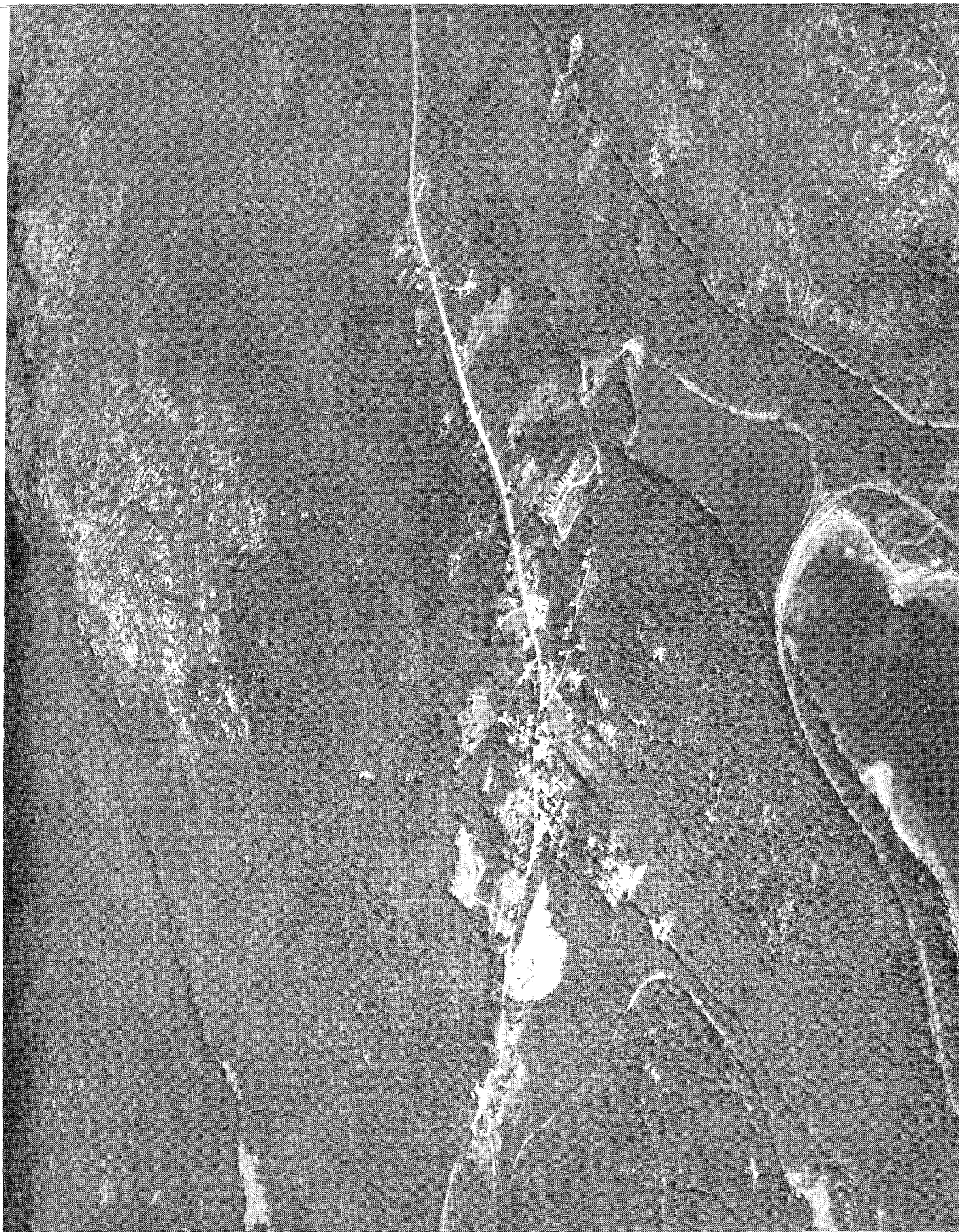
The tourist population is Bar Harbor's main industry. The two key employers of the population of Bar Harbor are the Jackson Laboratory and the Canadian National Railway Ferry Terminal. The other dominant firms of Bar Harbor are the police department, fire department, post office, public library, Y.M.C.A. and Y.W.C.A.

The educational system consists of one private school, two public elementary schools, and one central high school which is located in the town of Mount Desert.

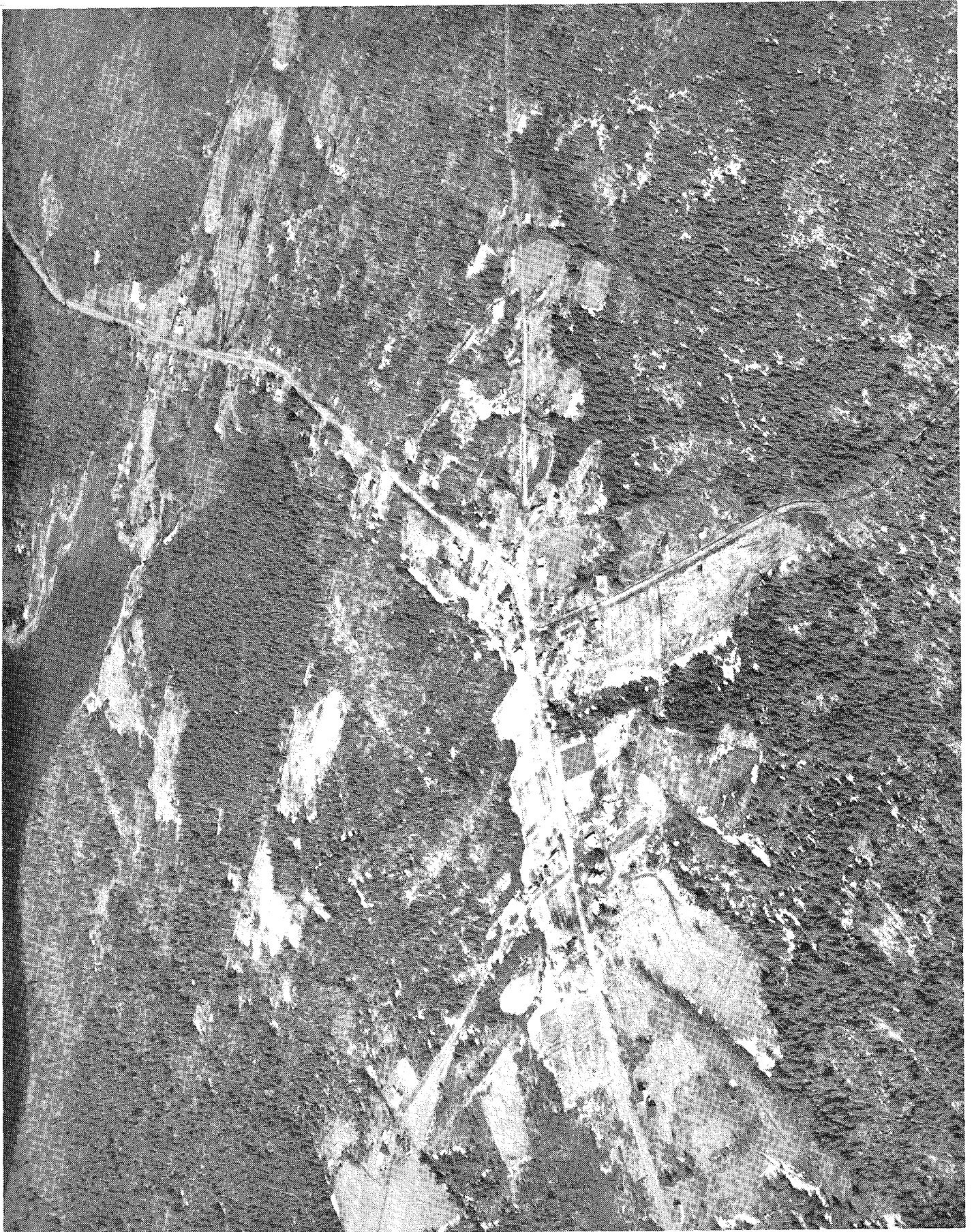


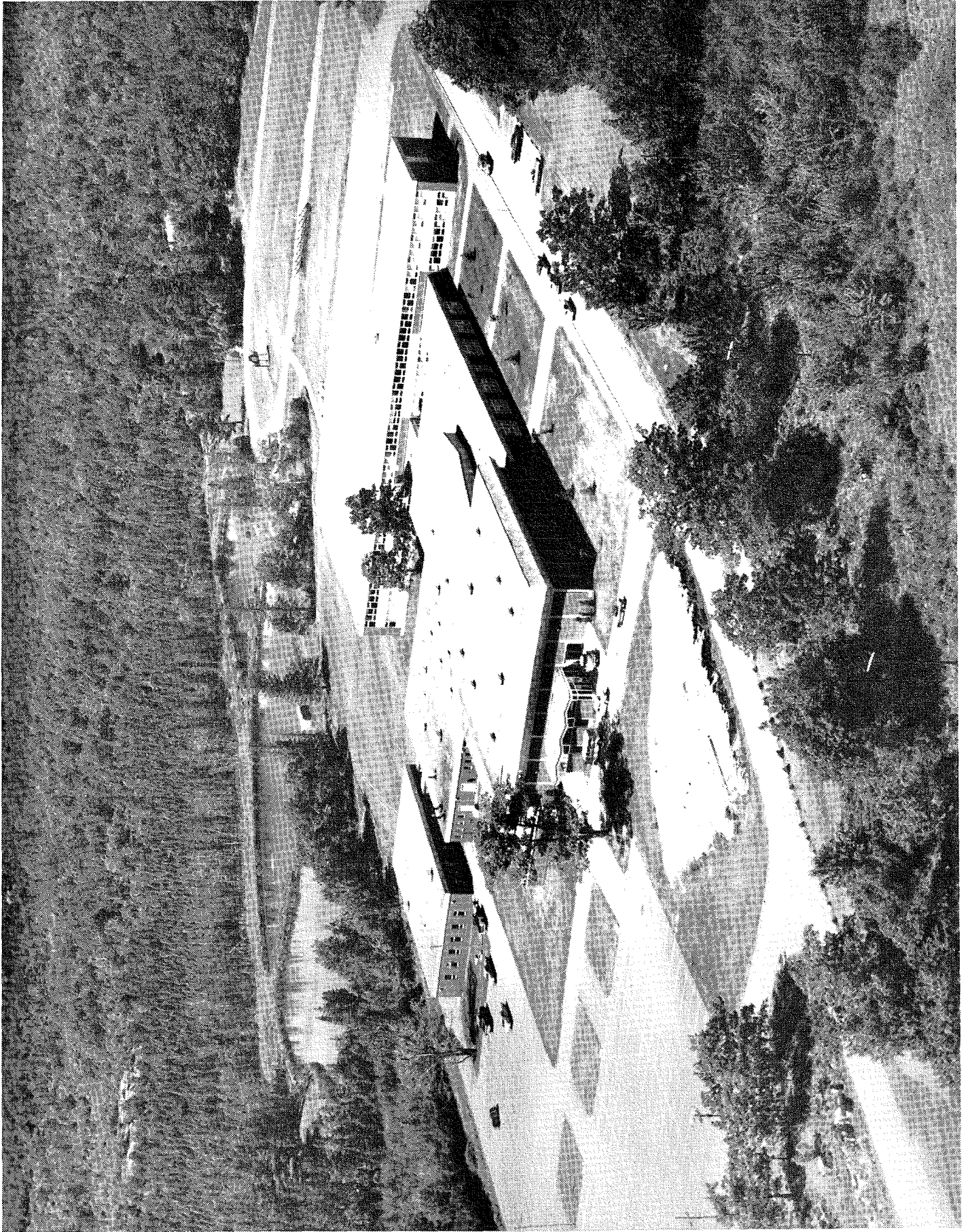
BAR HARBOR

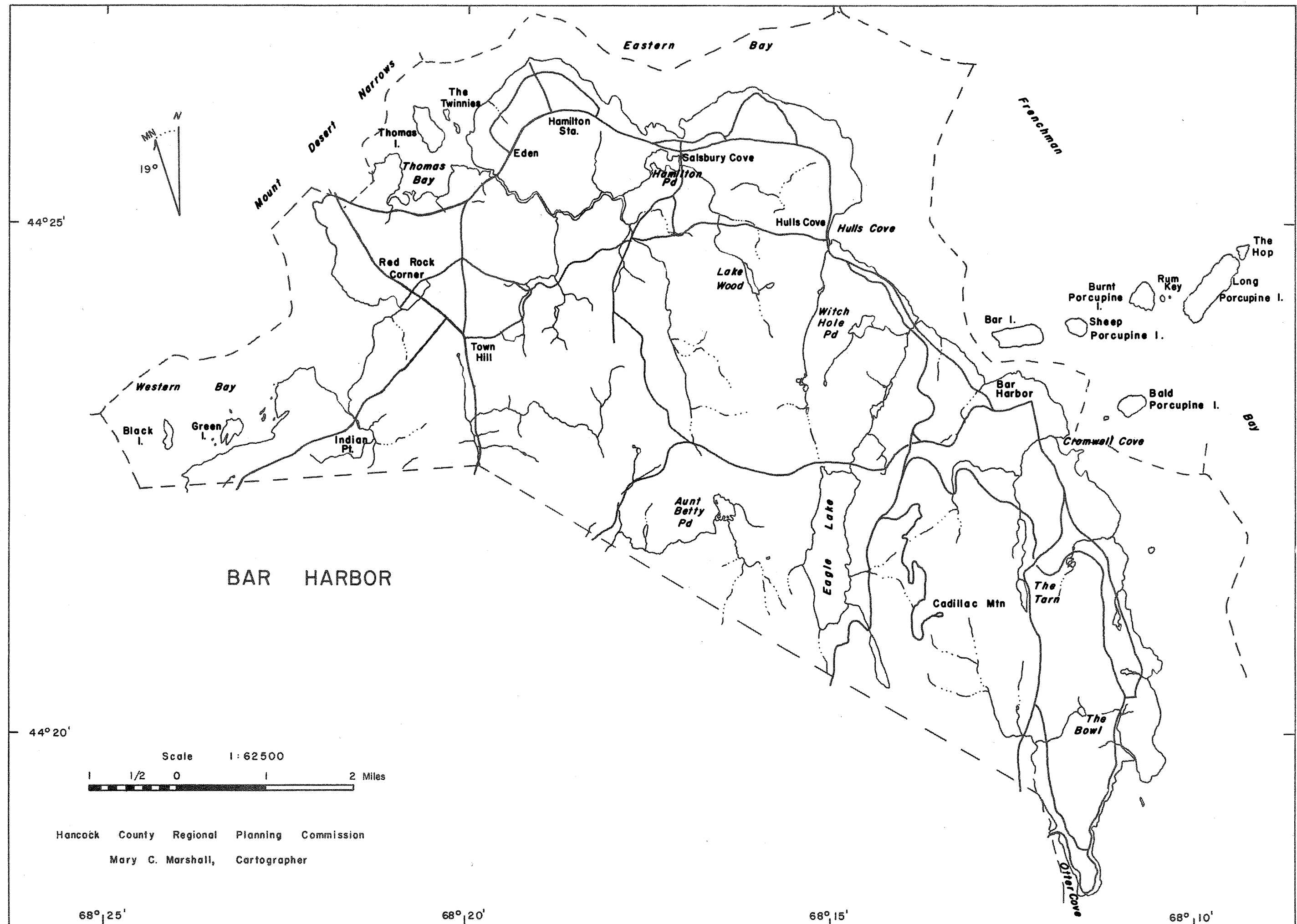












SECTION II

NATURAL ENVIRONMENTAL FEATURES
AND CHARACTERISTICS

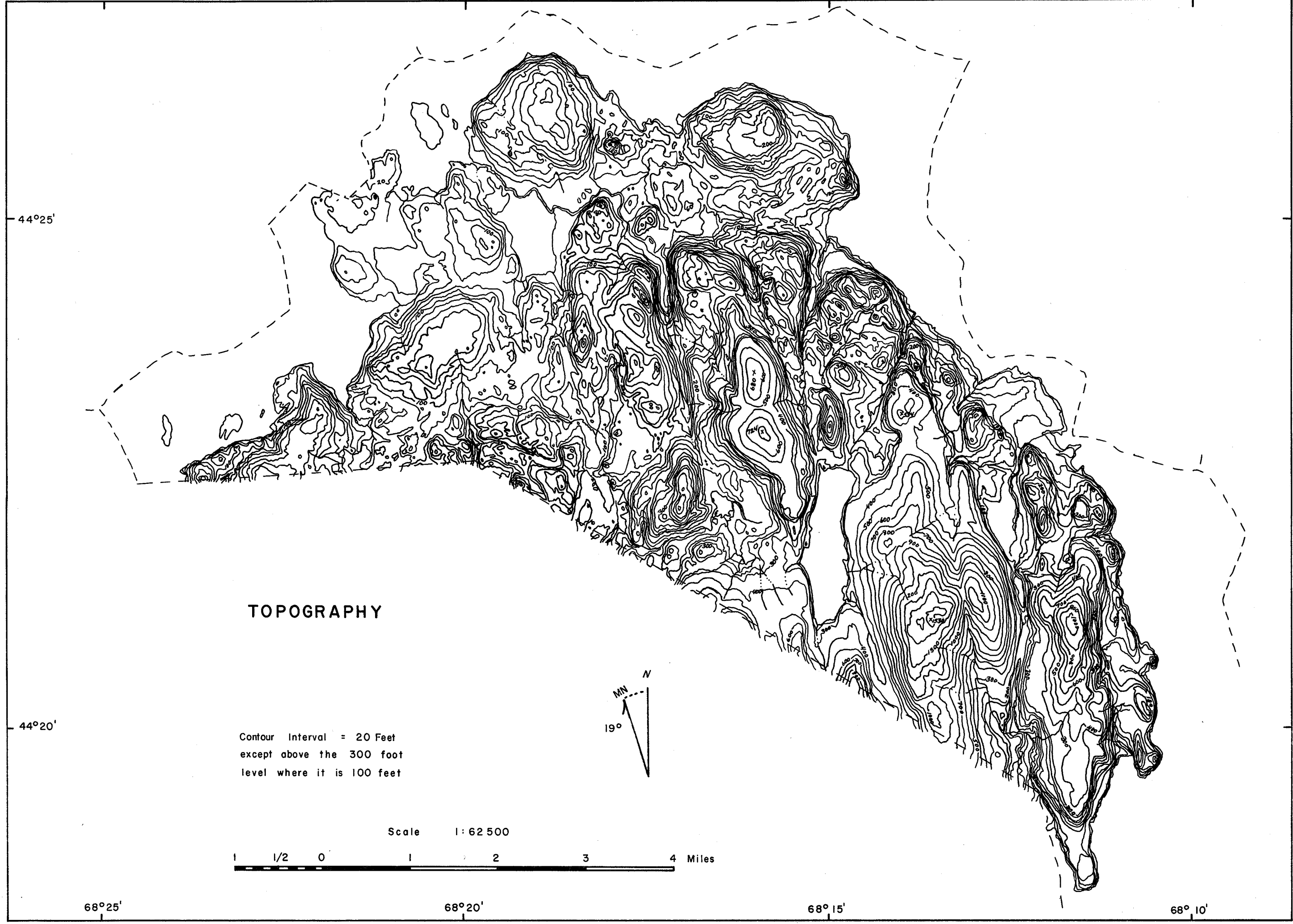
LAND

TOPOGRAPHY

TOPOGRAPHY

The topographical features of the town of Bar Harbor result from glaciation. The irregular shoreline with its rocky headlands, cobbled beaches, peninsulas, estuaries, bays and islands indicates a submerged coastline.

The coastal plain area around the shore leads to many hills and mountains in the interior. The mountain ridges are cut by u-shaped valleys, trending in a N-S direction. The highest elevation (1,530 feet) of the Mount Desert Range is Cadillac Mountain which is also the highest point along the United States Atlantic seaboard. Many of the mountains and hills are barren of vegetation thus exposing the coarse-grained granite of which they are made. Bar Harbor is dotted with numerous lakes and streams, the largest being Eagle Lake, a glacial dorr lake.

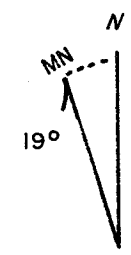


44°25'

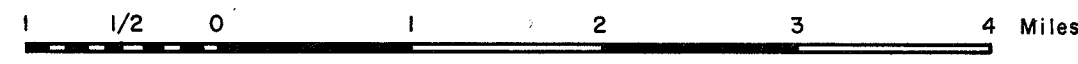
44°20'

TOPOGRAPHY

Contour Interval = 20 Feet
except above the 300 foot
level where it is 100 feet



Scale 1:62 500



68°25'

68°20'

68°15'

68°10'

LAND

GEOLOGY

LAND

GEOLOGY

To obtain a comprehensive picture of the geologic history of the town of Bar Harbor, it is necessary to present the geologic activity of Mount Desert Island as the island is unique in many of its geological features, many appearing in the town of Bar Harbor.

During the early Paleozoic Era (probably Cambrian or Devonian period) approximately 450 million years ago, much of present day New England was covered by the sea. Sediments of sand, silt, and mud were deposited in layers upon the sea's floor by streams that carried the sediments from nearby rocky highlands. These layers of sediments accumulated to hundreds or perhaps thousands of feet thick and eventually hardened into stratified rocks. Movements of the earth's crust (diastrophism) caused the stratified rocks to become metamorphic rocks by extreme heat and pressure.

"These metamorphic rocks on Mount Desert Island constitute the rock formation known as the Ellsworth schist and consist principally of two rock types: schists that are rich in mica and split readily along the surfaces of foliation and gneisses which resist splitting because of their more poorly developed foliation."¹.

After folding, the Ellsworth schist was then uplifted and formed dry land. Millions of years of erosion reduced this land form to sea level.

During the Silurian Period about 420 million years ago, the Cranberry Island Series was deposited on what was left of the Ellsworth schist. The rocks of this series are mostly of volcanic origin although they are mixed with some sedimentary rocks. These igneous rock fragments hardened into tuff with some lava flows (mostly felsite) intermingled. Again the material accumulated hundreds or thousands of feet thick and again folding, uplifting and erosion set in. The land was reduced to below sea level and the ocean spread over the land.

On a gravel and coarse sand base formed by action of water and waves, layers of sand and silt were deposited and were hundreds of feet thick. This series is known as the Bar Harbor Series. "The rocks are predominantly brown, gray, or green siltstone and split along bedding planes like flagstone; the gravelly material now hardened, is known as conglomerate."².

In the Devonian Period about 375 million years ago, the three series of stratified rocks had been formed, and great invasion of magma (molten rock) began. The first of these invasions, dioritic magma invaded the weak areas on the stratified rock, and hardened into thick sheets of diorite. The hot molten rock caused some of the surrounding colder rocks to recrystallize into hornfels. "The congealing of the magma resulted in the development of two principal types of minerals -- heavy, dark-colored minerals (olivine, pyroxene, and hornblende) and less dense, light-colored minerals (plagioclase feldspar)."³.

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1. The Geology of Acadia National Park, Carleton A. Chapman, The Chatham Press, Inc., p. 11.
 2. Ibid., pp. 12 and 13.
 3. Ibid., p. 16.

The second invasion consisted of granitic magma and invaded the Bar Harbor Series and came in contact with the diorite. It crystallized to form fine-grained granite dikes (narrow veins) and stringers (long fingers) of granite were formed when the magma invaded cracks in the older host rocks.

The next great invasion of granitic magma occurred when the enormous pool of magma below began to slowly surface. The weight of the roof rocks on the molten rock caused the roof rocks to fracture and crack and eventually sink in a huge block into the liquid magma. A shatter-zone of breccia developed in the adjacent rocks where the huge block had been. The magma filled the space that the huge block had occupied and cooled slowly to form the coarse-grained pink granite.

New magma chambers were formed and cracking and fracturing recurred but the rocks above did not completely separate. The magma rushed upward to fill these arc-like spaces and crystallized to form a ring-dike of medium grained granite.

Very little is known about the geological happenings from the formation of the medium grained granite to the Pleistocene period, a period of approximately 350 million years.

"Weathering and erosion had been so extensive that by the Cretaceous time (about 135 million years ago) the land for hundreds of miles around had been reduced to a low nearly featureless plain (peneplain)."⁴ A low mountain composed of durable rock would occasionally appear on the featureless plain. The stratified rock in the Mount Desert Island vicinity had been eroded away, leaving only a few hills of the more durable rock. Thus the Mount Desert Range was created.

Before the ice age, this mountain range was more or less a continuous ridge trending in a east-west direction with no through valleys.

The land was uplifted and tilted to the southeast during the Tertiary Period. This movement reactivated the streams and dissected the peneplain into low hills and valleys. An irregular shoreline was created by the sinking of the land mass.

About 1 million years ago during the Pleistocene Period, thick layers of ice built up in Eastern Canada and moved slowly southward across New England. The advancing ice encountered no obstacles until reaching the Mt. Desert Range which extended in a direction transverse to the movement of the ice. The ice built up on the northern flank, flowed around the east and west ends, and eventually ascended the northern slope of the Mt. Desert Range. Here it spilled over the crest into saddles and descended in long icy fingers the small valleys in the south slope. The ice carved deeper and deeper into the saddles until through-going North-south valleys were cut through the range. The glacier thickened and the mountain crests were buried under a slowly moving ice sheet. The whole area was exposed to the erosive forces of a glacier. Pieces of rock and soil frozen into the moving ice acted as an abrasive to scour away the hard bedrock as the glacier moved southward.

As the ice melted, the material carried within it was deposited as glacial debris. The original drainage pattern of the island was changed. Ponds and

swamps were formed by abstracted streams. In valleys, basined areas in the floor of the bedrock filled with water to form lakes (dorr). U-shaped valleys were left when the glacier receded. Layered deposits of sand and gravel were left and glacial till (composed of silt, sand and pebbles) was deposited on the scoured bedrock. Large boulders (erratics) were dropped and are scattered profusely over the island. Today the main geologic process in action is that of erosion by weather and water. Weathering causes rock fragments to break loose and fall to the foot of steep slopes forming deposits of fallen rock. Deposits of fallen rock may be seen by the roadside near the Tarn.

The Bar Island sand bar and sand beach are examples of the constant work of the ocean. Pebble and cobble beaches are formed where the shoreline is more exposed to ocean wave attack. Caves and chasms are formed where the cracked shore rock is unable to withstand the wave attack. Anemone Cave and The Oven are examples of caves formed by wave action.

Outcroppings of the various bedrock formations may be observed in the Bar Harbor area. Several examples of the Bar Harbor series may be observed along the Shore Path in Bar Harbor. On the shore near the municipal pier the Bar Harbor series is exposed and has been tilted and jointed. It can also be seen on Bar Island on the shoreline. Overlying the Bar Harbor series on Bar Island is a thick layer of diorite. The diorite is also visible on the Porcupines. Erratics may also be viewed along the Bar Harbor Shore Path. Examples of glacial scratches and grooves may be seen at the far end of the beach by the Shore Path. Shatter-zone breccia may be seen at Ingraham Point (south of Hunter's Beach) and at the east end of Sand Beach. Near Great Head the diorite bedrock is exposed and is cut by thin veins of quartz and feldspar. Here on the trail, a low ridge of coarse-grained granite forms a ring dike and is visible from Sand Beach. Thunder Hole developed along joints in the coarse-grained granite by constant exposure to waves and weather. Thin veins of green epidote may be observed in this vicinity.

The fine-grained granite may be seen on Stove and Jordan Islands. The majority of mountains and hills on the Island are composed of the coarse-grained granite. Fine examples of this granite may be seen from the summit of Cadillac Mountain. On the Summit Road, the many roadcuts enable us to observe sheet jointing or vertical fractures in the coarse-grained granite. This phenomena is also observed in the quarry at the north end of Champlain Mountain along the Precipice Trail. The roadcuts expose the dark basaltic dikes that are widespread throughout the granite. The dikes which are common on the barren mountains and rocky shores range in size from a fraction of an inch to fifty feet wide. Eagle Lake, an example of a glacial dorr lake, can be seen from the Summit Road.

Otter Cliff is again composed of coarse-grained granite with interbedded fine-grained rock which may be a felsite dike or volcanic material.

At Otter Point, numerous glacial markings may be observed. Along the shore here the shatter-zone is exposed again as fragments of the Bar Harbor Series and the grains are visible.

Small faults (slipping or displacement of rocks along large fractures) may be observed around Salisbury Cove.

At Hadley Point, bedrock material of the Ellsworth Schist is seen. At the water line an outcrop of this greenish gray schist is observed. At the Thompson Island Picnic Area along the shore, another exposure of the Ellsworth Schist is visible. This time it is a light greenish gray gneiss and consists of white feldspar and greenish chlorite.

The irregular coastline of Mount Desert Island is typical of a submerged coast. It results from crustal downwarping and from the great weight of ice.

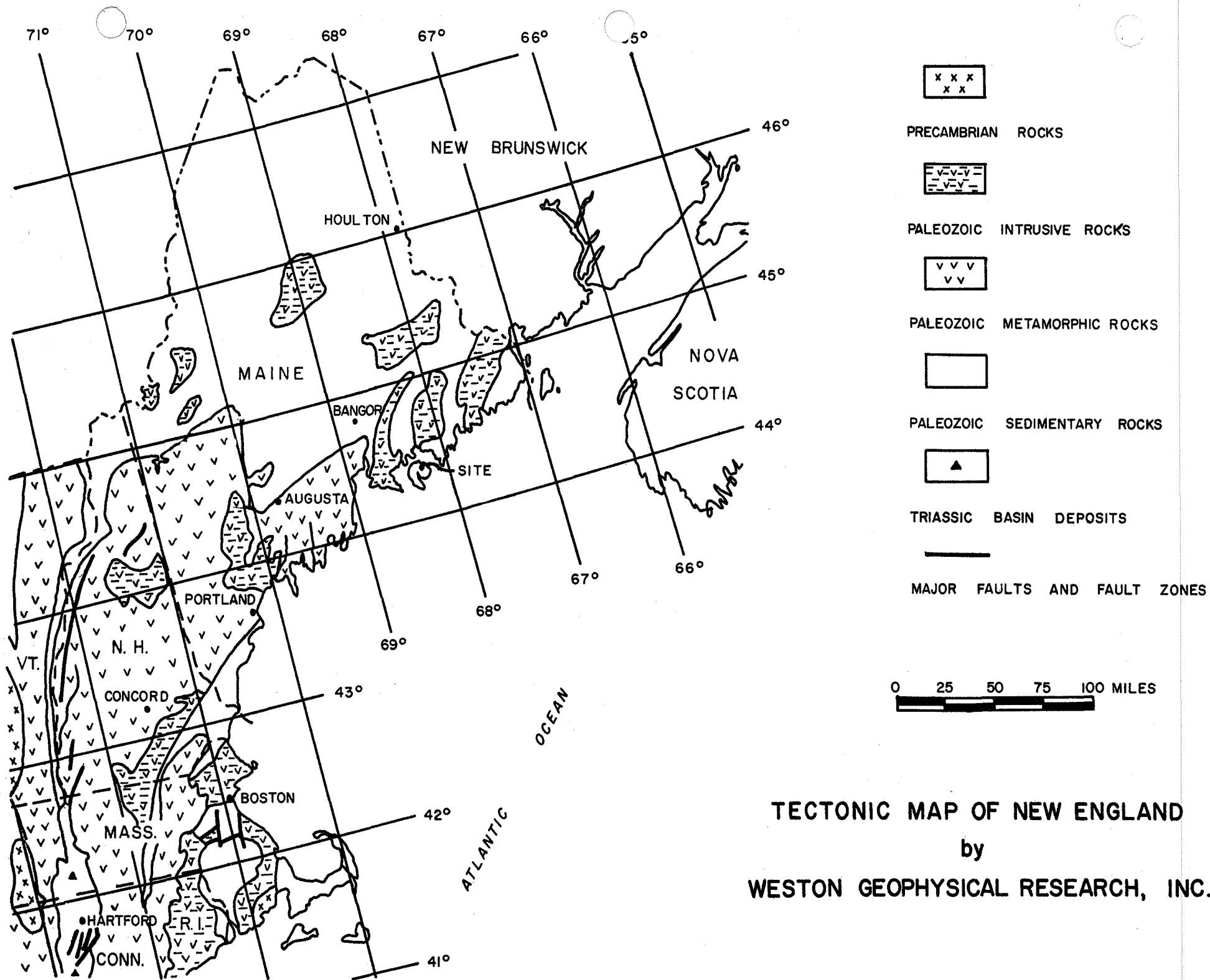
For more detailed information about the unique geological features of Mount Desert Island consult The Geology of Acadia National Park by Carleton A. Chapman and other listed references.

References:

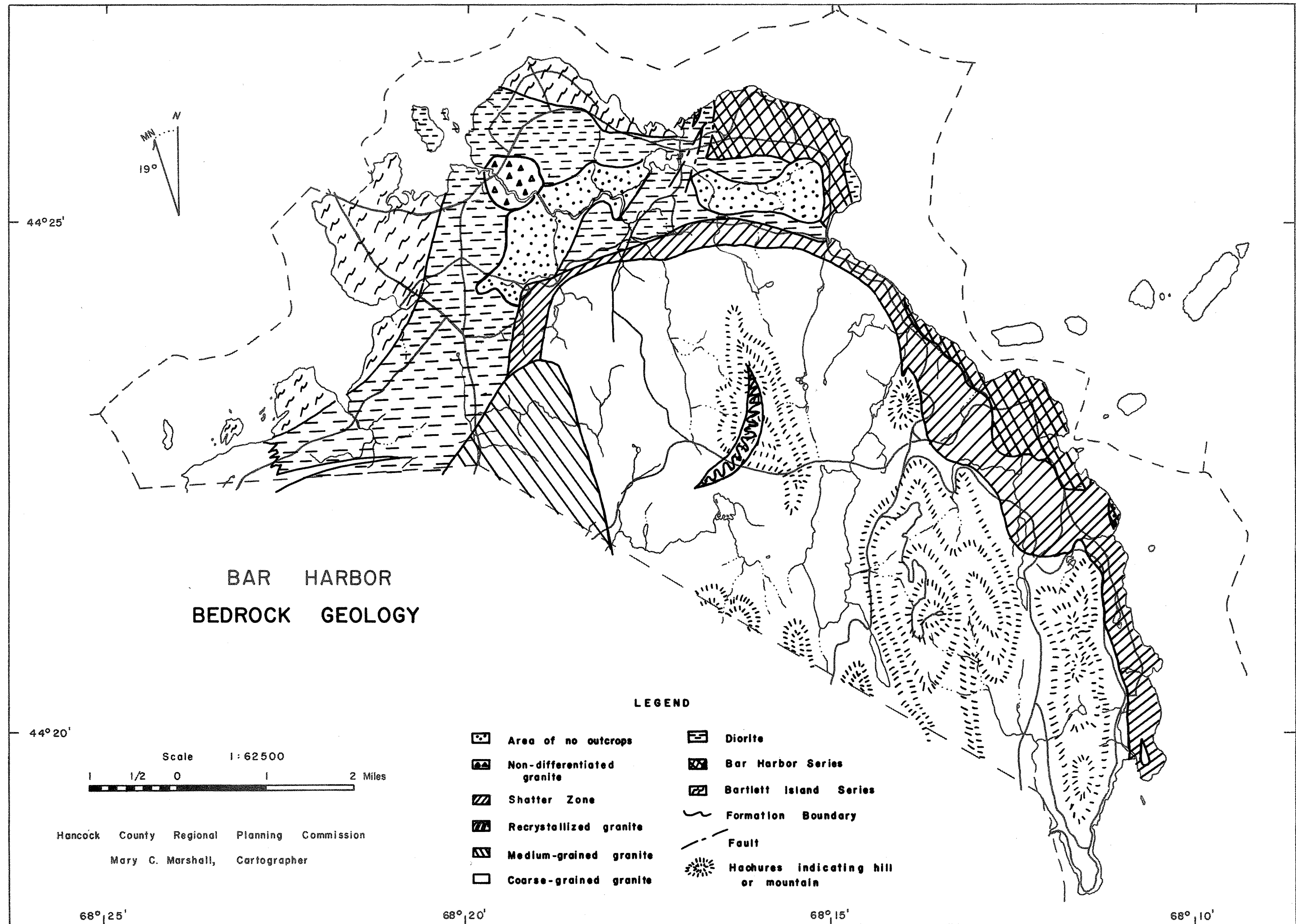
1. The Geology of Acadia National Park, Carleton A. Chapman, Chatham Press, Inc., 1962.
2. Acadia National Park the Nearby Coast of Maine, Grant W. Sharpe, Ph.D., Golden Press, New York, 1968.
3. Raisz, Erwin, The Scenery of Mount Desert Island: Its Origin and Development, Annual of the New York Academy of Sciences, Vol. XXXI, pp. 121-186, 1929.
4. Minerals of Mount Desert Island, Maine, George H. Chadwick, from Rocks and Minerals, Sept. 1943, p. 268, 269.
5. First Annual Report on the Geology of the State of Maine, Lucuis H. Merrill and Edward H. Perkins, Augusta, 1936.
6. Second Annual Report on Natural History and Geology of the State of Maine, 1862.
7. The Geology of Mount Desert Island, Maine, George Halcott Chadwick, from American Journal of Science, Vol 237, May 1939.
8. The Rocks of Mount Desert Island, Maine, George H. Chadwick.

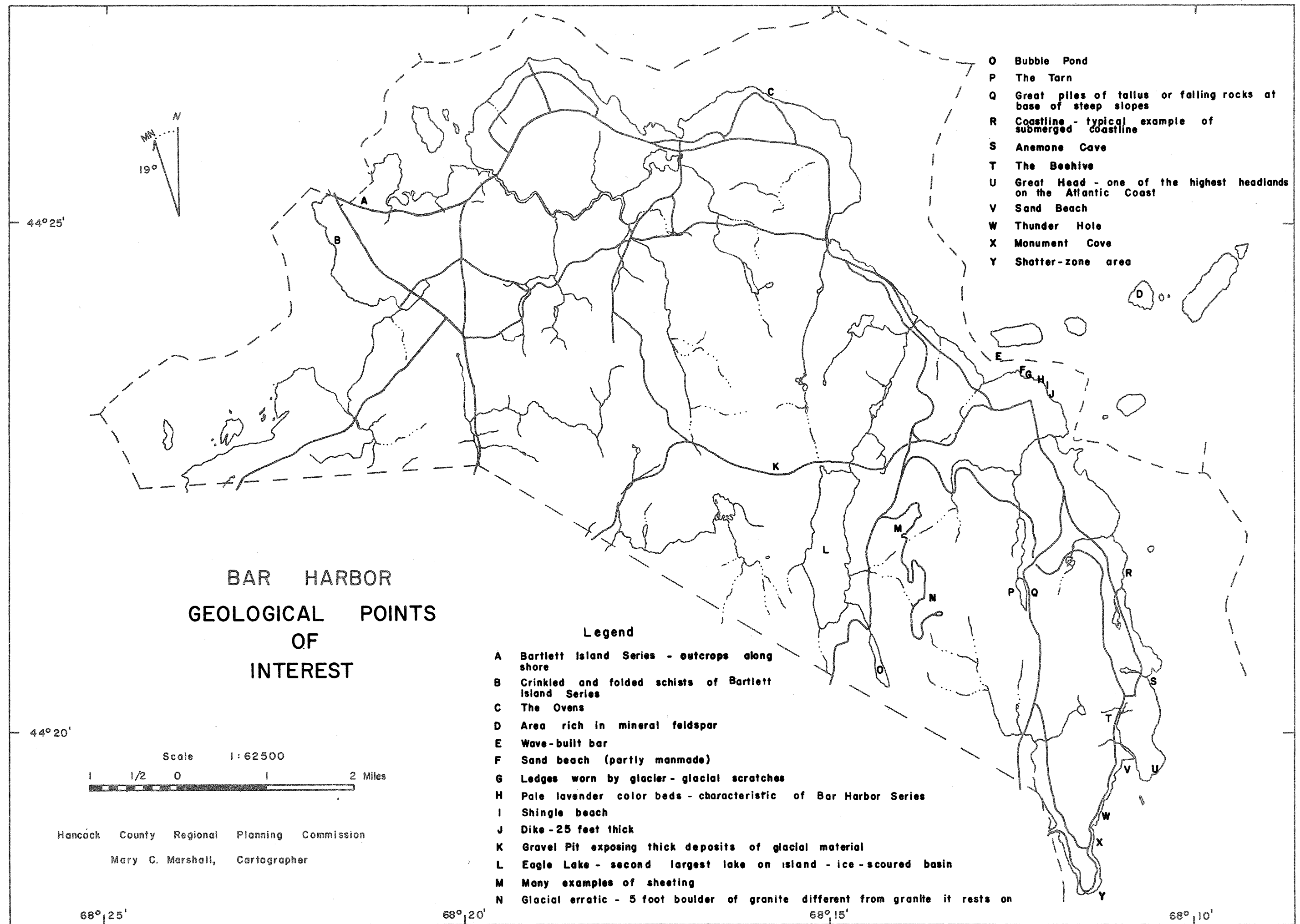
Footnotes:

1. The Geology of Acadia National Park, Carleton A. Chapman, Chatham Press, Inc., p. 11.
2. *ibid.*, p. 12-13.
3. *ibid.*, p. 16.
4. *ibid.*, p. 28.



TECTONIC MAP OF NEW ENGLAND
by
WESTON GEOPHYSICAL RESEARCH, INC.





LAND

SOILS

LAND

SOILS

In the Bar Harbor area, most of the soil was formed by glacial action. Soil is a result of the effects of topography, climate, time and vegetation acting upon various rock materials. According to Robert V. Rourke and J. Stewart Hardesty in The Soils of Maine, the soils of Mount Desert Island consist of areas of mixed glacial till, stratified glacial drift (water sorted) and marine and lacustrine sediments.

The following Soils Map of the Town of Bar Harbor was compiled by the Soil Conservation Service, Ellsworth, Maine. The Soils Map may be incomplete as the Soil Conservation Service has not completed their inventory for the Town of Bar Harbor.

Each type of soil is shown on the Soils Map by symbols. The letters A,B,C,D, and E refer to the steepness of slope.

Slopes:

- A 0-3% -- Level or nearly level
- B 3-8% -- Gently sloping
- C 8-15% -- Moderately sloping
- D 15-25% -- Strongly sloping
- E 25-35% -- Steep

Soil names and brief soil descriptions are included below. Locate the map symbol and find the soil name and description next to the map symbol.

<u>Map Symbol</u>	<u>Soil Name</u>	<u>Soil Description</u>
9C	Coastal Beach	composed of water-worked sands but may contain some gravel. Lies on gentle slopes of 10% or less. Permeability is rapid. Water table and bedrock variable. Runoff is slight.
9G	Peat-Sphagnum	very deep, poorly drained. Very slightly decomposed sphagnum organic materials. They occur in remnants of glacial lakes. The water table is at or near the surface throughout the year.
9M	Marsh-Freshwater	principally organic soils intermixed with mineral soil materials and covered most of the year by shallow water.
9P	Peat and Muck	organic material of 1½ feet or more. Inorganic sandy, clayey or loamy soil materials, very poorly drained. The peat is quite fibrous and may be considered undecomposed while muck is non-fibrous and is very decomposed. The water table is near the surface throughout the year.

<u>Map Symbol</u>	<u>Soil Name</u>	<u>Soil Description</u>
9R	Rockland	composed of gently sloping to very steep upland area that has 25-90% rock outcrop. Soil material is variable ranging from coarse to medium textured and averages about 10 inches to bedrock. Permeability is moderately rapid and available water capacity is low to very low. Runoff is high.
9R0	Rock Outcrop	consists of exposed bedrock (90%) and soil (10%) material. Occurs in mountainous areas. Little or no vegetation except ground juniper, lichens and mosses.
9T	Tidal Marsh	These are low lying level land areas along the seacoast shallowly inundated with tide waters. The soils are mixtures of silts and clays usually accompanied by a high organic content.
9XI	Cut and Fill Land	The fill materials may be comprised of sands, silts, clays, gravel, stones, and boulders. The cut land exposes the subsoil and substratum and in places bedrock.
22	Colton Gravelly Loamy Sand	deep, excessively drained gravelly and sandy soils developed from coarse outwash material composed of sandstone, granite quartzite, quartz, slate and shale. Permeability is very rapid. Runoff is slow. Seasonal high water is more than 5 feet beneath surface.
23	Duane Sandy Loam	deep, moderately well drained gravelly and sandy soils developed in glacial outwash material composed of granite, gneiss, and schist. Slopes from less than 3% to 8%. Permeability is rapid. Runoff is medium during wet periods but slight rest of the year. Seasonal high water table lies at 1 to 2 feet below surface.
24	Walpole Sandy Loam	deep, poorly drained gravelly, sandy soils with the water table 3-6 inches from the surface most of the year. Permeability is rapid to very rapid.
25	Scarbrow sandy loam	deep, very poorly drained sandy soils developed in deep deposits of water sorted sands derived from granite, gneiss, and schist. Water table is at surface during most of the year. Surface runoff is slow.
27	Elmwood fine sandy loam	deep, moderately well-drained sandy soils lying on marine clays. Seasonal high water lies at 1-2 feet. Permeability is rapid in sandy material.

<u>Map Symbol</u>	<u>Soil Name</u>	<u>Soil Description</u>
28	Swarton fine sandy loam	deep, poorly drained soils formed on sandy outwash material over lake or marine silt and clay sediments. Water table is at surface for most of the year. Permeability of sandy layer is rapid but clayey substratum is very slow.
30	Suffield Silt Loam	deep, well drained silty soil with high water holding capacity. This soil is primarily located on steeper slopes and erodes easily.
32	Buxton silt loam	deep, moderately well drained silty and clayey soils formed in fine textured sediments. Permeability is slow to very slow. Erodes easily on moderately steep slopes.
33	Scantic Silt Loam	deep, poorly drained soils developed in silt loam over very firm marine and lacustrine deposits of silts and clays. High water table and permeability is slow.
42	Marlow Loam	deep, well drained loamy soils developed in very compact glacial till. The water table is deeper than 4 feet. Permeability is moderate in upper part of the soil and moderately slow to slow in the substratum.
43	Marlow very stony, fine sandy loam	deep, well drained, gently sloping to steep, moderately coarse and medium textured soils. Usually occur in hilly and mountainous areas. The water table is at 4 feet or more. Permeability is moderate in upper stratum to slow in substratum.
44	Peru fine sandy loam	deep, moderately well drained, fine sandy soils developed in very firm glacial till. Seasonal high water table. Moderate to slow permeability. Level to moderately steep slopes.
45	Peru very stony fine sandy loam	deep, moderately well drained fine sandy soils developed in very firm glacial till. These soils have a seasonal high water table. Permeability is moderate in upper to slow in lower.
46	Ridgebury fine sandy loam	deep, poorly drained sandy soils with fragipan developed in granitic, gneissic, and schistose glacial till. A high water table where surface saturated most of the year. Permeability is moderate to slow. Runoff is slight.

<u>Map Symbol</u>	<u>Soil Name</u>	<u>Soil Description</u>
○ 48	Ridgebury very stony fine sandy loam	deep, poorly drained, sandy soils with fragipan developed in granitic, gneissic, and schistose glacial till. A saturated water table for most of the year. Permeability is moderate to slow. Runoff is slow to medium.
52	Hermon sandy loam	deep, well drained sandy soils developed in loose, coarse, sandy, granitic glacial till. Usually slopes 3 to 25% but ranges to 60%. Permeability is moderately rapid. Water table below the surface is more than four feet. Runoff and erodibility are slight.
53	Hermon very stony sandy loam	deep, well drained, sandy soils developed in loose, coarse, sandy granitic glacial till. Permeability is moderately rapid. A water table below 4 feet. Runoff and erodibility are slight.
54	Waumbek sandy loam	deep, moderately well drained coarse sandy soils formed in granitic and gneissic glacial till. The water table is seasonably high. Permeability is rapid. Runoff is moderate during wet periods.
○ 55	Waumbek very stony sandy loam	deep, moderately well drained, coarse, sandy soils developed in granitic and gneissic till. Seasonal high water lies at 1 to 3 feet below the surface. Permeability is moderate to rapid. Runoff is slight except during wet periods.
58	Leicester very stony fine sandy loam	deep, poorly drained soils formed in sandy loam glacial till. Found in the bottom of depressions. Has a high water table with slow surface runoff.
62	Lyman fine sandy loam	shallow to bedrock soils formed in medium textured till. Found in mountainous regions. Seasonal high water is greater than 3 feet. Permeability is rapid. Erodibility is moderate.
63	Lyman very rocky fine sandy loam	shallow, well drained, upland soils developed in glacial till. Slope range is 3-80% with many rock outcrops. Seasonal high water table is below 3 feet.
64	Berkshire fine sandy loam	deep well drained soils formed in glacial till high in schist. Found in gently sloping to steep uplands. Seasonal high water is deeper than 5 feet. Permeability is rapid.
○ 65	Berkshire very stony fine sandy loam	deep well drained soils developed in glacial till high in schist. Found in gently sloping to steep uplands. High water table is more than 5 feet. Permeability is moderate to rapid.

Revised Progress Review
September 24-27, 1973

Soil Suitability for Septic Systems * Identified Soils of the Town of Bar Harbor
HANCOCK COUNTY SOIL SURVEY IDENTIFICATION LEGEND

Mapping Unit		
Symbol	Mapping Unit Name	
	16B	Adams loamy sand, 0-8% slopes
	16C	Adams loamy sand, 8-15% slopes
	9C	Beaches
G	<u>64B</u>	<u>Berkshire fine sandy loam, 3-8% slopes</u>
	64C	Berkshire fine sandy loam, 8-15% slopes
	65B	Berkshire very stony fine sandy loam, 3-8% slopes
F	<u>65C</u>	<u>Berkshire very stony fine sandy loam, 8-15% slopes</u>
	65D	Berkshire very stony fine sandy loam, 15-25% slopes
	34A	Biddefords silt loam
V	<u>32B2</u>	<u>Buxton silt loam, 3-8% slopes, eroded</u>
V	<u>32C2</u>	<u>Buxton silt loam, 8-15% slopes, eroded</u>
V	<u>22B</u>	<u>Colton gravelly loamy sand, 0-8% slopes</u>
V	<u>22C</u>	<u>Colton gravelly loamy sand, 8-15% slopes</u>
V	<u>22E</u>	<u>Colton gravelly loamy sand, 15-45% slopes</u>
	9X1	Cut and fill land
	70B	Dixmont silt loam, 3-8% slopes
	70C	Dixmont silt loam, 8-15% slopes
	71B	Dixmont very stony silt loam, 3-8% slopes
	71C	Dixmont very stony silt loam, 8-15% slopes
V	<u>23B</u>	<u>Duane sandy loam, 0-8% slopes</u>
V	<u>27B</u>	<u>Elmwood fine sandy loam, 3-8% slopes</u>
	29B	Elmwood very stony sandy loam, 3-8% slopes
	9G	Fibrists and Hemists soils
	52B	Hermon sandy loam, 3-8% slopes
F	<u>52C</u>	<u>Hermon sandy loam, 8-15% slopes</u>
	52D	Hermon sandy loam, 15-25% slopes
F	<u>53B</u>	<u>Hermon very stony sandy loam, 3-8% slopes</u>
F	<u>53C</u>	<u>Hermon very stony sandy loam, 8-15% slopes</u>
V	<u>53E</u>	<u>Hermon very stony sandy loam, 15-45% slopes</u>
V	<u>58B</u>	<u>Leicester very stony fine sandy loam, 0-8% slopes</u>
	3A	Limerick silt loam
P	<u>62B</u>	<u>Lyman fine sandy loam, 3-8% slopes</u>
	62C	Lyman fine sandy loam 8-15% slopes
V	<u>63C</u>	<u>Lyman very rocky fine sandy loam, 0-15% slopes</u>
V	<u>63E</u>	<u>Lyman very rocky fine sandy loam, 15+% slopes</u>
	9X2	Made land
	42B	Marlow fine sandy loam, 3-8% slopes
	42C	Marlow fine sandy loam, 8-15% slopes
	42D	Marlow fine sandy loam, 15-25% slopes
P	<u>43B</u>	<u>Marlow very stony fine sandy loam, 3-8% slopes</u>
P	<u>43C</u>	<u>Marlow very stony fine sandy loam, 8-15% slopes</u>
	43D	Marlow very stony fine sandy loam, 15-25% slopes
	43E	Marlow very stony fine sandy loam, 25-45% slopes

* G - Good; P - Poor; F - Fair; V - Very Poor

Revised Progress Review
September 24-27, 1973

Soil Suitability for
Septic Systems *

HANCOCK COUNTY SOIL SURVEY IDENTIFICATION LEGEND

	Mapping Unit Symbol	Mapping Unit Name
	26B	Melrose fine sandy loam, 3-8% slopes
	26C2	Melrose fine sandy loam, 8-15% slopes, eroded
	73B	Monarda very stony silt loam, 0-8% slopes
	68B	Nicholville very fine sandy loam, 3-8% slopes
V	44B	Peru fine sandy loam, 3-8% slopes
	44C	Peru fine sandy loam, 8-15% slopes
V	45B	Peru very stony fine sandy loam, 3-8% slopes
	45C	Peru very stony fine sandy loam, 8-15% slopes
	46B	Ridgebury fine sandy loam, 0-8% slopes
V	48B	Ridgebury very stony fine sandy loam, 0-8% slopes
V	9RC	Rock land, 0-15% slopes
V	9RE	Rock land, 15+% slopes
V	9RO	Rock Outcrop
V	9P	Saprists and Hemists soils
V	33A	Scantic silt loam
	25A	Scarboro sandy loam
	53P	Stony land, poorly drained
	53VC	Stony land, well drained, 0-15% slopes
V	53VE	Stony land, well drained, 15+% slopes
V	30D2	Suffield silt loam, 15-25% slopes, eroded
V	30E2	Suffield silt loam, 25-45% slopes, eroded
	28A	Swanton fine sandy loam
V	9M	Terrie Borosaprists soils
	40B	Thorndike shaly silt loam, 3-8% slopes
	40C	Thorndike shaly silt loam, 8-15% slopes
	41C	Thorndike very rocky shaly silt loam, 0-15% slopes
	41E	Thorndike very rocky shaly silt loam, 15+% slopes
	9T	Typic Sulphhemists soils
	24A	Walpole sandy loam
P	54B	Waumbek sandy loam, 3-8% slopes
	54C	Waumbek sandy loam, 8-15% slopes
P	55B	Waumbek very stony sandy loam, 3-8% slopes
	55C	Waumbek very stony sandy loam, 8-15% slopes
	2A	Winooski silt loam

* G - Good; F - Fair; P - Poor; V - Very Poor

Evaluation

When the Soil Conservation Service completes its soil inventory for the Town of Bar Harbor, the suitability of each given soil and slope will be rated for numerous land uses. The soil suitability guide is intended for land use planning.

Suitability is expressed in terms of good, fair, poor and very poor or unsuited for the use defined. The following are the definitions of these four suitability groupings:

Good - Meaning areas of soil that have no or only slight soil, physiographic or economic limitations for the kind of use or development being considered. This suitability is designated as G. On suitability maps these soil areas are colored Green.

Fair - Meaning areas of soil that have moderate soil, physiographic, or economic limitations, but can be used with good management. This suitability is designated as F. On suitability maps these soil areas are colored Yellow.

Poor - Meaning areas of soil that have moderately severe soil, physiographic or economic limitations, but can be used with good corrective measures and good management for the kind of use or development being considered. This suitability is designated as P, and is colored Red on suitability maps.

Very Poor - Meaning areas of soil that have very severe physiographic or
or economic limitations that make it extremely expensive or un-
Unsuited sound to use the area for the particular kind of use or
development being considered. This suitability is designated
as V, and is colored Blue on suitability maps.

Suitability Rating Examples:

Soil Suitability for House Building with Septic Sewage Disposal:

These soil ratings are based on suitability for home building including a cellar, and are dependent on individual septic sewage disposal. Septic system is assumed to meet requirements of the Maine Sanitation Board.

Points of Consideration:

Flooding, high water table, depth of soil, drainage, stability, pans, stoniness, permeability, slope, that soils completely handle all free effluent without its return to the surface.

Other guides used:

Shrink-swell ratio

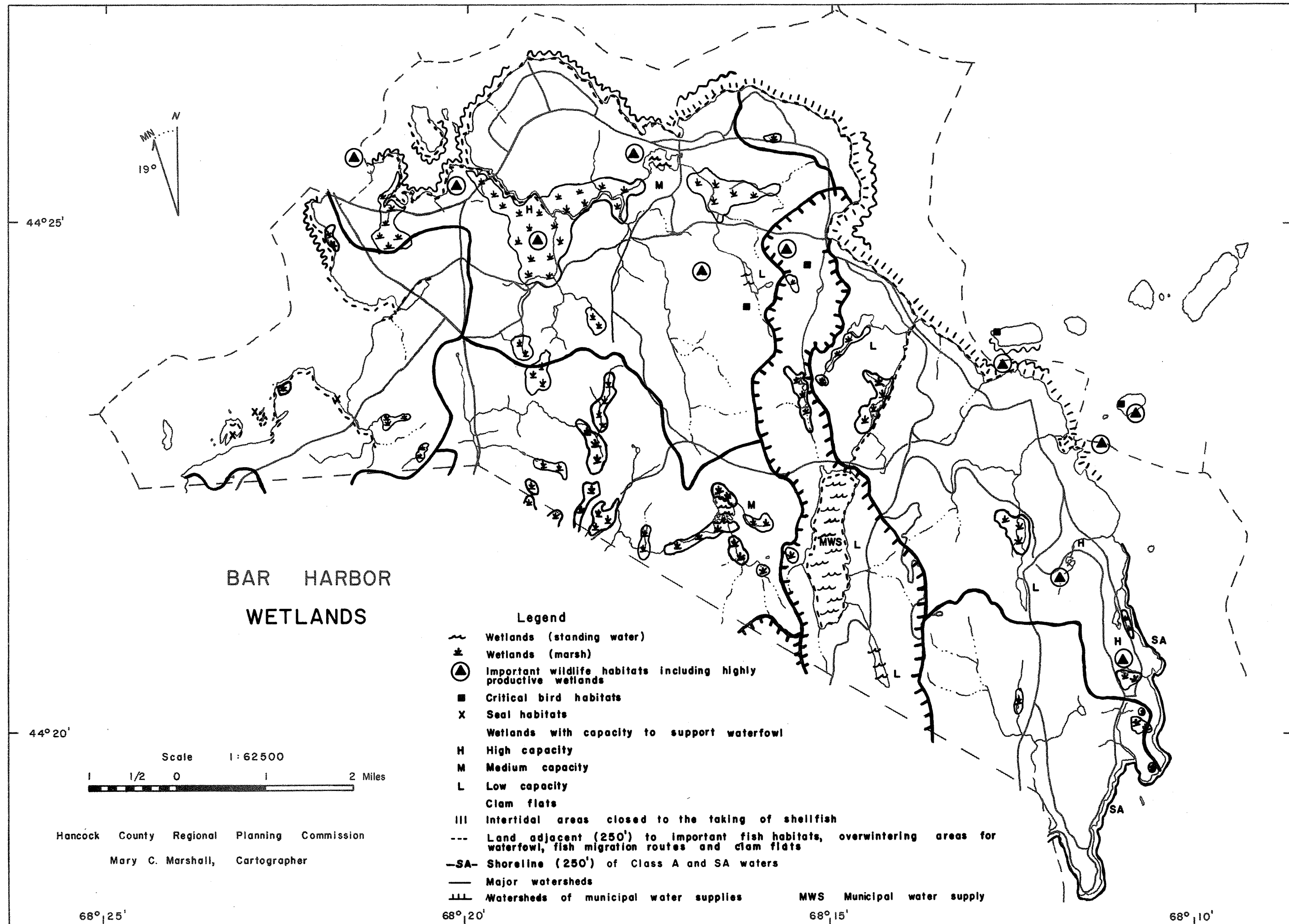
Frost action

Coarse textured soils were given graded one class because of probability of ground water contamination.

Poorly drained, very poorly drained and organic soils automatically rated very poor or unsuited.

References

1. The Soils of Maine, Robert V. Rourke, J. Stewart Hardesty, May 1966, Publication 676.
2. Soil Conservation Service, Ellsworth, Maine.



ATMOSPHERE

AND

CLIMATE

ATMOSPHERE AND CLIMATE

General climatic features include:

- 1) changeableness of the weather
- 2) large ranges of temperature both diurnal and annual
- 3) great difference between the same season of different years.

The majority of air masses affecting this area are of three types:

- 1) cold dry air pouring down from Subarctic North America
- 2) warm moist air streaming up along overland journey from the Gulf of Mexico and subtropical waters eastward
- 3) cool damp air moving in from the North Atlantic.

The adjacent ocean constitutes an important modifying factor on the coast.

The procession of contrasting air masses and the relatively frequent passage of storms brings about a roughly twice weekly alternation from fair to cloudy or stormy conditions attended by often abrupt changes in temperature, moisture, sunshine, wind direction and wind speed. There is no regular persistent rhythm to this sequence. The same weather pattern may persist for several days or infrequently several weeks. It is distinguished for its variety rather than monotony. This changeability persists to the seasons as well. A predictable "normal" month, season or year is indeed the exception rather than the rule.

This area is distinguished by fog, land sea breezes and lesser extremes of temperature than prevails in the rest of the state. The sector that Bar Harbor lies in is generally characterized by cooler weather.

Temperature

The average annual temperature range is nearly 45 degrees along the coast.

Hot days with a maximum of 90 degrees or higher are extremely rare along much of the immediate coast. Frequency of 80 to 90 degree temperature occurrence days varies from year to year from none in the coolest summers up to 25 days in the warmest summers.

The average daily temperature range in the winter time is approximately 20 degrees. Temperature variations along the coast in the winter tend to be more extreme than inland. The variation is greater but the average temperature along the coast compares with those found 200 miles or more farther south in the central part of the nation.

Days with subzero readings average from 10 to 20 along the coast.

The average length of growing season for vegetation subject to injury from freezing temperatures is about 140-160 days along the coast. Marshy areas may have slightly lower averages. The average date of the last freezing temperature

in spring is near the end of April towards the first of May. The freeze-free season usually ends in mid-October.

Spring date by which the chance of occurrence of indicated temperature (or lower) decreases to:

Bar Harbor	<u>Data Years</u>	<u>Temp.</u>	<u>90%</u>	<u>75%</u>	<u>50%</u>	<u>25%</u>	<u>10%</u>
	38 (1931-68)	32	Apr 25	May 2	May 9	May 16	May 23
		28	Apr 12	Apr 19	Apr 26	May 3	May 10
		24	Mar 26	Apr 2	Apr 9	Apr 16	Apr 23
		20	Mar 13	Mar 20	Mar 27	Apr 3	Apr 10
		16	Mar 7	Mar 14	Mar 21	Mar 28	Apr 4
		0	Jan 28	Feb 7	Feb 18	Mar 1	Mar 11

Fall dates by which the chance of occurrence of indicated temperature (or lower) increases to:

<u>Average Days</u> <u>Freeze Free</u>	<u>10%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>90%</u>
156	Sep 28	Oct 5	Oct 12	Oct 19	Oct 26
182	Oct 11	Oct 18	Oct 25	Nov 1	Nov 8
212	Oct 24	Oct 31	Nov 7	Nov 14	Nov 21
238	Nov 6	Nov 13	Nov 20	Nov 27	Dec 4
254	Nov 16	Nov 23	Nov 30	Dec 7	Dec 14
313	Dec 9	Dec 18	Dec 28	Jan 7	Jan 16

*Normals: Taken from "Climatology of the United States", No. 81-4, Decennial Census of United States Climate.

Bar Harbor Temperature F degrees

<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>
23.8	24.5	32.3	42.6	53.0	60.9	66.9	66.0	58.9	49.4	39.8	27.2

Annual

45.4

*Normals are for period 1931-1960.

Precipitation

Precipitation is rather evenly distributed throughout the year. Summer thunderstorm activity is somewhat suppressed by the effects of the cool ocean, while winter precipitation is increased by coastal storms or "north-easters". The coast generally gets more precipitation in the winter than in the summer.

Storm systems are the principal year round moisture producers. Variation in precipitation total from month to month or for the same month in different years may be extreme. Monthly totals fall in a range of 50 to 200 percent of average amounts. Prolonged droughts are infrequent; irrigation water is available for use during fairly common short dry spells in the summer.

Total precipitation averaged 44 inches along the coast. Local influences cause considerable rain or wet snow with occasional glazing or "ice storm" conditions. Freezing rain coats streets, roads and all exposed surfaces; on rare occasions a heavy load of ice builds on trees and wires causing extensive damage.

Measurable amounts of precipitation fall on an average of 1 day in 3.

Snowfall

The seasonal snowfall totals range from 50 to 80 inches. Local topography and location, such as Mount Desert Island on which Bar Harbor is located, being surrounded by ocean, has a marked influence on snowfall, causing large variations within short distances. The number of days with 1 inch or more of snowfall is about 20 in a season.

Most winters will have several snowstorms of 5 inches or more that will temporarily disrupt transportation and communication. Heavy individual snowstorms have occurred along the coast.

January is usually the snowiest month. Seasonal totals vary markedly along the coast. Along the coast snow cover may melt entirely during mid-winter, then be replaced by a new cover. The average length of longest continuous snow cover of 1 inch or more is about 50 days. The average date of heaviest snow cover is in February. Water stored in snow cover provides the state's watersheds with an important part of their annual water supply. Melting is usually gradual enough to prevent serious flooding.

Precipitation normals by Climatological Division. *Taken from "Climatology of the United States", No. 81-4, Decennial Census of United States Climate.

Precipitation in Inches, Bar Harbor

<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>July</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Ann.</u>
4.46	3.79	4.39	3.91	3.83	3.34	3.10	3.12	4.22	4.38	5.25	4.38	48.17

*Normals for the period 1931-1960.

Winds

On a yearly basis the prevailing winds in the area are southwest. During the winter north to northwest winds tend to prevail. Topography has a strong influence on the prevailing direction. Onshore local winds blowing from the cool ocean tend to retard spring growth but are pleasantly cooling in summer.

Coastal storms or "northeasters" seriously affect the area. They generate high winds and heavy rain. They can produce abnormally high wind driven tides affecting beaches and coastal installations. In winter they result in higher snowfalls.

Occasionally in summer or fall a storm of tropical origin affects the area. A few have reached near or full hurricane force. For example, in 1954 two hurricanes affected Maine within a period of two weeks. The first was Carol on or about August 31, then Edna about September 11. High run tides and high winds significantly affected the coastal areas. Fortunately, tropical storms do not touch Maine at all in most years. Two or more storms in one year should be expected about one year in twenty.

Tornadoes are not common to Maine. Those that do occur have a good chance of occurring in an unpopulated area. About 80% of Maine's tornadoes occur between May 15 and September 15; about 90% strike between 1 and 7:00 p.m. The chance of a tornado occurring in the area of Bar Harbor is extremely small.

The number of times that destruction was caused in this area between 1901 and 1955 -- 5 maximum.

Earliest and latest tropical cyclone occurrences from 1886 to 1970 -- August 10 and October 12.

Risk of tropical cyclones in this particular area occurring within any one given year -- 8%, with winds 39-124 mph.

Other Climatic Features

Fog: Heavy fog is frequent and sometimes persistent along the coast particularly in the eastern portion of the coast where it may occur 1 day out of 6 or more frequently. The number of days of heavy fog varies but may be as high as 60 days occurring primarily in the summer months.

The fogginess of the Maine coast is well known. Fog banks linger off shore almost constantly during July and August. Bar Harbor falls within an area surveyed during July and August over a six year period that shows fog signals in the area operating 336 hours to 408 hours during that 2 month period.*

*Maine Technology Experiment Station, University of Maine at Orono, Bulletin No. 40. Climatic Divisions of Maine by Charles Forbes, UMO Press 1946.

Number of hours of sunshine in percent of total possible hours at Eastport and Portland, Maine.*

<u>Station</u>	<u>Winter</u>	<u>Spring</u>	<u>Summer</u>	<u>Fall</u>	<u>Annual</u>
Portland	54	58	63	55	57
Eastport	44	51	65	47	49

Fog in late summer reduces the amount of sunshine northward towards Eastport more significantly than southward to Portland. Bar Harbor lies closer to Eastport than it does to Portland.

Dry Spells

Prolonged dry spells have occurred, quite frequently in late summer or fall, creating serious forest fire hazards. Lower humidities and lack of precipitation during late summer months cause forest litter to become extremely flammable. The hazard is more concentrated around high intensity tourist and camping areas such as Acadia National Park and areas like Bar Harbor.

*Maine Technology Experiment Station, University at Orono, Bulletin No. 40.
Climatic Divisions of Maine by Charles Forbes, UMO Press, 1946.

SECTION III

HUMAN ENVIRONMENTAL USE AREAS AND CHARACTERISTICS

HUMAN SETTLEMENT AREAS

Bar Harbor is primarily a rural area since 47% of the town is within the boundaries of Acadia National Park. The majority of the population live in four main villages: Bar Harbor, Salisbury Cove, Halls Cove, Town Hill and part of Otter Creek. Most residents live in single-dwelling units including one trailer park, although rooms and apartments are available for rent at private homes, rooming houses, motels, and other multi-dwelling units. Presently under construction is a 40 unit dwelling for the elderly in the village of Bar Harbor. Another multi-dwelling housing unit in the planning stages is Bar Harbor's first condominium, a 30 unit dwelling overlooking Frenchman Bay.

Housing for transients, primarily summer people, can be found in many of the above places as well as two campgrounds.

SCENIC AREAS

Bar Harbor certainly has its share of natural beauty that makes Mount Desert Island the most beautiful island in America. It serves as the headquarters for the 32,000 acres of Acadia National Park. It would be simplest to say that all of Bar Harbor is a scenic area especially since 42% of the municipality's land area is within Park boundaries. But there are certain areas which are worth describing.

Cadillac Mountain is the highest mountain on the island, elevation 1,530 feet. It offers an incredible panoramic view of sea and land scapes. Other views can be enjoyed from Dorr, Champlain or Gorham Mountains whose summits are only accessible by foot.

Along the coastline south of town are several special areas. Anemone Cave is a wonderland at low tide, although often it is abused and the sea life contained inside threatened by careless visitors. Further down is Great Head, a spectacular rock ridge protecting its neighbor, Sand Beach. Below that is Thunder Hole, where the sea is digging its way into the island. The most dramatic effects occur at stormy times when the waves thunder in and out of this narrow plot in the granite rock. The swing around Otter Cliffs is breathtaking as you face the rocks that plunge 107 feet into deep water and culminate in the coastline of Bar Harbor.

INSTITUTIONAL AREAS

The Jackson Laboratory probably has more of an effect on Bar Harbor than any other single institution or business. It is Mount Desert Island's largest corporate employer, and together with the Mount Desert Island Biological Laboratory in Salisbury Cove, employs almost 500 people, the majority of which are non-seasonal.

Of the five schools in Bar Harbor, four of them are in the village. Bar Harbor's elementary school, Ethel I. Connors Elementary School, and the junior high, Emerson School, enroll a total of 527 students in grades kindergarten through eighth. The Small Change Free School is also in the village where it began in 1971. It enrolls approximately 20 students in grades kindergarten through twelve. College of the Atlantic, begun in 1972, offers a four year undergraduate program in Human Ecology for 55 students.

The 70 bed Mount Desert Island Hospital is in Bar Harbor, along with Medical Associates, which houses offices and examining rooms for six doctors, all of whom also practice at the hospital.

The churches in Bar Harbor include Baptist, Catholic, Christian Scientist, Congregational, Episcopal, Jehovah's Witness, Methodist, and Society of Friends (Quakers).

The town-owned facilities include the Police Station, Fire Station, Municipal Building, three parks (the Village Green, Agamont Park and the Athletic Field), and Town Garage plus two parking lots, the elementary and junior high schools and six cemeteries.

RECREATIONAL AREAS

Bar Harbor is host to five camping areas, all of which are privately owned and within the first five miles of the single access road to the island. There are also two picnic areas, one on Hadley Point and one off the park loop road near Huguenot Head.

There is year-round swimming in the indoor pool at the Y.M.C.A. located in the town proper. Two other areas are designated for those who can take the brisk ocean temperatures. One is a beach by the municipal pier and the other is Sand Beach off Ocean Drive that is maintained by the Park. There is also a children's wading pool in the town proper.

There is no hunting within the park boundaries. Fishing is permitted and requires a State license for fresh water fishing and none for salt water angling.

Outside of the town is Kebo Valley Golf Club, an 18-hole course.

TRANSPORTATION

Bar Harbor can be reached from the mainland only by U.S. Highway 3, a single lane paved road. Other major routes which assist travel throughout the municipality are State Routes 102, 198 and 233. The Park maintains about 20 miles of paved roadway which connects such features as the Park Headquarters, Cadillac Mountain, Ocean Drive, Sieur de Mont Springs, Sand Beach, and a network of carriage roads.

There are about 35 miles of Acadia National Parks' pathways within Bar Harbor including the shore path that is on the edge of Frenchman's Bay in the town proper.

No railway service exists on the island. The nearest service is in Ellsworth about 20 miles away which provides freight service through Maine Central Railroad.

There is taxi service in the town. Presently there is one taxi available throughout the year, and a few additional taxis in the summer.

Unfortunately, there is no inter-island bus service presently. Bar Harbor does have a Greyhound Bus Terminal. The bus that leaves daily goes as far south as Boston, from which point you can make connections for any major city.

The nearest air service is 12 miles away on the mainland at Bar Harbor Airways, Inc. The lighted 4,500' paved runway offers charter, taxi and air ambulance service anywhere. Although the name is Bar Harbor Airport, it is not connected to the municipality of the same name. At one time it was owned by private residents from Bar Harbor, but has since been taken over by Hancock County who owns and controls the runway. A private party owns the planes.

Hancock County also owns the land on which the Canadian National Railroad operates their Ferry Terminal. The Bluenose Ferry which travels back and forth from Yarmouth, Nova Scotia to this point $1\frac{1}{2}$ miles from town, makes Bar Harbor a cross-road of American and Canadian travel. The ferry carries cars and passengers daily in summer and thrice weekly the rest of the year.

Bar Harbor does have its own municipal wharf which was at one time a famous yachting port of call. It is still used by pleasure craft and fishing boats alike.

There are 4 municipal parking lots. One spreads from in front of the police station around to the fire station. It has an approximate capacity of 115 cars. Another is located on the municipal pier. It holds 66 vehicles. On Cottage Street there is the lot next to the municipal building with 20 parking spaces and further down on the corner of Bridge there is one that holds 22 vehicles.

WATER RESOURCE AREAS

Approximately 50% of Bar Harbor receives its water from the Bar Harbor Water Company which owns the water rights to Eagle Lake in Acadia National Park. The remainder gets its water from private wells. Spring-fed Eagle Lake holds over 6.3 billion gallons of which less than 10% is used annually. The Bar Harbor Water Company has a 500,000 gallon storage tank and chlorination and flouridation facilities adjoining Eagle Lake. Gravity flow is used to transport the water from the lake to the village for drinking, septic and fire fighting purposes.

Bar Harbor is presently in the process of building a federally subsidized sewage treatment plant and sewerage system. The plant is scheduled to be operative by November 1, 1974 with most of the tie-ins completed or underway by January 1, 1975. The plant will provide secondary treatment of 2.4 million gallons per day for all of Bar Harbor.

Presently all of the village of Bar Harbor and most of Hulls Cove is served by a sewerage system with no treatment plant. With the exception of two small, privately owned treatment plants, the remainder of Bar Harbor has either a septic system or no system at all.

EDUCATIONAL AREAS

Bar Harbor is very fortunate to contain a very special environmental study area -- Sieur de Monts Springs. It was named for the French soldier who landed on the Acadian shores in 1604. The area contains many diverse trails, a well-maintained Wildflower Garden, a nature center whose exhibits describe the natural and historical themes of Acadia, and the Abbe Museum which contains native Indian artifacts. Personal discovery throughout the area's various habitats can promote the development of an awareness and sensitivity to the natural environment. Presently a handbook is being co-ordinated to promote and facilitate the use of this educational area.

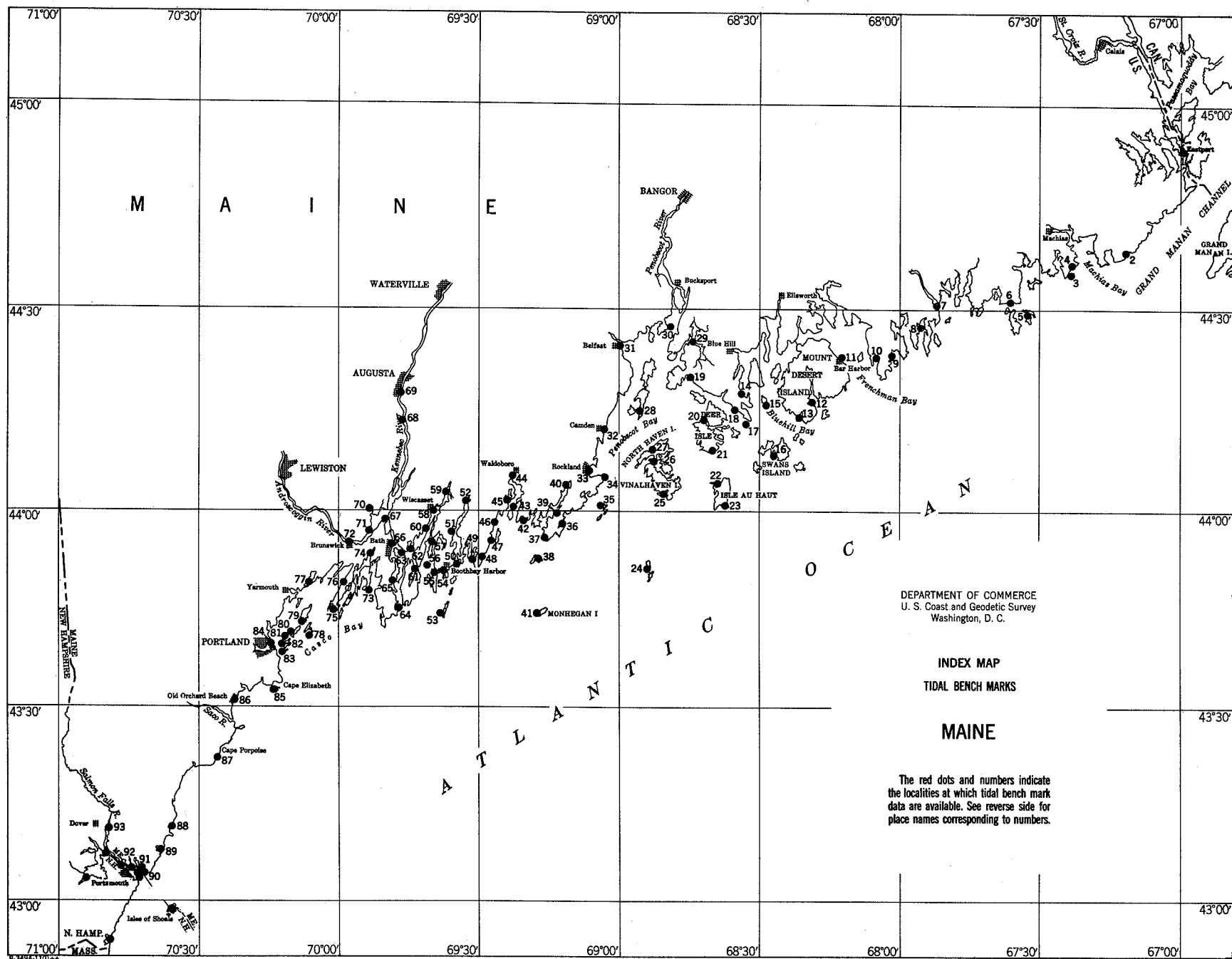
COMMERICAL AREAS

The commercial areas strongly reflect that Bar Harbor is visited by thousands of tourists and summer residents each year and that the economy depends upon the seasonal influx of tourist dollars. The main commercial area is in the village of Bar Harbor with a few restaurants and motels, mostly seasonal, in other areas. While approximately half the small businesses close during the winter season the ones that do stay open see a large decline in the amount of business.

PRODUCTION AREAS

The waters of Bar Harbor, primarily Frenchman's Bay, abound with lobster, shrimp, and clams all of which are sold locally. Lobstering and shrimping are two of the most practiced, non-tourist related jobs.

The only terrestrial production area is a small dairy farm near the village of Salisbury Cove.



(OVER)

DECEMBER 1948

2/18/69

MAINE - 11

U. S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

TIDAL BENCH MARKS

Bar Harbor, Mt. Desert Island
Lat. $44^{\circ}23'.5$; Long. $68^{\circ}12'.3$

BENCH MARK 6 (1911) is a standard disk, stamped "NO 6 1911", set vertically in face of seawall, about $4\frac{1}{2}$ feet below top of wall. It is on seawall at public bathing beach immediately southeast of Municipal Pier, about $193\frac{1}{2}$ feet southeast of junction of west end of seawall and top of ramp leading to beach from Municipal Pier. Elevation: 17.36 feet above mean low water.

BENCH MARK 8 (1947) is a standard disk, stamped "NO 8 1947", set in top of granite bench that is set on bedrock, about one foot in from west, north, and east sides of bench and about 15 inches above ground, in Agamont Park at foot of Main Street near Municipal Pier. It is about 50 feet north of Harbor View Hotel, which is immediately south of park, and about 135 feet east of east curbline of Main Street. Water fountain is located about 105 feet west of bench mark. Elevation: 47.58 feet above mean low water.

BENCH MARK 9 (1947) is a standard disk, stamped "NO 9 1947", set in north side of circular rim of water fountain in Agamont Park, at foot of Main Street, near Municipal Pier. It is about 2 feet above ground, about 50 feet north of Harbor View Hotel, 30 feet east of east curbline of Main Street, and 105 feet west of Bench Mark 8. Elevation: 48.17 feet above mean low water.

BENCH MARK K 22 (USGS) (1934) is a standard disk, stamped "K 221934 54", set in top of granite foundation of post office building, $6\frac{1}{2}$ feet west of southeast corner of building, about $\frac{1}{2}$ foot south of south face of building and about $3\frac{1}{2}$ feet above ground. Elevation: 59.29 feet above mean low water.

(OVER)

USCOMM-CGS-DC

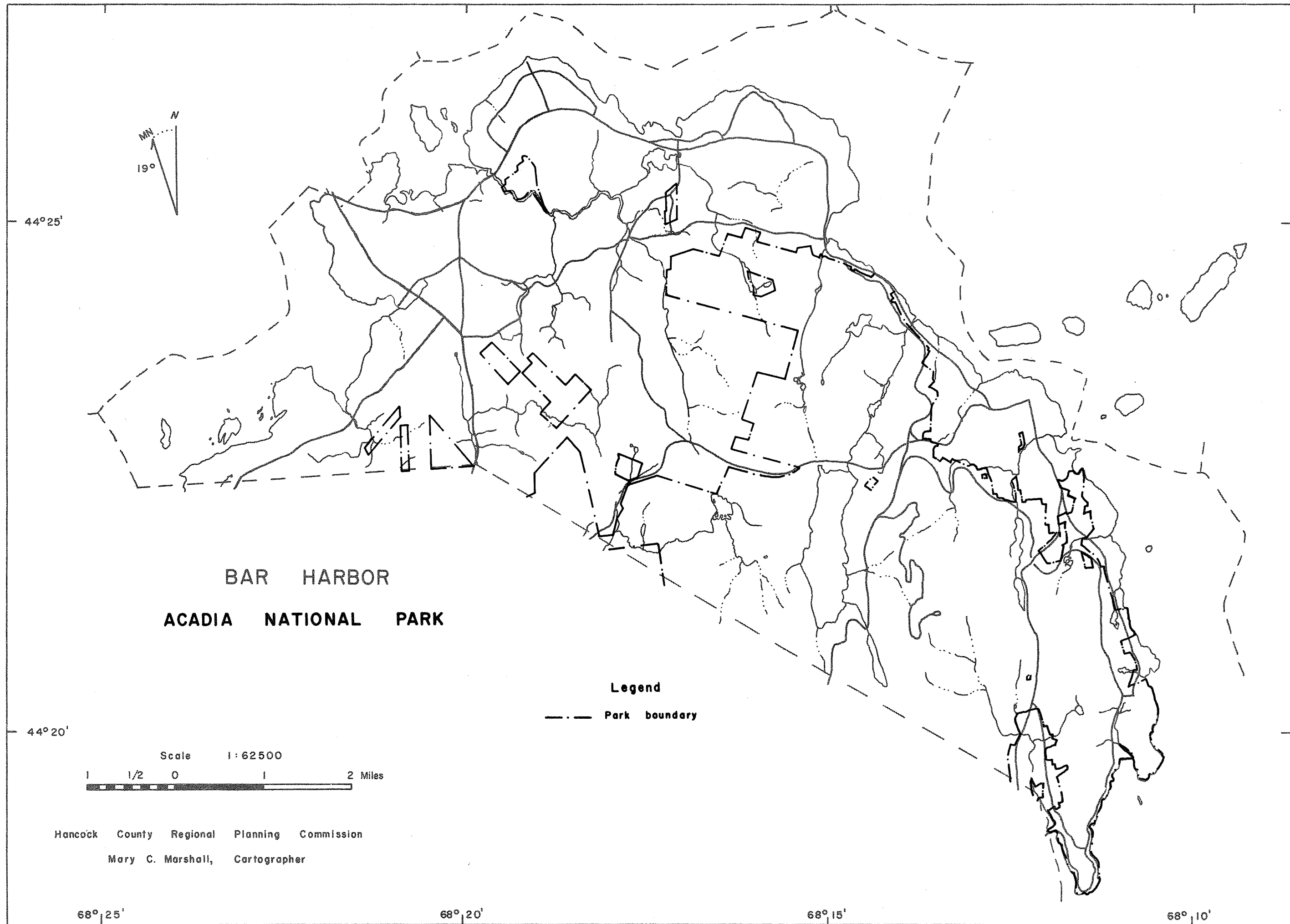
Bar Harbor, Mt. Desert Island (Cont'd)

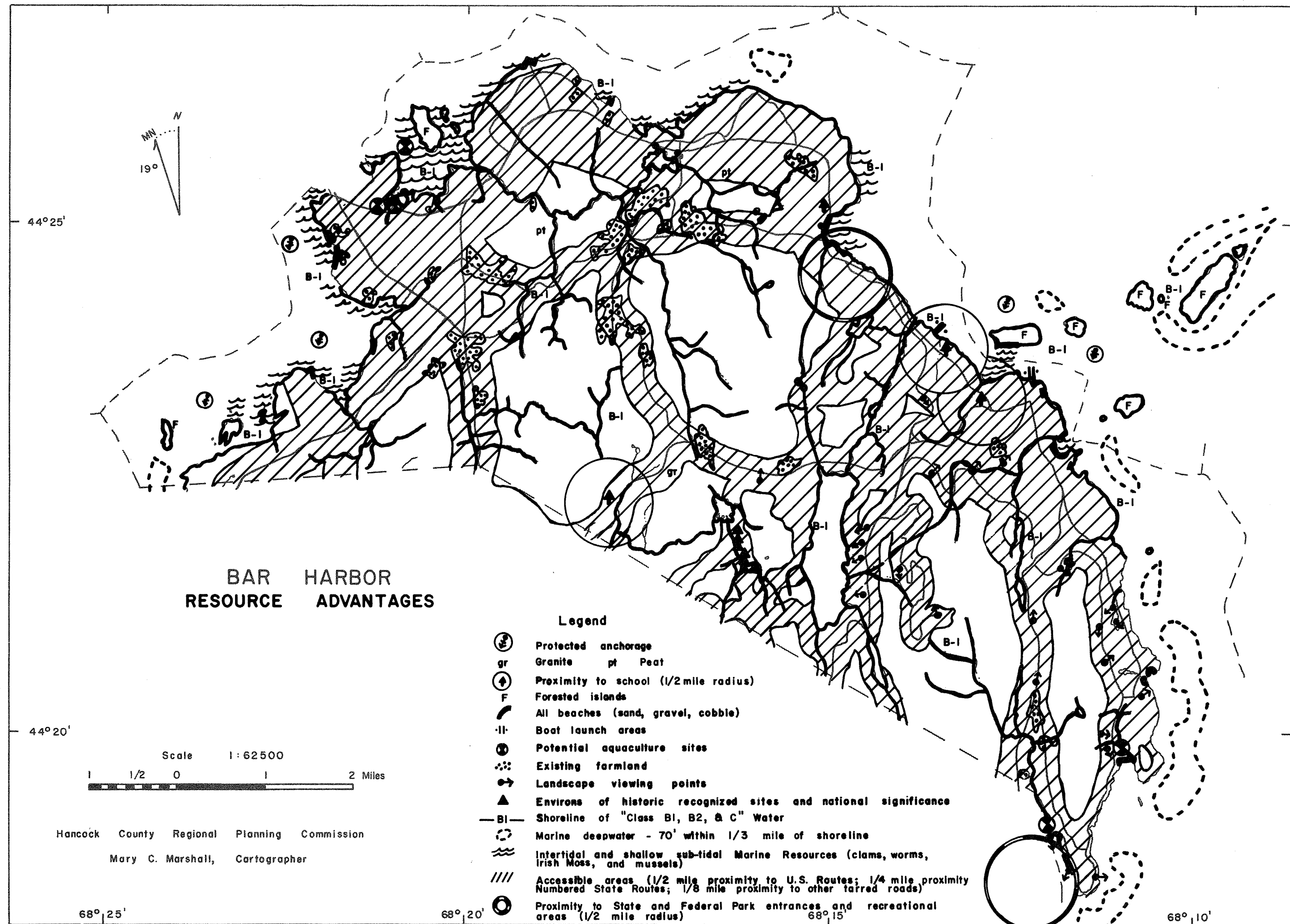
BENCH MARK 10 RESET (1968) is a standard disk, stamped "TIDAL 10 RESET 1968", set in top of granite block of seawall in the area of the Municipal Pier, alongside the public beach. It is about $73\frac{1}{2}$ feet southwest of light pole at southeast corner of the pier, 38 feet southeast of edge of concrete boat launching ramp, 98 feet northwest of light pole at edge of sidewalk, 21 feet east-northeast of an elm tree and 21 feet northwest of an oak tree. Elevation: 22.66 feet above mean low water.

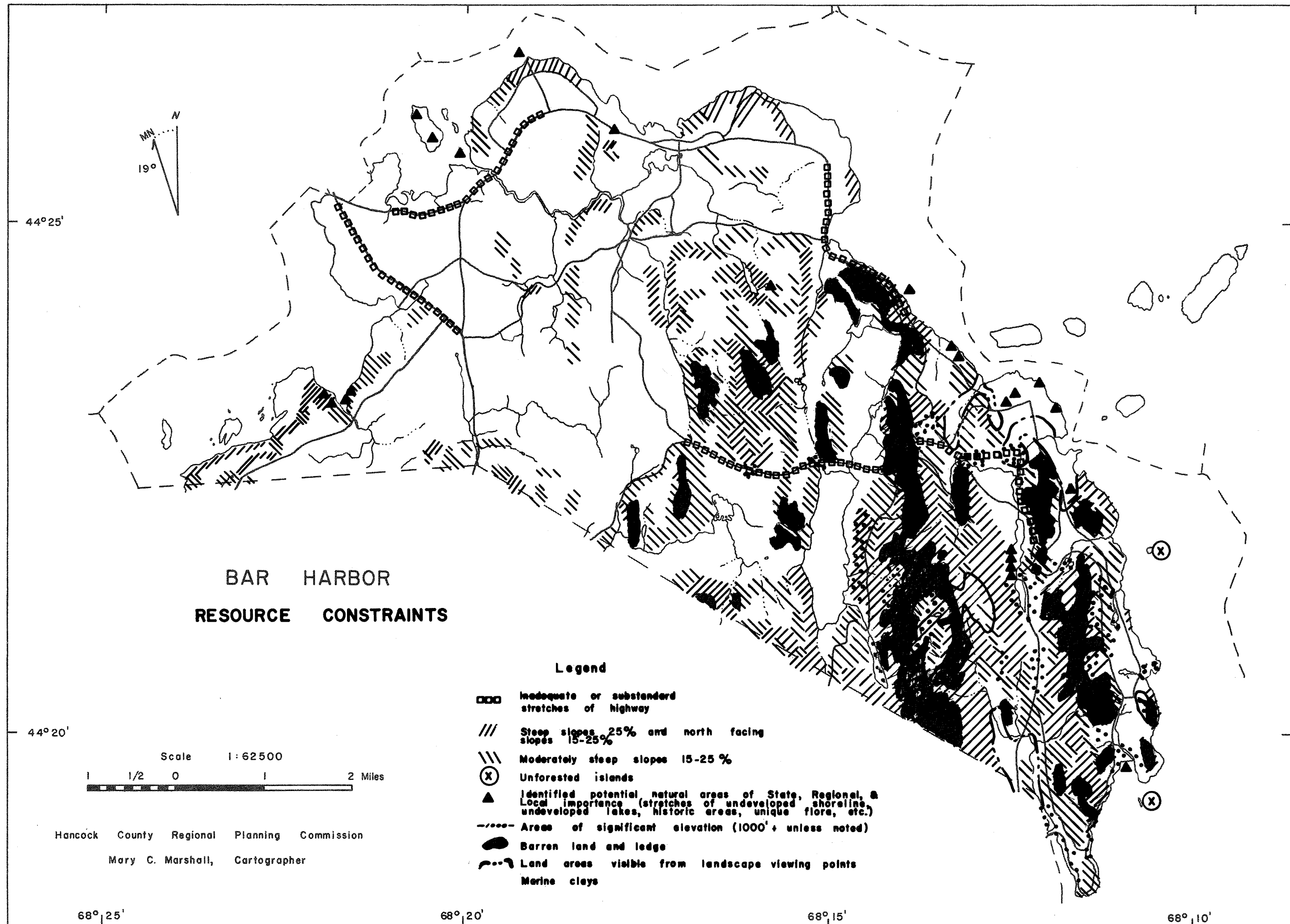
Mean low water at Bar Harbor, is based on 12 years of records, 1948-59, reduced to mean values. Elevations of other tide planes referred to this datum are as follows:

	<u>Feet</u>
Highest tide observed (Dec. 29, 1959)	14.8
Mean high water	10.50
Mean tide level	5.25
Mean low water	0.00

The estimated lowest water level to the nearest half foot is 4 feet below mean low water.







BAR HARBOR
RESOURCE CONSTRAINTS

Legend

- Inadequate or substandard stretches of highway
- /// Steep slopes 25% and north facing
slopes 15-25%
- \\ Moderately steep slopes 15-25 %
- (X) Unforested islands
- ▲ Identified potential natural areas of State, Regional, & Local importance (stretches of undeveloped shoreline, undeveloped lakes, historic areas, unique flora, etc.)
- Areas of significant elevation (1000' + unless noted)
- Barren land and ledge
- Land areas visible from landscape viewing points
- Marine clays

Scale 1:62500
1 1/2 0 1 2 Miles

Hancock County Regional Planning Commission
Mary C. Marshall, Cartographer

68° 25'

68° 20'

68° 15'

68° 10'

44° 25'

44° 20'

SECTION IV

RELATED SOCIAL, POLITICAL AND
ECONOMIC ASPECTS

POPULATION CHARACTERISTICS

FAMILY INCOME DISTRIBUTION

	<u>Year</u>	<u>Families</u>
	<u>1970</u>	<u>947</u>
Under \$1,000		13
\$1,000-1999		43
\$2,000-2999		30
\$3,000-3999		22
\$4,000-4999		49
\$5,000-5999		77
\$6,000-6999		118
\$7,000-7999		78
\$8,000-8999		99
\$9,000-9999		93
\$10,000-11,999		111
\$12,000-14,999		82
\$15,000-24,999		128
\$25,000-49,999		27
\$50,000 and over		7

POPULATION CHARACTERISTICS

Population Trends

1850-1970 Bar Harbor, Maine, 04609

<u>Year</u>	<u>U.S. Census Population</u>	<u>Actual Increase</u>	<u>% Increase</u>
1850	1127	--	--
1860	1247	+120	+10.2
1870	1195	-52	-4.17
1880	1629	+434	+36.3
1890	1946	+317	+18.8
1900	4379	+433	+22.75
1910	4441	+72	+1.64
1920	3622	-819	-18.4
1930	4486	+864	+23.8
1940	4378	-108	-2.21
1950	3864	-514	-11.74
1960	3807	-57	-1.48
1970	3716	-91	-2.39

SEASONAL POPULATION INCREASES

<u>Year Round Population</u>	Seasonal and Migratory Housing		Commercial Lodgings		Campgrounds		Eating Places
	<u>Units</u>	<u>Persons</u>	<u>Rooms</u>	<u>Persons</u>	<u>Sites</u>	<u>Persons</u>	<u>Seats</u>
3716	285	1197	1368	2736	925	3423	2442
			Total Seasonal Population Increments		Peak Seasonal Population		
			<u>Persons</u>		<u>Persons</u>		
			7618		13,513		

HOUSING UNITS BY TYPE

Houses

1371

Commercial

247

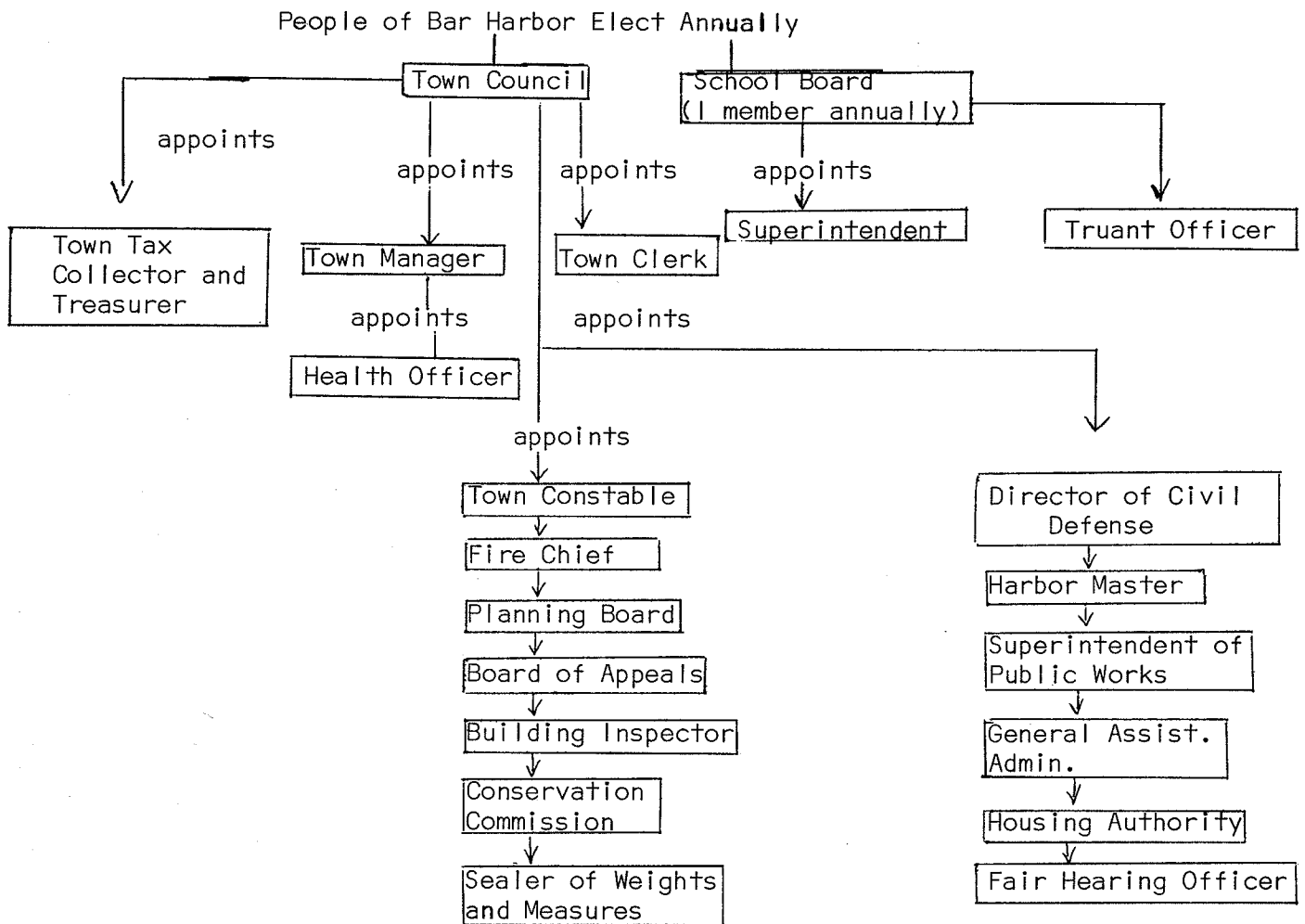
SCHOOLING COMPLETED BY PERSONS

25 YEARS OLD AND OVER BY SEX

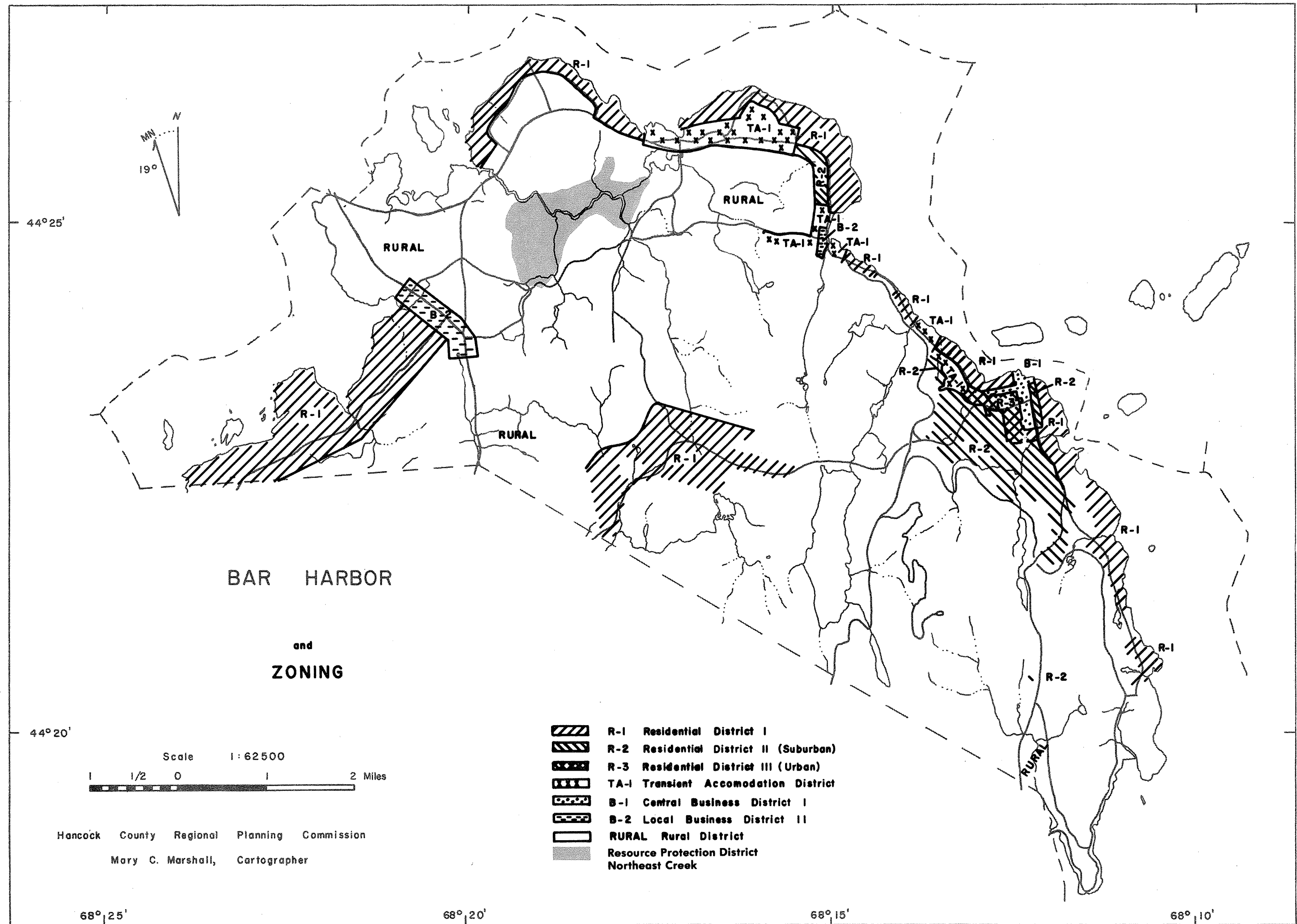
	<u>Males -- 824</u>	<u>Females -- 1166</u>
No school	2	12
1-4 years	7	0
5-6 years	16	48
7-11 years	23	0
1-3 years high school	144	205
4 years high school	330	536
1-3 years college	101	222
4 years college	97	97
5 or more years college	99	46

GOVERNMENT

HOW BAR HARBOR IS GOVERNED*



*Town Charter goes into effect January 1975.



HISTORY

BRIEF HISTORY OF MOUNT DESERT ISLAND by Barbara E. Joy

Various histories tell us that our island was observed by many foreign adventurers, some of whom may have settled temporarily, merely sailed by, or stopped to fish off our shores. The first real settlement was made by Pierre du Guast, Sieur de Monts, on Dochet Island in the St. Croix River who had a grant or claim from Henri IV of France for all territory between Philadelphia and Montreal. Once established, he sent the great Samuel de Champlain to explore the coast. It was he who on September 5, 1604 named our island "L'Isle de Monts Deserts" (the Isle of Bare or Barren Mountains). Again, in 1607, he sighted the island and drew a fairly accurate map of it and several of the outlying islands. For some reason De Monts lost his patent and it was picked up by Antoinette de Pons, Marquise de Guercheville, a very religious lady. She organized and furnished the means for the first French (Jesuit) mission in America, which established the Saint Sauveur religious colony on Fernald's, or Manchester's, Point in Somes Sound in 1613. Their ship, the Jonas, was at anchor and things went smoothly for several weeks. In the meantime, Capt. Samuel Argall of the Jamestown, Virginia Colony (1607) was commissioned by Sir Thomas Dale, Governor of Virginia, to patrol the coast and mop up any French settlements between the Hudson and the St. Lawrence. Unhappily, he discovered the peaceful colony, which was no match for the English ship, destroyed it, but did not kill the men. The only casualty was the lay brother, Gilbert du Thet.

Thus began many arguments, exchanges of grants and claims to the island between the English and the French for a century and a half. Those interested in all this can find for themselves these details and intrigues in the attached bibliography.

Before the end of the 17th century another Frenchman turned up on the island, an adventurous Gascon, whose real name was Antoine Laumet, the son of a village lawyer. He changed the common name to the aristocratic one of La Mothe and gave himself the title of "Sieur de Cadillac". In 1688 he obtained a grant from the Governor of Canada to the lordship of Douaquet, which included the island. He and his bride spent at least part of a summer and then departed, but he always kept the name of "Seigneur de Douaquet et des Monts Deserts". From here he went to Montreal, entered the fur trade, founded Detroit and ended his days as Governor of French Louisiana. For seventy-five years there was no permanent settlement on Mount Desert Island.

In 1740 occurred the fatal wreck on Long Ledge of the great ship GRAND DESIGN, bearing scores from Ulster to settle in Pennsylvania. The survivors were relieved by a little English settlement on the St. Georges River.

Governor Bernard of Massachusetts became the sole proprietor 1764 but he did not wait for the royal approval. In the meantime, in 1761, Abraham Somes in his chebacco boat and James Richardson started a settlement at Somesville, originally called "Betwixt the Hills". But the American Revolution caught up with Bernard and he returned to England. At the end of the war two claimants for Mount Desert Island emerged. One was the Governor's son, John (not a Tory as was his father) and the other was Madame Barthelmy de Gregoire, granddaughter of Cadillac. The island was divided between the two by the Province of Massachusetts, the line being along Somes Sound and a line from there northwest from Kittredge Brook to Indian Point. The De Gregoires settled at Hulls Cove, where a single boulder marks their grave. A splendid monument at the cellar hole of their cabin was

created back of the Colony Motel. They made a precarious living granting deeds to squatters and in 1792 she sold most of her vast estate in scenery to a Henry Jackson of Boston who in turn sold out to what became the Bingham estate of Philadelphia. One of the original deeds signed by her is in the Bar Harbor Historical Society, where there is an extensive set of maps of early years of the geography and inhabitants of the island.

The other side of the island, including Bartlett's Island, was well populated with farmers and fishermen. Mills of various sorts were established and many industries connected with the sea flourished. The early settlers were ingenious, industrious and hard working. The quarries at Hall Quarry employed hundreds of men and sent Mount Desert Island granite all over the eastern seaboard. Many ships were built, also, and were sailed by local men.

The Somes House was established, and the Lynam Farm at Schooner Head in 1844 took in a Thomas Cole, a member of the Hudson River school of painting. Soon other painters followed, stayed at the Somes House and in Bar Harbor at the Albert Higgins House (1852) or with Tobias Roberts, whose Hotel Agamont (1855) was the first in our town. But Bar Harbor up until then had been only a small cluster of fishermen's dwellings, as the old picture at the Historical Society will show. Soon city people began flocking to Bar Harbor and the boarding houses were replaced by many large hotels. The visitors spent their time hiking on the many trails, canoeing, "rocking", and having simple parties, and enjoying the events at the Canoe Club on Bar Island. In 1868 Alpheus Hardy built the first permanent summer home at Birch Point where the Bar Harbor Motor Inn now stands. Soon many more comparatively simple homes were built. Then came the great "cottages" built by millionaires, famous financiers, industrialists and socialites. In 1907 the famous Building of Arts was built on the southeast edge of the present Kebo Club and for years famous singers and musicians from all over the world entertained the summer residents in this beautiful building.

The harbor was filled with yachts and was visited by the Great White Fleet and warships from foreign countries. The Eastern and New York Yacht Clubs were organized, the Oasis Club (corner of Mt. Desert and School Streets) moved into the new Reading Room, and the Kebo and Swimming Clubs organized. This was the Golden Era which made Bar Harbor famous all over the world. Incidentally, the name of Bar Harbor changed from that of Eden in 1918.

In 1913 automobiles were allowed on the island.

In 1929 the Acadia National Park was established, after going through the process of being the Sieur de Monts National Monument and then Lafayette National Park. The history of the actual founding of the Park, carried out principally by Mr. George B. Dorr, is a long and interesting one. All lands were donated, scenic places made secure, new roads built, etc. It now contains almost half of this island, plus Schoodic Point and parts of Isle au Haut.

But in 1947 a terribly destructive forest fire burned many of the cottages and thousands of acres on the eastern side of the island. Then Northeast and Seal Harbors became the mecca of the summer people or "rusticators". The other towns still keep the original pursuits of earlier days, with only a sprinkling of cottages or motels. Bar Harbor and the old Eden are given over to the tourist trade, with a flood of motels and campgrounds, a far cry from the dignity, famous shops, and stylish equipages and pursuits of the Golden Era. In 1929 the world-famous Jackson Laboratory was established by Dr. Clarence C. Little, the Biological Laboratory in 1899 and the College of the Atlantic in 1972.

In December 1956 the Canadian ship BLUENOSE started service between Bar Harbor and Yarmouth.

In 1967 the towns on the island united and built the M.D.I. Regional High School on Eagle Lake Road. The hospital, churches, the schools, libraries and other public institutions on the island have always been of very high calibre. And the island has nurtured many men and women who have made their marks in professional, educational and industrial fields, always proud of their birthplace and heritage.

The history of the island is extremely complicated and this short "history" is much too brief and sketchy; only the high points could be mentioned. Students are advised to visit their local libraries and the high school libraries to consult some of the following books, all of which are available.

The Story of Bar Harbor, Richard Walden Hale, Jr., 1949.

The Story of Mount Desert Island, Admiral Samuel Eliot Morrison, 1959.

Historical Notes on Mount Desert Island, Parts I, II and III, Barbara E. Joy (note the two extensive bibliographies in Part I), 1966-74.

Green Grows Bar Harbor, Sargent F. Collier, 1964.

Traditions and Records -- Southwest Harbor and Somesville, Mrs. Seth S. (Nellie C.) Thornton, 1938.

Mount Desert, A History, George E. Street, 1905.

Champlain to Bernard, Prof. Otis Sawtelle, 1922.

The Handbook of Mount Desert, Coast of Maine, from the United States Coast Survey, approximately 1878.

September 1, 1974
Bar Harbor, Maine

